



Republic of the Philippines
Laguna State Polytechnic University
Province of Laguna



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

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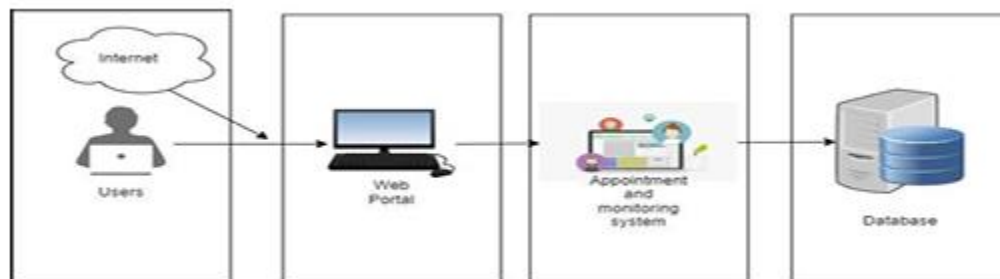


System Overview

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

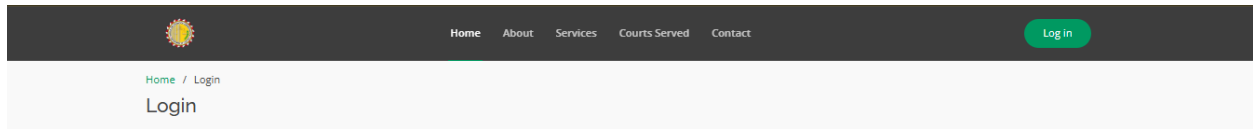
Log In form (Before Enhancement)

The screenshot shows the old login interface. At the top is a dark navigation bar with the university logo on the left, a menu with links: Home, About, Services, Courts Served, and Contact, and a green 'Log in' button on the right. Below the navigation bar is a breadcrumb trail: 'Home / Login' followed by 'Login'. The main content area features a 'Login Form' box. Inside this box, there are two input fields: 'Email' and 'Password'. Below the password field is a green link for 'Forgot Password?'. At the bottom of the form is a blue 'Login' button. Below the button is a link for 'Not a member yet? Sign up'.



After Enhancement

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



Login Form

Email

Password

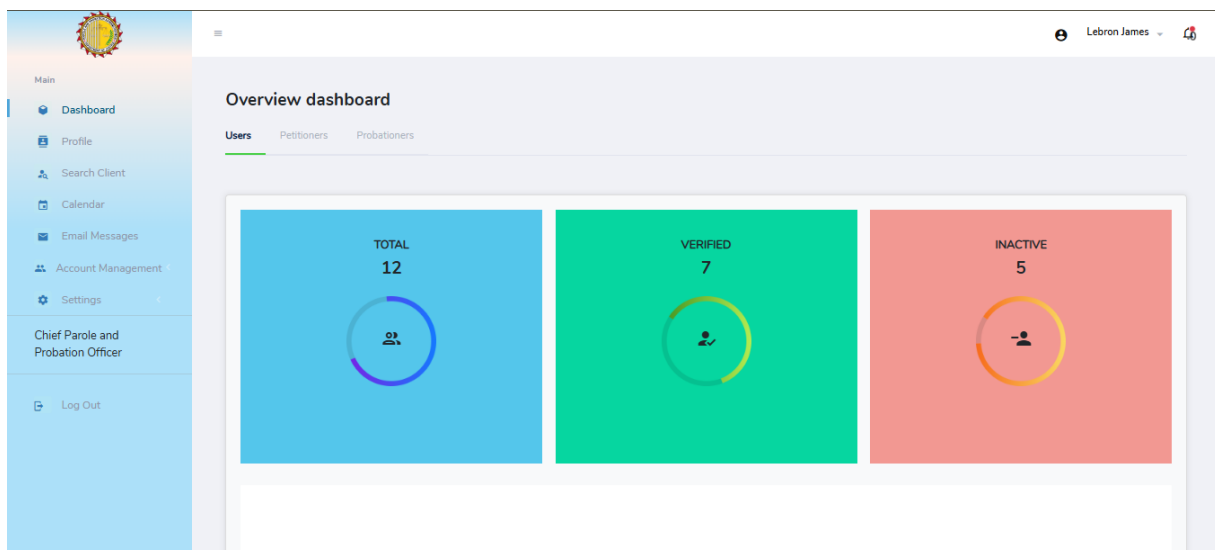
Show

[Forgot Password?](#)

Login

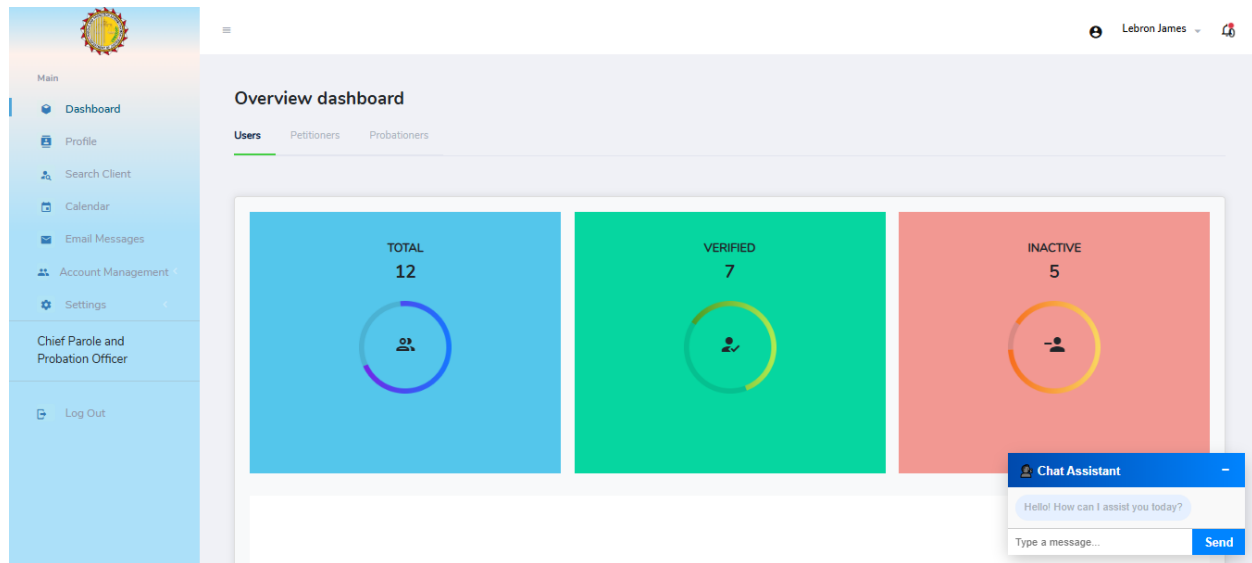
Not a member yet? [Sign up](#)

Dashboard (before enhancement)

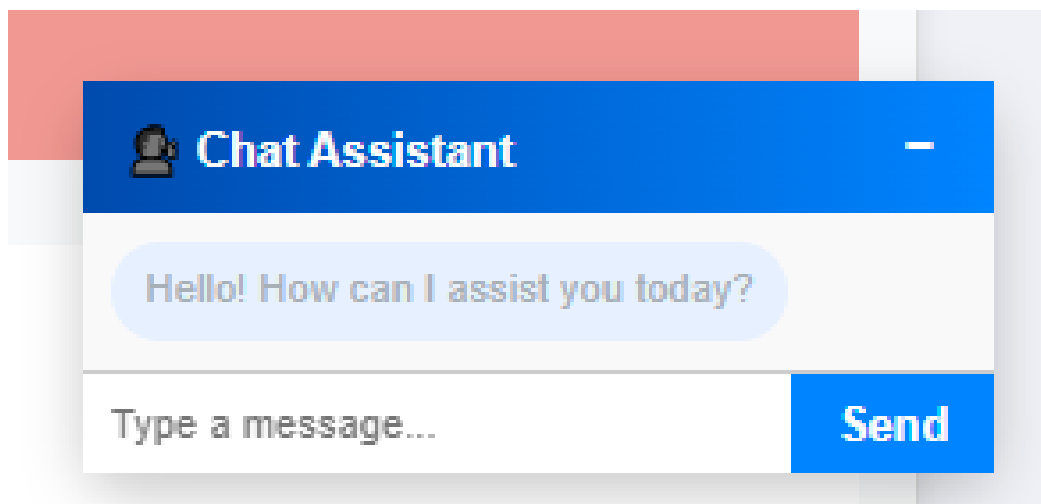




After Enhancement



We add a Simple Chatbot a basic chatbot was added to help users ask questions and get quick answers.





Before Enhancement (Search Feature)

Dashboard

Search Account

Search:

Search By:

SEARCH

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LPPO-CAMMS

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

After Enhancement (Search Feature)

Dashboard

Search Account

Search:

| First Name | Middle Name | Last Name | Alias | Case Number |
|------------|-------------|-----------|--------|-------------|
| Adam | M | Warlock | Savior | 6240 |
| Aja | | Adanna | Shuri | 104 |

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LPPO-CAMMS



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)

List Of Clients

Probation Status:
Revoked Probation terminated. Completed Probation successfully finished. Pending Application under review. Denied Probation request not approved. Grant Probation request approved.

| Client No. | Name | Alias | Municipality | Date Added | Status | Action |
|------------|-----------------------|-------------|--------------|---------------|-----------|-------------------------|
| 1 | Ed Sison Rana | Jay | Iumban | Dec. 07, 2023 | completed | ACTION |
| 2 | Peter Parker | Spidey | Kalayaan | Dec. 07, 2023 | denied | Options View Details |
| 3 | Stephen Stone Strange | Dr | Paete | Dec. 07, 2023 | grant | ACTION |
| 4 | Mickey M Mouse IV | Dodeng daga | Cavinti | Dec. 07, 2023 | pending | ACTION |
| 5 | Tony Time Stark | Iron Man | Sta maria | Dec. 11, 2023 | completed | ACTION |

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)

Dashboard / Account Management / Clients List

Clients List

List Of Clients

Probation Status:
Revoked Probation terminated. **Completed** Probation successfully finished. **Pending** Application under review. **Denied** Probation request not approved. **Grant** Probation request approved.

| Client No. | Name | Alias | Municipality | Date Added | Status | Action |
|------------|-----------------------|----------------|--------------|---------------|-----------|----------|
| 1 | Ed Sison Rana | Jay | Iumban | Dec. 07, 2023 | completed | ACTION - |
| 2 | Peter Parker | Spidey | Kalayaan | Dec. 07, 2023 | denied | ACTION - |
| 3 | Stephen Stone Strange | Dr | Paete | Dec. 07, 2023 | grant | ACTION - |
| 4 | Mickey M Mouse IV | Dodeng daga | Cavinti | Dec. 07, 2023 | denied | ACTION - |
| 5 | Tony Time Stark | Iron Man | Sta. Maria | Dec. 11, 2023 | completed | ACTION - |
| 6 | Thor Thunder Odinson | God of Thunder | Cavinti | Dec. 11, 2023 | denied | ACTION - |

1 2 3 4 5 6 7 8 Next

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.

```
Python 3.10 (64-bit)
Python 3.10.0 (tags/v3.10.0:b494f59, Oct 4 2021, 19:00:18) [MSC v.1929 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>> from selenium import webdriver
>>> from selenium.webdriver.common.by import By
>>> from selenium.webdriver.support.ui import WebDriverWait
>>> from selenium.webdriver.support import expected_conditions as EC
>>> driver = webdriver.Chrome()

DevTools listening on ws://127.0.0.1:55347/devtools/browser/56d3f7ca-685e-4aa5-9080-0b2cdf2b84a4
>>> driver.get("http://localhost/system-final/probation_project_v07/probation_project_v07/login.php")
>>> driver.maximize_window()WARNING: All log messages before absl::InitializeLog() is called are written to STDERR
I0000 00:00:1748509115.525567      612 voice_transcription.cc:58] Registering VoiceTranscriptionCapability
Created TensorFlow Lite XNNPACK delegate for CPU.
Attempting to use a delegate that only supports static-sized tensors with a graph that has dynamic-sized tensors (tensor
#-1 is a dynamic-sized tensor).
[4060:11652:0529/165947.823:ERROR:components\device_event_log\device_event_log_impl.cc:202] [16:59:47.823] USB: usb_serv
ice_win.cc:105 SetupDiGetDeviceProperty({{A45C254E-DF1C-4EFD-8020-67D146A850E0}, 6}) failed: Element not found. (0x490)
```

Laguna Parole and Probation

localhost/system-final/probation_project_v07/probation_project_v07/login.php

Chrome is being controlled by automated test software.

Home About Services Courts Served Contact

Log in

Home / Login

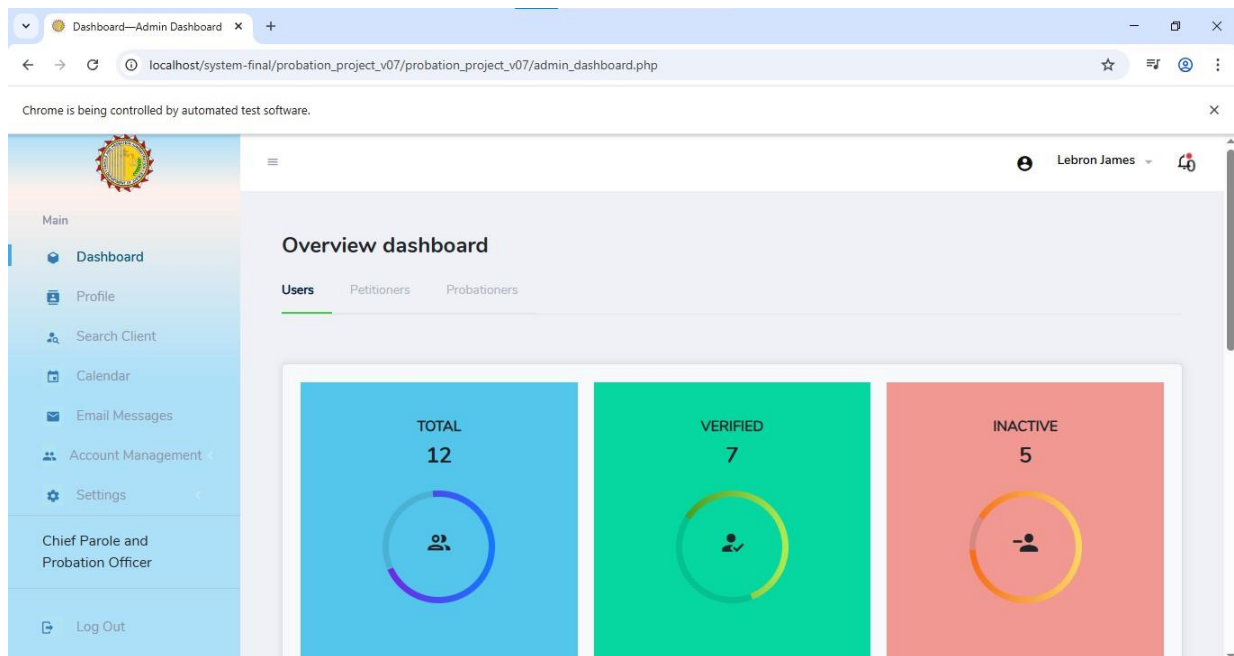
Login



Result

```
Python 3.10 (64-bit)
I0000 00:00:1748509935.649074 776 voice_transcription.cc:58] Registering VoiceTranscriptionCapability
Created TensorFlow Lite XNNPACK delegate for CPU.
Attempting to use a delegate that only supports static-sized tensors with a graph that has dynamic-sized tensors (tensor #1 is a dynamic-sized tensor).

>>> driver.find_element(By.NAME, "email").send_keys("lebron@gmail.com")
>>> driver.find_element(By.NAME, "pass").send_keys("Lebron12345?")
>>> driver.find_element(By.NAME, "submit").click()
>>>
>>> try:
...     WebDriverWait(driver, 10).until(EC.url_contains("dashboard"))
...     page_source = driver.page_source
...     if "Dashboard" in page_source or "Welcome" in page_source:
...         print("Login Test Passed")
...     else:
...         print("Login Test Possibly Passed (URL matched but no keyword found)")
... except Exception as e:
...     print("Login Test Failed")
...     print("Error:", str(e))
...     print("URL:", driver.current_url)
...     print("Page Preview:", driver.page_source[:500])
...
True
Login Test Passed
>>> [11912:11596:0529/171752.018:ERROR:components\device_event_log\device_event_log_impl.cc:202] [17:17:52.017] USB: us
_service_win.cc:105 SetupDiGetDeviceProperty({{A45C254E-DF1C-4EFD-8020-67D146A850E0}, 6}) failed: Element not found. (0
490)
```



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.