

Desktop Programming Class: Final Project

Overview

The Desktop Attendance System is a software application designed to automate and manage attendance tracking for organizations, educational institutions, or events. This system will run on desktop environments and provide a comprehensive solution for recording, managing, and analyzing attendance data.

Objective

1. Automate the attendance recording process.
2. Improve accuracy and reliability in attendance tracking.
3. Provide real-time access to attendance data for administrators.
4. Generate detailed and customizable attendance reports.

Functional Requirements

User Roles

1. Administrator

- Log in with secure credentials.
- Manage user accounts and access rights.
- Configure system settings.
- Create, edit, or delete events.
- Record attendance for participants.
- View and export attendance reports.

2. Operators/Instructors

- Log in with secure credentials.

- View and manage events assigned to them.
- Record attendance for participants in their assigned events.

3. Participants

- Log in with secure credentials.
- View their attendance history.

Core Feature

1. Authentication

- Users must log in with secure credentials.

2. Event Management

- Administrators can create, edit, or delete events.
- Specify event details (name, date, location, etc).

3. User Management

- Administrators can manage user accounts, including adding or removing users.

4. Attendance Recording

- Users with appropriate permissions can mark participants as present, absent, or late.

5. Reports and Analytics

- Generate attendance reports for specific events, individuals, or time periods.
- Export reports in common formats (PDF, CSV).

6. Notifications

- Send automated notifications to users about upcoming events or attendance-related updates.

Non-Functional Requirements

1. User Interface:

- The app should have a user-friendly interface with intuitive navigation.

- The UI should be responsive and visually appealing.

2. Performance:

- The app should be fast and responsive, even with a large number of classes and students.
- Attendance tracking and report generation should be efficient.

3. Security:

- User authentication and attendance data should be securely stored.
- The app should protect against unauthorized access and data breaches.