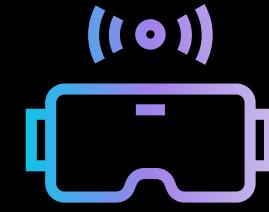
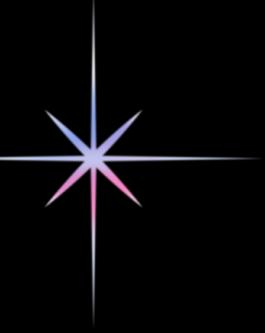


# **SMART CURRICULUM ACTIVITY & ATTENDANCE APP**

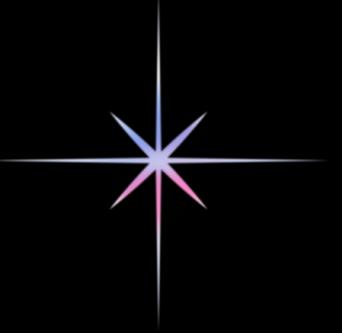
P R E S E N T A T I O N B Y : -

PARAPATHI MANIKANTA REDDY  
KASIREDDY SANDEEP REDDY  
TADI LOKESWARA REDDY  
AVALA BHARATH KUMAR  
JANA SAI RAHUL  
BATTINI NAVEEN



# Introduction

- The Smart Curriculum Activity & Attendance App is a QR-based attendance management system.
- Replaces old manual attendance methods.
- Fast, accurate, reliable, and fully digital.
- Teachers can easily view, analyze, and manage student attendance.
- Students benefit from activity suggestions based on interests and free time.



# QR-Based Systems

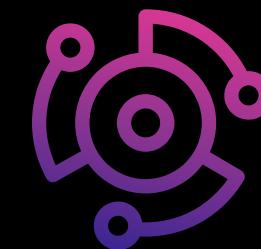
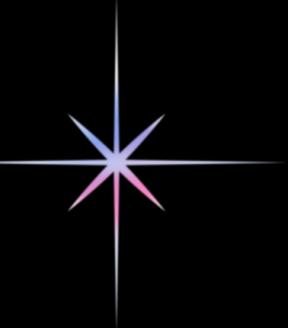
## Literature Summary

### Advantages

- Simple, fast, low-cost
- Accurate and efficient
- Easy export (CSV/XLS)
- Works on any Android/iOS device

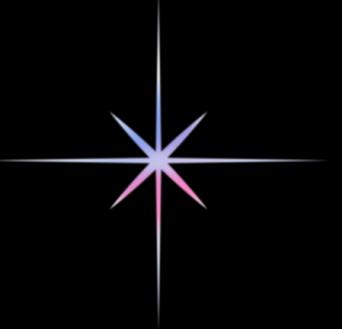
### Challenges

- Students can misuse QR by sharing it
- Requires stable lighting
- Real-time performance depends on phone camera
- Manual scanning may be slow for large classes



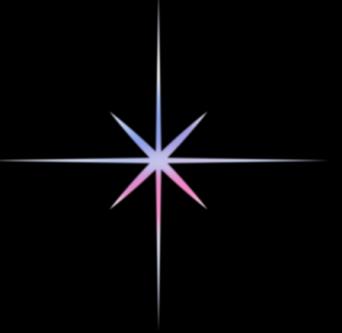
# Research Gaps

- Low accuracy in face recognition under poor lighting
- Training datasets are small
- QR systems lack identity verification
- Real-time performance degradation
- No automatic proxy prevention
- Limited security & privacy handling



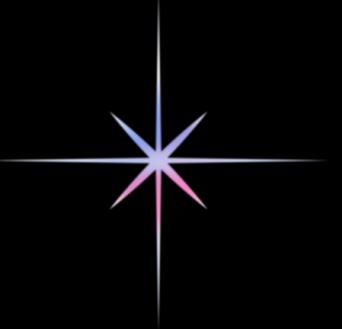
# Detailed Objectives

- Automate attendance using dynamic QR codes
- Provide personalized activity tasks
- Help students use free time productively
- Generate daily routines combining classes + long-term goals
- Easy tracking for students and teachers
- Replace paper-based attendance.
- Ensure fast, accurate, secure attendance marking.
- Provide students with academic/curriculum activities during free periods



# Project Description

- Many institutions still use manual paper-based attendance.
- This system solves:
  - Time wastage
  - Human errors
  - Proxy attendance
  - Lack of productive use of free time
- Teachers generate QR codes that refresh every 5 seconds.
- Students scan using their phones → attendance stored in database.
- Students can track attendance per subject.
- App suggests useful curriculum activities based on interests.



# Scope of the Project

## Suitable for:

- Universities
- Colleges
- Schools

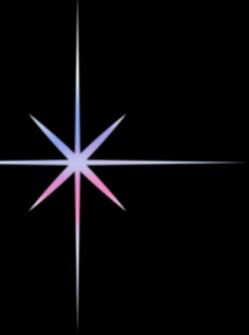
## Key Features

- Real-time QR attendance
- Auto-verification
- Student attendance dashboard
- Teacher analytics
- Activity suggestions

## Future Scope

- Absence alerts to parents
- University-level ERP integration
- Biometric + QR hybrid system

# Use Case Model



## USERS:-

- Teacher
- Student
- Admin

## ACTIONS

- Login
- Generate QR
- Scan QR
- Validate attendance
- View reports
- Manage activities

# User Profiles

## Teachers

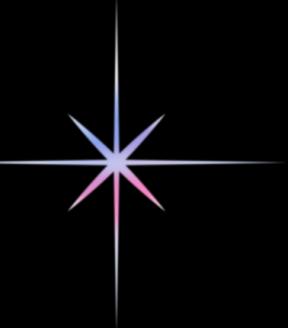
- Generate & display QR
- Monitor attendance
- Send messages
- Track student progress

## Students

- Scan QR
- View attendance
- Receive messages
- Access personalized tasks

## Administrator

- Create/manage users
- Maintain system
- Monitor overall analytics



# Functional Requirements

## User Authentication

- Student/Teacher/Admin login
- JWT token-based

## QR Code Generation

- Session-based
- Auto-refresh every 5-10 seconds

## QR Scanning

- Mobile scanning to mark attendance

## Attendance Management

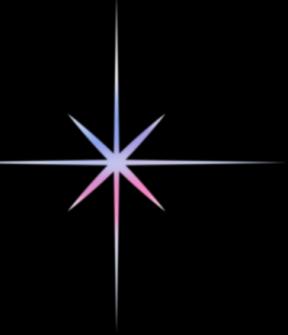
- Store attendance
- Subject-wise and overall view

## Messaging

- Important announcements

## Curriculum Activities

- Interest-based tasks

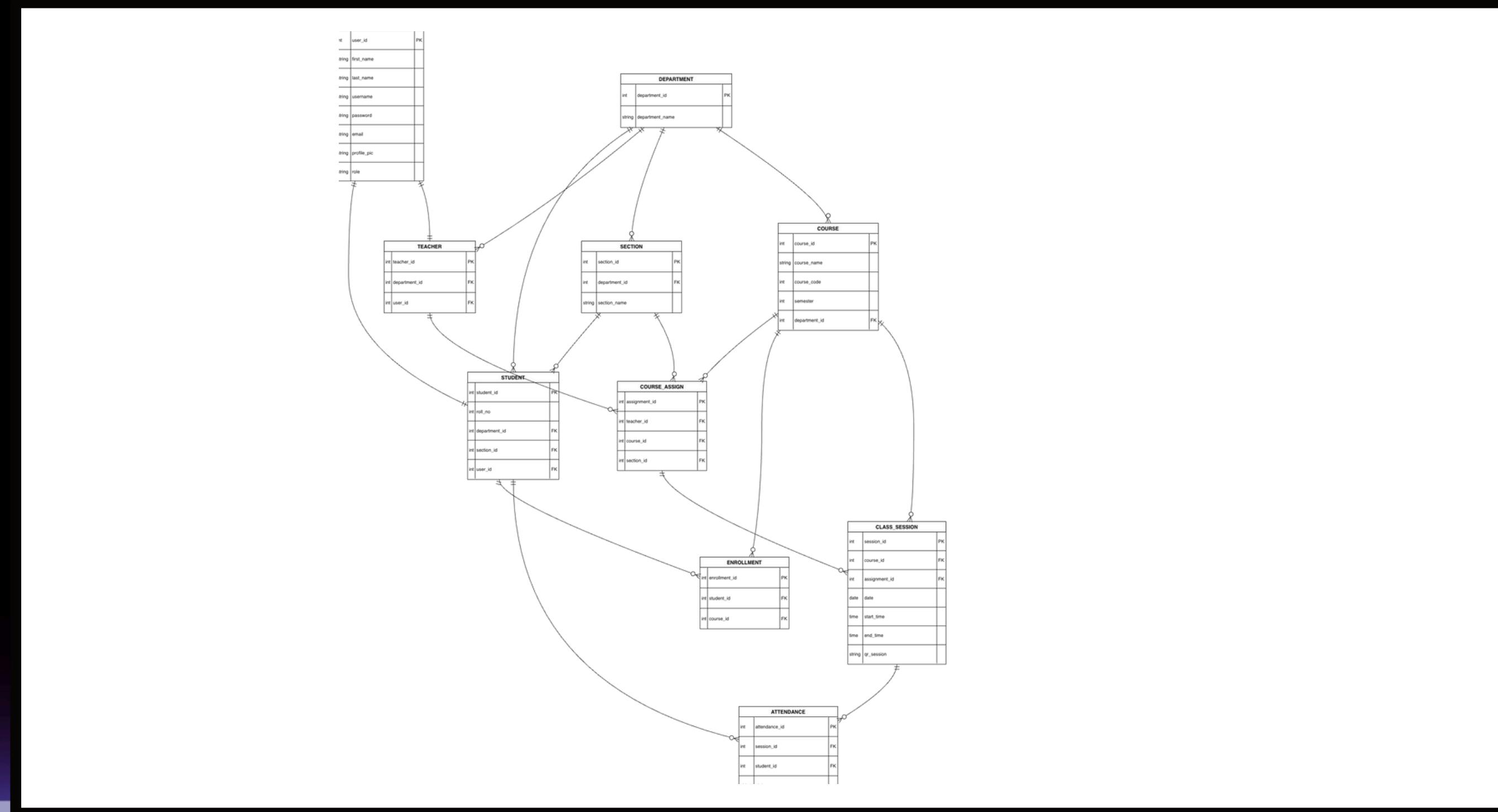


# System Architecture

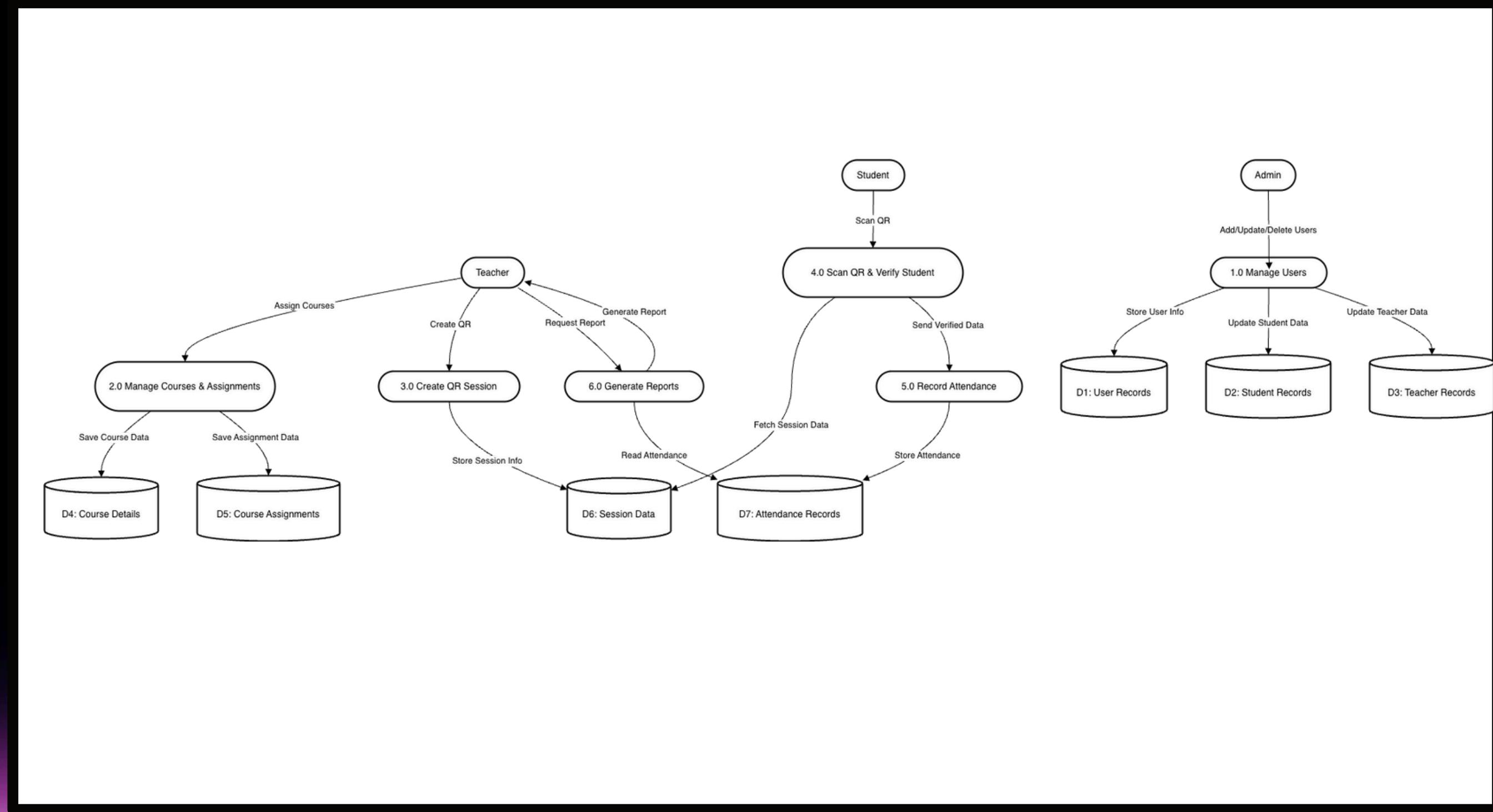
- Frontend: ReactJS, TailwindCSS, Axios
- Backend: Django, DRF, SimpleJWT
- Database: MySQL

# ER Diagram

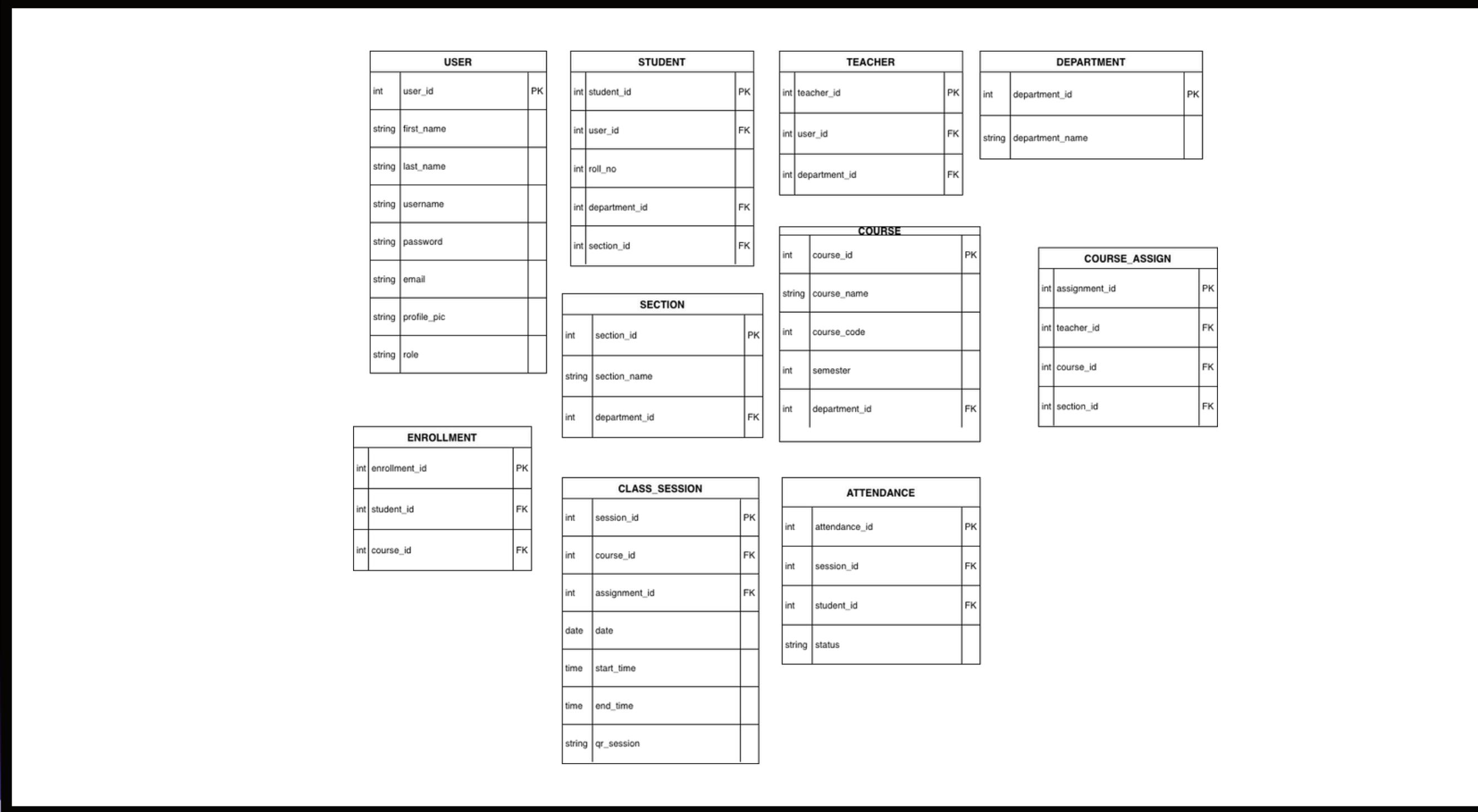
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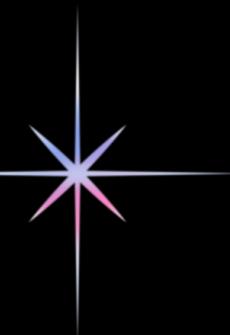


# Data Flow Diagram



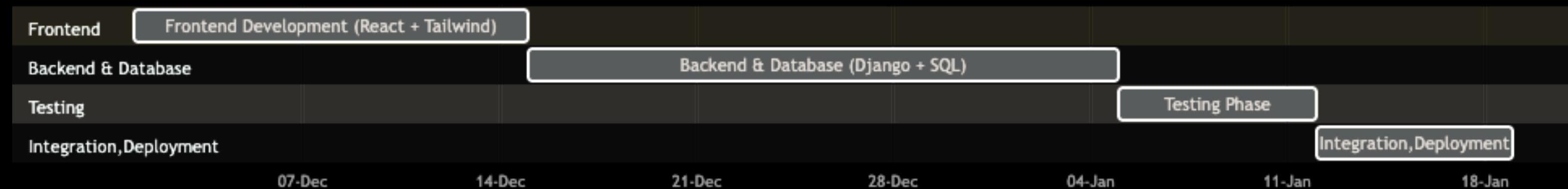
# Database Design

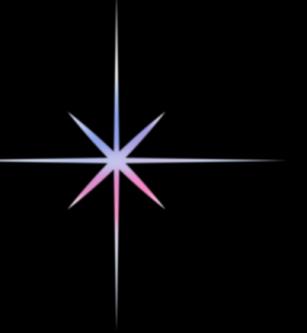




# Project Timeline

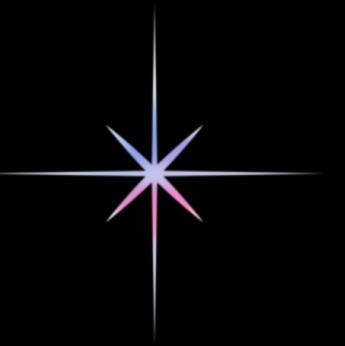
Project Timeline (Dec 2025 - Jan 2026)





# Conclusion

The Smart Curriculum Activity and Attendance App provides a fast, secure, and modern solution to the long-standing problems of manual attendance. By integrating dynamic QR codes, real-time verification, and personalized academic activities, the system not only improves accuracy and efficiency but also enhances student productivity. This project shows how technology can transform classroom management, reduce errors, prevent misuse, and create a more organized and intelligent learning environment.



# THANK YOU!



WE ARE OPEN FOR QUESTIONS?

