BatStateU @120

BATANGAS STATE UNIVERSITY
The National Engineering University
Lipa Campus

Propelling Transformations and Accelerating Reforms for National Development

College of Informatics and Computing
Sciences IT 211 - Database Management
System

Project Title:

"Utilization of Interactive E-Barangay System for Citizens"

Submitted by
GYLES P. PEREZ
CARLOS MIGUEL DE LARA
BARRON DELA PEÑA

BACKGROUND OF THE STUDY/ IMPACT OF THE STUDY

The Interactive Barangay application for the Convenience of Citizens is an online platform that provides barangay residents with access to various services and information. This platform aims to make it easier for citizens to interact with the local government and access essential services without having to physically go to the barangay hall. Behind the development of the Barangay application is to promote transparency and accountability. By providing information about government services and operations online, citizens can easily get information about the use of their taxes and monitor the progress of government projects.
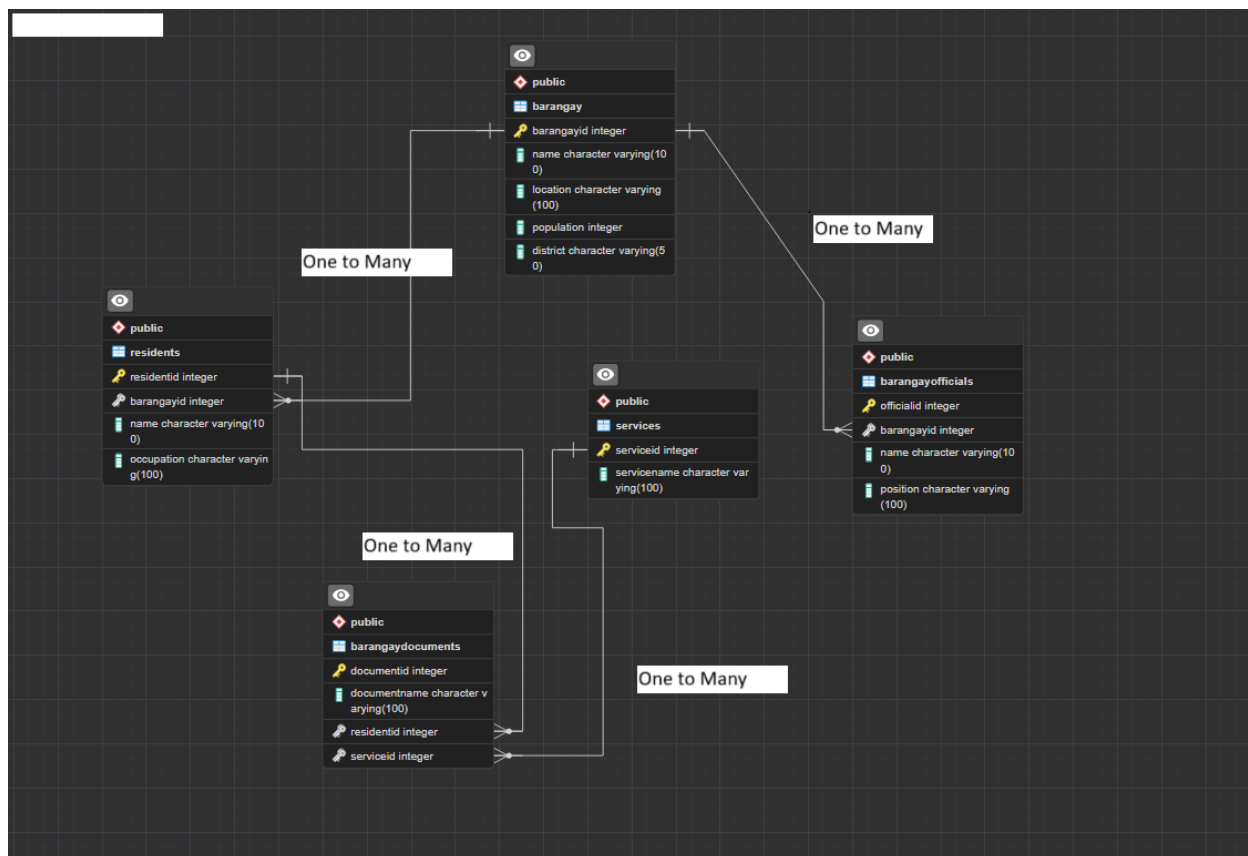
Development of the Barangay application can increase citizen participation and engagement. The platform can act as a channel where citizens can express their opinions, remarks, and concerns to the local government. This can help build trust and cooperation between citizens and authorities. The development of the Barangay application is to promote the efficiency and effectiveness of government operations. By providing online services such as paying fees and taxes online, the portal can reduce long queues and waiting times at the barangay hall. This can lead to faster and more convenient service.

The Barangay application can also improve access to essential information and services, especially for those who live in remote areas or have physical disabilities. With just a few mouse clicks, citizens can get information about health services, social programs, and other important services provided by local governments. Finally, the Barangay application can help the government save on physical infrastructure and personnel costs. By providing online services, the government can reduce the need for physical offices and staff, thereby reducing operating costs. This can lead to savings that can be redirected to other services important to society.

PROBLEM STATEMENT:

Processes for delivering services, such as permit applications, may be inefficient, causing delays and frustration among residents. The use of outdated or manual systems for processing applications can contribute to inefficiencies. Lack of automation and reliance on paper-based processes may lead to errors, data loss, and increased processing times. Residents struggle to access information about the status of their permit applications. A lack of transparent communication channels can contribute to frustration and dissatisfaction among the community members. These are some of the problems caused by the traditional barangay services which our system aims to improve.

DATABASE SCHEMA:

BARANGAY APPLICATION DATABASE SCHEMA

RELATIONSHIP BETWEEN THE TABLES

One-to-many relationships:

*Barangay to Residents
*Barangay to Barangay Officials
*Barangay to Services
*Services to Barangay Documents
*Barangay Officials to resident

Many-to-many relationships:

*Barangay to Barangay Services

One-to-many relationships are represented by a foreign key in the child table that references the primary key in the parent table. For example, the Residents table has a foreign key called BarangayId that references the primary key in the Barangay table. This means that each resident belongs to exactly one barangay.

Many-to-many relationships are represented by a third table that has two foreign keys, one to each of the parent tables. For example, the BarangayServices table has two foreign keys, BarangayId and ServiceId. This means that each barangay can offer many services, and each service can be offered by many barangays.

Table	Foreign Key	References
Barangay	BarangayId	Residents, Barangay Officials, Services, Barangay Services
Residents	BarangayId	Barangay
Barangay Officials	BarangayId	Barangay
Services	ServiceId	Barangay Services
Barangay Services	BarangayId	Barangay
Barangay Services	ServiceId	Services
Barangay Officials	PresidentId	President