



# TG Attendance & Applications

PS statement id: College project

Title: TG Attendance and Applications

Team No: 35

Team Name: Smart Approval

Category: Software

Theme: Students Attendence Problem

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Presenter



# Comprehensive Project Overview

## Efficient System for Student Attendance Management

### Project Scenario

This project is a web-based system designed to manage student attendance and applications efficiently.

### Module 1: Teacher Guardian (TG)

TG manages student attendance, reviews requests, and adds students to unique groups.

### Attendance Management

TG approves or rejects attendance requests, impacting students' attendance records.

### Module 2: Students

Students log in to submit attendance requests, which are directed to their TG.

### Request Submission

Submitted attendance requests await TG approval. If approved, attendance is recorded.

### Absence Applications

Students can submit applications if they are absent, enhancing communication.

# Comprehensive Technical Approach

## Overview of Technologies and Implementation Steps

### ● Technologies Utilized

Frontend technologies include HTML, CSS, and JavaScript for effective user interfaces.

### ● Backend Framework

Node.js serves as the backend framework, enabling efficient server-side operations.

### ● Database Management

Oracle Database is used for SQL database management, ensuring structured data storage.

### ● User Authentication

A robust user authentication system is implemented for both TGs and students to secure access.

### ● TG Group Management

Unique TG group IDs facilitate efficient student management and organization.

### ● Attendance System

An attendance submission and approval system is established for accurate tracking.

### ● Absence Application Process

Students can submit applications for absences, streamlining communication.

### ● Secure Data Storage

Attendance records are stored securely in the database to ensure data integrity.

# Feasibility and Challenges Ahead

Analyzing feasibility and addressing challenges

- Web-Based Solution Accessibility
  - Provides access from any location, enhancing participation and engagement.
- Secure Database Implementation
  - Ensures efficient record-keeping while maintaining data security and integrity.
- Scalability for Multiple Target Groups
  - System designed to accommodate various target groups and a growing number of students.
- Data Security Risks
  - Challenges include preventing data misuse and ensuring compliance with regulations.
- Managing Attendance Requests
  - Simultaneous requests can overwhelm the system, requiring robust handling mechanisms.
- User-Friendly Interface Development
  - Critical for ensuring that both teachers and students can navigate the system easily.
- Authentication and Access Control
  - Implementing security measures to safeguard personal data and prevent unauthorized access.
- Optimized Database Queries
  - Enhances system performance during peak usage periods to manage multiple requests.
- UI/UX Testing for Usability
  - Conducting thorough tests to refine the interface and improve user experience.

# Transforming Attendance Management

Understanding the Positive Effects on Education

## ● Reduced Manual Effort

Streamlines the process for both teachers and students, minimizing time spent on attendance tasks.

## ● Increased Transparency

Enhances visibility in attendance management, allowing stakeholders to track records effortlessly.

## ● Simplified Absence Applications

Offers students an easy, efficient method for submitting absence requests, improving communication.

## ● Time Savings

Automates attendance tracking, allowing educators to focus on teaching rather than administrative tasks.

## ● Digital Record Maintenance

Maintains accurate digital attendance records, significantly reducing the reliance on physical paperwork.

## ● Enhanced Accountability

Promotes responsibility among students and staff, ensuring accurate attendance marking.

## ● Error Minimization

Reduces human errors in attendance marking, promoting reliability in attendance data.

# Research and References on Attendance Systems

Insights on Attendance Management Systems and Practices

## ● Research on Attendance Systems

Investigate current student attendance management systems for insights and improvements.

## ● Database Management Best Practices

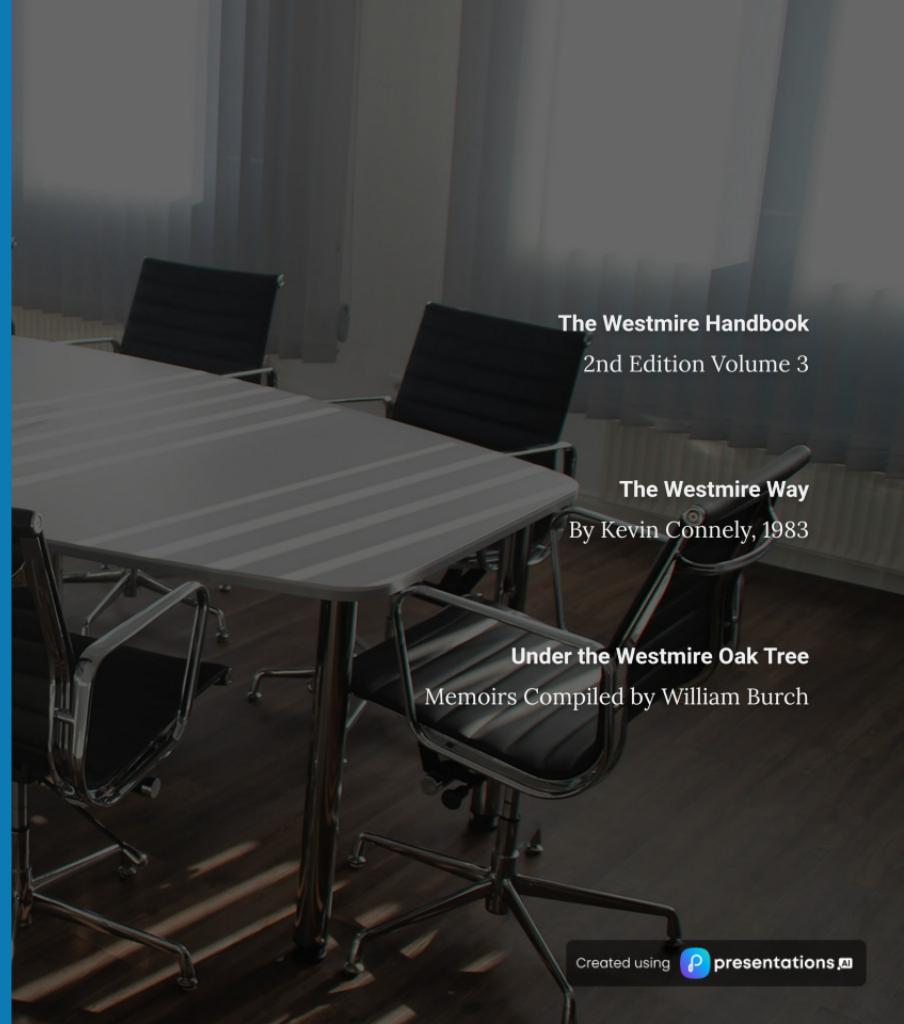
Explore best practices in database management to enhance attendance tracking efficiency.

## ● Web Development Frameworks

Identify web development frameworks that ensure scalability and security for attendance systems.

# Join Us for Further Engagement

Thank you for your attention. For more information and to discuss opportunities, please reach out to us at the provided contact information.



**The Westmire Handbook**

2nd Edition Volume 3

**The Westmire Way**

By Kevin Connely, 1983

**Under the Westmire Oak Tree**

Memoirs Compiled by William Burch