

BRGYGO: ENHANCING COMMUNITY MANAGEMENT AND INFORMATION ACCESSIBILITY IN BRGY. BURGOS



Introduction



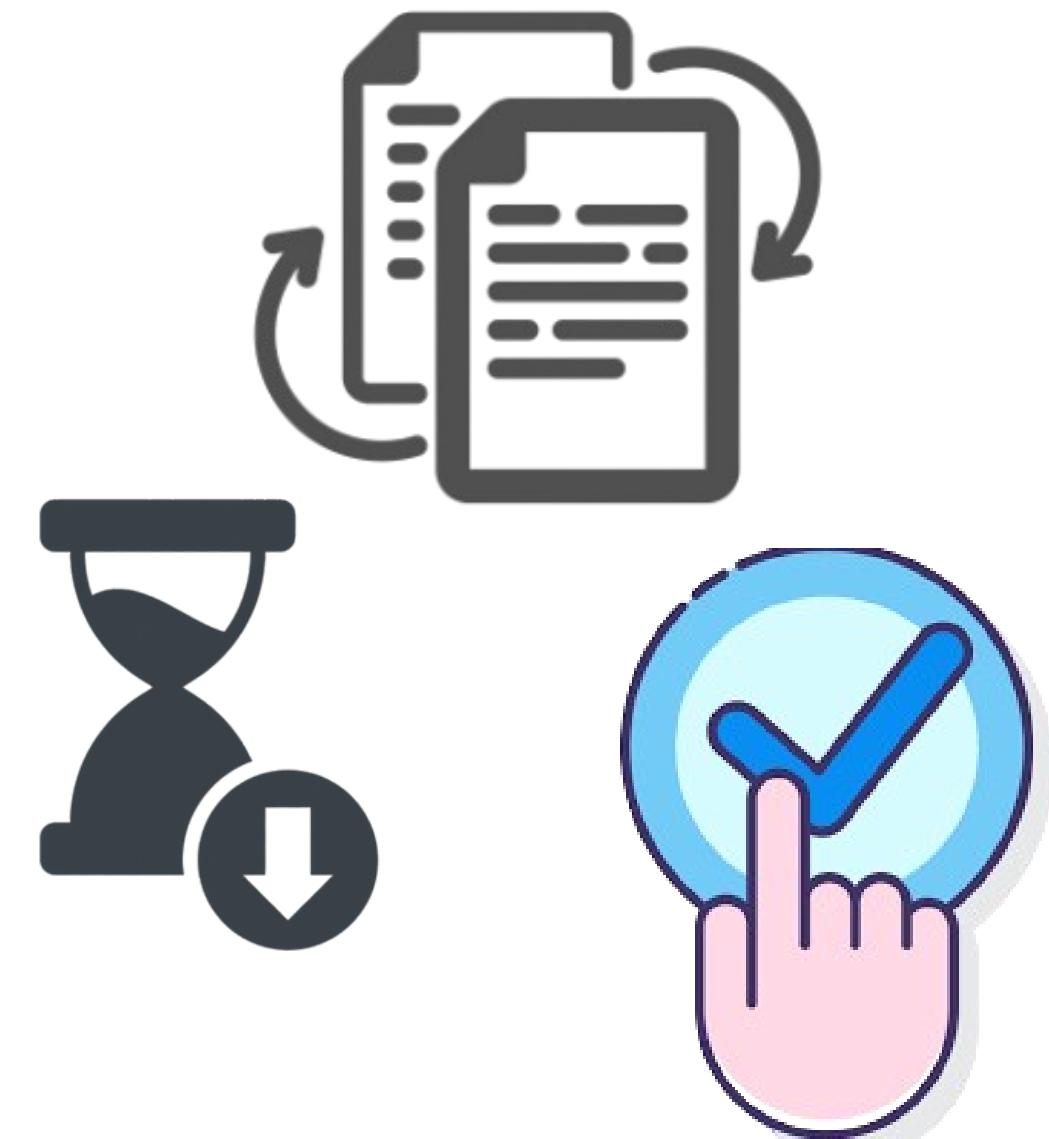
Background of the Study



Barangay Burgos, Tuy Batangas

Objective of the Study

This study aims to develop and implement BrgyGo: Enhancing Community Management and Information Accessibility in Brgy. Burgos, Tuy, Batangas by enhancing this process of digitalizing barangay operations.





Objective of the Study

This study aims to develop and implement BrgyGo: Enhancing Community Management and Information Accessibility in Brgy. Burgos, Tuy, Batangas. It specifically seeks to:

1. Identify Challenges



2. Develop a Web-based Platform



3. Evaluate System Usability



4. Ensure Resident Satisfaction





Objective of the Study

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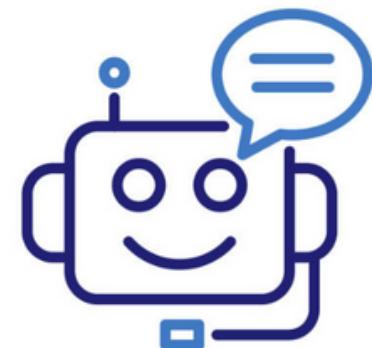
5. Promote Transparency and Participation

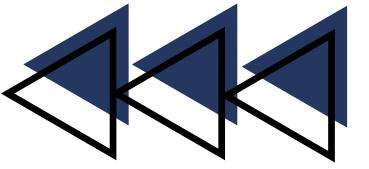
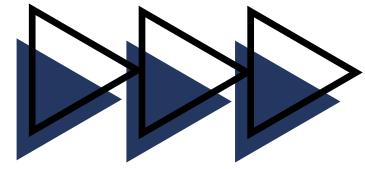


6. Strengthen Emergency Management



7. Leverage AI Chatbot Support





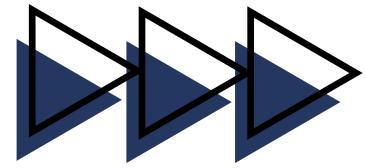
SCOPE AND DELIMITATION

Module of the System

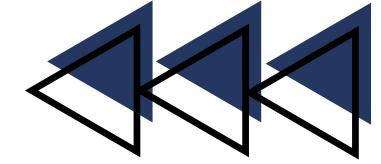
- Login Module
- Document Management Module
- Announcement Module
- Complaint Management Module
- Evacuation Center Management
- Resident Profile Management
- Chatbot Assistance

Intended User

- Barangay Officials
- Barangay Admin
- Residents



SCOPE AND DELIMITATION



Features

- User-Friendly Dashboard
- Print Document
- Real-Time Updates
- Chatbot Integration

Scope of the Study

- Location
- Users
- Services
- Exclusions

Literature Review

Enhanced Barangay Information Management System with Residency Certificate Issuance(2023)



A web-based system to improve the efficiency of barangay operations, particularly in managing resident information and issuing certificates.

Gaps

- AI Chatbot designed for Barangay Services
- API Map to Locate Evacuation Centers
- Emergency Response

Literature Review

Docu-Go: The Development and Assessment of a Web- Based Barangay Document Requesting System (2023)

A web-based application designed to streamline the process of requesting official documents within a barangay.



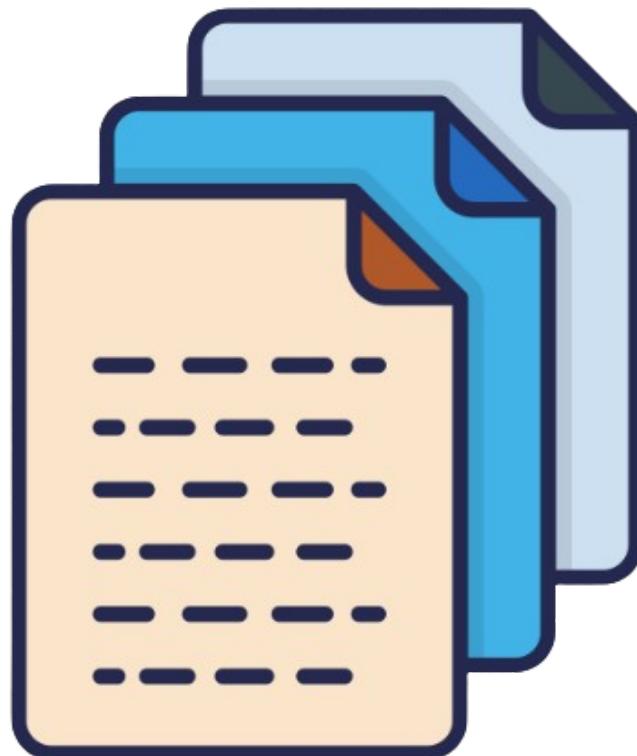
Gaps

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Literature Review

IMPLEMENTING DOCUMENT MANAGEMENT SYSTEM (DMS) TECHNOLOGY IN BARANGAY PALIGUI, APALIT, PAMPANGA (2021)

The increasing population, quality of service, especially in handling records and documents declines. “Document Management System” is proposed to alleviate these problems.



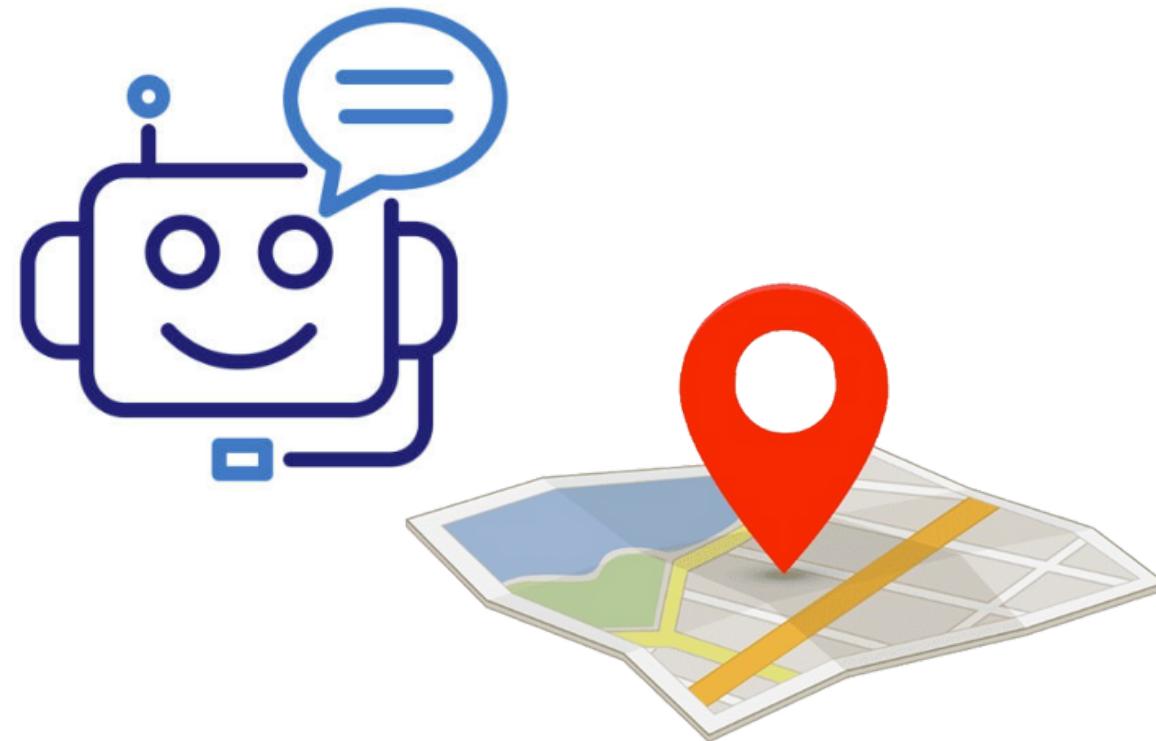
Gaps

- Announcements
- Emergency Response
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Literature Review

Enhancing the Barangay Information System by Integrating Geolocation Technology and Tagalog Chatbot using NLP Algorithm for Efficient Community Engagement and Service (2024)

The integration of an English-Tagalog Chatbot using NLP Algorithm into a Progressive Web-Application based Barangay Information System and Geolocation Technology which detects the location of the affected residents and nearest evacuation centers



Gaps

- Announcements
- Emergency Response

Literature Review

Development and Evaluation of a Web-Based Resident Information Management System (2024)

Storing and accessing information of residents compared to the traditional way of information management. The barangay could easily perform its duty to the public like planning and implementing different programs and granting other document requests like residence certificates and permits.



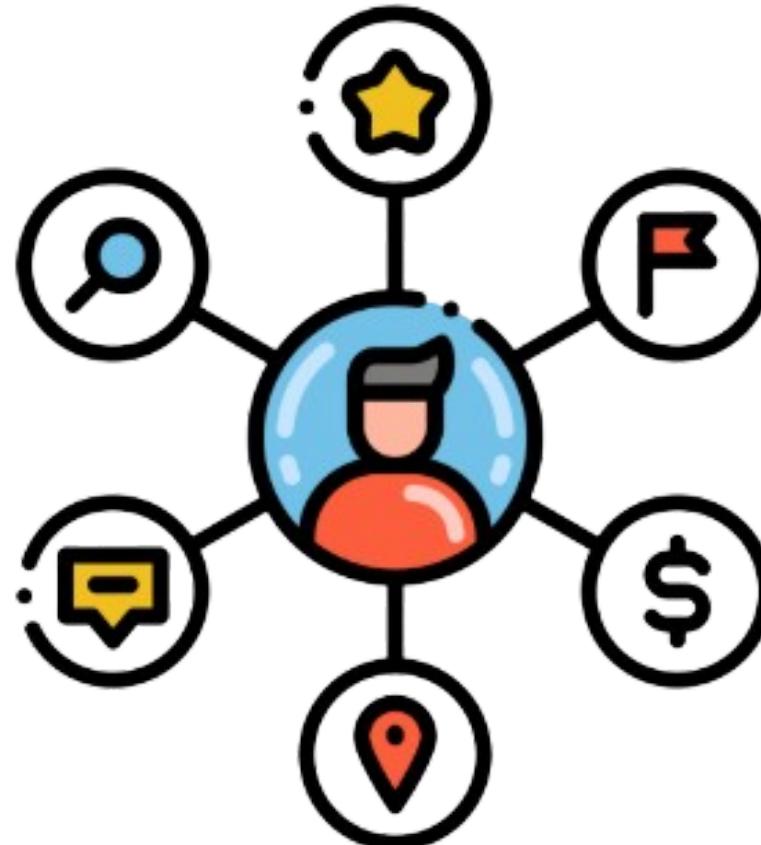
Gaps

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Literature Review

Barangay Profiling System with Analytics (2022)

It aimed to provide systematic profiling system which can the authorized users easily manage residents' profile, generate statistical reports, and the provision of updating the records.



Gaps

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- Emergency Response
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METHODOLOGY

Research Design

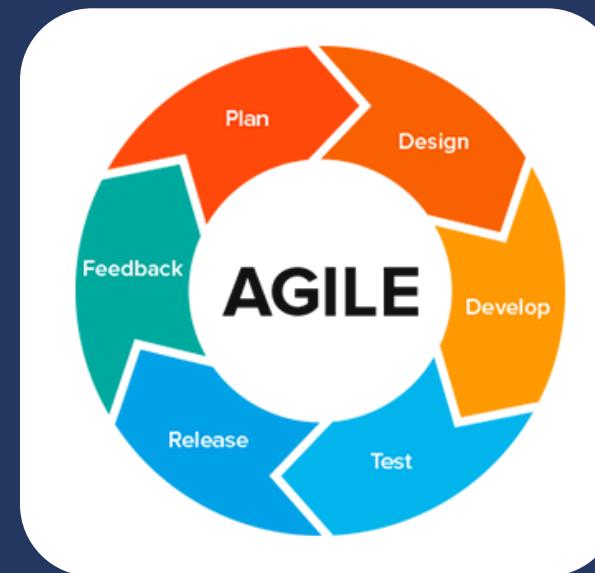
DESCRIPTIVE RESEARCH DESIGN

Effect

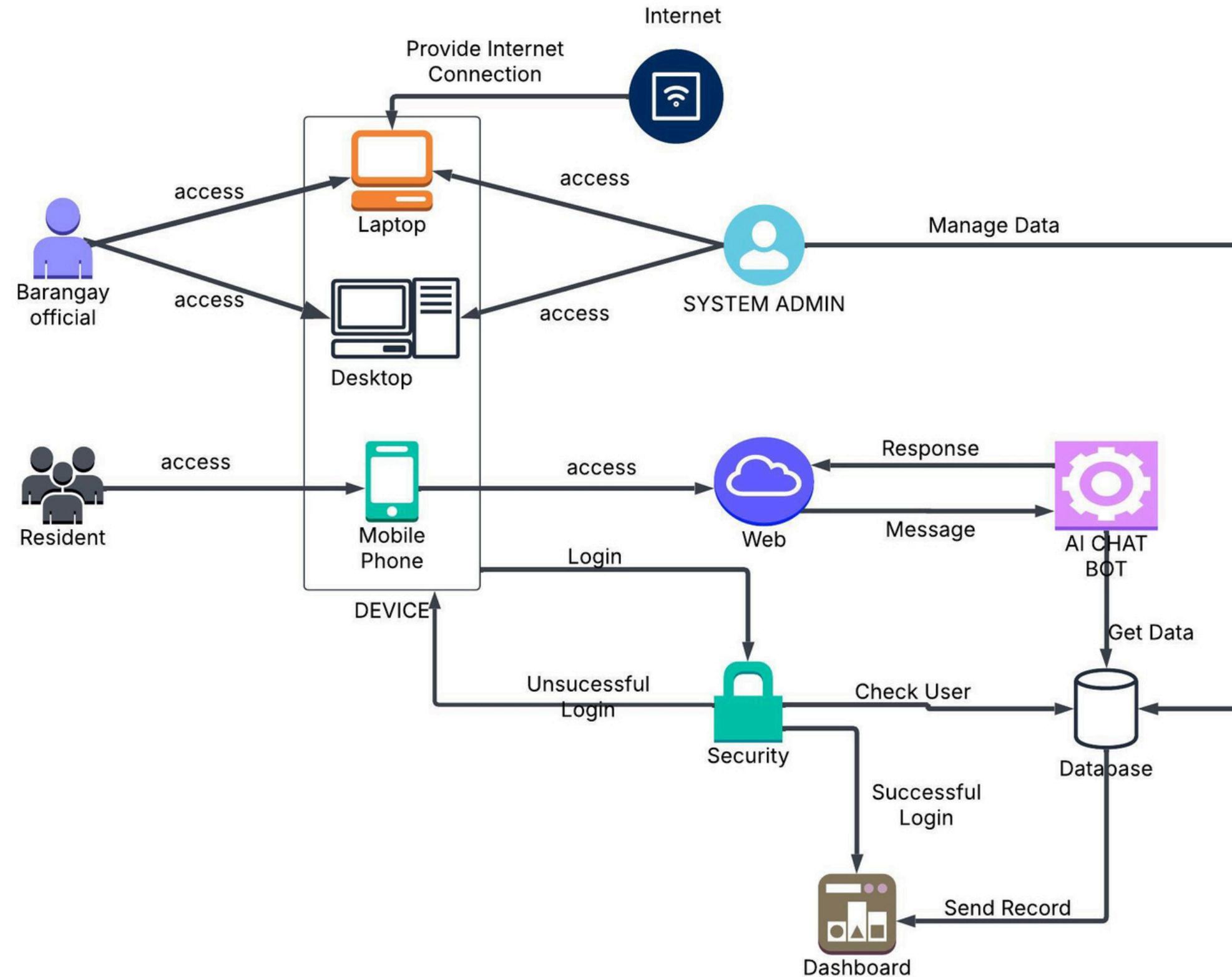
- Accurate Information
- Identify Challenges
- Use the findings to guide the development of the BrgyGo
- User friendly and efficient Platform
- Responsive to the community needs

Software Development Life Cycle

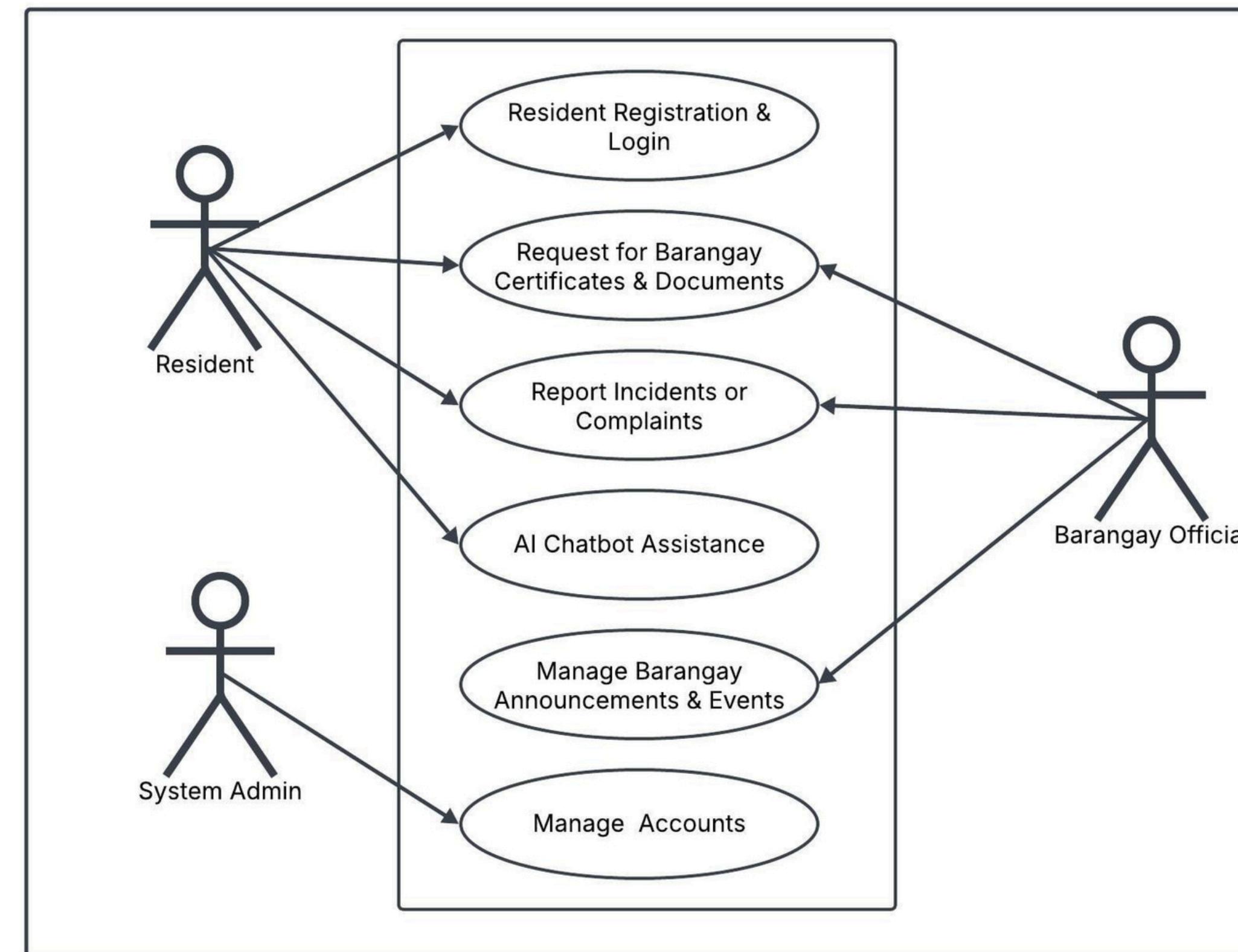
AGILE



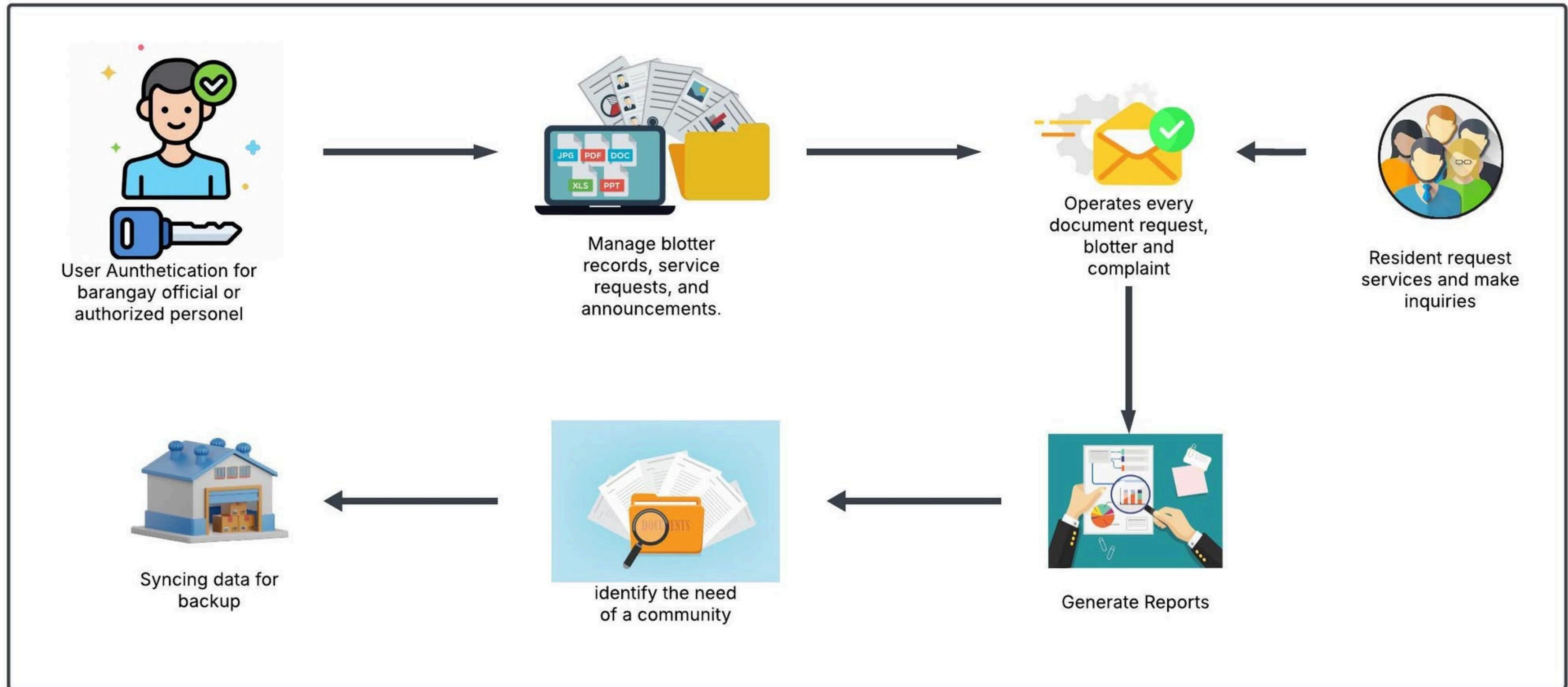
System Architecture of the Propose System



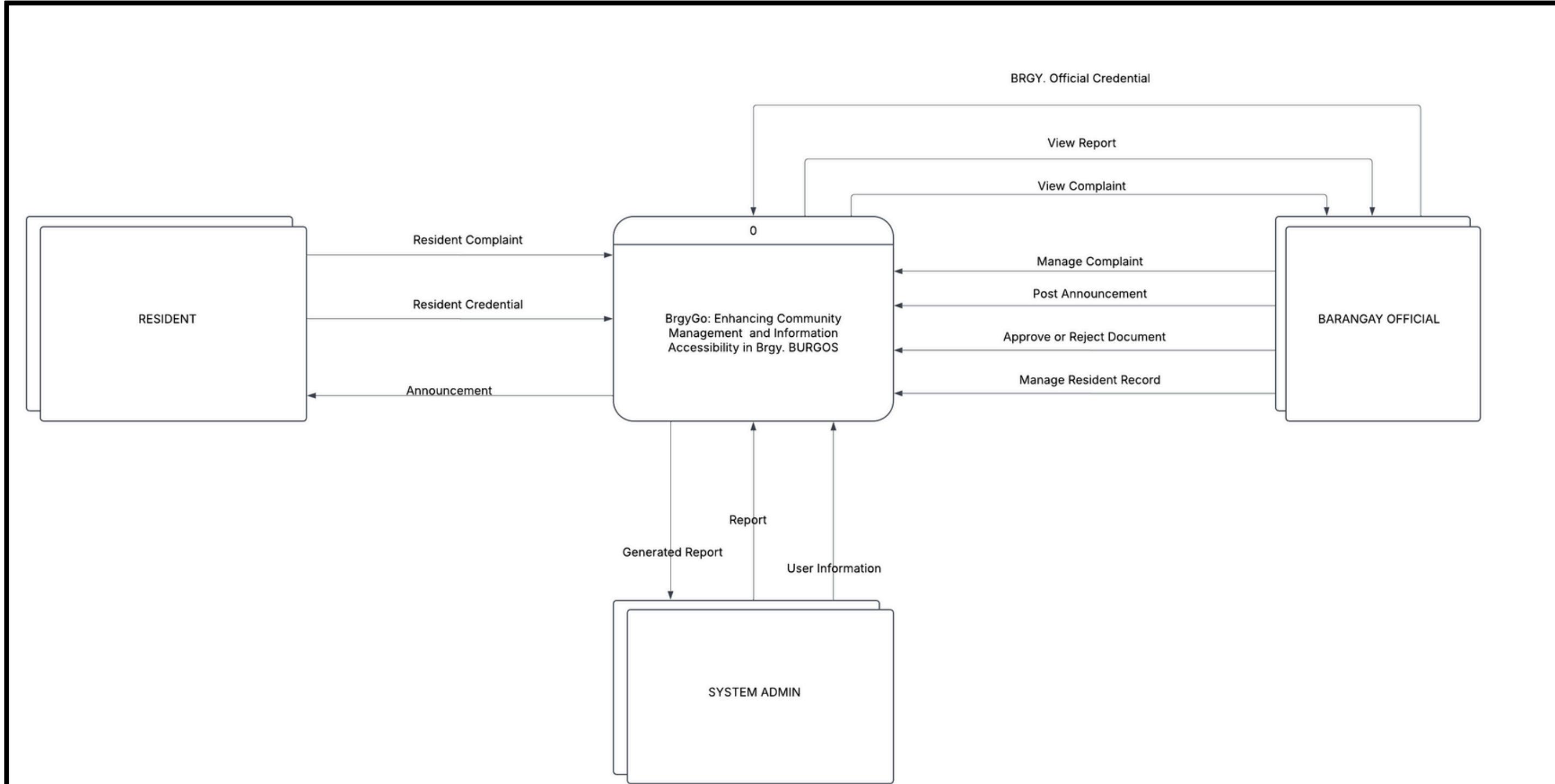
System Use Case Diagram



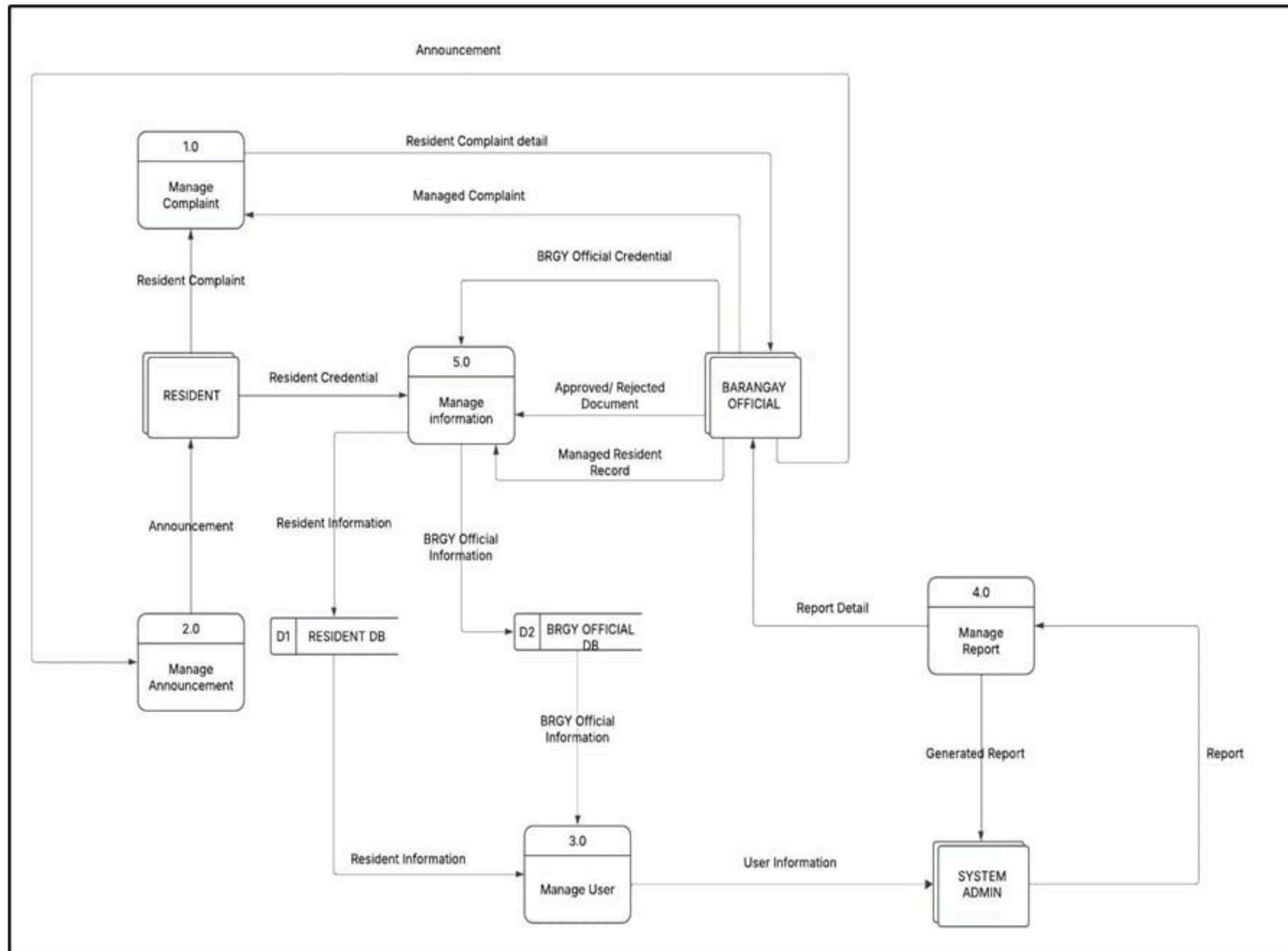
System Requirements



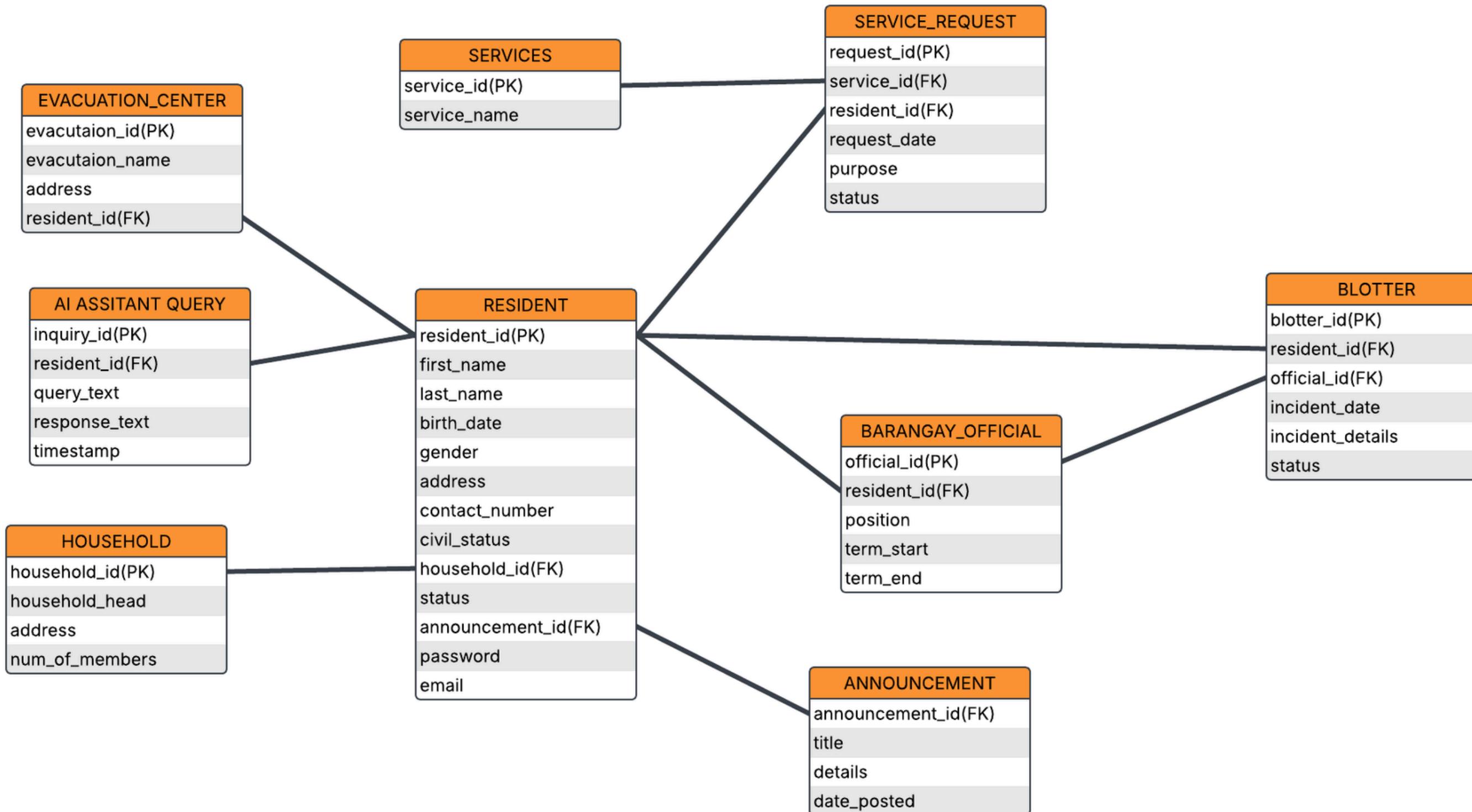
System Context Diagram



System Data Flow Diagram



System Entity Relationship Diagram



SOFTWARE NEEDED FOR THE DEVELOPMENT

Software	Description	Specification
Operating System	OS for development and testing	Windows 11
Integrated Development Environment (IDE)	For writing codes	Sublime
Programming Languages	Used to developed front-end and back-end for the system	Front-end: HTML, CSS, JavaScript Back-end: PHP, Python, Node.js
Database Management system	Store and Manage important Data	MySQL
Web Server and hosting	Used for hosting web System	Infinity Free
API Chatbot	Automated conversations and responses to assist users with inquiries	OpenAI API
API GPS	Real-time location tracking and navigation service	Google Maps API

PREPARATION AND EVALUATION

Scale	Mean Range	Descriptive Equivalent
5	4.21 - 5.00	Strongly Agree
4	3.41 - 4.20	Agree
3	2.61 - 3.40	Neutral
2	1.81 - 2.60	Disagree
1	1.00 - 1.80	Strongly Disagree

PREPARATION AND EVALUATION

Scale	Mean Range	Descriptive Equivalent
5	4.21 - 5.00	Acceptable
4	3.41 - 4.20	Slightly Acceptable
3	2.61 - 3.40	Undecided
2	1.81 - 2.60	Slightly Unacceptable
1	1.00 - 1.80	Unacceptable

PREPARATION AND EVALUATION

Scale	Mean Range	Descriptive Equivalent
5	4.21 - 5.00	Strongly Satisfied
4	3.41 - 4.20	Satisfied
3	2.61 - 3.40	Neither Satisfied nor Dissatisfied
2	1.81 - 2.60	Dissatisfied
1	1.00 - 1.80	Most Dissatisfied

PARTICIPANTS OF THE STUDY

Respondents	No. of Participants / Sample Size
Barangay Officials	44
Residents	203
Total	247

Slovin's Formula

n = required sample size

N = total population of Barangay Burgos

e = margin of error, typically set at 5% (0.05)

$$n = \frac{N}{1 + Ne^2}$$

$$n = \frac{651}{1 + 651(0.05)^2}$$

$$n = \frac{651}{2.6275}$$

Total Population of Barangay Burgos = **651**

$$n = 247$$

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THANK YOU

**For the Attention and Listening in
our presentation**

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PRE-ORAL

DEFENDED

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