Barangay Hall Management System

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May, 2022

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We hereby declare that the work which are being presented,
entitled **Barangay Hall Management System** in partial
fulfillment of the requirement for the Undergraduate of the
Degree of Bachelor of Science in Computer Engineering and submitted to
Batangas State University –Alangilan Campus

At

May, 2022

Mark Rondol P. Abdon May, 2022

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Abstract

Nowadays, computer technologies have become an integral part of living. People across the globe are using technology to make different tasks simpler and easy to do. One of the most significant contributions of technology is in the government sector. Different government units have significantly benefited from the use of computer technologies, especially barangay units.

The project “Barangay Management System” is designed to be used by barangays. The system will automate the processes and transactions in the barangay. Conventionally, most of the barangay use manual approaches in doing their everyday activities and transactions. They use the pen and paper approach in recording and face-to-face in doing transactions. This method is outdated during the techno-era we’re having right now. It is highly prone to human errors and inefficient in providing satisfying service to the residents. There is an intensified need to improve the system used in operating and conducting a transaction in the barangay and its residents.

The most effective way to resolve the concerns mentioned above is the employment of an IT-based solution. The researchers aim to develop an automated management system that will be used by barangays. The said system will eliminate all the problems and errors encountered in the manual process.

The implementation of the system will allow barangay duty officers to electronically make and keep records, reports, services. The system will increase the response time of the duty officers in responding to the needs of the residents. The implementation of the system will improve the overall services provided by the barangay to its residents.

Introduction

In today's world, it is essential to stay one step ahead of the competition in order to keep pace with the advancements that technology brings. As the population of a barangay can range from less than 1,000 to approximately more than 200,000 people, it would really be of great use to these barangay halls to have a computerized system. That is so that they could speed up the completion of some tasks, which, if done by hand, would require a significant amount of time and effort. Additionally, it can lessen the amount of bother in the workplace and deliver accurate and quick results, both of which are requirements for any barangay hall. As our target business, which will be specified throughout this paper, the proponents have selected an information system that will be referred to as the "Barangay Hall Management System." This automated system, which is both quicker and more secure than the conventional method, will be used for the distribution of barangay information, requirements, and tracking records. The proponent’s plan is to replace the manual technique of each barangay hall with this proposed project, this will result in an improvement to most of barangay-related functions such as efficiency in profiling, issuing barangay clearances, generating reports, etc.

Motivation

The lack of an affordable system that can provide transparency, accountability, and efficiency in barangay activities motivates us to improve this product. The study's researchers are working on a type of study called the Barangay Hall Management System, which will record every barangay record and information.

Aim of the Software

This software is developed to help computer engineering students to learn about software development designing using Java programming language from their basic capabilities to build a complete working application from scratch. Further, it gives insight about how GUI interacts with server-side language, Java, and finally with MySQL database using XAMPP.

Background of the Study

The barangay hall system stores information such as the activity ID number, the name of the activity, the project program output date, the money amount, the source accountable persons, and any comments. The term Management Information System was coined to differentiate a computer program from traditional accounting professions. The Barangay Residents Record Management and Certificate Issuance System aims to improve the process of issuing certificates and keeping track of all residents' personal information. The census and demographic profile, the history of the Barangay and land area, the elected barangay officials, the economics, and religion are all records that the Barangay Hall Management System can handle. The primary goal of this research is to provide a detailed, dependable, and secure record of all data. Puroks English are smaller areas inside a barangay.

Related Works

This research focuses on the Barangay's records management system. Permits, certificate transactions, community tax, business taxes, and other fees are handled by the Barangay treasurer/secretary. They are also responsible for keeping track of records, capturing and maintaining up-to-date records of all issuance transactions, as well as daily, monthly, and annual reports. These records are adequate for a variety of uses requiring proper, consistent, and secure file storage. Until now, they had relied on a manual procedure to provide all services to their constituents. They manually processed transactions on a daily basis, with a focus on obtaining Barangay clearance, certification, cedula, and permissions. The constituents who make the request must go through a lengthy process before the assignment can be completed. They used folders and logs of papers for keeping files, updating, accessing data, and documenting expenses. In retrieving, documenting, computing, and processing financial and accounting data, the employees met challenges and a lengthy procedure.

As a result, the researchers advised that Barangay implement a records management system that will allow for safer storage of financial information, faster file retrieval, increased file dependability and correctness, and faster file tracking. Proposing software for a records management system is extremely beneficial to the employees, as it allows them to transition from handwritten records and manual issuing of barangay clearance and certificates, as well as revenue and expense reports, to an automated processing system. The recommended solution will provide safer financial record storage, faster file retrieval, increased file dependability and accuracy, and faster file tracking. Proposing software for the accounting system is extremely beneficial to the employees, as it allows them to transition from handwritten records and manual issuing of barangay clearance and certificates, as well as income and expense reports, to an automated processing system. (“Barangay Resident Record Management and Certificate Issuance System,” n.d.)

Background and Related Work

This Case study looks at the problem of setting up a Barangay. In existing system there are few problems:

- For applying for Barangay Clearance, Indigency, Barangay Certification, etc. the applicant has to line up at the barangay hall to get his / her required paperwork. In this method time and manual work is required.
- While in the Barangay hall the assigned employee needs to assist all the applicants and encode the information manually.
- The process of paperwork takes a lot of time to finish because of the manual encoding of the information and because there is only one encoder he cannot enter it all at once.

Therefore, to solve this issue, the researchers propose an “Barangay Hall Management system, originally designed to assist the barangay employee, and this system can be used just for government purposes.

The main advantage of this system is that it greatly simplifies the encoding of applicant and Barangay information. The entire process of gathering information is automated, which substantially reduces the burden on the Barangay.

Expected Benefits are:

1. Employees at the barangay hall will have less work to do as a result of this.
2. The system will assist in lowering labor costs.
3. Because it is a machine, the system will be less likely to make mistakes.
4. Due to the speed of execution and the number of optimal screens to allow the greatest throughput, this would avoid long lines at the barangay hall.

Program Requirements

The Barangay Hall Management system's goal is to keep the barangay hall in good repair. This system was built using Awt Java components. While the user interface isn't particularly pleasant, the system functions exactly how a hall management system should. You may add the position, task, and time in and out to this hall management system as part of this project.

Implementation

Hardware/Software Interface

This section lists the minimum hardware and software requirements needed to run the system efficiently.

Hardware Interface

- Desktop Computer

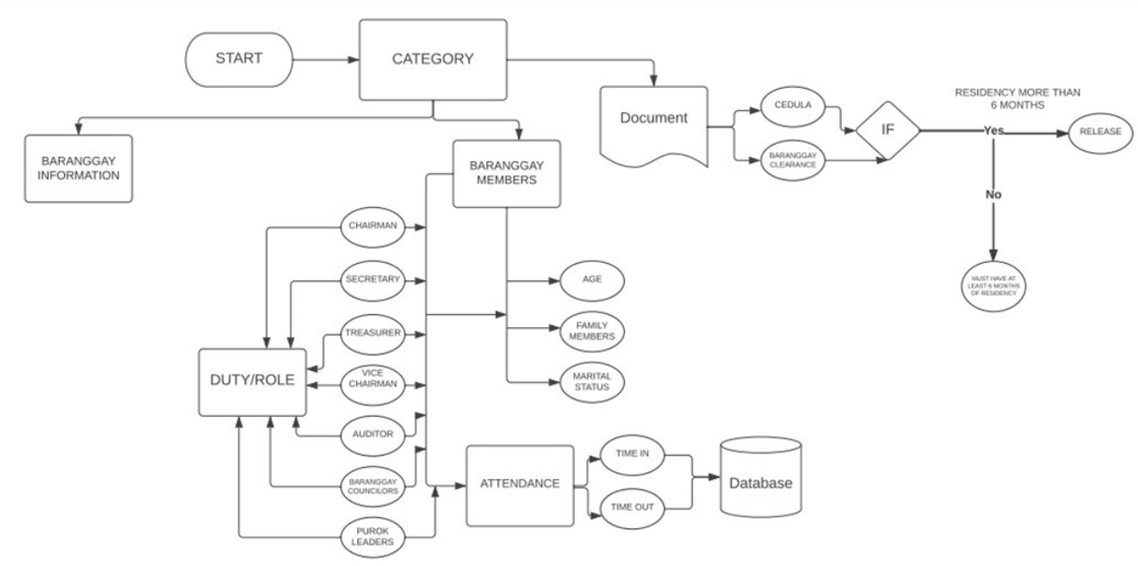
Software Interface

- Operating System:
- Windows (Vista/7 or above) Web Browser:
- IE 10 or above, Mozilla FF 31 and above or Google Chrome
- Drivers: Java Runtime Environment
- Integrated Development Environment: Eclipse J2EE or Apache Tomcat

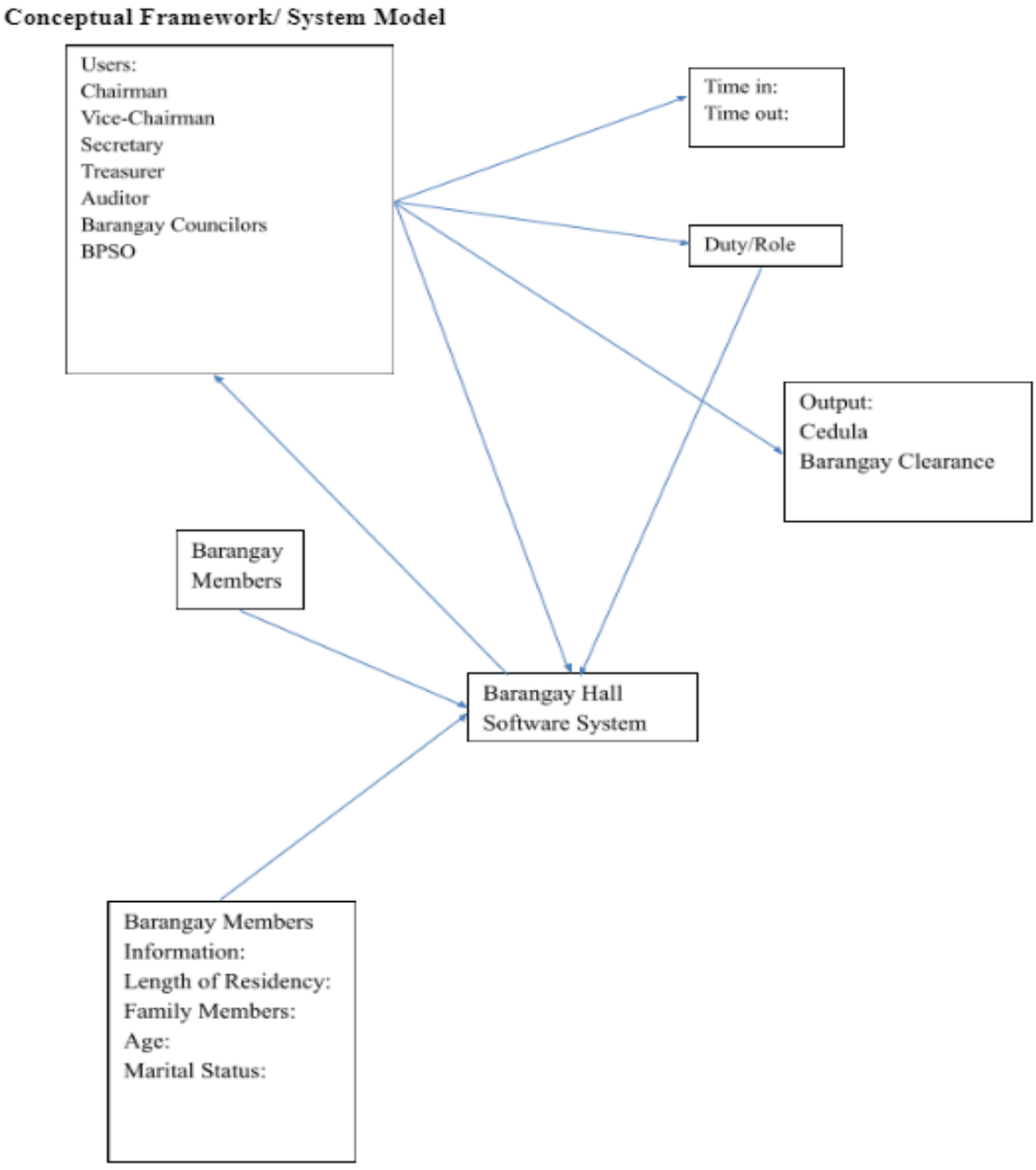
Functional Requirement Specifications

Activity Diagram

This section lists the activity diagram and describes the flow of the activities in the system. A detailed description is then given after the figure for each activity.



CONCEPTUAL FRAMEWORK



Features/Module

Explore a topic or issue of current importance.

With the ongoing change and evolution of society's preferences and requirements, new approaches and inventive strategies can emerge to survive and continue to function as required by community members. People can profit greatly from the establishment of an information system since it aids in the control of internal and external processes. The Barangay Hall Information System facilitates decision-making and simplifies the delivery of essential information, allowing for better decisions to be made more quickly. The Barangay Information System may be efficiently applied to improve communication between officials and community people.

Combine facts and opinions.

Any government facility striving to enhance and to give a stronghold in the future has to instill a well-organized Information System. An IS can help in analyzing independent processes and enables organized work activities. Hence an information system entitles the companies to understand how the company generates, develops, and sells the services or products.

Information Storage

All government facilities should keep a log of their actions in order to understand the causes of problems and, as a result, propose solutions. Operational data, revision history, communication records, and documents are all easily stored with the Information System. Manual data storage takes a long time and costs a lot of money. The information is stored in a database by a sophisticated information system, which makes the process of finding the data much easier.

Simplified Decision Making

The Information System facilitates decision-making and simplifies the delivery of essential information, allowing for better decisions to be made more quickly.

Behavioral Change

An excellent information system can be built to improve communication between employers and the government. Information systems operate better because they organize documents and files into folders that officials can access and share. This guarantees that information flows smoothly between management and lower-level staff. This also allows front-line personnel to participate in decision-making and thus feel more motivated and dedicated to completing a task.

Conclusions and Future Work

Our barangay hall software is a collection of aviation-related data enhanced by the people who made it happen and linked to the barangay area. Personal information and related efforts are used by the community to make procedural advancements more than merely noteworthy occurrences on a timeline. When residents required community-related documents, they could readily obtain them from the barangay official. We, the creators, want to make life easier in our community. Some of the confusion created by typos and a few mislabeled graphics might be alleviated with more careful proofreading. The content's legitimacy is unaffected by these evident flaws, which will almost certainly be fixed in the next version of the technology we're using.

To declare that we have identified all of the causes of the slow system, which takes several minutes to provide credentials and required documents. There is no wait in the process, unlike in other countries. As a result, we have marked a complete evolution of our technique using AI and other IT solutions.

Recommendations:

- Improvements in GUI or the appearance of the software created called the Barangay Hall Management System.
- Make this an application for easier access.
- Make this accessible not just by barangay officials but the residents too (for complaints, important information and announcements)
- Add additional features such as other important permits that the residents need (not limited to the features that are in this paper)
- Conduct a profiling for all the residents in the barangay.

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- https://www.youtube.com/watch?v=obmNZNP8euU

CODE LINK:

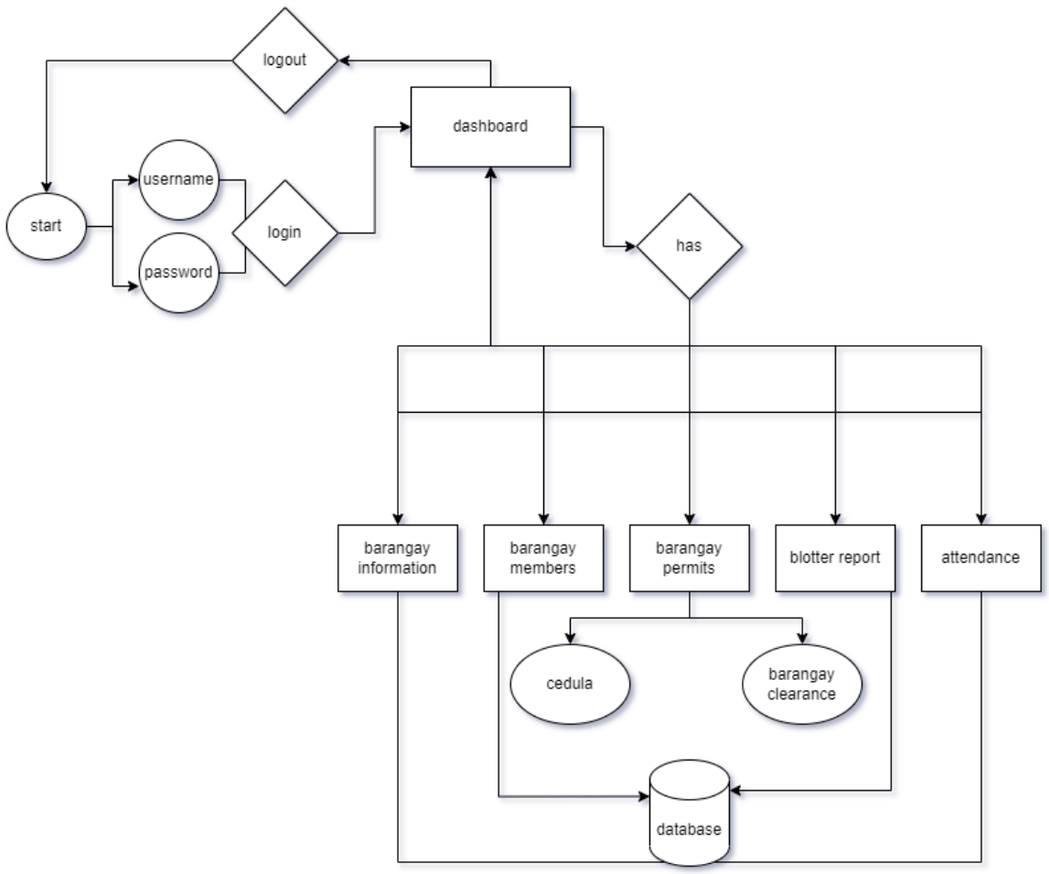
Program: Barangay Management System zip file

Codes: Barangay Codes

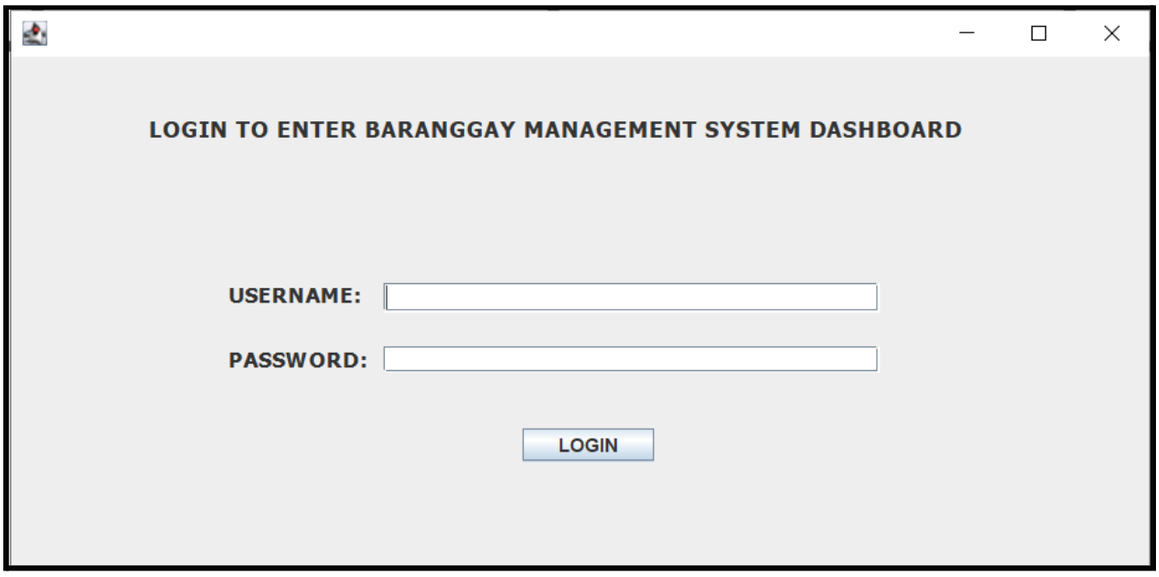
APPENDICES

This section includes figures for ER Diagram and various Software application images.

ER DIAGRAM:



LANDING PAGE



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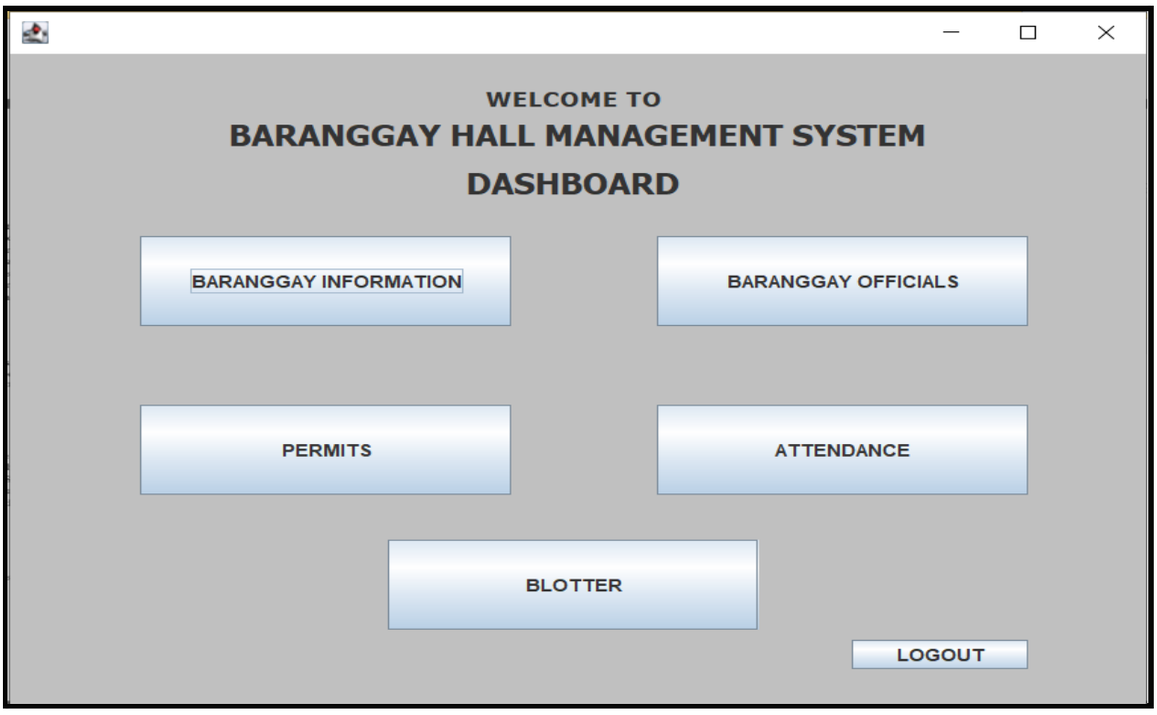
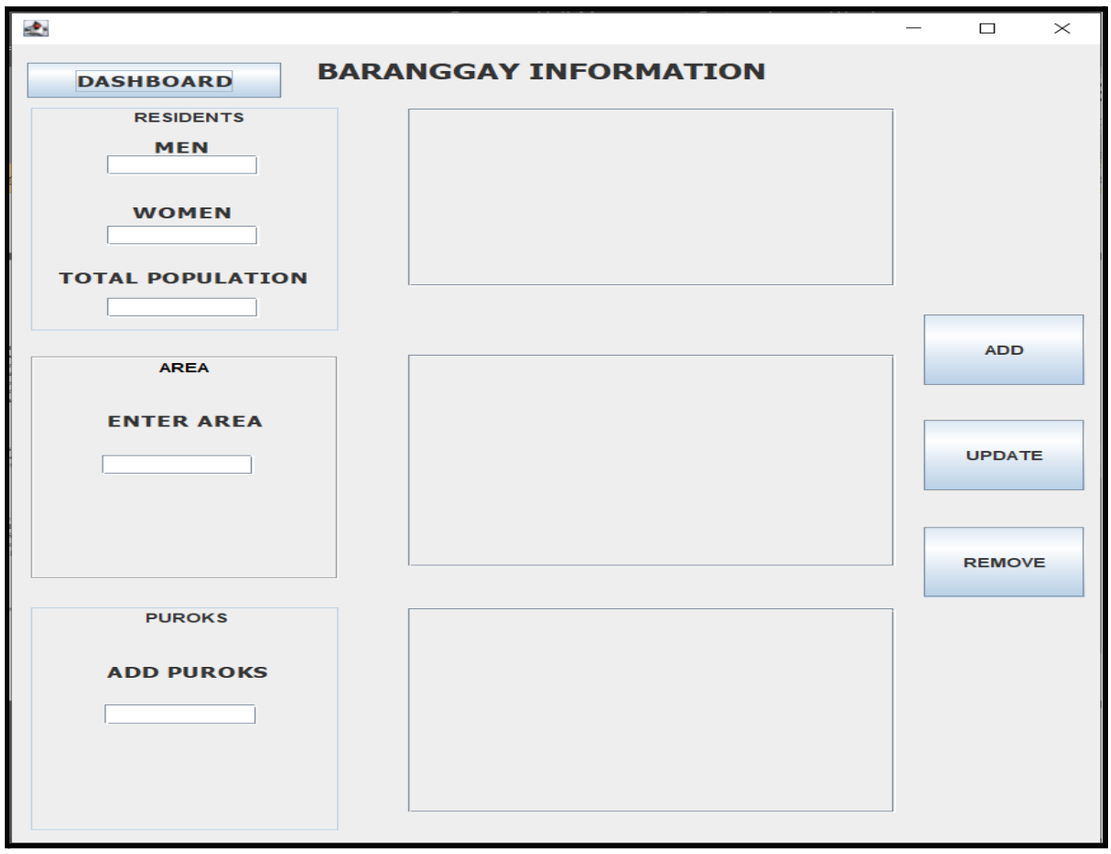
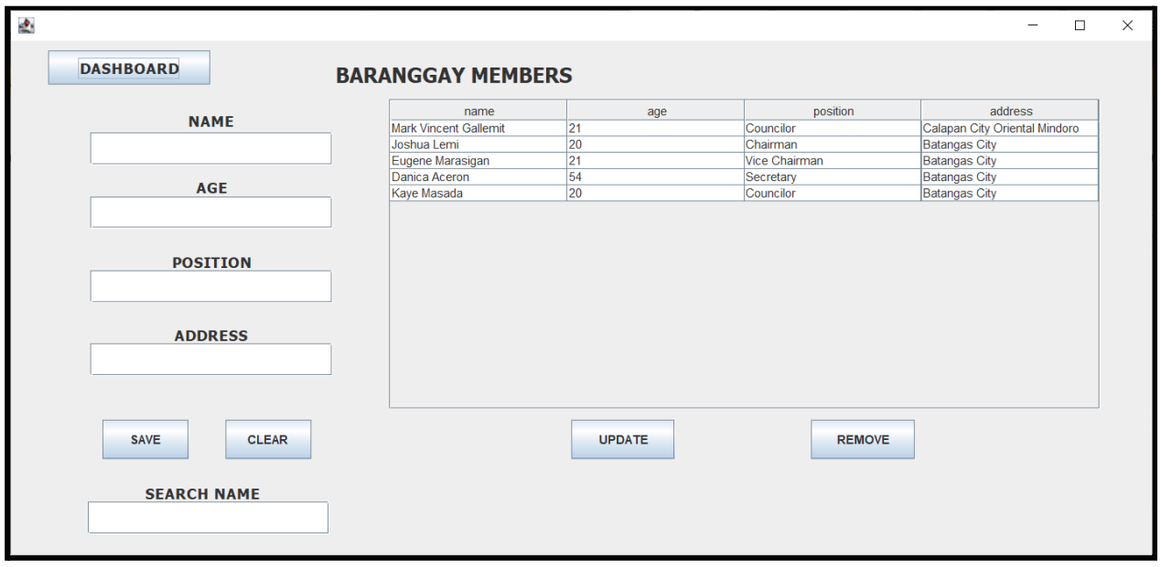


BARANGAY INFORMATION



BARANGAY OFFICIALS:



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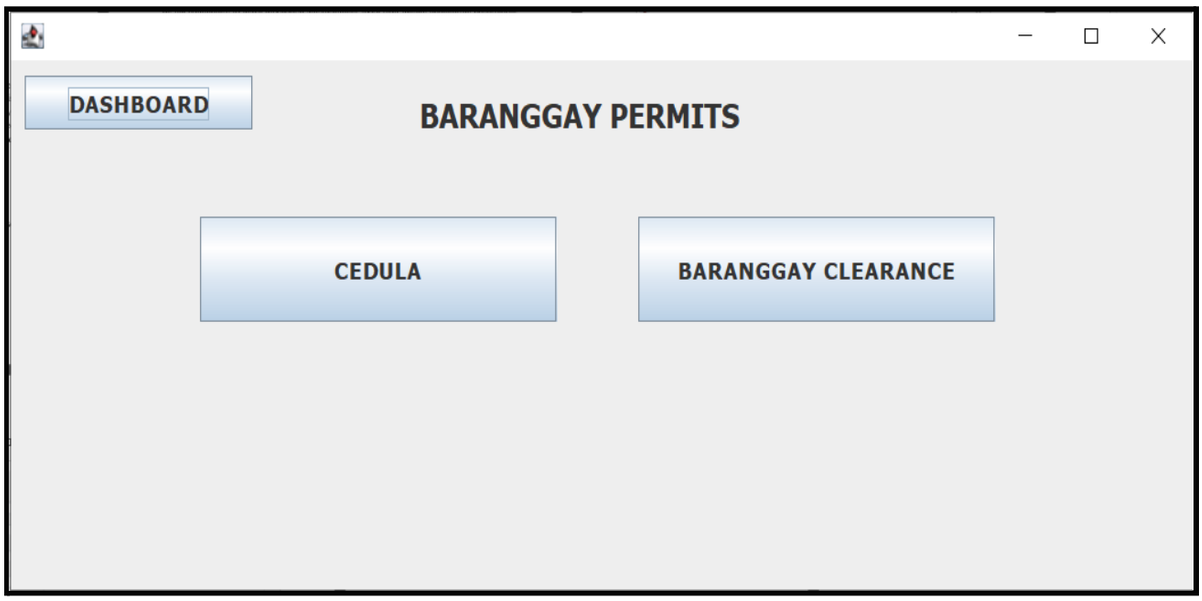
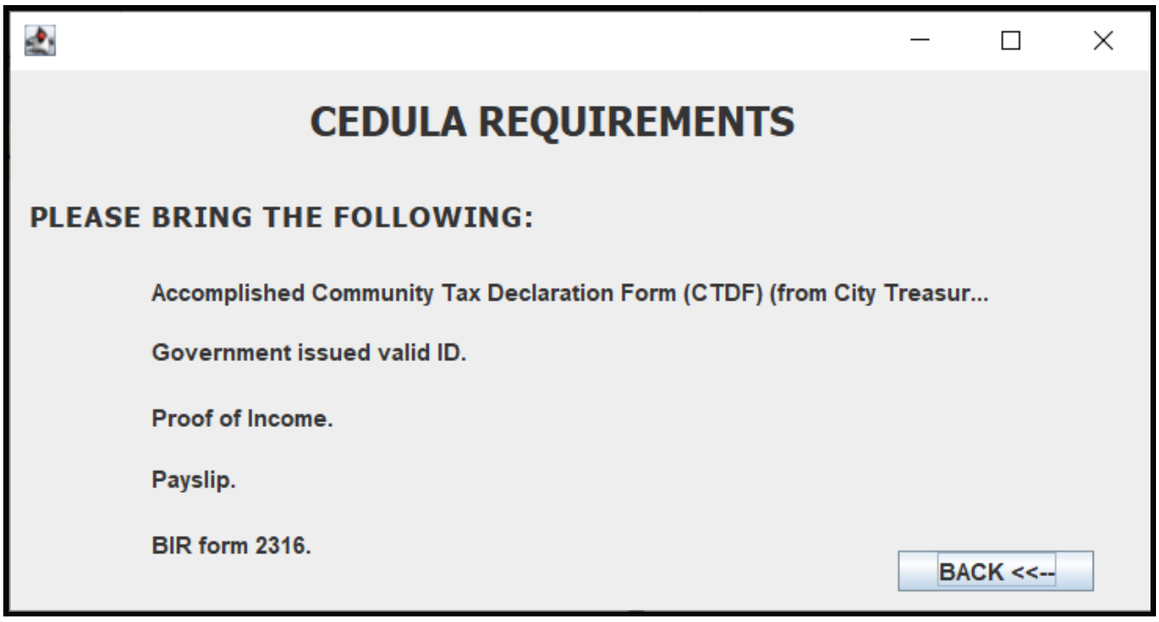
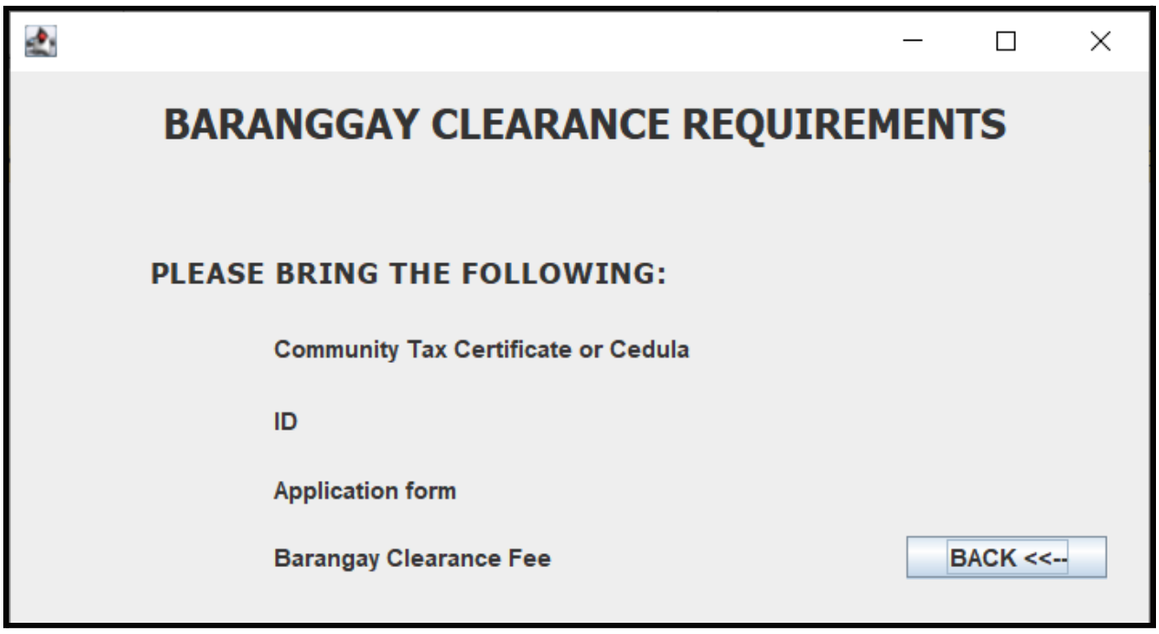


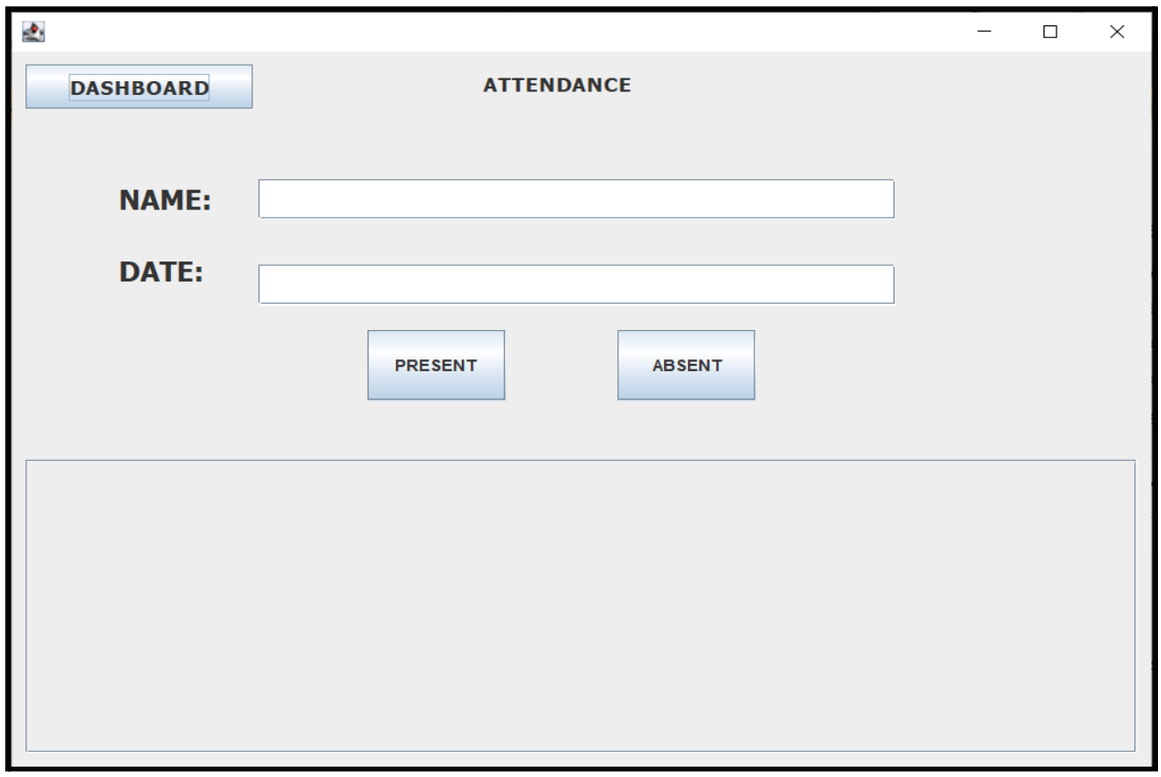
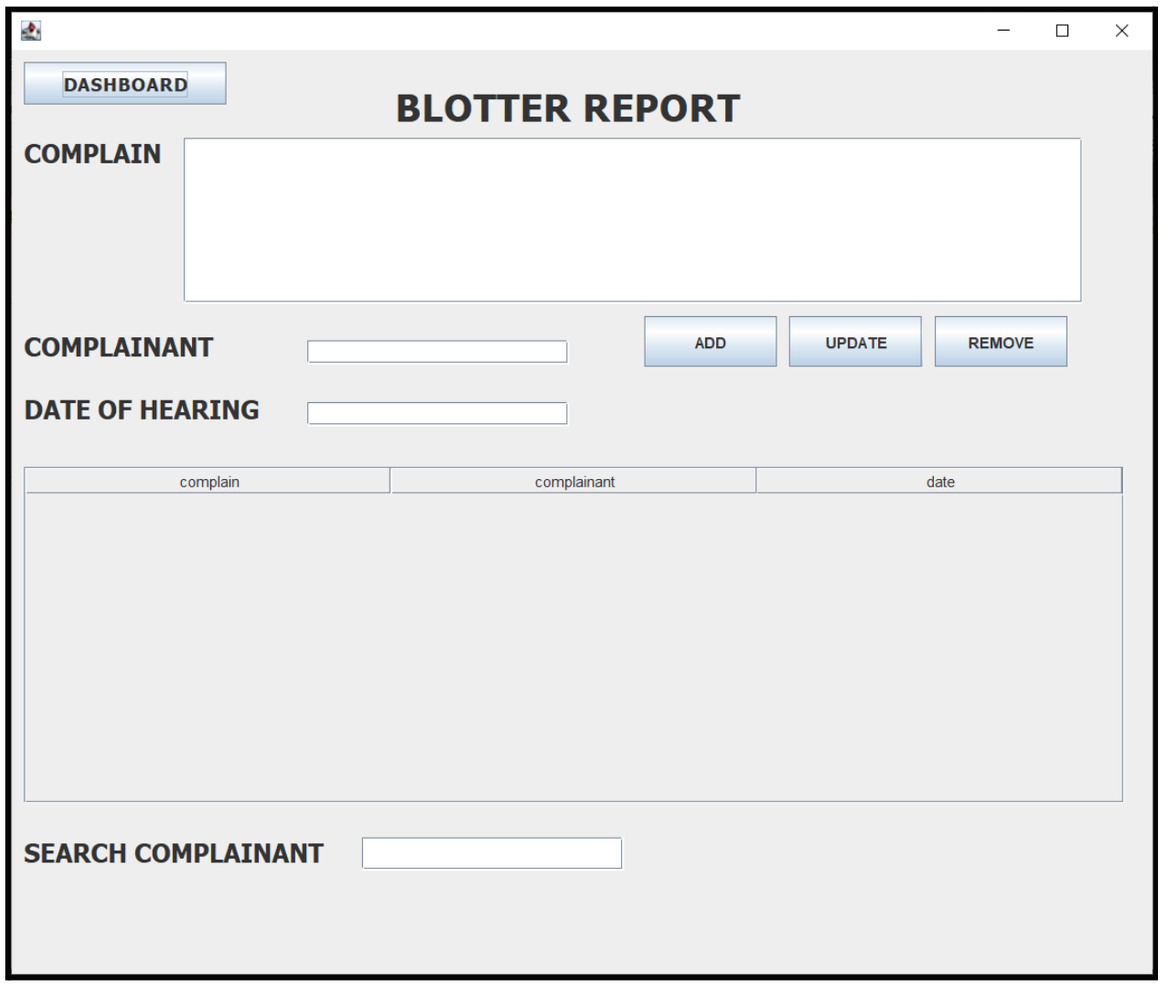
CEDULA REQUIREMENTS:



BARANGAY CLEARANCE REQUIREMENTS:



ATTENDANCE FORM: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