

**RECORD MANAGEMENT SYSTEM OF THE SOCIAL WELFARE AND
DEVELOPMENT OFFICE IN THE MUNICIPALITY OF BILAR**

**College of Technology and Allied Sciences
BOHOL ISLAND STATE UNIVERSITY
Zamora, Bilar, Bohol**

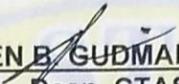
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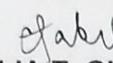
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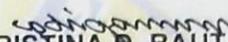
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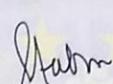
This thesis entitled "Record Management System of the Social Welfare and Development Office in the Municipality of Bilar" prepared and submitted by *Fernie Ann B. Biloy, Mary Jane I. Lingues, and Frederick L. Mendez* in partial fulfillment of the requirements for the degree Bachelor of Science in Computer Science has been examined and recommended for acceptance and approval for oral defense.

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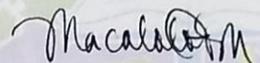

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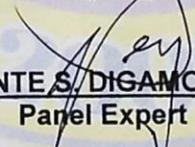

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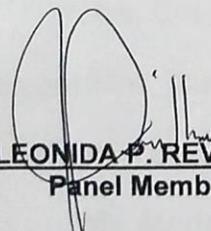
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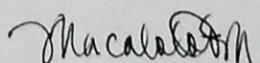

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ACKNOWLEDGMENT

Beforehand, developers would like to express their heartfelt gratitude to the Almighty God for giving the researchers the knowledge, wisdom, patience, perseverance, determination, inspiration, good health, strength, and enlightenment that made all things possible.

The developers also express their grateful thanks and appreciation to a number of people who extended their immeasurable help and wholehearted support in the making of this manuscript that made it come to reality.

Dr. Marietta C. Macalolot, Campus Director of Bohol Island State University Bilar, for her unstoppable support;

Dr. Arlen B. Gudmalin, Dean of College of Technology and Allied Sciences (CTAS), for her supervision, concern, advices, and for giving support and encouragement to the developers;

Dr. Arlen B. Gudmalin, Dr. Renante S. Digamon, Mr. Rex Vincent D. Tejada, and Mrs. Leonida P. Revilla, panelists during the defense, for sharing their time, ideas, motivation and sincere help towards the realization of this work;

Mrs. Cecilia T. Gumanoy, Thesis Adviser, for the untiring efforts in giving suggestions, advices, patience, understanding, guidance, and encouragement which gave the developers insights that leads to the completion of the study;

Ms. Maria Ezra T. Achas, and Staff of the Social Welfare and Development Office in the Municipality of Bilar, Bohol, for cooperation and support on the conduct of the study;

Mr. Darrel A. Cardaña, Instructor, for his guidance, support, and advices

in the conduct of the research that led to the improvement of the study;

Mr. Joel A. Piollo, Instructor and IT expert, for giving his suggestions, advices, motivation, guidance and for the encouragement which became an instrument in molding the developers and became responsible;

Dr. Cristina D. Bautista, Editor, for her suggestions, ideas, and time in checking the developers work;

The developers beloved parents, Mr. & Mrs. Felipe L. Biloy, Mr. & Mrs. Felipe I. Lingues and Mrs. Amancia E. Dando, for their countless efforts, undying support, and sacrifices that made this research possible and successful. Their moral support, prayers, love and words of encouragement during the time of disappointments in every decision the developers made in life mold them to become to better persons;

To the supportive close friends, classmates, and roommates for the ideas and opinions shared for the improvement of the study.

To all the instructors, who have provided the knowledge to face today's challenges. You became instruments in molding the developers to become responsible and be a better person today.

And to all the people who are not mentioned but have rendered services, support, assistance and prayers for the success of this study, thank you very much!

**Fernie Ann B. Biloy
Mary Jane I. Lingues
Frederick L. Mendez**

TABLE OF CONTENTS

	Page
TITLE PAGE.....	i
APPROVAL SHEET.....	ii
ACKNOWLEDGMENT.....	iii
TABLE OF CONTENTS.....	v
LIST OF FIGURES.....	viii
LIST OF TABLES.....	ix
LIST OF PREVIEWS.....	x
ABSTRACT.....	xi
Chapter	
1 THE PROBLEM AND ITS SCOPE	
Rationale.....	1
Literature Background.....	2
THE PROBLEM	
Statement of the Problem.....	6
Scope and Delimitation.....	6
Significance of the Study.....	8
RESEARCH METHODOLOGY	
Development Framework.....	10
Conceptual Diagram of the Study.....	10
Block Diagram of the Study.....	10

Development Model and Approaches.....	11
Environment and Participants.....	15
Data Collection.....	15
Operational Definition of Terms.....	18
2 PRESENTATION, ANALYSIS, AND INTERPRETATION OF DATA	
Existing Processes and Operations.....	20
Contextual Diagram of the Present System.....	22
Event Specification.....	22
Present Event List.....	22
Top Level of the Present System.....	25
Needs of the Existing Operation.....	25
Proposed System Narrative.....	26
Use Case Diagram.....	28
Use Case Narrative.....	29
Database Design.....	31
Class Diagram.....	32
Database Structure.....	33
Program Hierarchy.....	38
Functional Requirements.....	39
Non - Functional Requirements.....	41
Test Cases.....	41
Technical Requirements.....	49

Minimum Hardware Specifications.....	50
Minimum Software Specifications.....	50
Business Intelligence Integration.....	50
Screen Layout.....	57
Economic Performance Evaluation.....	65
Testing and Evaluation.....	66
System Usability.....	66
3 SUMMARY OF FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS	
Summary of Findings.....	69
Conclusion.....	70
Recommendations.....	71
REFERENCES.....	72
APPENDICES	
A. Letter of Intent.....	75
Letter of Implementation.....	76
Letter of Questionnaire Distribution.....	77
B. System Usability Questionnaire.....	78
Guide Question for Interview.....	80
C. User Manual.....	82
RESEARCHERS' BIODATA.....	88

LIST OF FIGURES

Figures		Pages
1	Conceptual Diagram of the Study.....	10
2	Block Diagram of the Study.....	11
3	Rapid Application Development (RAD) Diagram.....	12
4	Contextual Diagram of the Present System.....	22
5	Inquiry Process.....	23
6	Availment of Services.....	23
7	Recording Process.....	24
8	Generation of Reports.....	24
9	Top Level of the Present System.....	25
10	Use Case Diagram.....	28
11	Class Diagram of the System.....	32
12	Program Hierarchy.....	39

LIST OF TABLES

Tables		Pages
1	Summary of Respondents of the System Usability	16
2	Interpretative Guide of the System Usability for Respondent.....	16
3	Use Case 1 Acquire Assistance Information.....	29
4	Use Case 2: Search Grantees Files.....	29
5	Use Case 3: Manage Assistance Services.....	30
6	Use Case 4: Manage Applicants Records.....	30
7	Use Case 5: Manage User Account.....	31
8	Data Structure System for User Account in Security and Login.....	33
9	Data Structure System for Assistance Individual in Crisis Situation..	33
10	Data Structure System for Disaster Assistance Family Access Card	34
11	Data Structure System for Persons with Disability.....	35
12	Data Structure System for Senior Citizen Application.....	36
13	Data Structure System for Solo Parent.....	37
14	Data Structure System for Grantees.....	38
15	Initial Investment and annual Operating Cost.....	65
16	System Usability Result.....	67

LIST OF PREVIEWS

Previews		Pages
1	Graphical Monthly Report of All Grantees.....	52
2	Graphical Yearly Report of All Grantees.....	52
3	Graphical Monthly Report of Assistance Individual in Crisis Situation.....	53
4	Graphical Monthly Report of Solo Parent.....	54
5	Graphical Monthly Report of Senior Citizen.....	54
6	Graphical Monthly Report of Disaster Assistance Family Access Card.....	55
7	Graphical Monthly Person with Disability.....	56
8	Tabular Report of All Grantees.....	57

ABSTRACT

The purpose of the study was to develop a record management system of the Social Welfare and Development Office in the Municipality of Bilar. The development of the system was guided by analyzing the current processes involved in the present system in recording the grantees' data in MSWD Office; and identifying the problems and needs encountered in the storage and retrieval of records. The respondents of the study were the head, IT in-charge, staffs, and IT experts. The data were gathered through personal interview with guide questions along with reviewed documents and observation. The results revealed that the present record management system has contributed to frequent loss of files due to misplacement, improper segregation of documents which led to slow retrieval of records and time-consuming in the generation of reports. Based on the problems identified, the unit needs a system to improve the way of recording. The system offered modules for acquisition, data management, administration, and reporting. During the testing and implementation, a system usability questionnaire was used to assess the applicability of the system. Based on the findings, the target users "agree" with the usability of the system in the operation of the office. In conclusion, the developed record management system of the Social Welfare and Development Office in the Municipality of Bilar would improve the user's recording and monitoring of reports in the office. With this, it was highly recommended that the developed program be implemented.

Chapter 1

THE PROBLEM AND ITS SCOPE

Rationale

In the last decade, technology had already been influential to the industries and establishments in the society and as time goes by technology is rapidly increasing and plays an important role to the society that supports human activities. The use of such technology results to a better and more efficient way of doing things and accomplishing tasks, may it be in school, home or work. With office work being no exception, tasks performed were made and finished efficiently and accurately. One of the most commonly used technology in business industries and establishment is computer.

Computers are now a part of nearly every office, with most workplaces now unable to function without the use of computers. Computers facilitate administrative tasks, such as keeping up-to-date and accurate records. The speed and accuracy of many work processes increase, which improves overall worker skill. As major technologies used for processing and recording information have been invented, new utilities appeared like the fast-paced development of system software (Delima, 2018). One of the offices that needed the integration of this technology is the Department of Social Welfare and Development.

The Department of Social Welfare and Development is an executive department of the Philippine government which is responsible for the protection and promotion of social rights and welfare for the poor, for the vulnerable and the

disadvantaged individual, family and community to provide social development.

The Municipal Social Welfare and Development Office in the municipality of Bilar provides different kinds of services to its residents such as: Assistance Individual Crisis Situation(AICS), Persons with Disability Program, Senior Citizen Application, Disaster Assistance Family Access and Program(DAFAC), and Solo Parent.

The Municipal Social Welfare and Development Office of Bilar currently uses the manual processes in collecting, updating and storing data and reports. With these and with the large amount of data, the office currently encountered problems which include: 1) slow and tedious retrieval of records; 2) data damage; 3) lost of files; and 4) manual reporting. To address this issue, the developers came up with a database management system that would provide storage for the documents and for the organization of files. Record Management System is an integrated end-to-end management process that provides relevant information to the Department to support an effective decision making for citizens' care. Furthermore, the main focus of the developers in developing the system was to provide the department in improving their transactions, quicker update, and safekeeping of records to avoid loss and damages.

Literature Background

The development of the record management system was supported by the following legal bases:

The Philippine Constitution, under Section 10, Article XIV, states that Science and technology are essential for national development and progress. The State shall give priority to research and development, invention, innovation, and their utilization; and to science and technology education, training, and services. It shall support indigenous, appropriate, and self-reliant scientific and technological capabilities, and their application to the country's productive systems and national life.

The Philippine Constitution, under Section 12, Article XIV, states that the state shall regulate the transfer and promote the adaptation of technology from all sources for the national benefit. It shall encourage the widest participation of private groups, local governments, and community-based organizations in the generation and utilization of science and technology”

According to the articles above, the state shall recognize the use of science and technology in order to provide convenience, benefits, and efficiency to the people, particularly those who work in government, where manual transaction processes are still used.

Record Management System is a good example of a computer-generated process. This can reduce workload while also providing accurate and exact data.

The study is supported by the following theories:

The first theory is referred on the Principles of Automatic by Peter J. Denning and Craig Martell (2007). The Principle of Automation covered the

efficient computational ways of performing human tasks. It emphasizes that there is an effective computational way to achieve human tasks. It helps the people perform and convert manual tasks into computerized methods. The automation was implemented in the developed system by inserting lines of codes that calculates and generates results automatically when data is inputted. This automation was used in computation of weighted mean, generation of descriptive rating, and data sortation.

The second theory is Edgar F. Codd's Rule 7 for Relational Database Management System (1985), which is the higher-level insert, to edit and delete rule. It explains that a system must support set-at-time insert, edit and delete operators. It means that data could be retrieved from multiple rows and/or various in tables. This rule states that insert, edit and delete operations should be supported for any retrievable set rather than just for a single row in a single table.

The above theories helped serve as the bases for automation of data as well as integrating a database in storing/managing data and information for fast retrieval of information and for updating its records if necessary.

Furthermore, there were some related studies that were available and were used as references. Among these significant studies are:

A Computerized Students' Records Management System A Case Study of Faculty of Science and Technology Kampala International University Western Campus, Ishaka, Uganda by Bob John (2015). This system allows an organization to capture, store, and manage the development & maintenance of students' data.

Record Management System for Department of Social Welfare and Development of Balete, Batangas by Anna Jean Farah A. Escartin, Hezel B. Ocampo, Charmaine A. Petate (2018). The developed system can add, edit, delete on the generated fill-up forms. The system provides an efficient service, reliable information, and generate reports.

Computerized Record Management System of One National High School in the Philippines, Quetegan, Pangasinan by Kurt Phillip P. Danlog et al. (2017). This system provides efficient & accurate record-keeping, to retain & protect student records, and to facilitate student record retrieval & reducing staff workload.

Recording and Monitoring System of the Provincial Social Welfare and Development in Tagbilaran, City Bohol by Melvin Lomod, Ma. Jenny Lyn R. Batilong, Juliet M. Visto (2018). The system includes the automatic recording and maintenance of information about former rebels. This system focuses on keeping track of former rebels, as well as reporting and updating status and information.

A Social Welfare Development Program and Information Management System in the Municipality of Pres. Carlos P, Garcia by Christian Llyod A. Galvinez and Ricky S. Magalona. (2018). The system improved the current system's user recording, monitoring, and reports in the Municipality of Pres. Carlos P. Garcia.

The existence of these systems served as the basis of the developers to improve the current system. It would help and guide the developers on how to improve the current Record Management System of MSWD Office Bilar, Bohol.

THE PROBLEM

Statement of the Problem

The study aimed to develop and implement a Record Management System of the Social Welfare and Development Office in the Municipality of Bilar.

Specifically, it sought to answer the following questions:

1. What are the current processes involved in the recording of the data and information in the Municipal Social Welfare and Development Office?
2. What are the needs and problems encountered in the storage and retrieval of the gathered documents?
3. What could be the possible solutions for the problems encountered?
4. What is the level of the system acceptability as perceived by the target users?

The presented study is to be called the Record Management System of MSWD Office in Bilar, Bohol and is develop with the following features:

1. integrate a networking mechanism to use one centralized server;
2. design and implement the following modules;
 - a. acquisition;
 - b. data management;
 - c. administration and;
3. implement business intelligence technique for decision-support to the MSWD Office.

Scope and Delimitation

This study aimed for the implementation of a record management system that focuses on the storing and updating of records, securing the data and more storage of the assistance services files offered in the Municipal Social Welfare and Development or MSWD Office in Bilar, Bohol. The assistance services include the Assistance Individual in Crisis Situation(AICS), Person with Disability Program, Senior Citizen Application, Disaster Assistance Family Access and Program(DAFAC) and Solo Parent. The system developed was limited only to the MSWDO Head, IT In-charge and the Focal Persons/Staffs of the office to lessen the work and fast transaction. This system was focused on keeping and transferring information of records.

Specifically, the presented system covered only the following processes.

1. **Offline Mechanism.** This process is to connect between computers which served as the medium for storage, managing and retrieval of information between the head and staff of MSWD office.
2. **Acquisition.** This module includes operations such as recording new acquisitions, updating grantee's data, incorporating a simple search facility, and recording of the acquired services as follow: Assistance Individual Crisis Situation (AICS), Person with Disability Program, Senior Citizen Application, Disaster Assistance Family Access and Program (DAFAC) and Solo Parent.
3. **Data Management.** This feature updates the stored information of the

assistance and services. The data of applicants are presented in tabular form for effective and efficient services of the former records.

4. **Administration.** This function provides administrative tools for system maintenance and system configuration. A database system that requires user login privileges and security to avoid unauthorized personnel and avoid data manipulation. This system must have limited access.
5. **Reporting.** This provides the enterprise reports to serve the strategic management of the Municipal Social Welfare and Development Office in Bilar, Bohol. It also involves data visualization like tabular reporting technique such as the presentation of the list of grantees in the following programs and services: Assistance Individual Crisis Situation (AICS), Person with Disability Program, Senior Citizen Application, Disaster Assistance Family Access and Program (DAFAC) and Solo Parent, and graphical reporting technique such as Assistance Individual Crisis Situation (AICS) Report, Persons with Disability Program Report, Senior Citizen Application Report, Disaster Assistance Family Access and Program (DAFAC) Report and Solo Parent Report.

The presented system was applicable only on the MSWD Office in Bilar, Bohol. It cannot be used in other office since the transactions from the other offices may be different and confidential. The users of the system would also be limited to the head and staffs of the MSWD Office.

Significance of the Study

The study would help the MSWD Office head and staffs in Bilar, Bohol effectively by recording and updating the data through a database processes and providing secure storage for documents needed to improve the present system. Also, having a centralized system offers the following advantages: 1) Cost effective and schedule for future option; 2) Lower manpower utilization in the grantees files; 3) Ease of sorting and eliminating human errors; 4) Automatic and real-time update of database; and 5) Flexibility to introduce new services.

Moreover, the presented study would bring benefit to the following:

Head of Department. He/She is responsible for signing and approving documents. He/She would be able to generate reports in a faster and more convenient way.

IT In-Charge. He/she is responsible in providing security to prevent unauthorized person to manipulate the system in accessing the files.

Staff of MSWD. He/she is responsible in adding, updating, search, and delete records in fast and efficient way. They would be able to entertain/facilitate a new applicant through an interview in a more convenient way.

Researchers. This study would provide the researchers a broader knowledge on creating/developing a system as well as improving their interpersonal relationship as good communicators. It would also enhances their reasoning and analytical abilities in preparation for their real world of work in the future.

RESEARCH METHODOLOGY

Development Framework

Figure 1 below shows the conceptual diagram of the system. The conceptual diagram represents the Record Management System of the Social Welfare and Development Office in the Municipality of Bilar. It represents the model of the study that follows the principle of input-process-output. These inputs came from the administration of the system. The process includes acquisitions, data management, administration, and report. The output would provide decision support to the administration.

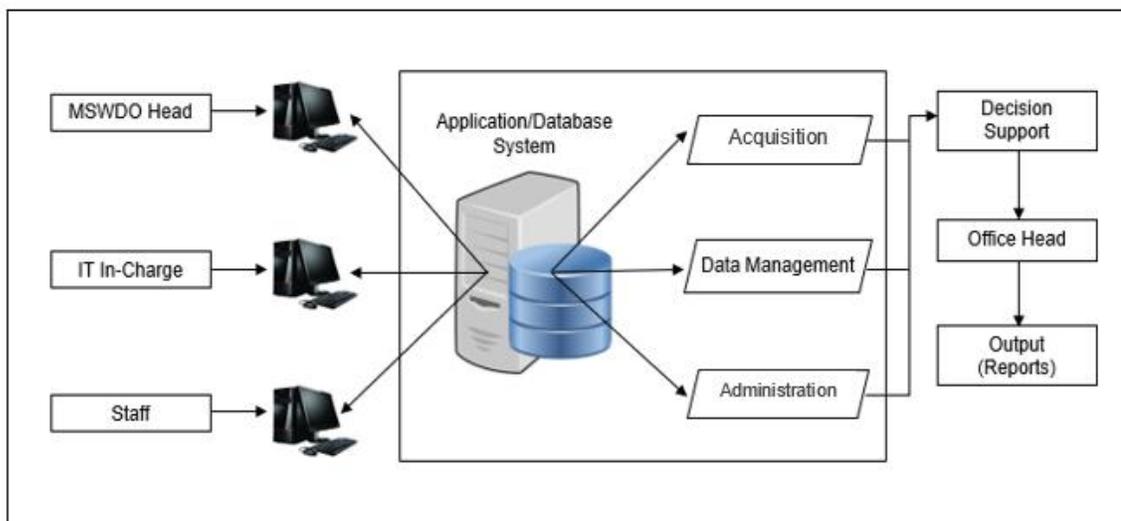


Figure 1. Conceptual Diagram of the Study

Block Diagram

Figure 2 presents the block diagram of the proposed system. This diagram represents the developed system of the Record Management System of the Social Welfare and Development Office in the Municipality of Bilar. It includes the

functions that a staff or focal person carries out in their every day work. This includes assessing the new applicants who want to avail the services. An interview would be done to know if the applicant is eligible for the services he/she wants to avail, the data will be gathered and stored on the system and there would be an easy way of generating reports. It illustrates the input-process-output of the system which demonstrates how the data is being processed in order to aim better output.

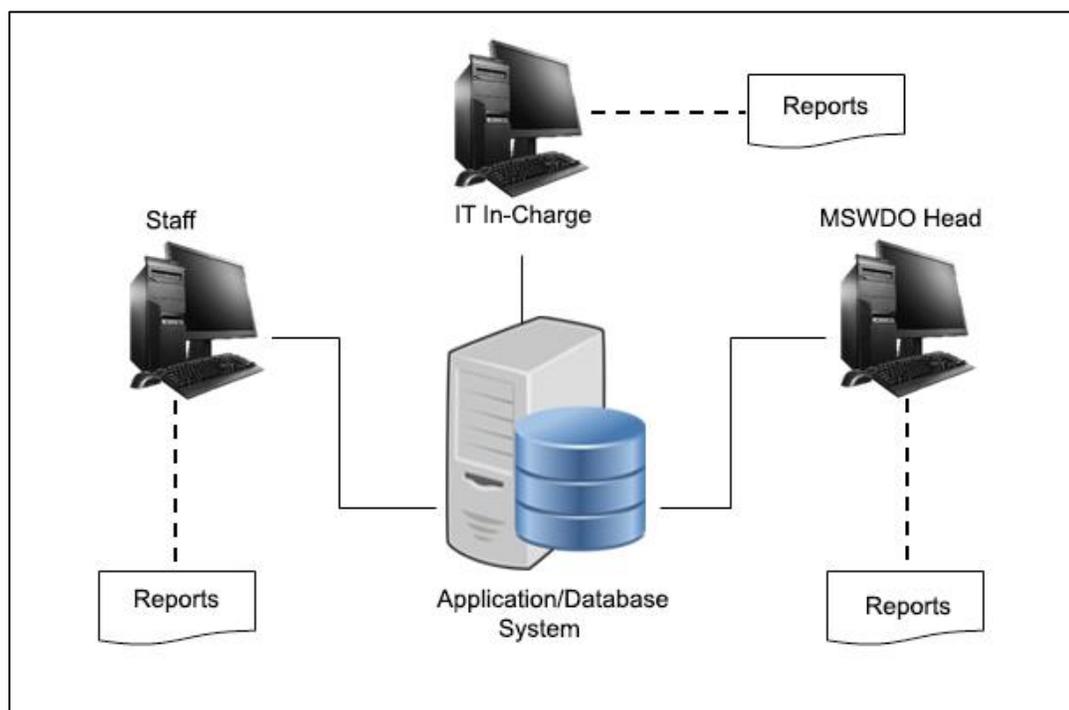


Figure 2. Block Diagram of the Study

Development Model and Approaches

The study use Rapid Application Development (RAD) utilizing the four phases to be followed: analysis and design, prototype cycles, testing and implementation. RAD is a software development methodology that involves techniques like iterative development and software prototyping. During the stage

of analysis and design, developers, clients, and team members cooperate to identify the development's goals and aspirations, as well as the current and potential problems that must be addressed during its construction. The developers gathered data by asking questions to the office head, staffs, as well as to the applicants. To gather sufficient information for designing the system, document review and observation of procedures and processes were done.

Developers would build a prototype from the given quick design and the user would evaluate it to recognize the strengths and weakness of the system. The users would also identify whether the process can evolve to reflect the changing organization requirements to identify process improvement. Developers would define the prototype together with additional information provided by the user after demonstrating. The development, demonstration, and refining of the prototype software was repeatedly done and evaluated by the user until the final prototype would be developed once the user was satisfied. After repetitions and evaluations, the implementation followed.

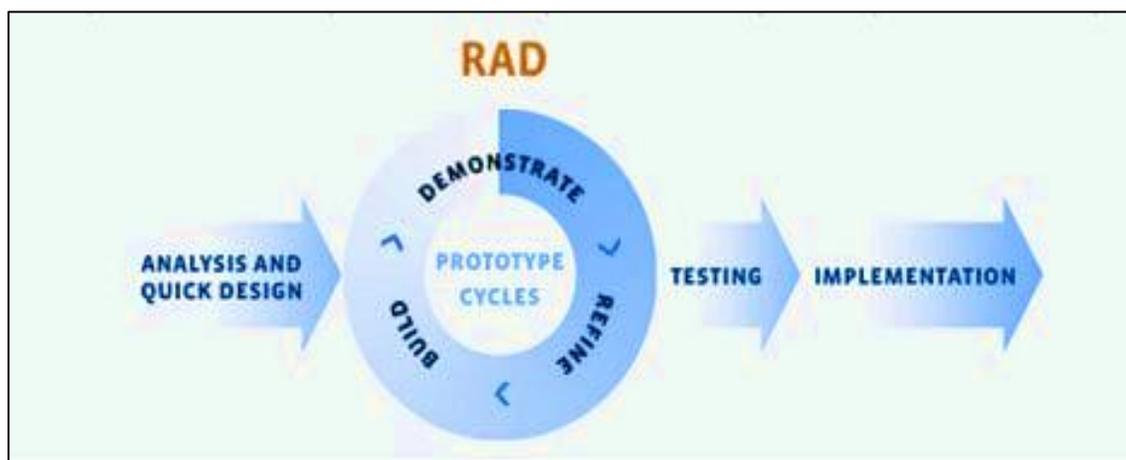


Figure 3. Rapid Application Development Model (RAD) Diagram

The following models were the bases in the analysis and in the designing phase of the study:

- **Client - Server Architecture** – It is the network mechanism used in the centralization of the Record Management System. This Server is a computer that supplies services or data to other machines on a local area network (LAN) or a wide area network (WAN) such as the Internet. Some servers run administrative software that controls access to all or part of the network and its resources (such as disk drives or printers).
- **Unified Modeling Language (UML)** – It is a standardized general-purpose modeling language in the field of object-oriented software engineering. It has been used by IT professionals for the past decades. One of its purposes is to provide the development community with a stable and common design language that could be used to develop and build computer applications.
- **Enterprise Reporting** - It provides business intelligence to the masses by delivering the detailed information that impacts decision-makers throughout the enterprise. Individuals and all organizational levels and job functions, as well as supply chain partners and customers, rely on powerful and flexible enterprise reporting systems that present targeted data in the most consumable format for day to day operations.

The following were the tools used in the development of the Record Management System (RMS) of the Social Welfare and Development in the Municipality Bilar.

1. **Windows Server 2008 R2** – It is a server operating system developed by Microsoft, which is highly integrated with the client edition of Windows 7, offers improvements in scalability and availability, as well as power consumption. It is a server that was used in the local application of the system.
2. **Microsoft Visual Studio 2012** – It is an integrated development environment (IDE) from Microsoft. It is used to develop computer programs, as well as websites, web apps, web services, and mobile apps. It was the main tool that was used in creating the record management system from the beginning to end.
3. **WAMP SERVER** - It is a free and open source cross-platform web server solution stack package, consisting mainly of the Apache HTTP server, MySQL database, and interpreters for scripts written in the PHP and Pearl programming languages. It is used to create an application on saving and databasing of the system.
4. **Crystal Report** -It is used in the system to make, generate and view reports of requested information.
5. **Adobe Photoshop CS6** – It is a graphics editing program developed and publish by Adobe Systems It is used for designing the interface of the developed system software.

Environment and Participants

The study was conducted at the Municipal Social Welfare and Development Office in Bilar, Bohol. It is 4km away from Bohol Island State University- Bilar Campus, Zamora, Bilar, Bohol. The respondents of the study were the head, IT in-charge, focal person/staffs of the MSWDO and IT experts.

Data Collection

The developers asked permission from the Municipal Social Welfare and Development Office of Bilar to conduct the study. Data were gathered through personal interview using the interview guide questions. Also, forms like blank intake sheet or application forms were gathered by the developers as bases for the study. An actual participation as well as observation on the flow of the activity was done in order to gather more data and information needed in the study. Different documents and reports were reviewed to come up with the design for the forms needed in the developed system including the possible input and output of data for the features to be added.

Testing and evaluation were performed to determine the general acceptability of the system. Performance and evaluation of the system was expressed in terms of system usability.

During the system testing, the system usability questionnaire was distributed to the respondents in order to rate the usability of the system in the operation of the institution. The questionnaire contained items to be rated by the prospective and identified users.

The respondents were the MSWDO Head, IT in-charge, 6 staff and 2 IT Experts. Table 1 shows the distribution of respondents in the system usability assessment.

Table 1

Distribution of respondents in the System Usability Assessment

Respondents	Frequency
MSWD Head	1
IT- In Charge	1
Staff	6
IT Experts	2
Total	10

Table 2 Illustrates the guide for the interpretation of the results of the system usability.

Table 2

Interpretation Guide of the System Usability

Weight	Range	Description	Interpretation
7	6.4 - 7.0	Strongly Agree	The respondents strongly believe and are confident that the system is very usable.
6	5.5 – 6.3	Agree	The respondents believe and are confident that the system is usable.
5	4.6 – 5.4	Tend to Agree	The respondents tend to believe that the system is usable.
4	3.7 – 4.5	Neither Agree or Disagree	The respondents are neutral in trusting that the system is usable.
3	2.8 – 3.6	Tend to Disagree	The respondents tend not to trust that the system is usable.
2	1.9 – 2.7	Disagree	The respondents believe that the system is not usable.
1	1.0 – 1.8	Strongly Disagree	The respondents strongly confident that the system is not usable.

To determine the general acceptability of the system, the average weighted mean or the weighted mean was computed to evaluate/assess the systems' acceptability level using the following formula:

$$WMS = \frac{1f_1 + 2f_2 + 3f_3 + 4f_4 + 5f_5 + 6f_6 + 7f_7}{N}$$

Where:

WMS = Weighted Mean Score

f1 =frequency of respondents given a rate of 1

f2 =frequency of respondents given a rate of 2

f3 =frequency of respondents given a rate of 3

f4 =frequency of respondents given a rate of 4

f5 =frequency of respondents given a rate of 5

f6 =frequency of respondents given a rate of 6

f7 =frequency of respondents given a rate of 7

n =total number of respondents

1, 2...7 =constant (rating to the service provided)

OPERATIONAL DEFINITION OF TERMS

The following terms were defined operationally based on the conduct of this study:

Applicants. It refers to the people who want to avail the MSWDO services/programs.

Assistance to Individual in Crisis Situation (AICS). It is a file that contains all the record of the people who availed the services for individual in crisis situation.

Business intelligence (BI). The ability of an organization to collect, maintain, and organize knowledge. It includes techniques such as measurement, analytics, reporting/enterprise reporting, collaboration/collaboration platform, knowledge management and support better business decision-making.

Centralized System. One which most communications are routed through one or more major central hubs. Such system allows certain functions to be concentrated in the system's hubs, freeing up resources in the peripheral units.

Computerized. The process of transforming the manual system into a computerized base system. In this study, computerized record management system was implemented for the improvement of the record system in the social welfare and development office in the municipality of Bilar.

Database. It is a computer program that stores the data collected which were generally stored and would be accessed electronically from a computer system.

Disaster Assistance Family Access Card (DAFAC). It is a file that contains all the record of the people who have availed the services of disaster crisis situation.

Grantee. It refers to the people who already availed the MSWDO services/programs.

Intake Sheet form. It is a form issued to the residents as they register or apply for a service.

Municipal Social Welfare and Development. The office responsible for the protection of the social welfare of rights of the citizens in the community to promote social development. The office in Bilar where the study was proposed and was conducted.

Records. It refers to the data kept in the MSWD Office.

Record Management System of MSWDO. It is a system that helps the user to monitor and record the data of MSWDO.

Search Expression. It consists of the keywords or phrases used to represent a search topic or subject of inquiry.

Server. It is a computer, or series of computers, that links other computers or electronic devices together.

Staff. The employee of MSWD Office and the user of the system who are the only one allowed to add, update, search, and delete records in fast and efficient way.

Chapter 2

PRESENTATION, ANALYSIS, AND INTERPRETATION OF DATA

Existing Operation and Processes

The Municipal Social Welfare and Development Office (MSWDO) is responsible for the delivery of social welfare and developments services and guarantees the social protection of the rights and welfare of the people and promotes social development. The Municipal Social Welfare and Development Office in Bilar is composed of office staffs who were responsible in recording the applicant's data and information. The office still uses the manual management of the data. These were the following present processes that took place:

A. Inquiry Process

In inquiring about the services of the Municipal Social Welfare and Development Office in Bilar, the applicants approached a focal person or staff in the office for a query regarding the services they would like to avail such as; Assistance Individual Crisis Situation (AICS), Solo Parent, Persons with Disability, Disaster Assistance Family Access Card and Senior Citizen Application. At present, the office was using the manual method in storing and recording applicants records and information. The inquiry would take place when applicants ask for the requirements and applications for assistance. Upon submission of the application form and the requirements, the applicants would be interviewed.

B. Availment of Services

The process for the availment of the services in the municipal social welfare development office was based on the types of service the client wanted to avail. To avail for Persons with Disability for example, the applicants would have to comply and present the requirements such as the medical certificate and 2pcs of their 1x1 ID picture, then followed by an interview with the applicants using the prescribed intake sheet which would be filled-in manually. The intake forms varied from the type of assistance or services the applicants needed. There are varied intakes form for the Assistance Individual Crisis Situation (AICS), Solo Parent, Persons with Disability, Disaster Assistance Family Access Card, and a separate form for the Senior Citizen Application. All of the filled-in intake form would be filed and segregated according to the respective services availed.

C. Recording

The record keeping flow in the municipal social welfare development office includes the procedure which starts with the interview and recording of different availed services. After the applicants filled out the form, they gave it back to the focal person or assigned staff and waited for approval to verify if they were illegible for the services. Upon approval, the client's information would be kept in the cabinet.

D. Generation of Reports

The intake form and application form that the applicants filled out were

arranged and place on the Municipal Social Welfare Development Office staffs table while the softcopy of the list that were inputted in the MS Excel alphabetically and kept on the computer. Further, the records such as the intake sheet and the application form were kept on a cabinet. Reports like the list of grantees from the assistance services like Assistance Individual Crisis Situation (AICS), Solo Parent, Persons with Disability, Disaster Assistance Family Access Card, and Senior Citizen Application were prepared for submission.

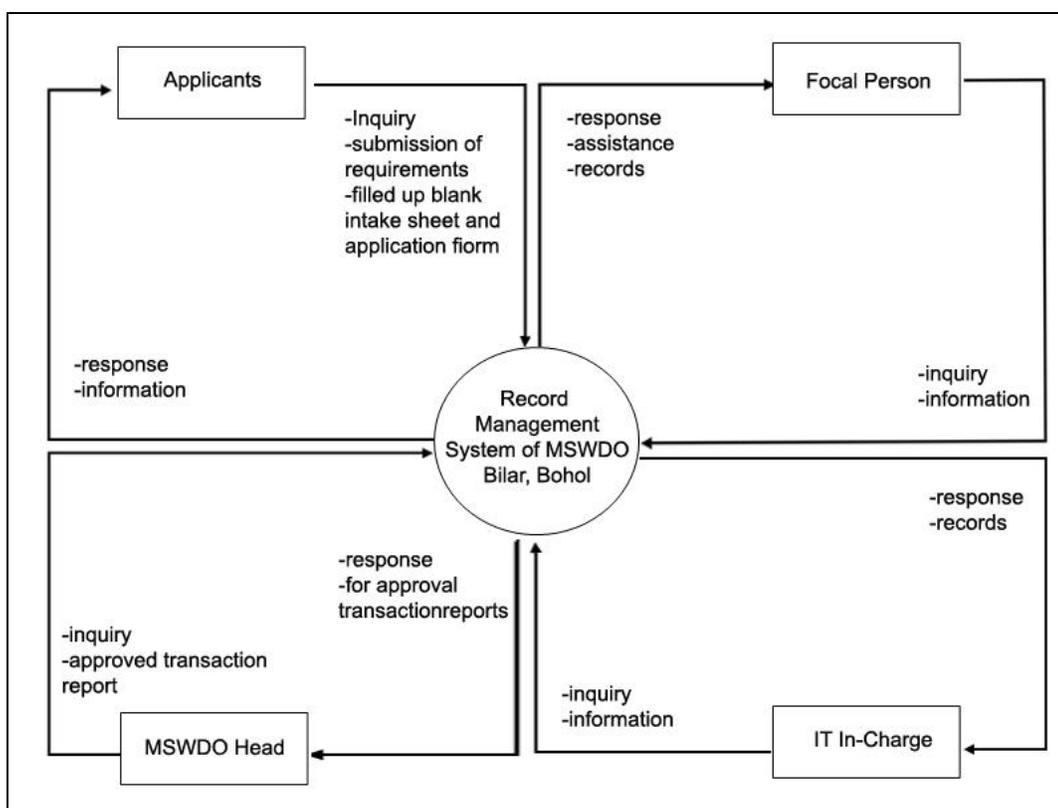


Figure 4. Contextual diagram of the present system

Event Specification

Event List Diagram of the present system

1. Inquiry Process

2. Availment of Services
3. Recording Process
4. Generation Reports

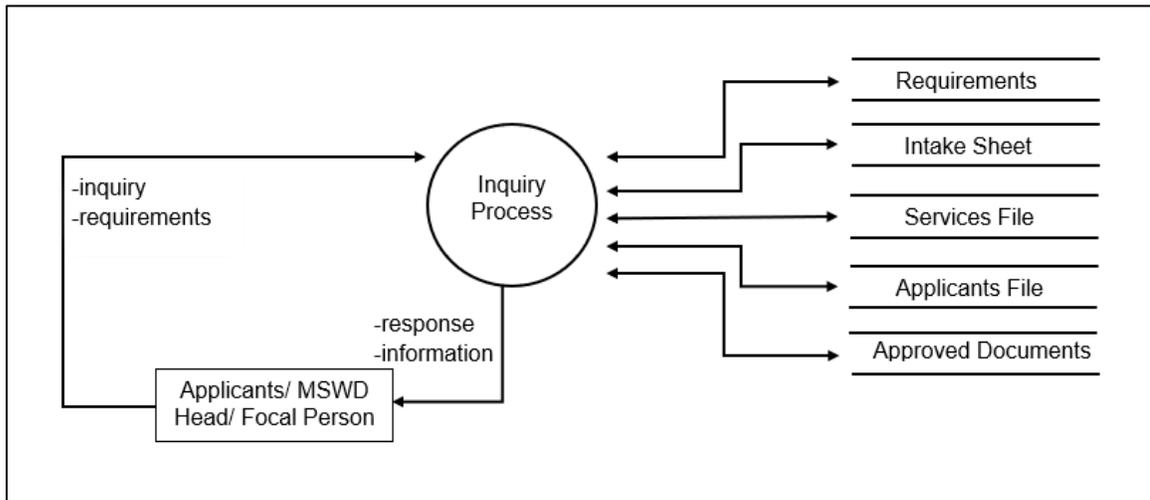


Figure 5. Event diagram of Inquiry Process (Event 1)

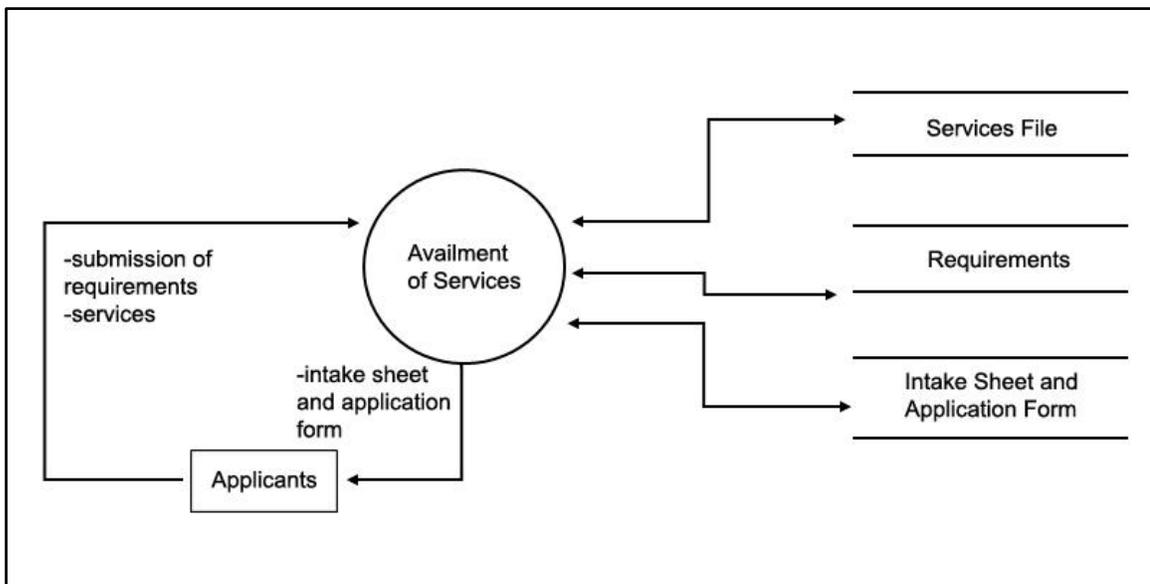


Figure 6. Event diagram process in availing the services (Event 2)

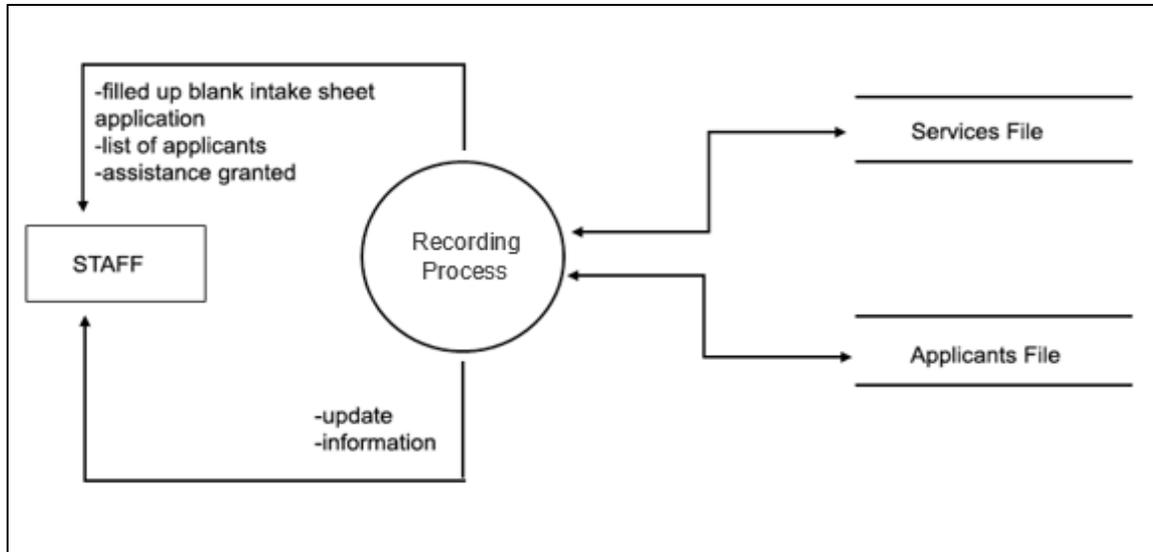


Figure7. Event diagram process in data recording (Event 3)

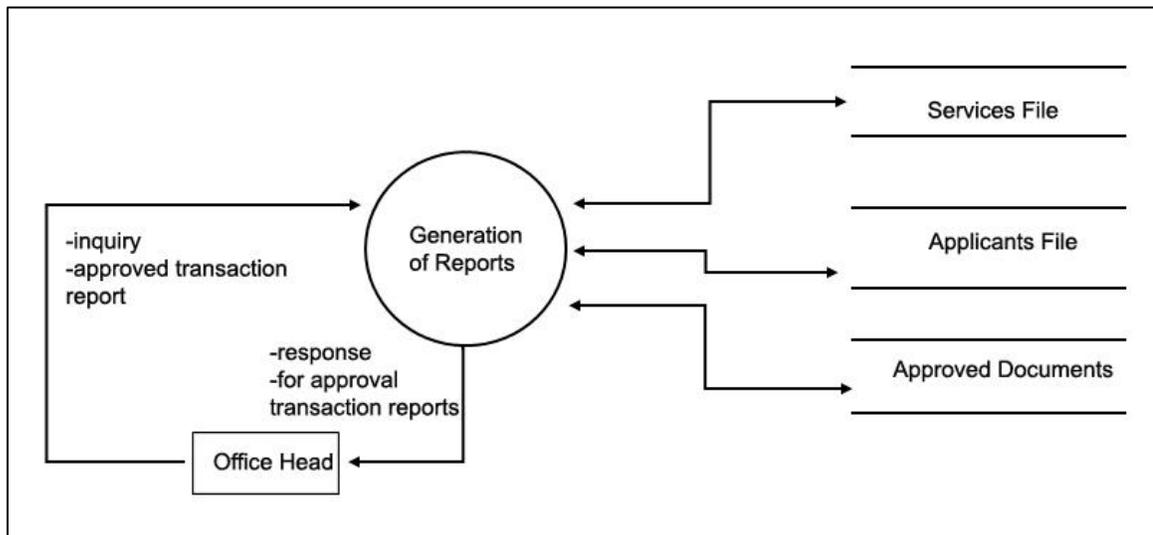


Figure 8. Event diagram process in the Generation of Reports (Event 4)

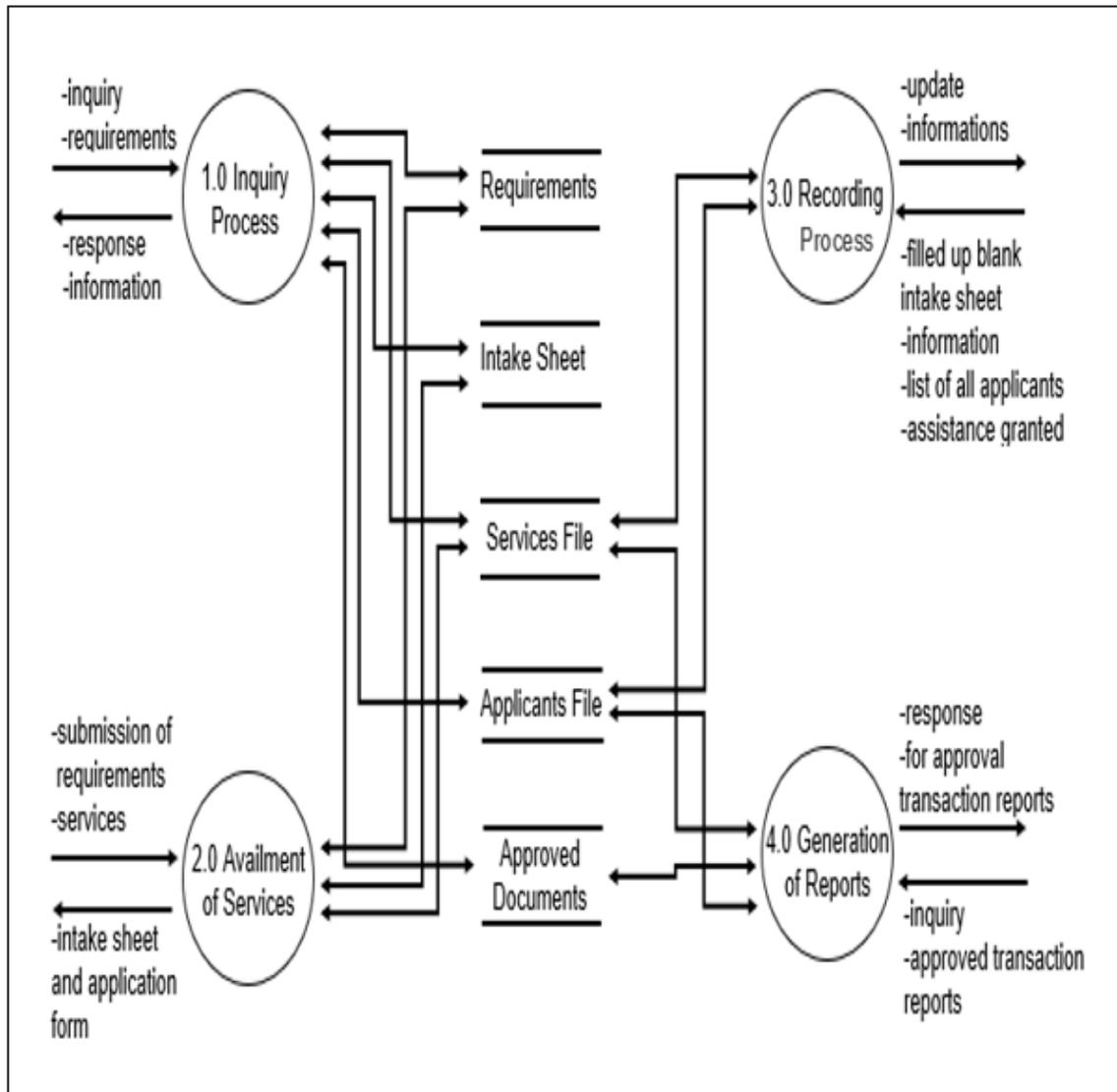


Figure 9. Top Level of the present System.

Needs of the Existing Operations

The Municipal Social Welfare Development Office in Bilar uses the manual method in processing, recordings and retrieving data. The developers have identified the following needs to improve the present process or system.

1. Systematic and organized recording of files to avoid misplacement

of documents.

2. Secure database and information of grantees records for effective and efficient data management of all program services.
3. Improve the manual method process in recording to avoid loss of records of grantees.
4. Ensure security in the system to avoid unauthorized person.
5. Make the statistical reports in tabular and graphical method available.

Record Management System of the Social Welfare and Development Office in the Municipality of Bilar

Based on the information gathered from the present system, developers came up with the developed Record Management System of Municipal Social Welfare and Development Office that utilized database. The system would serve as the primary storage of the data. These are the processes in the system:

A. Administration

Login is a module that determines the authorized user in order to ensure the security of all the records and transactions in the system. A username and password were inputted in order for the MSWD Office to access the system. Users of the system were the head, IT in-charge, and focal person/staff of the MSWD Office. The IT in-Charge would be the administrator who is authorized to ensure security of the system. The role of the staff was to add, update, search, and

generate reports. And the office head was the one who would approve the reports generated.

B. Acquisition

In the process of acquisition, the focal person would gather basic information from the residents. After getting the information, the focal person would input the data into the database. The focal person/staff would refer the latest printed reports of the applicant's or view the record in the system to answer the query.

C. Data Management

The staff were responsible for inputting all the necessary information about the applicants into the system. All the information about applicants would be stored in the applicant's folder. The administrator who had the full access of the system could edit all the information with regards to it, and all the information would be stored in a folder. The focal person/staffs were responsible to edit, and update the records in the system.

D. Generate Reports

Through the development in the system, the MSWD Office generate reports if needed. They print monthly or even a yearly report of the data of the applicants in Bilar but that depends upon if someone from regional or municipal office would ask for a report.

Use Case Diagram

Use case diagrams are employed in uml (United Modeling Language), a standard notation for the modeling of real-world objects and system.

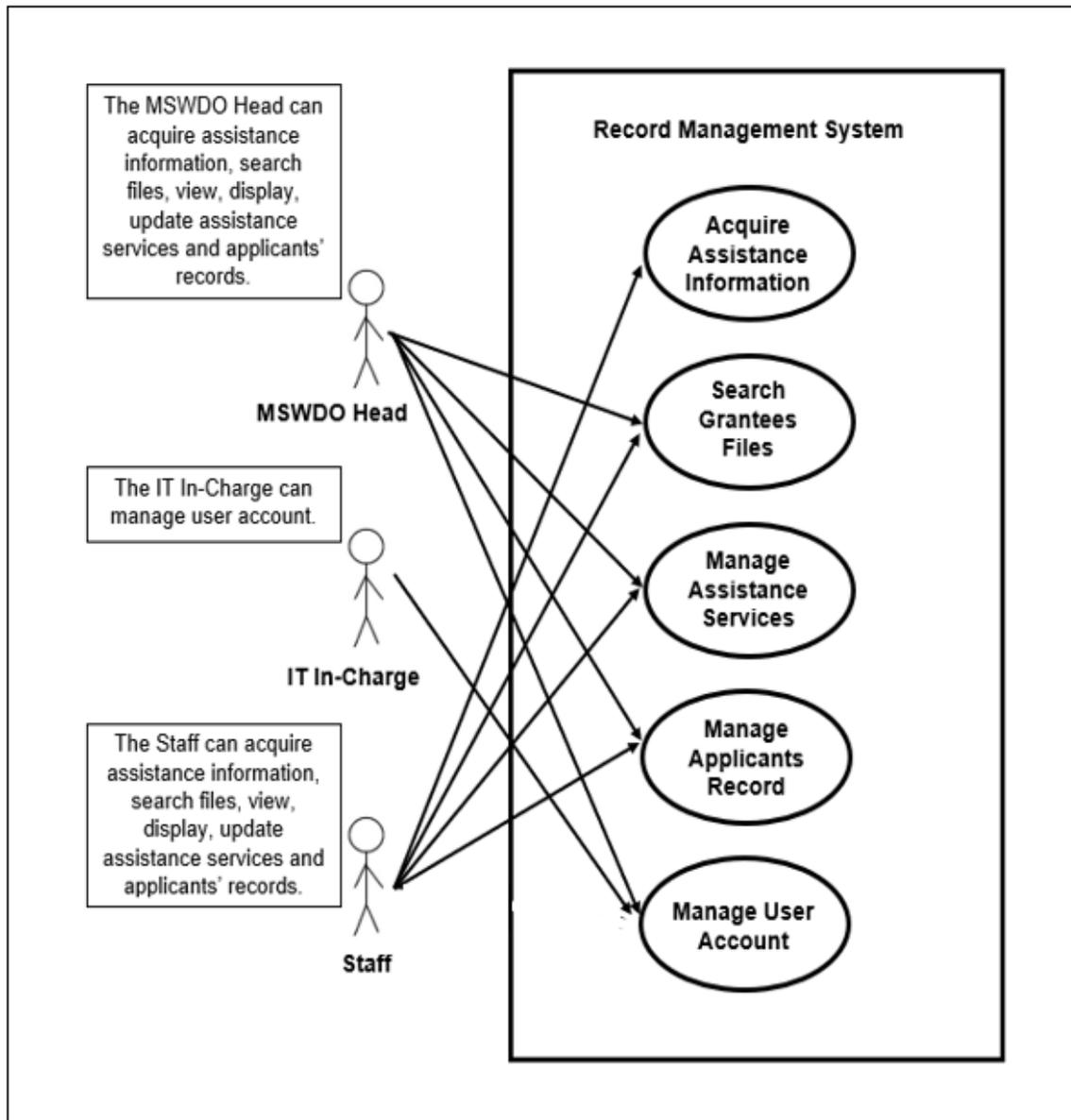


Figure 10. Use Case Diagram of the Study

Use Case Narrative

Use case narrative describing a use case from the diagram that requires both frame context of the use case and represents the dialog between the user (actor or use case) and the use case.

Table 3. Use Case 1: Acquire Assistance Information

Acquire Assistance Information	
Scope	Record Management System of Municipal Social Welfare and Development in Bilar, Bohol
Level	User Goal
Goal in context	Present a Menu form which one can access the various functions of the Assistance Services.
Primary Actors	Focal Person/Staff
Stakeholders	Bilar MSWD Office Head, IT In-Charge, and Focal Person/Staff: Wants to provide assistance information
Preconditions	None
Triggers	Focal Person/Staff will select Assistance File Information
Success Guarantee	Record Management System of Municipal Social Welfare and Development in Bilar, Bohol
Scenarios:	1. Focal Person/Staff: Select the Assistance File Information.

Table 4. Use Case 2: Search Grantees Files

Search Grantees Files	
Scope	Record Management System of Municipal Social Welfare and Development in Bilar, Bohol
Level	User Goal
Goal in context	To search for grantees files
Primary Actors	Bilar MSWD Office Head and Focal Person/Staff
Stakeholders	Bilar MSWD Office Head, and Focal Person/Staff can search the applicant's records
Preconditions	None
Triggers	None
Success Guarantee	Bilar MSWD Office Head and Focal Person/Staff: Search and presents the record of all grantees according to their availed services

Scenarios:	<ol style="list-style-type: none"> 1. MSWD Office Head and Focal Person/Staff: Selects the menu option to search, and view grantees file according to their availed services. 2. A RMS of Municipal Social Welfare and Development in Bilar, Bohol: Presents a Menu for search, and view grantees files.
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Table 5. Use Case 3: Manage Assistance Services

Manage Assistance Services	
Scope	Record Management System of Municipal Social Welfare and Development in Bilar, Bohol
Level	User Goal
Goal in context	To manage the record of the applicant's information as well as the assistance services
Primary Actors	Bilar MSWD Office Head and Focal Person/Staff
Stakeholders	Bilar MSWD Office Head, and Focal Person/Staff can manage the applicant's records
Preconditions	None
Triggers	None
Success Guarantee	Bilar MSWD Office Head and Focal Person/Staff: Presents the record of all applicants according to their availed services
Scenarios:	<ol style="list-style-type: none"> 3. MSWD Office Head and Focal Person/Staff: Selects the menu option to enter in the Applicant's Information file according to their availed services. 4. A CRMS of Municipal Social Welfare and Development in Bilar, Bohol: Presents a Menu for managing services and assistance availed by the applicants

Table 6. Use Case 4: Manage Applicants Records

Manage Applicants Records	
Scope	Record Management System of Municipal Social Welfare and Development in Bilar, Bohol
Level	User Goal
Goal in context	To manage, update and view the record of the applicant's records
Primary Actors	Bilar MSWD Office Head and Focal Person/Staff
Stakeholders	Bilar MSWD Office Head, and Focal Person/Staff can view, update and manage the applicant's records

Preconditions	None
Triggers	None
Success Guarantee	Bilar MSWD Office Head and Focal Person/Staff: Presents the record of all applicants according to their availed services
Scenarios:	<ol style="list-style-type: none"> 1. MSWD Office Head and Focal Person/Staff: Selects the menu option to enter and view the Applicant's Information file according to their availed services. 2. A CRMS of Municipal Social Welfare and Development in Bilar, Bohol: Presents a Menu for managing, updating and viewing services and assistance availed by the applicants

Table 7. Use Case 5: Manage User Account

Manage User Account	
Scope	Record Management System of Municipal Social Welfare and Development in Bilar, Bohol
Level	User Goal
Goal in context	To manage the accounts of the user
Primary Actors	IT In-Charge
Stakeholders	IT In-Charge can manage the accounts of the user
Preconditions	None
Triggers	None
Success Guarantee	Add user accounts to the system successfully
Scenarios:	<ol style="list-style-type: none"> 1. IT In-Charge access to the system. 2. Can add new user account to the menu options

Database Design

Database design is the process of producing a data model of the database. This data model contains all the needed logical and physical design choices and physical storage parameters needed to generate a design in a data definition language were a database was created.

Class Diagram

A class diagram in the Unified Modeling Language (UML) provides an overview of the proposed system that describes the objects and classes, its attributes, operations inside the system, and the relationships among the classes.

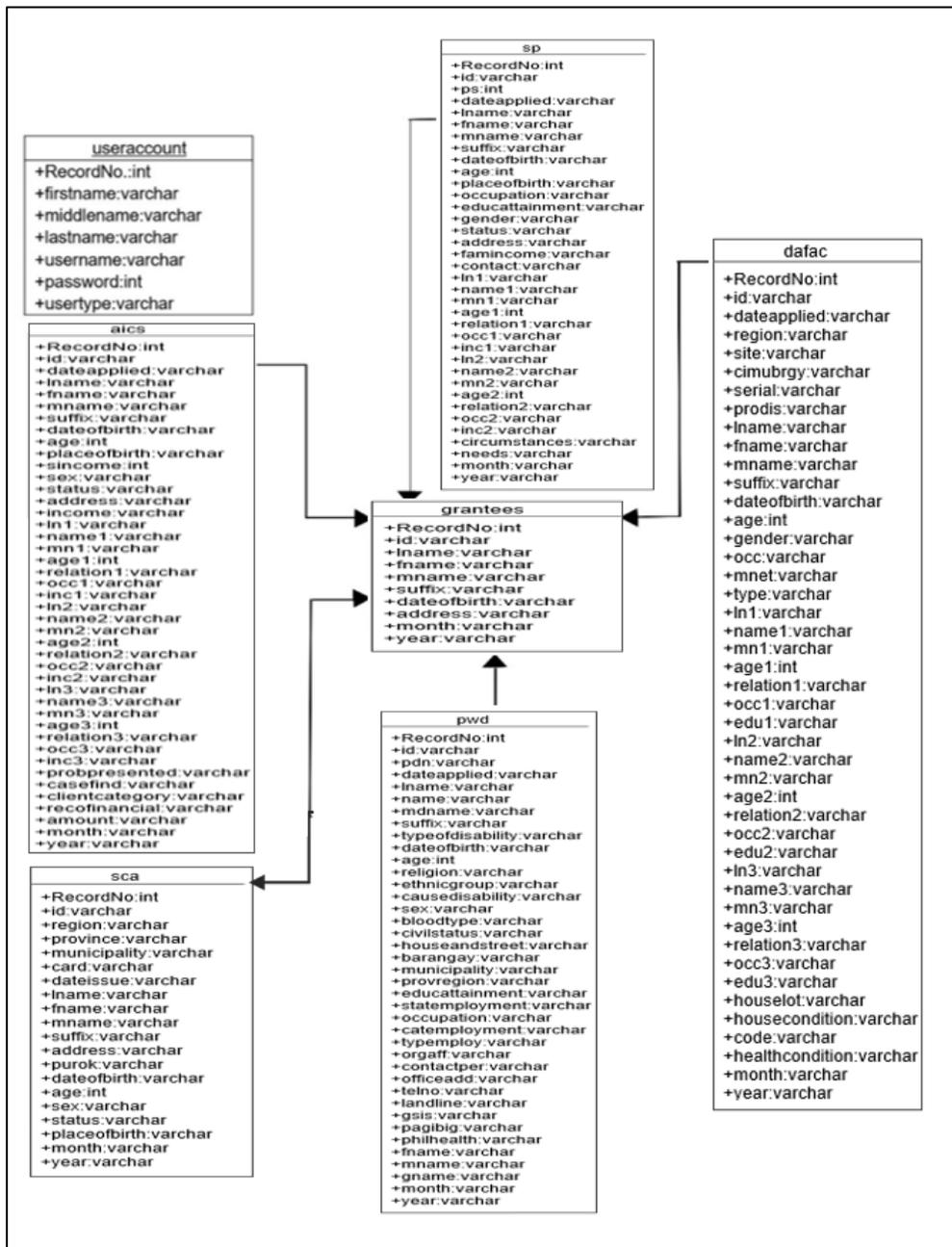


Figure 11. Class Diagram

Database Structure

The tables on the following pages are the database tables used in storing the information which is inputted in the system.

Table 8

Data Structure System for User Account in Security and Login

Field No.	Field Name	Type	Width	Description
1	RecordNo.	int	10	Record Number
2	firstname	varchar	30	First Name
3	middlename	varchar	20	Middle Name
4	lastname	varchar	20	Last Name
5	username	varchar	40	User Name
6	password	int	10	Password
7	usertype	varchar	20	User type

Table 9

Data Structure System for Assistance Individual in Crisis Situation

Field No.	Field Name	Type	Width	Description
1	RecordNo	int	10	Record Number
2	id	varchar	15	Service Id
3	dateapplied	varchar	15	Date Applied
4	lname	varchar	20	Last Name
5	fname	varchar	30	First Name
6	mname	varchar	20	Middle Name
7	suffix	varchar	5	Suffix
8	dateofbirth	varchar	15	Date of Birth
9	age	int	5	Age
10	placeofbirth	varchar	30	Place of Birth
11	sincome	int	10	Source of Income
12	Sex	varchar	10	Sex
13	status	varchar	10	Status
14	address	varchar	30	Address
15	income	int	10	Income
16	ln1	varchar	20	Last Name (Member1)
17	name1	varchar	30	First Name (Member1)
18	mn1	varchar	20	Middle Name (Member1)
19	age1	int	2	Age (Member1)

20	relation1	varchar	30	Relation (Member1)
21	occ1	varchar	30	Occupation (Member1)
22	inc1	varchar	10	Income (Member1)
23	ln2	varchar	20	Last Name (Member2)
24	name2	varchar	30	First Name (Member2)
25	mn2	varchar	20	Middle Name (Member2)
26	age2	int	2	Age (Member2)
27	age2	int	2	Age (Member2)
28	relation2	varchar	30	Relation (Member2)
29	occ2	varchar	30	Occupation (Member2)
30	inc2	varchar	10	Income (Member2)
31	ln3	varchar	20	Last Name (Member3)
32	name3	varchar	30	First Name (Member3)
33	mn3	varchar	20	Middle Name (Member3)
34	age3	int	2	Age (Member3)
35	relation3	varchar	30	Relation (Member3)
36	occ3	varchar	30	Occupation (Member3)
37	inc3	varchar	10	Income (Member3)
38	probpresented	varchar	200	Problem Presented
39	casefind	varchar	200	Case Finding
40	clientcategory	varchar	10	Client Category
41	recofinancial	varchar	10	Recommended Financial
42	amount	varchar	10	Amount
43	month	varchar	10	Month
44	year	varchar	10	Year

Table 10

Data Structure System for Disaster Assistance Family Access Card

Field No.	Field Name	Type	Width	Description
1	RecordNo	int	10	Record Number
2	id	varchar	15	Id
3	dateapplied	varchar	15	Date Applied
4	region	varchar	10	Region
5	site	varchar	40	Site
6	cimubrgy	varchar	40	City/Municipality/Barangay
7	serial	int	10	Serial
8	prodis	varchar	40	Province/District
9	lname	varchar	20	Last Name
10	nname	varchar	20	First Name
11	mname	varchar	20	Middle Name

12	suffix	varchar	5	Suffix
13	dateofbirth	varchar	15	Date of Birth
14	age	int	5	Age
15	gender	varchar	10	Gender
16	occ	varchar	20	Occupation
17	mnet	varchar	10	Monthly Net Income
18	type	varchar	10	Type
19	ln1	varchar	20	Last Name (Member 1)
20	name1	varchar	30	First Name (Member1)
21	mn1	varchar	20	Middle Name (Member1)
22	age1	int	2	Age (Member1)
23	relation1	varchar	30	Relation (Member1)
24	occ1	varchar	30	Occupation (Member1)
25	edu1	varchar	10	Income (Member1)
26	ln2	varchar	20	Last Name (Member 2)
27	name2	varchar	30	First Name (Member 2)
28	mn2	varchar	20	Middle Name (Member 2)
29	age2	int	2	Age (Member2)
30	relation2	varchar	30	Relation (Member2)
31	occ2	varchar	30	Occupation (Member2)
32	edu2	varchar	10	Income (Member2)
33	ln2	varchar	20	Last Name (Member 3)
34	name3	varchar	30	First Name (Member 3)
35	mn3	varchar	20	Middle Name (Member 3)
36	age3	int	2	Age (Member3)
37	relation3	varchar	30	Relation (Member3)
38	occ3	varchar	30	Occupation (Member3)
39	edu3	varchar	10	Income (Member3)
40	houselot	varchar	30	House Lot
41	housecondition	varchar	30	House Condition
42	code	int	20	Code
43	healthcondition	varchar	30	Health Condition
44	month	varchar	10	Month
45	Year	varchar	10	Year

Table 11

Data Structure System for Persons with Disability

Field No.	Field Name	Type	Width	Description
1	RecordNo	int	10	Record Number
2	id	varchar	15	Id
3	pdn	varchar	20	Product Number

4	dateapplied	varchar	15	Date Applied
5	lname	varchar	20	Last Name
6	name	varchar	20	First Name
7	mdname	varchar	20	Middle Name
8	suffix	varchar	5	Suffix
9	typeofdisability	varchar	20	Type of Disability
10	dateofbirth	varchar	10	Date of Birth
11	age	int	5	Age
12	religion	varchar	30	Religion
13	ethnicgroup	varchar	30	Ethnic Group
14	causedisability	varchar	20	Cause Disability
15	sex	varchar	10	Sex
16	bloodtype	varchar	5	Blood Type
17	civilstatus	varchar	10	Civil Status
18	houseandstreet	varchar	20	House and Street
19	barangay	varchar	30	Barangay
20	municipality	varchar	20	Municipality
21	provregion	varchar	30	Province/Region
22	educattainment	varchar	30	Education Attainment
23	statemployment	varchar	30	Status of Employment
24	occupation	varchar	30	Occupation
25	catemployment	varchar	30	Category of Employment
26	typemploy	varchar	30	Type of Employment
27	orgaff	varchar	30	Organization Affiliated
28	contactper	varchar	30	Contact Person
29	officead	varchar	30	Office Address
30	telno	varchar	20	Telephone Number
31	landline	varchar	30	Landline
32	gsis	varchar	30	GSIS No.
33	pagibig	varchar	30	Pag-ibig
34	philhealth	varchar	30	Philhealth
35	fname	varchar	30	Father's Name
36	mname	varchar	30	Mother's Name
37	gname	varchar	30	Guardian's Name
38	month	varchar	10	Month
39	year	varchar	10	Year

Table 12

Data Structure System for Senior Citizen Application

Field No.	Field Name	Type	Width	Description
1	RecordNo	int	10	Record Number
2	id	varchar	15	Id
3	region	varchar	5	Region

4	province	varchar	20	Province
5	municipality	varchar	20	Municipality
6	idcarno	int	10	ID Card No.
7	iddateissue	varchar	15	ID Date Issue
8	lname	varchar	20	Last Name
9	fname	varchar	30	First Name
10	mname	varchar	20	Middle Name
11	suffix	varchar	5	Suffix
12	address	varchar	40	Address
13	purok	varchar	5	Purok
14	dateofbirth	varchar	15	Date of Birth
15	age	int	4	Age
16	sex	varchar	10	Sex
17	status	varchar	15	Status
18	placeofbirth	varchar	30	Place of Birth
19	month	varchar	10	Month
20	year	varchar	10	Year

Table 13

Data Structure System for Solo Parent

Field No.	Field Name	Type	Width	Description
1	RecordNo	int	10	Record Number
2	id	varchar	15	Id
3	ps	int	10	Id Card Number
4	dateapplied	varchar	15	Date Applied
5	lname	varchar	20	Last Name
6	fname	varchar	30	First Name
7	mname	varchar	20	Middle
8	suffix	varchar	5	Suffix
9	dateofbirth	varchar	15	Date of Birth
10	age	int	11	Age
11	placeofbirth	int	30	Place of Birth
12	occupation	varchar	20	Occupation
13	educattainment	varchar	30	Education Attainment
1	gender	varchar	8	Gender
14	status	varchar	10	Status
15	address	varchar	20	Address
16	famincome	int	10	Family Income
17	contact	int	15	Contact
18	ln1	varchar	20	Last Name (Member 1)
19	name1	varchar	30	First Name (Member 1)
20	mn1	varchar	20	Middle Name (Member 1)
21	age1	age	2	Age (Member 1)
22	relation1	varchar	30	Relation (Member 1)

23	occ1	varchar	50	Occupation (Member 1)
24	inc1	varchar	10	Income (Member 1)
25	ln2	varchar	20	Last Name (Member 2)
26	name2	varchar	30	First Name (Member 2)
27	mn2	varchar	20	Middle Name (Member 2)
28	age2	age	2	Age (Member 2)
29	relation2	varchar	30	Relation (Member 2)
30	occ2	varchar	50	Occupation (Member 2)
31	inc2	varchar	10	Income (Member 2)
32	circumstances	varchar	150	Circumstances
33	needs	varchar	150	Needs
34	month	varchar	10	Month
35	year	varchar	10	Year

Table 14

Data Structure System for Grantees

Field No.	Field Name	Type	Width	Description
1	RecordNo	int	10	Record Number
2	id	varchar	15	Id
3	lname	varchar	20	Last Name
4	fname	varchar	30	First Name
5	mname	varchar	20	Middle Name
6	suffix	varchar	5	Suffix
7	dateofbirth	varchar	15	Date of Birth
8	address	varchar	30	Address
9	placeofbirth	int	30	Place of Birth
10	month	varchar	10	Month
11	year	varchar	10	Year

Program Hierarchy

A program hierarchy is a chart which shows the breakdown of a system to its lowest manageable levels. As a design tool, it is the aid of the programmer in dividing and conquering a large software problem which is recursively breaking a problem down into parts that are small enough to be understood by a human brain.

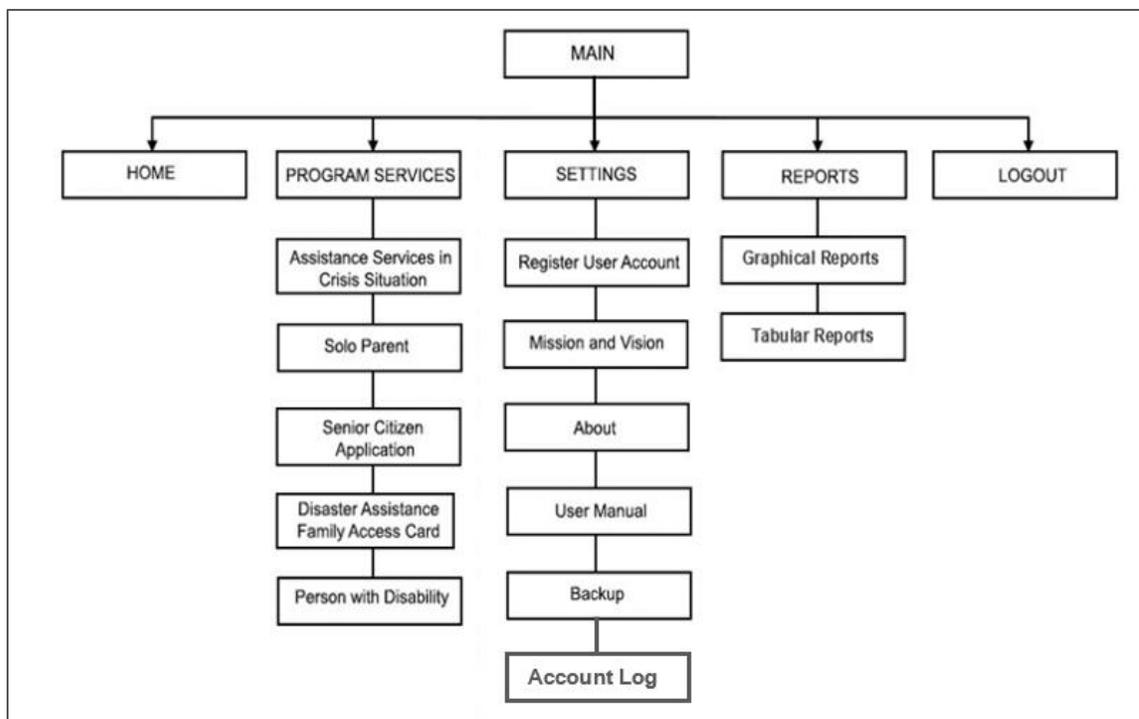


Figure 12. Program Hierarchy

Functional Requirements

Functional requirements capture the intended behavior of the system or what the system would do. This behavior may be expressed as a service, task, or function with which the system is required to perform. These are also important to the user in what they expect from the software. The functions mentioned were based on the existing standard needs of the Municipal Social Welfare and Development Office with the approval and coordination from the respondents as follows:

Login Process

FREQ 1: Access to the system must be password protected.

FREQ 2: Access to the system must have a username and a password.

FREQ 3: All the data and information should be in a secure storage, limiting access to authorize only.

Process of Acquisition

FREQ 4: The system should allow applicants and staffs to acquire availability of the program and the services offered.

Process of Data Management

FREQ 5: The system should allow the focal person/staff to manage the recording of the grantees.

FREQ 6: The system should allow focal person/staff to analyze the grantees information.

FREQ 7: The system should allow the focal person/staff to add, edit and update the grantees' record.

Process of Generating Reports

FREQ 8: The system should allow the MSWDO head and focal person or staff to generate report in tabular form from the information stored in the database.

FREQ 9: The system should allow the MSWDO head and focal person/staff to generate report in graphical from the information stored in the database.

Non-Functional Requirements

A non-functional requirement is a requirement that specifies criteria that can be used to judge the operations of the system rather than specific behaviors. This should be contested with functional requirements that define specific behavior or functions.

NFREQ 1: The system should be easy to use.

NFREQ 2: The system should be reliable.

NFREQ 3: The system should be used in networking mechanism.

Test Cases

These are the test case scenarios conducted during the acceptance testing. The test plan would let the users use the system following the instructions in each test case of the proposed system. The system should perform the expected result in each test case in order to be considered successful.

The following are the details of each test case:

Test Case 1:

Module: Login Form

Instruction:

1. In the login form enter the password and username
2. Then click the "Login" button.

Expected Results.

1. Homepage will show for the main menu.
2. Access to the system.

Clean up: Click "Cancel" button to close module.

Test Case 2

Module: Adding Assistance Individual Crisis Situation Form

Instruction:

1. On the main menu, click "Program Services". Then select "Assistance Individual Crisis Situation" from the dropdown menu.
2. Input the information of the applicants
3. Click "Save" button.

Expected results:

1. Applicant's information should be successfully added.
2. Applicant's information should be successfully saved unto the database.

Clean up: Click "close" button to close module

Test Case 3

Module: Adding Solo Parent Form

Instruction:

1. On the main menu, click "Program Services". Then select "Solo Parent" from the dropdown menu.
2. Input the information of the applicants
3. Click "Save" button.

Expected results:

1. Applicant's information should be successfully added.
2. Applicant's information should be successfully saved unto the database.

Clean up: Click "close" button to close module

Test Case 4

Module: Adding Senior Citizen Application Form

Instruction:

1. On the main menu, click "Program Services". Then select "Senior Citizen" from the dropdown menu.
2. Input the information of the applicants
3. Click "Save" button.

Expected results:

1. Applicant's information should be successfully added.
2. Applicant's information should be successfully saved unto the database.

Clean up: Click "close" button to close module

Test Case 5

Module: Adding Disaster Assistance and Family Access Card Form

Instruction:

1. On the main menu, click "Program Services". Then select "Disaster Assistance and Family Access Card" from the dropdown menu.
2. Input the information of the applicants
3. Click "Save" button.

Expected results:

1. Applicant's information should be successfully added.
2. Applicant's information should be successfully saved unto the

database.

Clean up: Click "close" button to close module

Test Case 6

Module: Adding Persons With Disability Form

Instruction:

1. On the main menu, click "Program Services". Then select "Person with Disability" from the dropdown menu.
2. Input the information of the applicants
3. Click "Save" button.

Expected results:

1. Applicants information should be successfully added.
2. Applicants information should be successfully saved unto the database.

Clean up: Click "close" button to close module

Test Case 7

Module: Viewing the List of Assistance in Crisis Situation Grantees

Instruction:

1. On the main menu, click "Program Services". Then select "Assistance Individual in Crisis Situation" from the dropdown menu.
2. Click Show List then view the information of the AICS grantees.

Expected results:

1. Grantees information should be successfully viewed.

Clean up: Click "close" button to close module

Test Case 8

Module: Viewing the List of Solo Parent Grantees

Instruction:

1. On the main menu, click "Program Services". Then select "Solo Parent" from the dropdown menu.
2. Click Show List then view the information of the Solo Parent grantees.

Expected results:

1. Grantees information should be successfully viewed.

Clean up: Click "close" button to close module

Test Case 9

Module: Viewing the List of Senior Citizen Grantees

Instruction:

1. On the main menu, click "Program Services". Then select "Senior Citizen" from the dropdown menu.
2. View the information of the SCA grantees.

Expected results:

1. Grantees information should be successfully viewed.

Clean up: Click "close" button to close module

Test Case 10

Module: Viewing the List of Disaster Assistance Family Access Card Grantees

Instruction:

1. On the main menu, click "Program Services". Then select "Disaster Assistance and Family Access Card" from the dropdown menu.

2. View the information of the DAFAC grantees.

Expected results:

1. Grantees information should be successfully viewed.

Clean up: Click "close" button to close module

Test Case 11

Module: Viewing the List of Person with Disability Grantees

Instruction:

1. On the main menu, click "Program Services". Then select "Person with Disability" from the dropdown menu.
2. View the information of the PWD grantees.

Expected results:

1. Grantees information should be successfully viewed.

Clean up: Click "close" button to close module

Test Case 12

Module: Updating Assistance Individual in Crisis Situation Grantees Information

Instruction:

1. On the main form, click "Program Services". Then select "Assistance Individual in Crisis Situation" from the dropdown menu.
2. On the data grid view double click the grantees you want to update.

Expected results:

1. Resident's information should be successfully updated.

Clean up: Click "close" button to close module

Test Case 13

Module: Updating Solo Parent Grantees Information

Instruction:

1. On the main form, click "Program Services". Then select "Solo Parent" from the dropdown menu.
2. On the data grid view double click the grantees you want to update.

Expected results:

1. Resident's information should be successfully updated.

Clean up: Click "close" button to close module

Test Case 14

Module: Updating Senior Citizen Grantees Information

Instruction:

1. On the main form, click "Program Services". Then select "Senior Citizen" from the dropdown menu.
2. On the data grid view double click the grantees you want to update.

Expected results:

1. Resident's information should be successfully updated.

Clean up: Click "close" button to close module

Test Case 15

Module: Updating Disaster Assistance and Family Access Card Grantees Information

Instruction:

1. On the main form, click "Program Services". Then select "Disaster Assistance and Family Access Card" from the dropdown menu.
2. On the data grid view double click the grantees you want to update.

Expected results:

1. Resident's information should be successfully updated.

Clean up: Click "close" button to close module

Test Case 16

Module: Updating Person with Disability Grantees Information

Instruction:

1. On the main form, click "Program Services". Then select "Person with Disability" from the dropdown menu.
2. On the data grid view double click the grantees you want to update.

Expected results:

1. Resident's information should be successfully updated.

Clean up: Click "close" button to close module

Test Case 17

Module: Generating Reports

Instruction:

1. On the main menu, click "Reports". Then choose between graphical or tabular reports.
2. Choose from the radio button which list or graph you want to generate a report. Then click "generate report" button.

Expected results:

- 1.. Display and view the reports.
2. You can now print the reports.

Clean up: Click “close” button to close module.

Technical Requirements

The proper selection of hardware and software components, as well as identification of people involved in the operation and network, are identified. This is necessary for proper usage so that the system could be used to its fullest capacity.

Hardware components refer to the physical parts of the computer. This includes the motherboard, processor, random access memory, and hard disk. However, there were only three (3) components which basically facilitate the processing of data. These components are the Microprocessor, Hard Disk Drive (HDD) and the Random-Access Memory (RAM). Thus, components were just specified in the presentation.

Software is the general name given to all programs, documentation, manuals, and routines necessary to make the computer usable. It is a set of machine-readable instructions. The software produces an output that can be understood by human.

Peopleware refers to those who operate the system. The person-in-charge in the operating system is the MSWD Office Head, IT In-Charge and focal person/staff who is responsible in keeping of all the records of the applicants, and

must be computer literate and have a piece of knowledge about the system.

A network is a system of interconnected electric components or circuits. It connects two or more computers or other devices.

Minimum Hardware Specification

Component	Specification
Microprocessor	Intel Pentium
Hard Disk Drive	280 Gigabytes
Random Access Memory (RAM)	2 Gigabytes

Minimum Software Specification

The Record Management System of the Social Welfare and Development Office in the Municipality of Bilar requires various software to function properly. This software was enumerated below with its corresponding specifications. The specifications as provided were based on the specifications of the computer units utilized during the development of the system.

Component	Specification
Windows Operating System	Windows 7, 8, 8.1, 10
Net Framework	Version 4.5

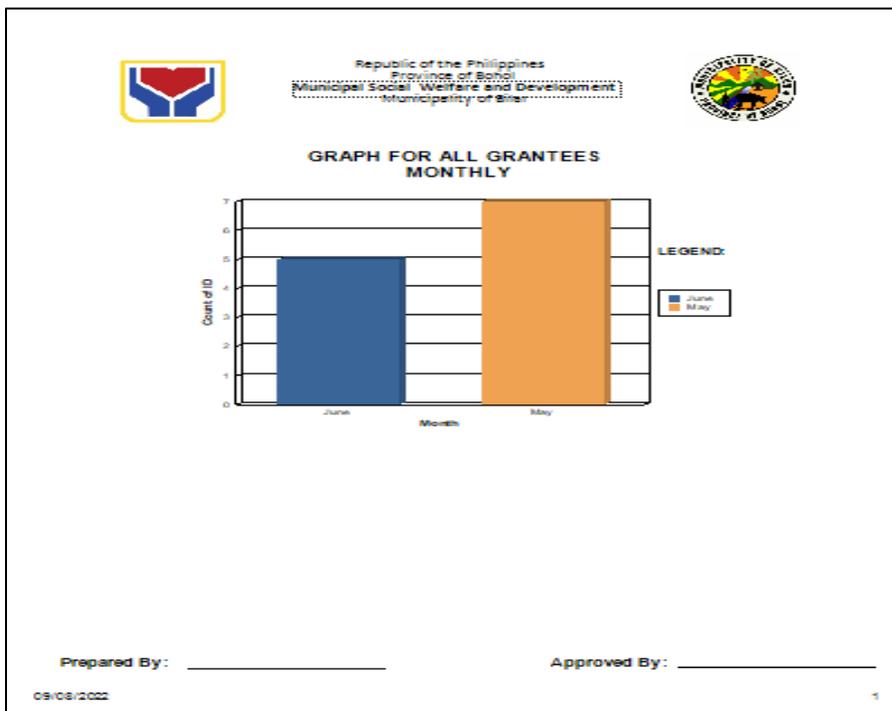
Business Intelligence

In the existing theories, business intelligence means the ability of an organization to collect, maintain and organize knowledge. It aims to support better business techniques and decision-making with solutions that take business

intelligence (BI) to a whole new level and getting the right information. The system integrated business intelligence specifically in the query and reporting component.

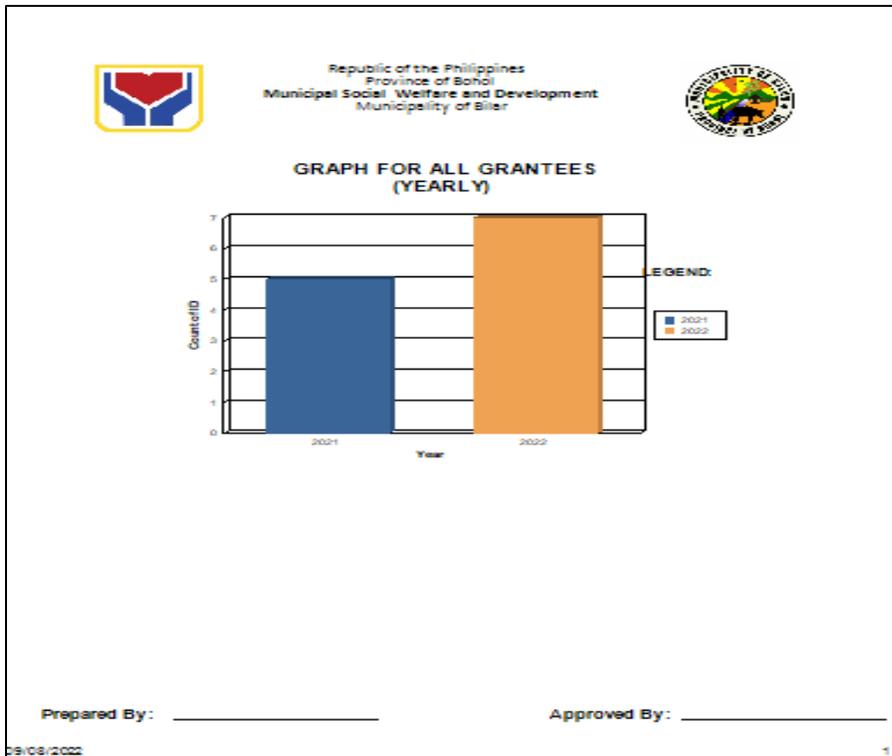
The developed system is capable of analyzing data and generating statistical reports thru tabular reports. Automated representation of information allows real-time data representation. These generated graphical and tabular reports may be used by the office head and staff of MSWDO as basis for monitoring the accomplishment of the transaction and the status of the grantees. The reports under business intelligence are namely: Graphical Reports of All Grantees (Monthly), Graphical Reports of All Grantees (Yearly), Graphical Reports of Assistance Individual Crisis Situation, Monthly Graphical Reports of Solo Parent, Monthly Graphical Reports of Senior Citizen, Monthly Graphical Reports of Disaster Assistance Family Access Card, Monthly Graphical Reports of Person with Disability, Master List of All Grantees.

Preview 1 shows the Monthly Graphical Report of All Grantees



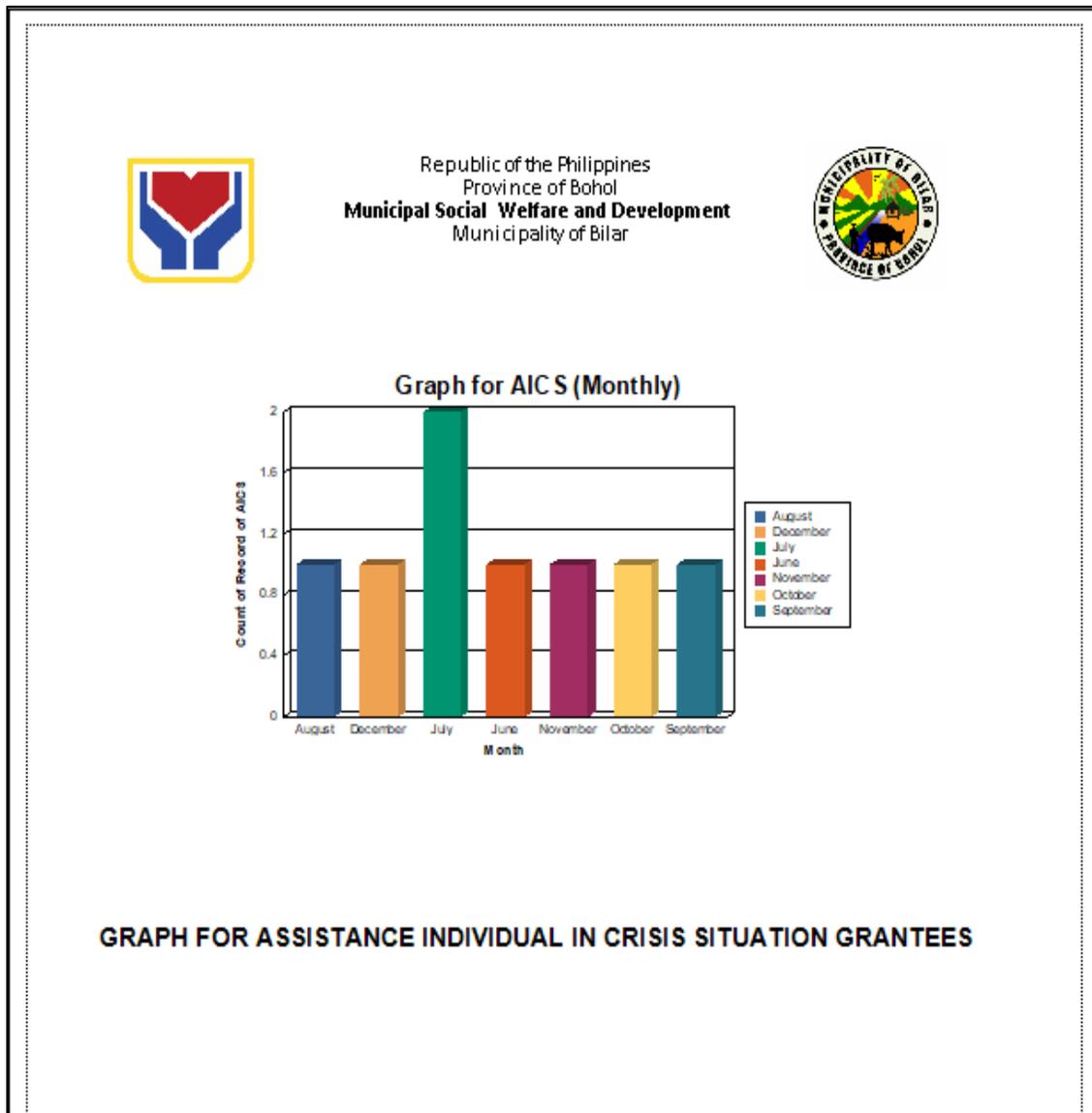
Preview 1. Graphical Monthly Report of All Grantees

Preview 2 shows the Yearly Graphical Report of All Grantees



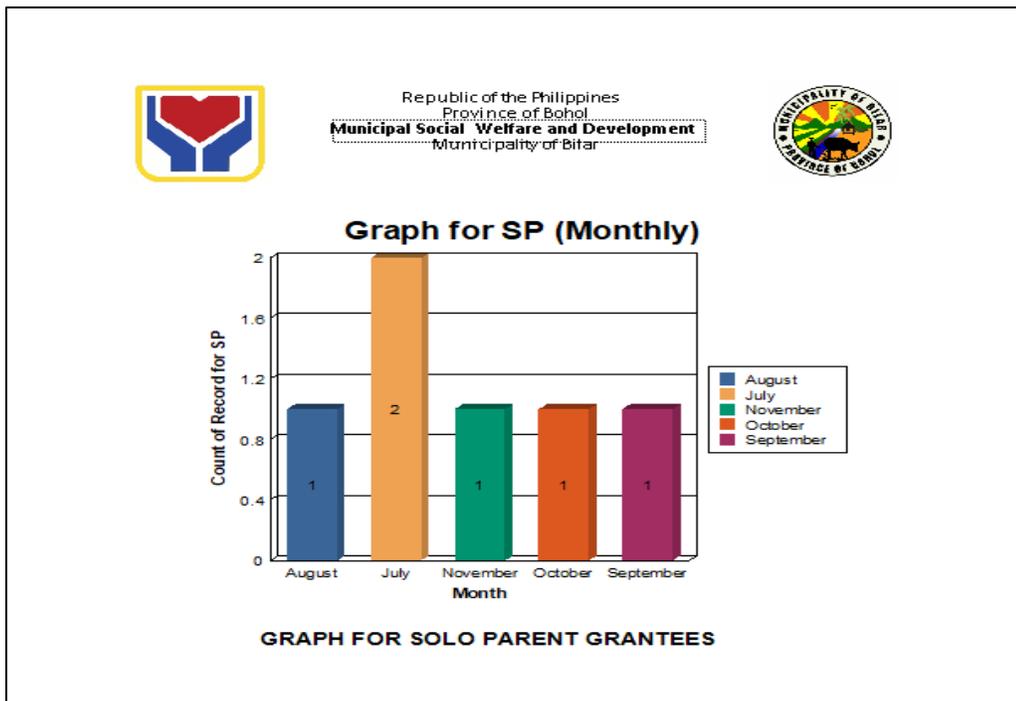
Preview 2. Graphical Yearly Report of All Grantees

Preview 3 shows the Monthly Graphical Report of Assistance Individual in Crisis Situation



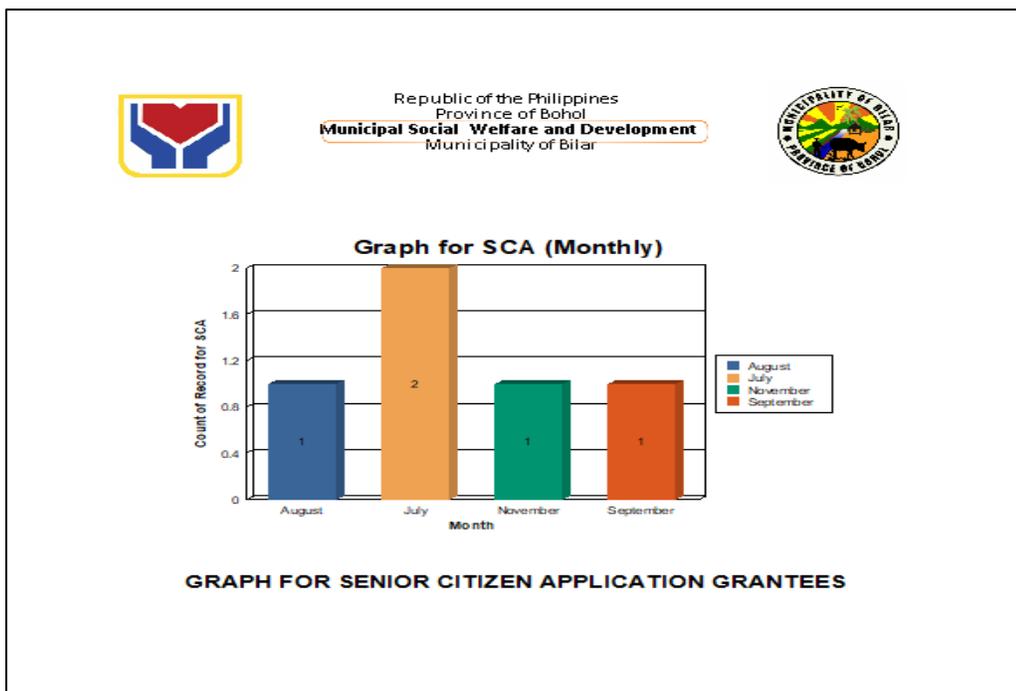
Preview 3. Assistance Individual in Crisis Situation Graphical Report

Preview 4 shows the Monthly Graphical Report of the Solo Parent



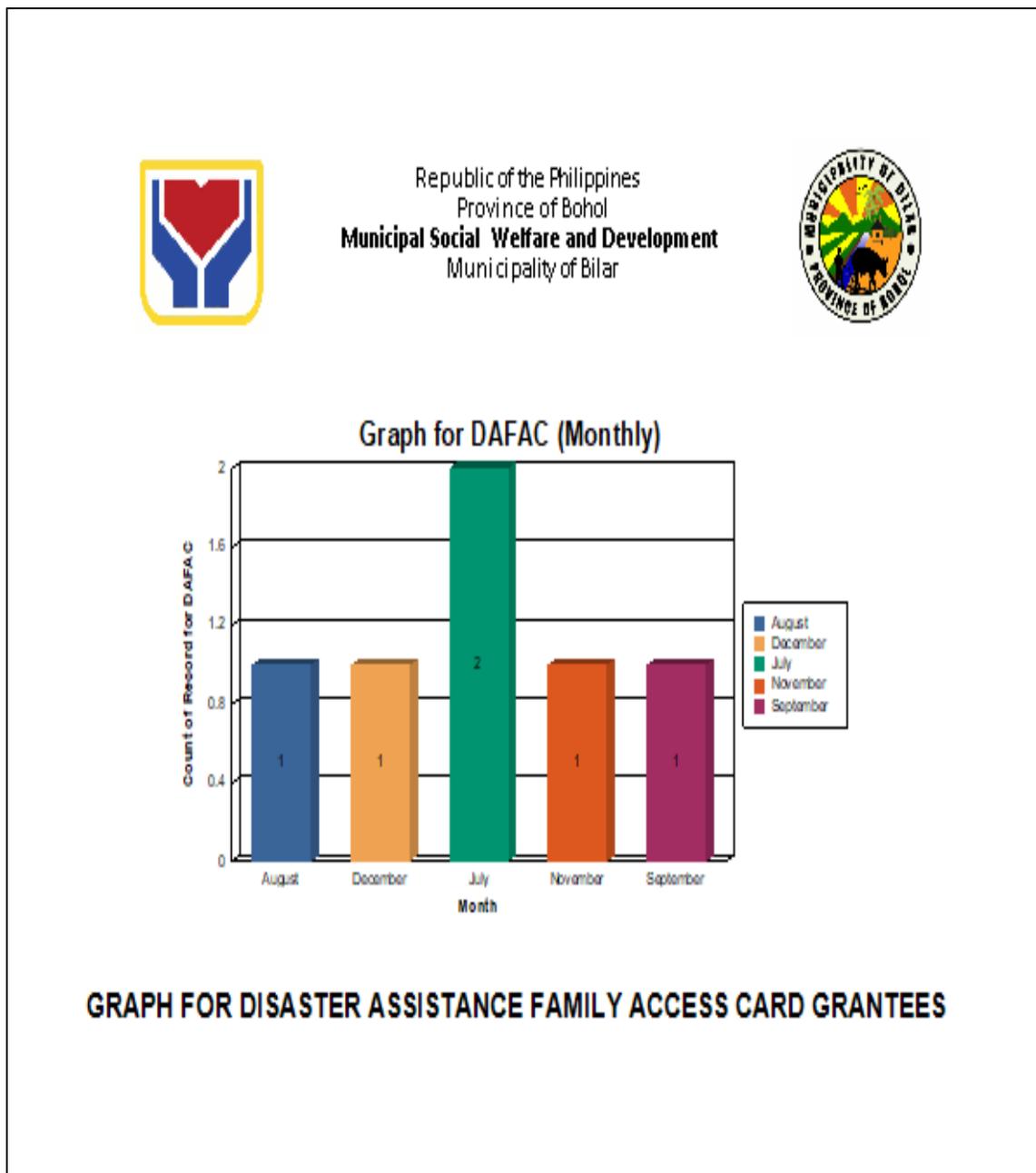
Preview 4. Solo Parent Graphical Report

Preview 5 shows the Monthly Graphical Report of the Senior Citizen



Preview 5. Senior Citizen Graphical Report

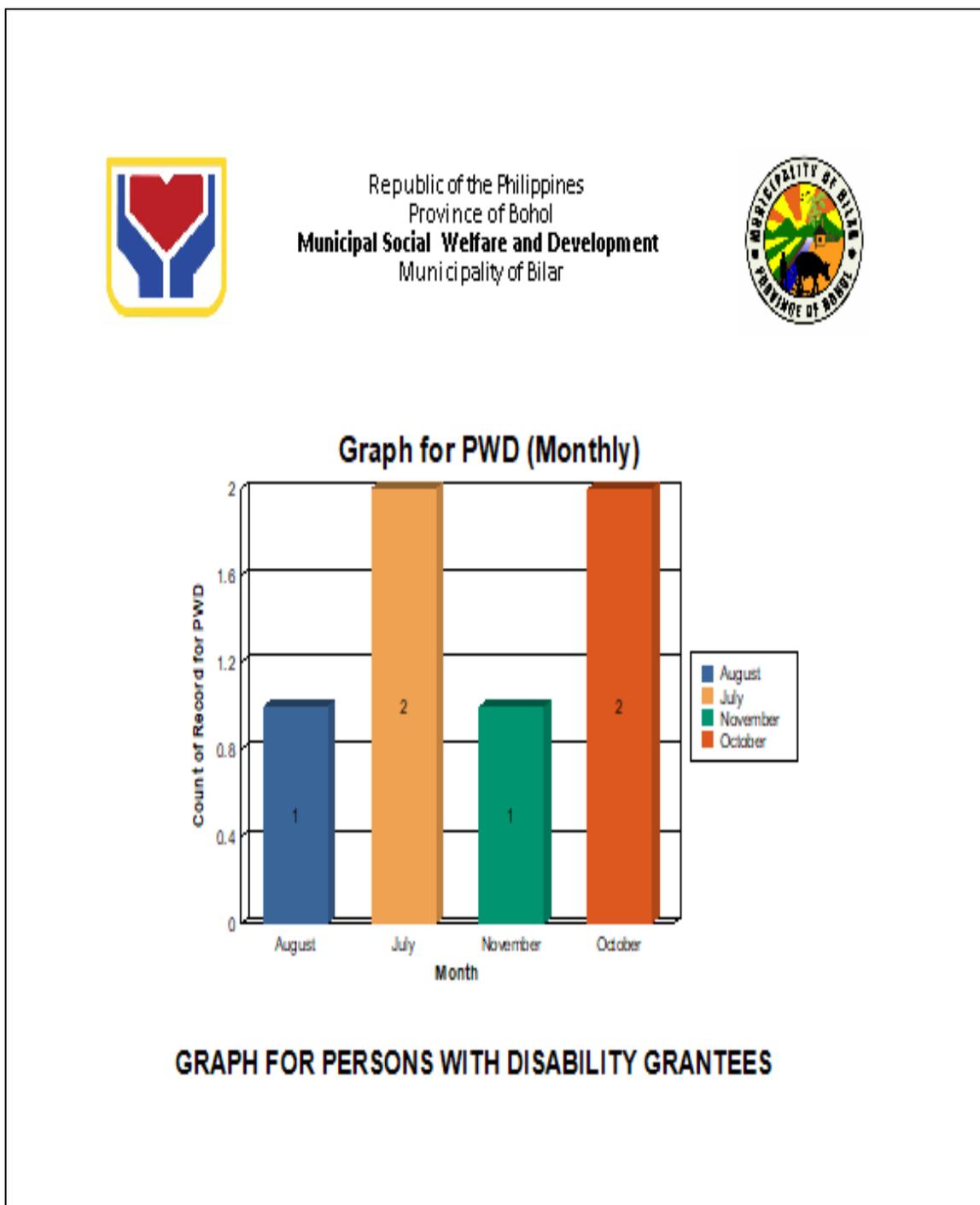
Preview 6 shows Monthly the Graphical Report of the Disaster Assistance Family Access Card



Preview 6. Disaster Assistance Family Access Card

Graphical Report

Preview 7 shows the Monthly Graphical Report of the Person With Disability



Preview 7. Person With Disability Graphical Report

Preview 8 shows the tabular report of the all grantees

ID	Last Name	First Name	Middle Name	Suffix	Date of Birth	Address	Month	Year
MSWD-2022-C	BILOY	ANN	BILOY	NA	2002/5/25	SDF32	May	2022
MSWD-2022-C	LINGUES	JEN	BAN	NA	2002/5/25	SDF	May	2022
MSWD-2022-C	IBANEZ	JANE	DAGO	NA	2002/5/25	SDF	May	2022
MSWD-2022-C	MENDEZ	MAN	SARONG	JR	2002/5/25	SDF	May	2022
MSWD-2022-C	SABA	RENI	REN	SR	2002/5/25	SDF	May	2022
MSWD-2022-C	SABA	FERNIE ANN	BILOY	NA	2002/5/26	BILAR	May	2022
MSWD-2022-C	KIM	FERNIE ANN	MARY	NA	1999/4/08	DAGOHOY BILA	May	2022
MSWD-2022-C	JON	FARA	DAIG		2000/NA6/08	Bonifacio	June	2021
MSWD-2022-C	FARA	RAE	ERE JEN	NA	2002/6/08	Bugang Norte	June	2021
MSWD-2022-C	BANA	VARE	SANAALL	NA	2002/6/08	Bugang Norte	June	2021
MSWD-2022-C	BAGA	NANA	DAN DAN	NA	2002/6/08	Bugang Norte	June	2021
MSWD-2022-C	NIM	HAN	JEN SAN	NA	2002/6/08	Bugang Norte	June	2021

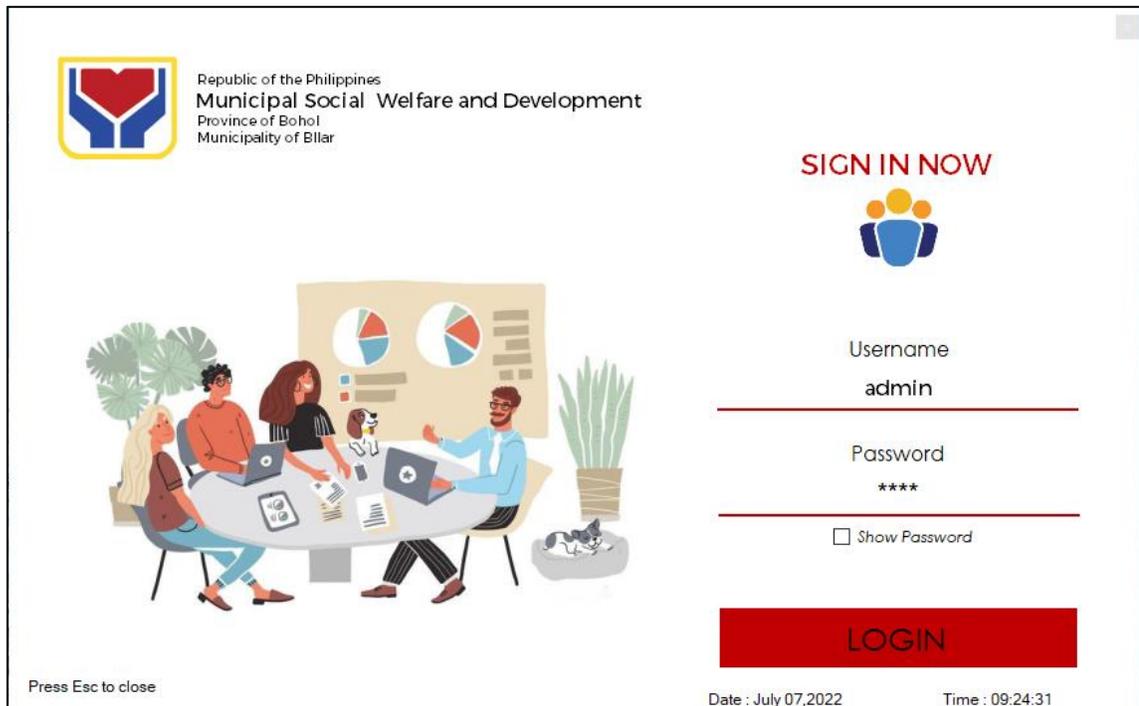
Preview 8. All Grantees Tabular Report

Screen Layout

The Screen layout describes the design of the graphical user interfaces. It includes a wide variety of applications where screens or displays can be used as part of a human-machine interaction and should be distinguished from the functions of a graphical user interface" (ryte.com, 2020). Screen layout is one of the many attributes of the system's user-friendliness. It should be to navigate the system quickly, easily, and to provide clear recognition of the task that users need

to perform.

Preview 9 shows the Log-In of the System



Preview 9. Log-In

Preview 10 shows the Home Page of the System



Preview 10. Home Page

Preview 11 shows the Assistance Individual Crisis Situation (AICS) Form

Service No.: MSWD-2022-059

ASSISTANCE INDIVIDUAL CRISIS SITUATION (AICS)

Date Applied: 09/08/2022

IDENTIFYING INFORMATION

Last Name: Suffix: Sex:

First Name: Status:

Middle Name: Address:

Date of Birth: 09/08/2022 Age: 0 Source of Income:

Place of Birth: Income:

FAMILY COMPOSITION

Last Name	First Name	Middle Name	Age	Relation to the Client	Occupation	Income
<input type="text"/>	<input type="text"/>	<input type="text"/>				
<input type="text"/>	<input type="text"/>	<input type="text"/>				
<input type="text"/>	<input type="text"/>	<input type="text"/>				

PROBLEM PRESENTED

CASE FINDINGS

CLIENT CATEGORY

RECOMMENDATION Financial Assistance: Amount of Financial Assistance extended:

SAVE SHOW LIST UPDATE CLOSE

Date: August 09, 2022 Time: 08:57:25

Preview 11. Assistance Individual Crisis Situation (AICS)

Preview 12 shows the Disaster Assistance Family Access Card Form

Service No.: MSWD-2022-022

DISASTER ASSISTANCE FAMILY ACCESS CARD (DAFAC)

Region: VII Province/District: Bohol, VII

Date Applied: 09/08/2022 Barangay:

Evacuation Center/Site: Serial No.:

HEAD OF THE FAMILY

Last Name: Suffix: Gender:

First Name: Occupation:

Middle Name: Monthly Net Income:

Date of Birth: 09/08/2022 Age: 0 Type of Beneficiary:

FAMILY COMPOSITION

Last Name	First Name	Middle Name	Age	Relation to the Client	Occupation	Education
<input type="text"/>	<input type="text"/>	<input type="text"/>				
<input type="text"/>	<input type="text"/>	<input type="text"/>				
<input type="text"/>	<input type="text"/>	<input type="text"/>				

House and Lot: Code:

Housing Condition: Health Condition:

SAVE SHOW LIST UPDATE CLOSE

Date: August 09, 2022 Time: 08:58:17

Preview 12. Disaster Assistance Family Access Card

Preview 13 shows the Persons with Disability Form

Service No.: MSWD-2022-023

PERSONS WITH DISABILITY

Date Applied: 09/08/2022 Persons with Disability (RR-PPMM-BBB-NNNNNNN):

PERSONAL INFORMATION

Last Name: Middle Name: Suffix:

First Name: Religion:

Type of Disability: Ethnic Group:

Date of Birth: 09/08/2022 Age: 0 Cause of Disability:

Sex: Blood Type: Civil Status:

RESIDENCE ADDRESS

Municipality: Bilar Province/Region: Bohol, VII

Barangay: House No. And Street:

Educational Attainment: Category of Employment:

Status of Employment: Types of Employment:

Occupation:

ORGANIZATION INFORMATION

Organization Affiliated: Office Address:

Contact Person: Tel Nos.:

ID REFERENCE NO.:

Landline No.: Pag-BIG No.:

SSS/GSIS No.: PhilHealth No.:

FAMILY BACKGROUND

Father's Name: Mother's Name: Guardian's Name:

SAVE SHOW LIST UPDATE CLOSE

Date : August 09, 2022 Time : 08:59:42

Preview 13. Persons with Disability

Preview 14 shows the Senior Citizen's ID Card Form

Service No.: MSWD-2022-039

SENIOR CITIZEN'S ID CARD

ID Date Issue: 09/08/2022 ID Card No.: Region: VII Province: Bohol Municipality: Bilar

PERSONAL DATA

Last Name: Suffix:

First Name: Date of Birth: 09/08/2022 Age: 0

Middle Name: Sex:

Address: Civil Status:

Purok: Place of Birth:

SAVE SHOW LIST UPDATE CLOSE

Date : August 09, 2022 Time : 09:00:45

Preview 14. Senior Citizen's ID Card

Preview 15 shows the Solo Parent Form

Preview 15. Solo Parent

Preview 16 shows the list of Assistance Individual in Crisis Situation grantees

Service No.	Date Applied	Last Name	First Name	Middle name	Suffix	Date of Birth	Age	Place of Birth
MSWD-2022-043	2022/8/05	SALCES	ISA SABE	SAN		2022/8/05	0	
MSWD-2022-044	2022/7/12	BUCAG	BUCAG, MIL JANE	NAN		2000/7/12	22	BIL
MSWD-2022-045	2022/7/12	PANOGALON	DARLENE	DADAY	D	2002/7/12	20	BIL
MSWD-2022-046	2022/7/12	OMAC	OMAC, ANN	E		2002/7/12	20	BIL
MSWD-2022-047	2022/7/12	BASBAS	BASBAS, MICHA...			2001/1/12	21	BIL
MSWD-2022-048	2022/7/12	JAROLNE	JAROLNE JEAN	DUTERTE	NA	2002/7/12	20	BIL
MSWD-2022-049	2022/8/05	PLEASE	MENDEZ FRED	MEN		2022/8/05	0	
MSWD-2022-050	2022/7/12	BILOY	FERNIE	BANGA	SA	2002/7/12	20	BIL
MSWD-2022-051	2022/7/31	ME	FERNIE ANN	SAN	n/a	2000/7/31	22	BIL
MSWD-2022-052	2022/7/31	DAN	FDG	DFG	FDG	2000/7/31	22	DF
MSWD-2022-053	2022/7/31	SAH	FDG	DFG	FDG	2000/7/31	22	DF
MSWD-2022-054	2022/2/08	REVILLA	LEONIDA	PANGAN	N/A	1985/4/07	37	VILLARC
MSWD-2022-055	2022/8/04	PLEASE	JEBAL	JAN	NA	2000/2/04	22	SI
MSWD-2022-056	2022/8/08	LINGUES	MARY JANE	IBANEZ	NA	1999/8/09	22	QUEZO
MSWD-2022-056	2022/8/08	LINGUES	MARY JANE	IBANEZ	NA	1999/8/09	22	QUEZO

Preview 16. List of Assistance Individual in Crisis Situation

Preview 17 shows the list of Disaster Assistance Family Access Card grantees

List of Disaster Assistance Family Access Card

Search

Service No.	Region	Site	Municipality/Barangay	Serial No.	Province/District	Last Name	First Name	Middle name
MSWD-2022-001	VII	BASKETBALL C...	BONIFACIO	12345	Bohol, VII		BON BON	
MSWD-2022-018	VII	BASKETBALL C...	Bonifacio	12456	Bohol, VII	BILOY	BEN	FAN
MSWD-2022-019	VII	GYM	Bonifacio	2333	Bohol, VII	BILOY	FERN	
MSWD-2022-020	VII	BCV	BONIFACIO	999	Bohol, VII	dfg	FDG	dg
MSWD-2022-016	VII	SCHOOL	Bonifacio	12342	Bohol, VII	JON	REY JACK	VANS
MSWD-2022-017	VII	BASKETBALL C...	Bonifacio	12234	Bohol, VII	LEE	REY NEE	NEE
MSWD-2022-021	VII	BILAR	Dagohoy	8880	Bohol, VII	LINGUES	MARY	IBANEZ
MSWD-2022-015	VII	BASKETBALL C...	Bonifacio	123452	Bohol, VII	MENDEZ	MEENDEZ FRED	

Total Number: 8

Date : August 09,2022

Preview 17. List of Disaster Assistance Family Access Card

Preview 18 shows list of Person with Disability grantees

List of Persons with Disability

Search

Service No.	PWD No.	Date Applied	Last Name	First Name	Middle name	Suffix	Type of Disability	Date of Birth
MSWD-2022-015	12-3434-354-356...	2022/7/12		SARCE ISA			DEAF OR HARD...	2002/7/...
MSWD-2022-016	43-2454-355-534...	2022/7/12		SARCE JIN			DEAF OR HARD...	2000/7/...
MSWD-2022-017	12-3431-524-656...	2022/7/12		FAMA JAY			Deaf or Hard of ...	2000/7/...
MSWD-2022-001	12-3432-524-656...	2022/7/12	BILOY	FAM			Deaf or Hard of ...	2000/7/...
MSWD-2022-019	12-3432-524-653...	2022/7/12	DAN	RON RON		NA	Deaf or Hard of ...	2000/7/...
MSWD-2022-020	43-5345-355-454...	2022/7/31	DUTERTE	FGH	HK	fd	Deaf or Hard of ...	2000/7/...
MSWD-2022-022	- - -	2022/8/08	LINGUES	MARY	GLORIA LINGUES		Physical Disability	1999/8/...
MSWD-2022-018	12-1432-524-656...	2022/7/12	MENDEZ	JISI JON			Deaf or Hard of ...	2000/7/...
MSWD-2022-021	99-0011-111-111...	2022/8/02	revilla	LEONIDA	LEONARDA PA...	na	DEAF OR HARD...	1985/4/...

Total Number: 9

Date : August 09,2022

Preview 18. List of Person with Disability

Preview 19 shows the list of Senior Citizen grantees

Service No.	Region	Province	Municipality	ID Card No.	ID Date Issued	Last Name	First Name	Middle name
MSWD-2022-029	VII	Bohol	Bilar	1123	2022/7/12		JAN NIEL	
MSWD-2022-030	VII	Bohol	Bilar	2323	2022/7/12		D	
MSWD-2022-037	VII	Bohol	Bilar	2132	2022/8/07	ASAR	ASD	ASD
MSWD-2022-033	VII	Bohol	Bilar	3435	2022/7/12	bucag	BUCAG MIL	
MSWD-2022-036	VII	Bohol	Bilar	3123	2022/8/07	last name	sd	sd
MSWD-2022-038	VII	Bohol	Bilar	7878	2022/8/08	LINGUES	MARY	IBANEZ
MSWD-2022-031	VII	Bohol	Bilar	2345	2022/7/12	LINGUES	JON	JAN
MSWD-2022-032	VII	Bohol	Bilar	1434	2022/7/12	MENDEZ	JALE RAGI	FS
MSWD-2022-035	VII	Bohol	Bilar	1234	2022/8/02	revilla	TEOFILO	garuta
MSWD-2022-034	VII	Bohol	Bilar	3534	2022/7/31	thank you	DSF	dsf

Total Number: 10

Preview 19. List of Senior Citizen

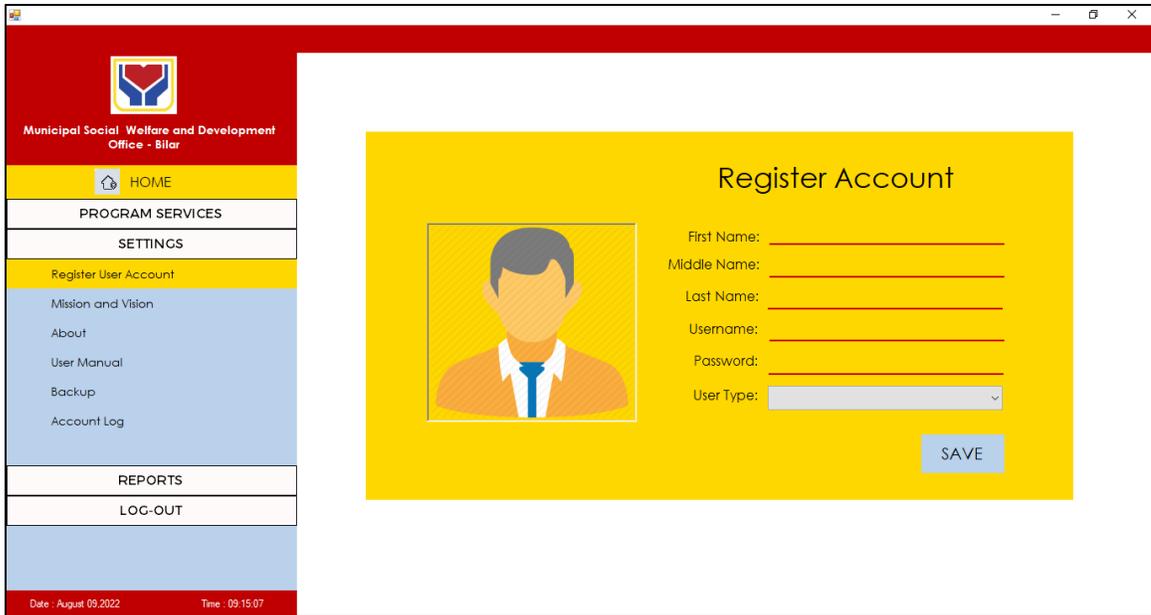
Preview 20 shows the list of Solo Parent grantees

Service No.	ID Card No.	Date Applied	Last Name	First Name	Middle name	Suffix	Date of Birth	Age
MSWD-2022-032	567	2022/8/06	BILOY	FERNIE	BANGA	NA	2000/8/06	22
MSWD-2022-034	8791	2022/8/07	BILOY	JIE	BANGA	NA	1995/1/07	27
MSWD-2022-035	3454	2022/8/07	BILOY	JIE	BANGA	NA	1995/1/07	27
MSWD-2022-029	1115	2022/7/12	dad	SOLO JACK			2002/7/12	20
MSWD-2022-026	1113	2022/7/12	DARE	SACES MAE	A		2020/7/12	2
MSWD-2022-027	1122	2022/7/12	DIOR	Dior, femie			2020/7/12	2
MSWD-2022-024	0	2022/7/12	LINGUES	MARY LINGUES			2002/7/12	20
MSWD-2022-036	888	2022/8/07	LINGUES	MARY	IBANEZ		1999/8/09	22
MSWD-2022-025	1234	2022/7/12	PANODALON	DARLENE GANUB			2000/7/12	22
MSWD-2022-031	12	2022/8/02	revilla	LEONIDA	pangan	na	1985/4/07	37
MSWD-2022-028	12344	2022/7/12	sord	DOSE ISA			2002/7/12	20
#	1	2022/8/07	THANKS	AS	as	a	2000/2/07	0
MSWD-2022-030	545	2022/7/31	yes	DFG	dfg	dfg	2000/7/31	22

Total Number: 13

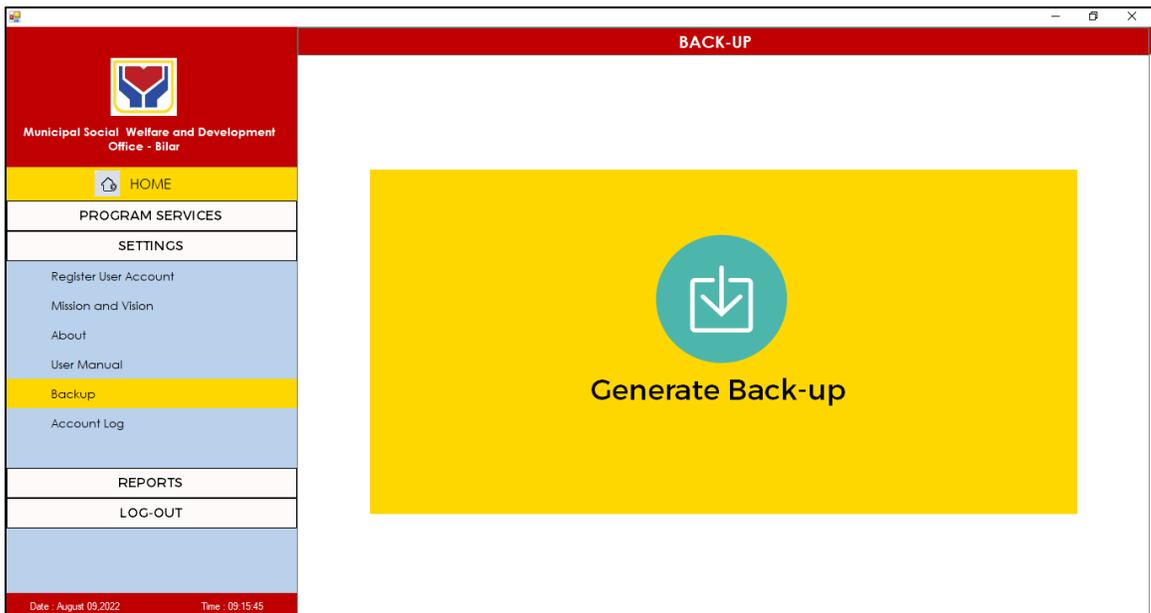
Preview 20. List of Solo Parent

Preview 21 shows the Register Account



Preview 21. Register Account

Preview 22 shows Generate Back-Up



Preview 22. Generate Back-Up

Economic Performance Evaluation

The economic performance of the Municipal Social Welfare Development Office of Bilar was visualized in terms of initial investment. The initial investment is the amount required by the client prior to commence of the operation and implement the system. On the other hand, the annual operating cost is the total amount required in a year of implementation. The initial investment is the amount required by the client before the commencement of the operation and implementation of the system. This includes office supplies, utilities, system maintenance, and other related expenditures. The table below presents the required investment and annual operating cost in the adoption of the system. Based on the result of the analysis, adopting the system requires a total amount of ₱97, 852 for its first year of implementation.

The estimated amount would provide an idea to the client whether to adopt the computerization for human resource records management system or not.

Table 15

Initial Investment and annual Operating Cost

Item	Qty	Unit	Unit Price	Total
A. Initial Investment				
1. Hardware				
Desktop Computer	3	Set	₱ 23,000.00	₱ 69,000.00
Printer	1	Pieces	₱ 8,000.00	₱ 8,000.00
RJ 45	6	Pieces	₱ 10.00	₱ 60.00
Hub Switch	1	Pieces	₱ 2,500.00	₱ 2,500.00
UTP Cable	9	Meters	₱ 12.00	₱ 102.00
Sub-Total				₱ 79,662.00
2. Software				
Software Licensing			₱ 8,000.00	₱ 8,000.00
Software Installation			₱ 1,000.00	₱ 1,000.00
Sub-Total				₱ 9,000.00
Total Initial Investment Cost				₱ 88,662.00
B. Annual Operating Cost				

1. Office Supplies				
Bond paper	2	Reams	₱ 300.00	₱ 300.00
Ball Pen	5	Pieces	₱ 8.00	₱ 40.00
Stapler	1	Pieces	₱ 90.00	₱ 90.00
2. Utilities				
Electricity	12	Months	₱ 230.00	₱ 2,760.00
3. General Services				
System Maintenance	4	Quarters	₱ 1,500.00	₱ 6,000.00
Total Annual Operating Cost				₱ 9,190.00

Testing and Evaluation

System testing of the application is usually done on complete application software to evaluate software's overall compliance with the business, functional, and end-user requirements. In system testing, a software test professional aims to detect or bugs both within the interfaces and also within the software as a whole. However, in the integration testing of the application or software, the tester aims to detect the bugs or defects between the individual units that were integrated. During system testing, the focus is on the software design, behavior and even the believed expectations of the customer. Thus, a significant aspect of the design should be developed to ensure that the artifact meets the specified requirements, that is, the evaluation of the system. System usability was used as a parameter in this study.

System Usability

The developers adopted a system usability questionnaire by Lewis, J. R. (1995). Usability test utilized was IBM Computer Usability Satisfaction Questionnaires: Psychometric Evaluation and Instructions for use." The system

was conducted by the developers at MSWD Office Población, Bilar, Bohol on May 23, 2022 from 8:00 A.M to 9:40 A.M. in the morning. It took 1 hour and 40 minutes during the demonstration and hands-on activity. The developers demonstrated how the system must be used for testing. The system was demonstrated in detail as to its specific processes, as: the inquiry process, availment of the services, registration process, and the generation of report.

Based on the results of the survey, the respondents gave a general rating of 6.03 with an interpreted of "agree". The result generally indicated that the system was usable in the management of social welfare development programs information. Specifically, the expectations of the respondents as to functions and capabilities had been achieved by the system. Moreover, the system had a clear organization of information, the content was very comprehensive, with good user interface and ease of use.

Table 16
System Usability Result

Criteria for System Usability	Weighted Mean	Rating
1. Overall, I am satisfied with how easy it is to use this system.	6.2	Agree
2. It was simple to use this system.	6.3	Agree
3. I can effectively complete my work using this system.	6.1	Agree
4. I am able to complete my work quickly using this system.	6.0	Agree
5. I am able to efficiently complete my work using this system.	6.1	Agree
6. I feel comfortable using this system.	6.1	Agree
7. It was easy to learn to use this system.	6.1	Agree
8. I believe I became productive quickly using this system.	5.9	Agree

9. The system gives error messages that clearly tell me how to fix problems.	5.7	Agree
10. Whenever I make a mistake using the system, I recover easily and quickly.	5.9	Agree
11. The information (such as on-line help, on-screen messages and other documentation) provided with this system is clear.	5.9	Agree
12. It is easy to find the information I need.	6.0	Agree
13. The information provided with the system is easy to understand.	6.1	Agree
14. The information is effective in helping me complete my work.	6.3	Agree
15. The organization of information on the system screens is clear.	5.9	Agree
16. The organization of information on the system screens is clear.	6.0	Agree
17. I like using the interface of this system.	5.9	Agree
18. This system has all the functions and capabilities I expect it to have.	5.8	Agree
19. Overall, I am satisfied with this system.	6.3	Agree
AVERAGE WEIGHTED	6.03	Agree

Chapter 3

SUMMARY OF FINDINGS, CONCLUSION, AND RECOMMENDATION

Summary of Findings

Based on the results of the study, the developers found out that the municipal social welfare development office in the municipality of Bilar uses the manual method in recording and management of grantees data and information. Moreover, the said office has been using Microsoft Office in the printing of grantees' information. This practice had contributed to frequent loss of files due to misplacement, improper segregation of documents which led to slow retrieval of records, and time-consuming generation of reports. There was a need to organize and secure the records for effective and efficient data management. Computerized operation of recording to prevent loss and misplacement data and the availability of statistical and graphical reports were seen as the best solutions. The development of the system was guided by analyzing the current processes involved in the present system in recording the grantees data and information in MSWD Office. The respondents of the study were the head of the MSWD Office, IT In-charge, focal persons/staffs and IT experts. Data were gathered through personal interview with guide questions along with the reviewed documents.

The Record Management System of the Social Welfare and Development Office in the Municipality of Bilar was developed with the modules administration, acquisition, data management and reporting to cover the transaction of the establishment, based on the identified needs. Based on the findings, the system

was highly acceptable by the office head and staffs as it results to an easier acquisition process, more convenient way in data management, more secure administration, and better generation of reports. The developed system was pilot tested and a survey was conducted to the end-users to rate the developed system according to the system usability standard. Based on the findings, the target users "AGREE" with the usability of the system in the operation of the office with an average weighted mean of 6.03. This means that the respondents believed and are confident that the system is usable. It also reveals that the system is simple and easy to use, effective, informative, easy to understand, and clear. The respondents also agree with the capabilities and functions of the developed system.

Conclusion

Based on the problems identified on the operations of the record management of the said office, it adopts the manual processes that led to loss of files. After a thorough design and development, the presented record management system was successfully developed and computerization is possible. Likewise, the presented record management offers modules that are highly acceptable by the office head and staffs such as easier acquisition process, more convenient way in data management, more secure administration, and better generation of reports. The users believed and were confident that the system was very usable. It has functions and features that were highly acceptable by the intended users. The system enables the users to maintain and organize office processes and

information for better decision-making. Adaption of the system requires minimal investment and incurs low operational cost, hence, affordable and economical.

Recommendations

Based on the above-mentioned conclusion, it is highly recommended that the developed system should be implemented. For a successful implementation of the developed system, the following recommendations should be taken.

1. Municipal Social Welfare and Development Office in Bilar must adopt the new system to improve the record management and to identify possible system bugs and errors.
2. Training or orientation seminar must be conducted by the developers to the primarily users to familiarize and be oriented with the new features and operation of the system.
3. There should be regular maintenance facilitated by the program user of the system to ensure its security and integrity.
4. The management should ensure that every staff has an area of concern to avoid duplication of work.

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APPENDICES

APPENDIX A

Letter of Intent



Republic of the Philippines
Bohol Island State University
Bilar Campus
Zamora, Bilar, Bohol



March 25, 2022

MARIA EZRA T. ACHAS
Head, Municipal Social Welfare and Development Office
Municipality of Bilar
Bilar, Bohol

Ma'am:

Good day!

We, the 4th Year Students of Bachelor of Science in Computer Science of Bohol Island State University Bilar Campus will conduct a System Development project (Thesis) as requirements for graduation for the degree of Bachelor of Science in Computer Science.

In this regard, we would like to ask your good office to allow us to conduct system study basing on your recording management system as basis for our proposed automation.

We assure you that we shall honor secrecy and privacy to all data and information we shall be handling during our data collection which include interview, observation and document review. As we go along with our study, your approval will be a great help to the success of our study.

We anticipate your favorable response regarding this matter.

Thank you very much and more power!

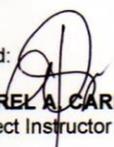
Respectfully yours,

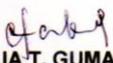

FERNIE ANN B. BILOY


MARY JANE I. LINGUES


FREDERICK L. MENDEZ
Researchers

Noted:


DARREL A. CARDAÑA
Subject Instructor


CECILIA T. GUMANOY
Thesis Adviser

Recommended by:


SHEILA G. TABUNO
Chairperson, DCoS

Endorsed by:


ARLEN GUDMALIN, PhD
Dean, CTAS

Approved by:


MARIA EZRA T. ACHAS
Head, MSWDO

Letter of Implementation



Republic of the Philippines
Bohol Island State University
Bilar Campus
Zamora, Bilar, Bohol



May 23, 2022

MARIA EZRA T. ACHAS
Head, Municipal Social Welfare and Development Office
Municipality of Bilar
Bilar, Bohol

Ma'am:

Greetings!

It is our pleasure to inform you that the system "RECORD MANAGEMENT SYSTEM OF THE SOCIAL WELFARE AND DEVELOPMENT OFFICE IN THE MUNICIPALITY OF BILAR" now in its final phase. With this, we would like to conduct benchmarking activities as part of implementation.

This will be conducted on May 23, 2022 in your office at any time of your convenience. This activity will allow you to assess our developed system and give feedback as well.

By this time, we would like to express our gratitude for allowing us to conduct our thesis study. We are hoping for future collaboration with you our dear client.

May the good Lord continually bless you and your office.

Thank you very much and more power!

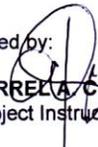
Respectfully yours,


FERNIE ANN B. BILOY


MARY JANE I. LINGUES


FREDERICK L. MENDEZ
Researchers

Noted by:


DARRELA CARDAÑA
Subject Instructor

Recommended by:


SHEILA G. TABUNO
Chairperson, DCoS


CECILIA T. GUMANOY
Thesis Adviser

Endorsed by:


ARLEN B. GUDMALIN, PhD
Dean, CTAS

Approved by:


MARIA EZRA T. ACHAS
MSWDO Head

Letter of Approval Questionnaire Distribution and Implementation



Republic of the Philippines
Bohol Island State University
Bilar Campus
Zamora, Bilar, Bohol



May 23, 2020

MARIA EZRA T. ACHAS

Head, Municipal Social Welfare and Development Office
Municipality of Bilar
Bilar, Bohol

Dear Ma'am, Greeting!

We, the system researcher of the new automated system, wherein we integrated computer application in the basic processes of the business/establishment had come up with the final phase of our project development which is the testing and implementation. We have put into operation the developed system and we want you take part in the testing process.

We would like to get your views and opinion in the developed system, thus this survey is conducted. We wished to know your feedback as we work for the improvement of the system. It is rightfully needed to hear your side since it would you who would be using the developed system. Your input would be very valuable.

We really would appreciate it if you would take time and complete the questionnaire. The data that would be gathered shall be used for rating statistics in our developed system. If there are items you are confused with, feel free to ask and we would gladly assist you.

As we end this project, we wish to convey our heartfelt gratitude to the establishment for allowing us to conduct the study, the people who and helped and of course you our dear clients/end users/customers who had inspire us to dream greater than what was conceivable by the mind. Thank you so much!

Together let us build a better world for everyone. Good day!

Researchers

APPENDIX B

System Usability Questionnaire

Direction:

- Please rate the usability questionnaire
- Try to respond to all of the items
- For items that are not applicable, use N/A
- Make sure these fields are filled in

Rating Scale:

- 7 - Strongly Agree
- 6 - Agree
- 5 - Tend to Agree
- 4 - Neither Agree or Disagree
- 3 - Tend to disagree
- 2 - Disagree
- 1 - Strongly Disagree

Criteria for System Usability	Rating	Comments
20. Overall, I am satisfied with how easy it is to use this system.		
21. It was simple to use this system.		
22. I can effectively complete my work using this system.		
23. I am able to complete my work quickly using this system.		
24. I am able to efficiently complete my work using this system.		
25. I feel comfortable using this system.		
26. It was easy to learn to use this system.		
27. I believe I became productive quickly using this system.		
28. The system gives error messages that clearly tell me how to fix problems.		
29. Whenever I make a mistake using the system, I recover easily and quickly.		
30. The information (such as on-line help, on-screen messages and other documentation) provided with this system is clear.		
31. It is easy to find the information I need.		

32. The information provided with the system is easy to understand.		
33. The information is effective in helping me complete my work.		
34. The organization of information on the system screens is clear.		
35. The interface of this system is pleasant.		
36. I like using the interface of this system.		
37. This system has all the functions and capabilities I expect it to have.		
38. Overall, I am satisfied with this system.		

Based on Lewis J. R. (1995) IBM Computer Usability Satisfaction Questionnaires: Psychometric Evaluation and Instructions for Use

Guide Questions for Interview

Head

1. Who are the in-charge in doing the transactions in the MSWD Office?
2. What are the necessary information and requirements needed in acquiring the services?
3. What are the procedures upon acquiring the services?
4. How does the in-charge locate the former applicant's information?
5. What are the problems encountered in the operation and processes of managing the records in your office?
6. How are reports being done in the present system?
7. Are you willing to accept new technology such as computerization of the system?

Staff

1. What are the problems encountered in the operation and processes of managing the records in your office?
2. What are the necessary information and requirements needed in acquiring the services?
3. What are the procedures upon acquiring the services?
4. Where are this information recorded?
5. How does the in-charge locate the former applicant's information?
6. How are the applicant's records kept, saved and retrieved?
7. How is the recording of the applicants done?
8. How are reports being done in the present system?

9. Are you willing to accept new technology such as computerization of the system?

IT In-charge

1. What are the problems encountered in the operation and processes of managing the records in your office?
2. What are the problems encountered in the security of files?
3. How secured the files are?
4. Are you willing to accept new technology such as computerization of the system?

Statement of the Problem

5. What are the current processes involved in the recording of the data and information in the Municipal Social Welfare and Development Office?
6. What are the needs and problems encountered in the storage and retrieval of the gathered documents?
7. What could be the possible solutions for the problems encountered?
8. What is the level of the system acceptability as perceived by the target users?

APPENDIX C

User Manual

A. Accessing the System

Step:

1. Click on the system shortcut.
2. Input the "Username" and "Password" and choose user type.
3. Click "Login" button to access the system.
4. Homepage will show for the main menu.

B. Adding Assistance Individual Crisis Situation Form

Step:

1. Click "Program Services".
2. Then select "Assistance Individual Crisis Situation" from the dropdown menu.
3. Input the information of the applicants.
4. Click "Save" button.
5. Confirmation "Save Complete".

C. Adding Solo Parent Form

Step:

1. Click "Program Services".
2. Then select "Solo Parent" from the dropdown menu.
3. Input the information of the applicants.
4. Click "Save" button.
5. Confirmation "Save Complete".

D. Adding Senior Citizen Form

Step:

1. Click "Program Services".

2. Then select "Senior Citizen" from the dropdown menu.
3. Input the information of the applicants.
4. Click "Save" button.
5. Confirmation "Save Complete".

E. Adding Disaster Assistance and Family Access Card Form

Step:

1. Click "Program Services".
2. Then select " Disaster Assistance and Family Access Card" from the dropdown menu.
3. Input the information of the applicants.
4. Click "Save" button.
5. Confirmation "Save Complete".

F. Adding Person with Disability Form

Step:

1. Click "Program Services".
2. Then select " Person with Disability " from the dropdown menu.
3. Input the information of the applicants.
4. Click "Save" button.
5. Confirmation "Save Complete".

G. Viewing the List of Assistance Individual in Crisis Situation Grantees

Step:

1. Click " Program Services ".
2. Then select " Assistance Individual Crisis Situation " from the dropdown menu.
3. Click show list then view the information of the AICS grantees.

H. Viewing the List of the Solo Parent Grantees

Step:

1. Click " Program Services ".
2. Then select " Solo Parent" from the dropdown menu.
3. Click show list then view the Solo Parent grantees.

I. Viewing the List of the Senior Citizens Grantees

Step:

1. Click "Program Services".
2. Then select "Senior Citizen Application" from the dropdown menu.
3. Click show list then view the SCA grantees.

J. Viewing the List of the Disaster Assistance Family Access Card Grantees

Step:

1. Click "Program Services".
2. Then select " Disaster Assistance Family Access Card " from the dropdown menu.
3. Click show list then view the DAFAC grantees.

K. Viewing the List of the Person With Disability Grantees

Step:

1. Click "View".
2. Then select "Summary of PWD Applicants" from the dropdown menu.
3. Click show list then view the PWD grantees.

L. Updating AICS Grantees Information

Step:

1. Click "Program Services".
2. Then select "Assistance Individual in Crisis Situation" from the dropdown menu then click show list.
3. On the data grid view double click the grantees you want to update.
4. Fill the date you want to update Click "Update" button.
5. Confirmation "Updated Successfully".

M. Updating Solo Parent Grantees Information

Step:

1. Click "Program Services".
2. Then select " of Solo Parent" from the dropdown menu then click show list.
3. On the data grid view double click the grantees you want to update.
4. Fill the date you want to update Click "Update" button.
5. Confirmation "Updated Successfully".

N. Updating Senior Citizen Grantees Information

Step:

1. Click " Program Services ".
2. Then select "List of Senior Citizen" from the dropdown menu then click show list.
3. On the data grid view double click the grantees you want to update.
4. Fill the date you want to update Click "Update" button.
5. Confirmation "Updated Successfully".

O. Updating Disaster Assistance Family Access Card Grantees Information

Step:

1. Click " Program Services ".
2. Then select "List of Disaster Assistance Family Access Card " from

the dropdown menu then click show list.

3. On the data grid view double click the grantees you want to update.
4. Fill the date you want to update Click "Update" button.
5. Confirmation "Updated Successfully".

P. Updating Person with Disability Grantees Information

Step:

1. Click "Program Services".
2. Then select "List of Person with Disability " from the dropdown menu then click show list.
3. On the data grid view double click the grantees you want to update.
4. Fill the date you want to update Click "Update" button.
5. Confirmation "Updated Successfully".

Q. Settings (Generating Reports)

Step:

1. Click "Reports".
2. Then Select either graphical or tabular reports from the dropdown menu.
3. Select from the radio button you want to generate reports.

R. Settings (User Account)

Step:

1. Click "Settings".
2. Then Select "User Account" from the dropdown menu.
3. Fill the data needed in creating new user.

S. Settings (About)

Step:

1. Click "Settings".

2. Then Select "About" from the dropdown menu.
3. You can now view the about of the system and developers.

T. Settings (Mission and Vision)

Step:

1. Click "Settings".
2. Then Select "Mission and Vision" from the dropdown menu.
3. You can now view the Mission and Vision of MSWD Office.

U. Settings (User Manual)

Step:

1. Click "Settings".
2. Then Select "User Manual" from the dropdown menu.
3. You can now view the manual in using the system.

V. Back-Up

Step:

1. Click "Settings".
2. Then Select "Back-Up" from the dropdown menu.
3. Then click generate backup and you can now generate backup for the system.

W. Account Log

Step:

1. Click "Settings".
2. Then Select "Account Log" from the dropdown menu.
3. You can now view users who logged in the system.

X. Logout

Step:

1. Click "Logout" from the main menu.
2. You can now exit from the homepage and back to the Login.

RESEARCHER'S BIODATA

Name	: Fernie Ann B. Biloy	
Nickname	: "Bloy"	
Date of Birth	: June 27, 2000	
Place of Birth	: Dagohoy, Bilar, Bohol	
Age	: 21	
Home Address	: Dagohoy, Bilar, Bohol	
Email Address	: fernieannbiloy@gmail.com	
Religion	: Lord Jesus Christ – Jesus Christ for the Nations Inc.	
Citizenship	: Filipino	
Father's Name	: Felipe L. Biloy	
Mother's Name	: Minerva B. Biloy	

EDUCATIONAL BACKGROUND

Elementary	: Dagohoy Elementary School : Dagohoy, Bilar, Bohol : 2011-2012
Secondary	: Bilar National High School : Yanaya, Bilar, Bohol : 2017-2018
Tertiary	: Bohol Island State University- Bilar Campus : Zamora, Bilar, Bohol : 2021-2022
Degree Earned	: Bachelor of Science in Computer Science
Worked Experience	: On the Job Training : Bisu Bilar Campus : Zamora, Bilar, Bohol : 2022

