Republic of the Philippines
Laguna State Polytechnic University
Province of Laguna

COLLEGE OF COMPUTER STUDIES
2nd Semester A.Y. 2024 - 2025

Client Appointment and Monitoring Management System for Laguna Parole and Probation Office with SMS Notification

Software Requirements Specification (SRS)

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INTRODUCTION

The Laguna Parole and Probation Office, a government agency, is currently in charge of keeping an eye on and providing assistance to those who have been released on parole or probation. Among the duties assigned to the office include scheduling appointments for clients and keeping an eye on them to ensure they follow the conditions of their release and receive the assistance they require to successfully reintegrate into society. The office has frequently used manual processes to schedule and monitor its clients' appointments. Time-consuming, error-prone, and often leading to operational inefficiencies in the workplace were these practices. The office saw that they needed a better way to handle their clients and improve service performance. The Client Appointment and Monitoring Management System with SMS Notification has been deployed by the Laguna Parole and Probation Office to address this issue. Customers may arrange appointments using the system's web portal, and also have SMS notification feature has been especially valuable in today's fast-paced world, where people are constantly on the move, as it sends reminders to clients about their upcoming appointments, reducing the number of no-shows and improving the office's overall efficiency in serving their clients.

Project Purpose

The purpose of the study, entitled “Client Appointment and Monitoring Management System for Laguna Parole and Probation Office with SMS Notification. The system aimed to address the challenges posed by the traditional manual processes,

which were time-consuming, prone to errors, and often led to inefficiencies in the office's operations. The system's online appointment feature allows clients to view their appointments more conveniently, reducing the need for them to physically visit the office. The monitoring process allows the office to keep track of each client's progress more efficiently, ensuring that they receive the necessary support to successfully reintegrate into society. The Laguna Parole and Probation Office's manual procedures for managing client visits and monitoring have shown to be time consuming, ineffective, and prone to errors. These procedures have caused service delivery delays, appointment cancellations, and a lack of prompt customer assistance when necessary.

Overall Description

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.

Key Components

- **User Authentication**: Ensures secure access to the system.
- **Client Management**: Stores and manages detailed information about clients.
- **Appointment Scheduling**: Allows users to set, update, or cancel appointments.
- **Monitoring Logs**: Records compliance and attendance of clients.

- **SMS Module**: Sends automated text reminders to clients regarding their appointments.
- **Reports Generation**: Produces detailed records for administrative reporting.

Functional and Non-functional Requirements

A. Functional Requirements

- The system shall allow users to log in securely.
- The system shall allow the creation, updating, and deletion of client records.
- The system shall enable users to schedule appointments with time and date.
- The system shall record monitoring data such as attendance and remarks.
- The system shall send SMS notifications automatically before each appointment.
- The system shall generate reports based on user filters (e.g., date, client status).

B. Non-Functional Requirements

- The system must ensure data privacy and confidentiality.
- The system shall be responsive and accessible from standard browsers.
- The system shall support at least 100 simultaneous client records.
- The SMS feature should function within 5 seconds of triggering.

System Features and Interfaces

A. System Features

- Login and Authentication Module

- Client Profile Management
- Appointment Creation and Management
- Monitoring Record Module
- Automated SMS Notification
- Dashboard with Summary Stats
- User Access Control and Logs

B. User Interface

- Admin Interface: Full control of the system (manages users, records, reports)
- Staff Interface: Can manage clients, schedule, and send SMS
- SMS Gateway Interface: Connected via API for sending notifications

Assumptions and Constraints

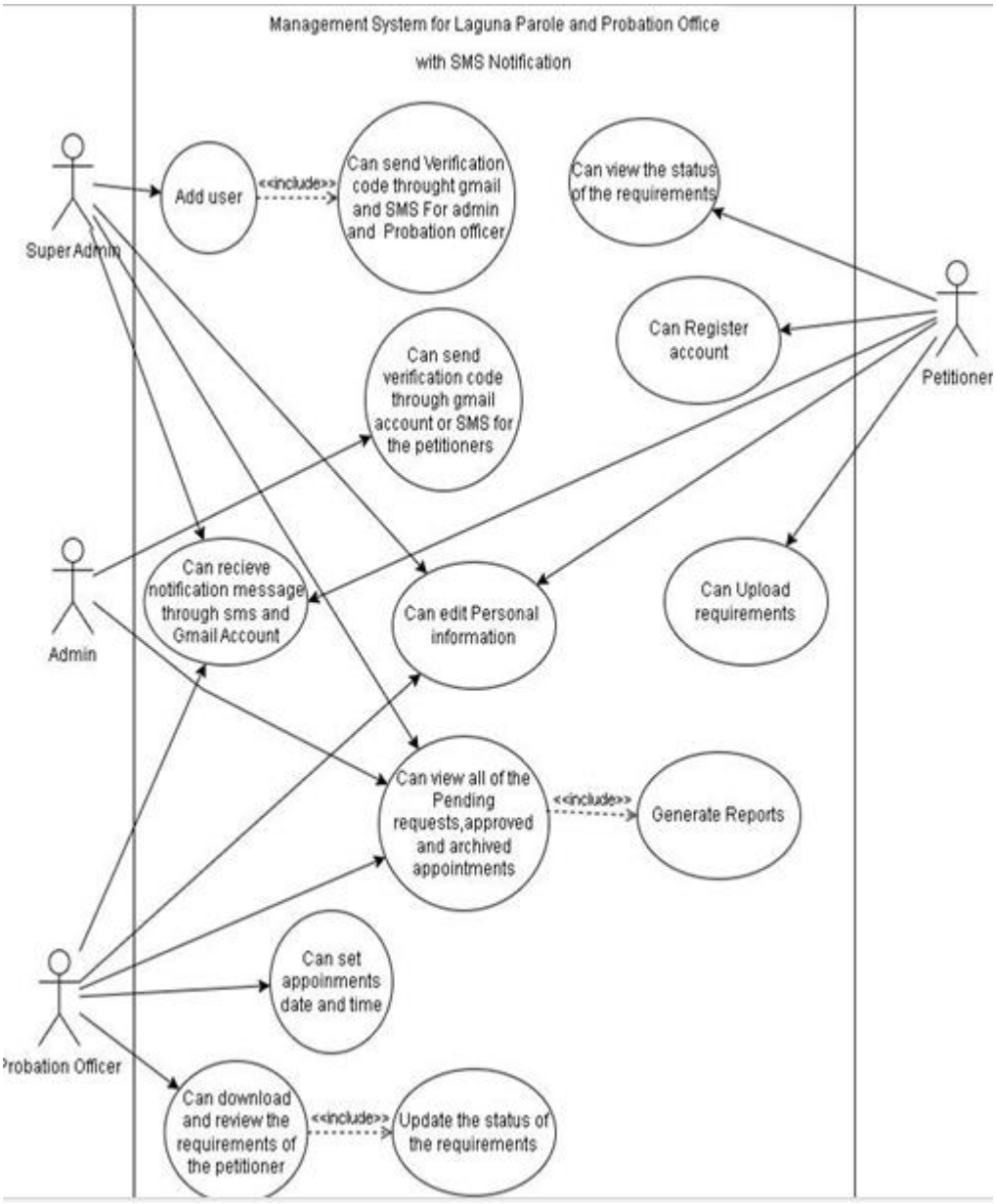
Assumptions:

- Users (admin/staff) have basic computer literacy.
- Clients have mobile phones capable of receiving SMS.
- The office has an internet connection to access the web system.

Constraints:

- Dependent on the third-party SMS gateway service (may have downtime).
- Requires PHP-compatible web server and MySQL database.
- Limited to desktop or laptop usage (mobile version not yet developed).

Use Case Diagram

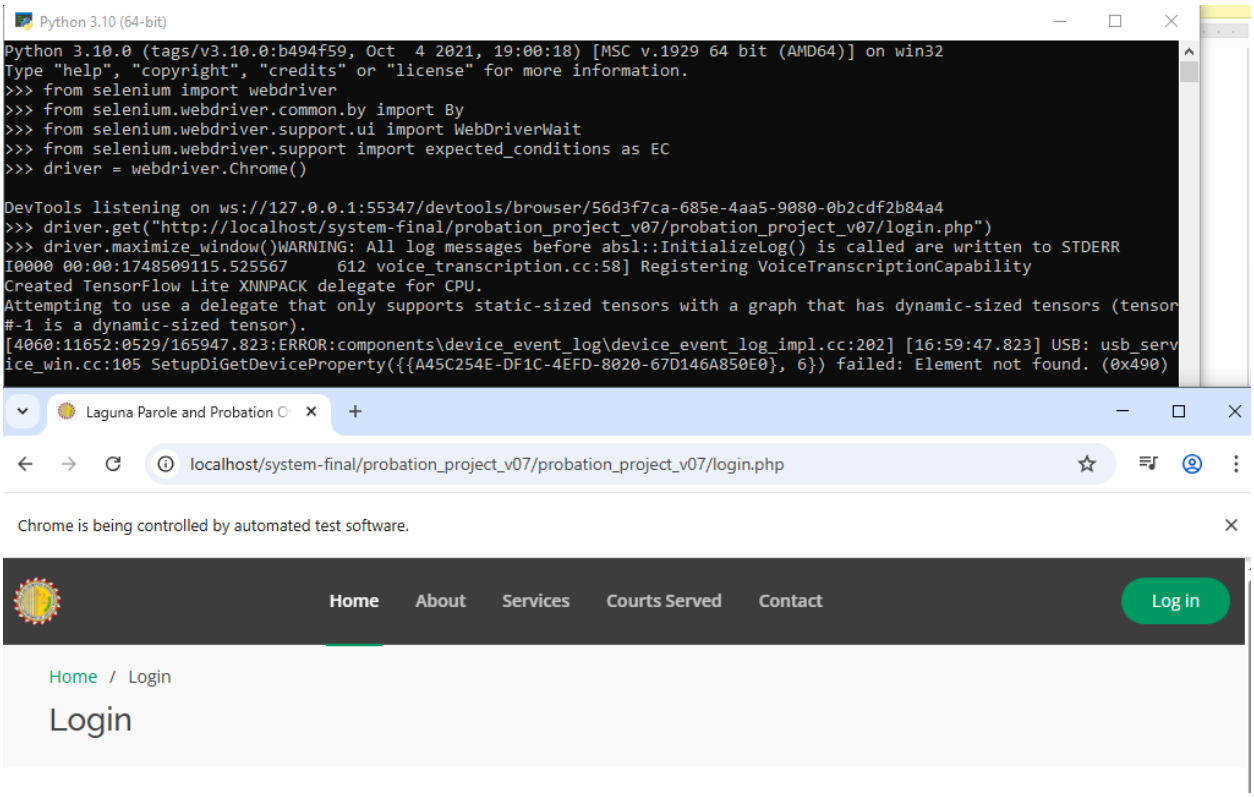


The Testing Tool

To ensure the reliability, functionality, and usability of the Client Appointment and Monitoring Management System for the Laguna Parole and Probation Office, automated testing was conducted using **Selenium**, a widely adopted tool for web application testing.

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

```
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 (tenso
#-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)
```