COLLEGE OF COMPUTER STUDIES
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Client Appointment and Monitoring Management System for Laguna Parole and Probation Office with SMS Notification

Technical Documentation

Submitted by:

Badiilo, Jerahmeel A.

Calapao, Jan Reinnen S.

Rebong, Dexter D.

Sofer, Jencel P.

BSCS – 3B

Submitted to:

Ms. Micah Joy Formarran

Instructor

System Overview

This study developed a web-based system for the Laguna Parole and Probation Office to manage client schedules, monitor probationers, and provide SMS reminders. The purpose is to improve their daily operations through organized scheduling and faster transactions.People who tested the system gave it excellent marks, proving it is both effective and easy to use.

System Architecture

The system architecture is outlined here to offer a quick overview of the system's structure and behavior, it shows how a system's architecture represents how it is thought about in terms of its structure, functions and relationships. It specifies the structure and organization of the software system. A system that is organized in such a way that reasoning about the system structures and operation possible.
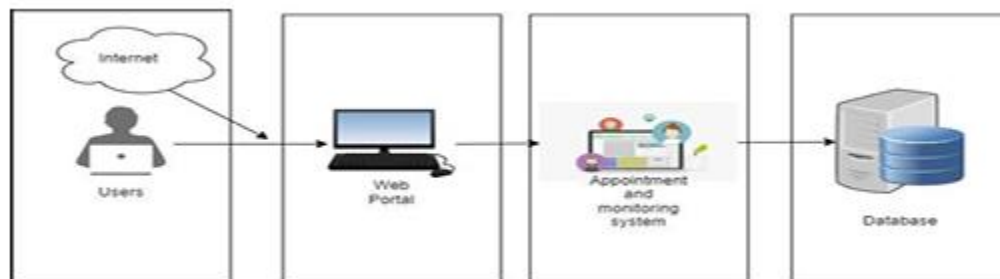
Summary of Enhancements and Rationale

To improve the system further, we added four (4) important features:

- **Archive Function:** To store old client records safely without deleting them.

- **Real-Time Search:** To instantly find client details, making the system faster and more user-friendly.

- **Show Password in Login:** To help users see their typed password and reduce login errors.

- **Simple Chatbot:** A basic chatbot was added to help users ask questions and get quick answers.
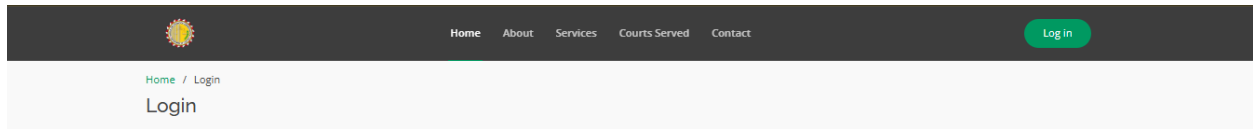
Updated UI/UX Screenshots

Log In form (Before Enhancement**)**

After Enhancement

Show Password in Login: To help users see their typed password and reduce login errors.

Dashboard (before enhancement**)**
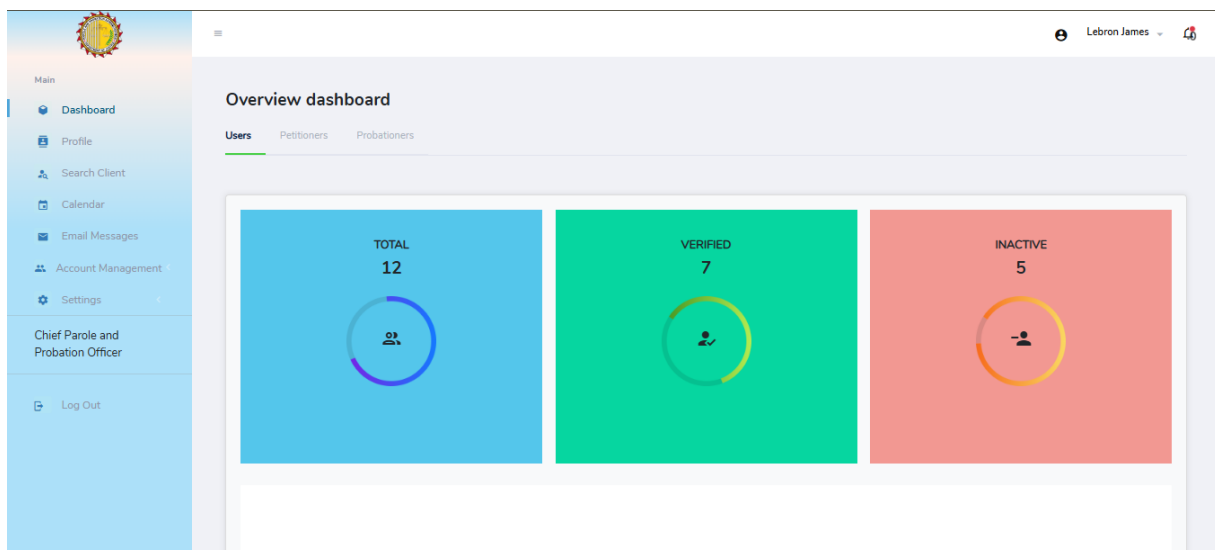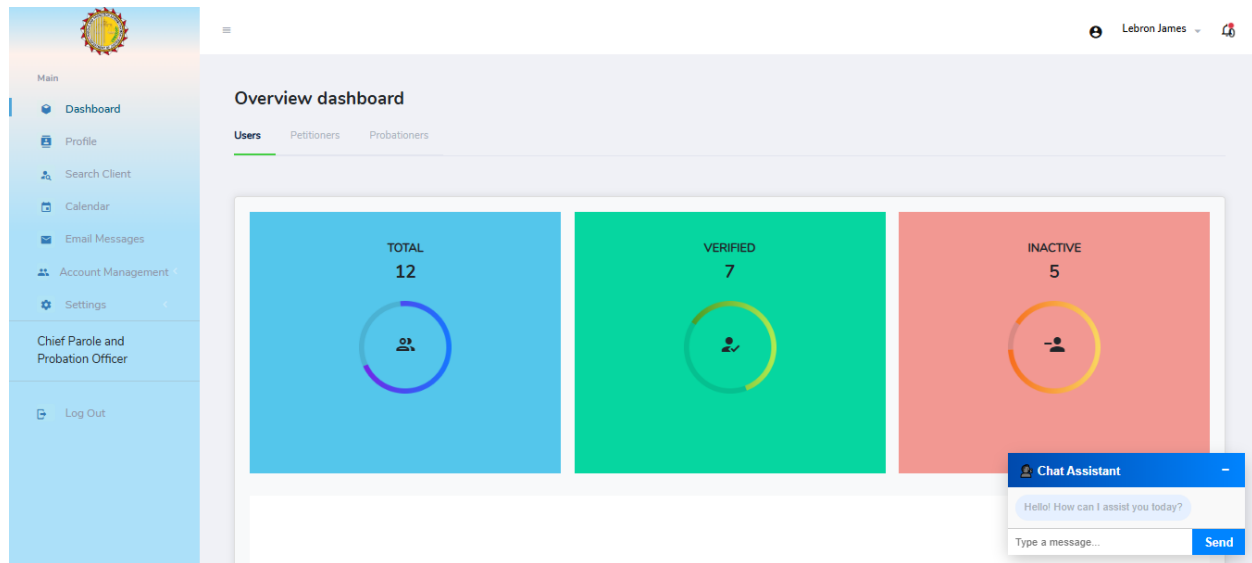
After Enhancement

We add a Simple Chatbot a basic chatbot was added to help users ask questions and get quick answers.
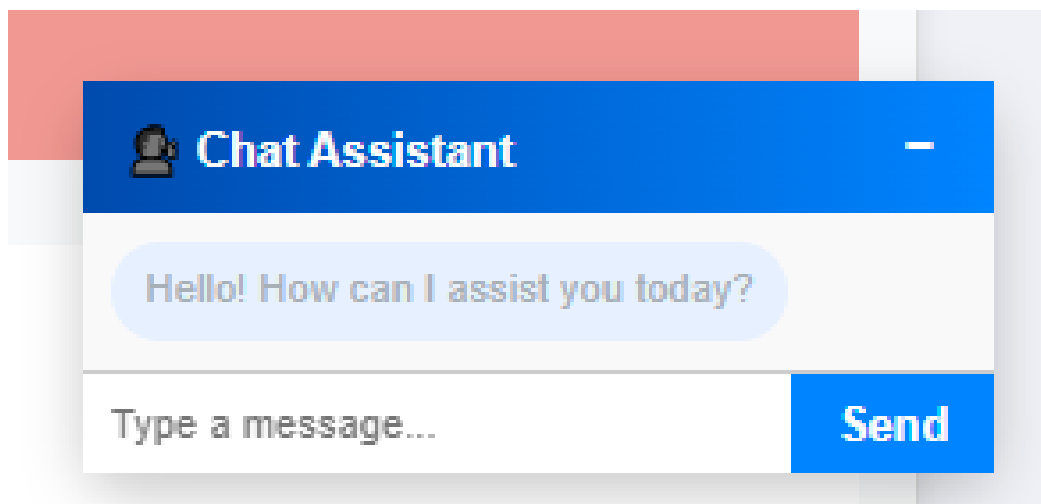
Before Enhancement (Search Feature**)**

Have a Search By: it will hassle to user that have extra button to search.

After Enhancement (Search Feature**)**

So we decide to replace it an Real-Time Search to instantly find client details, making the system faster and more user-friendly.

Before Enhancement (Account Management)

They don't have an archive feature, which may lead to disorganized data. The absence of an archive feature may result in data becoming cluttered or disorganized.

After Enhancement (Account Management)

We add an Archive Function to store old client records safely without deleting them.

Testing Approach and Results

- **Tool Used:** Selenium WebDriver

- **Test Cases:** Login functionality, form validation, appointment flow, SMS triggering, data retrieval.

- **Manual Testing:** Used for UI feedback, layout responsiveness, and error handling.

- **Database Testing:** Conducted via phpMyAdmin for data integrity.

Test Environment

The browser used for testing is Google Chrome and the installed WebDriver used is ChromeDriver along with installing selenium by opening the command prompt and enter pip install selenium. After installing all the required application, we made sure that they are installed properly by checking the versions of it in the command prompt.

Result

The testing was done on a server because the system's data base needs to be connected to an open live server. The operating system used was windows 10.

The specific configurations needed was to install Python and the version of the Chromedriver should be the same as with the Google Chrome for the connection to work properly. When the chromedriver is installed, it should be copied to the PATH in order to work properly.

Technologies and Frameworks Used

Component	Technology
Frontend	HTML, Javascript, CSS
Backend	PHP
Database	MySQL
Testing Tool	Selenium WebDriver
Server Stack	XAMPP (Apache + MySQL)
IDE/Editor	VS Code

Developer Notes / Installation Instructions

1. Download and Extract the System Files

   - Locate the .zip file of the system.

   - Extract it inside the htdocs folder of your XAMPP installation directory (usually found at C:\xampp\htdocs).

2. Import the Database

- Open your browser and go to: phpMyAdmin.

- Click on ✚ Import.

- Choose the .sql file.

- Click Go.

3. Start XAMPP Services

- Launch the XAMPP Control Panel.

- Start both Apache and MySQL.

4. Access the System

- Type this in your browser: http://localhost/[your_system_folder_name].

- Replace [your_system_folder_name] with the actual folder name.