Uposthithi

Class Attendance Management System

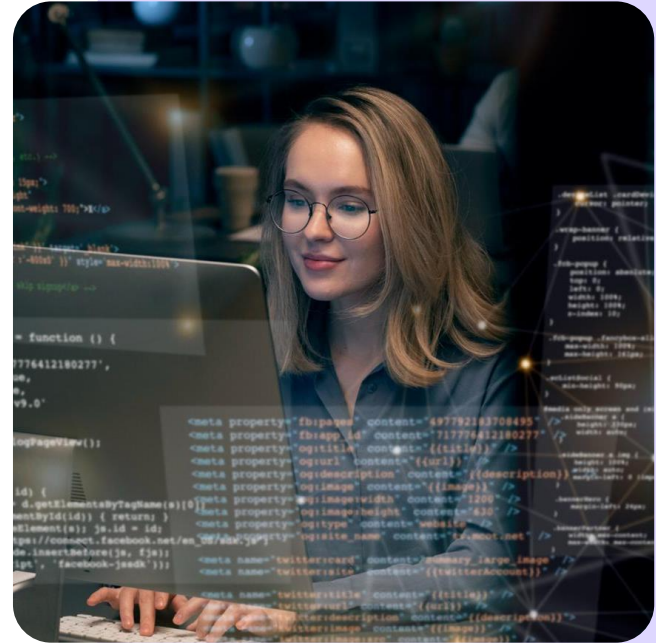Laravel | React JS | MySQL | V1.0

Design and Developed By Quantum Coders Team

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Problem Defination

The Uposthiti aims to solve the following problems:

- **Manual Attendance Taking:** Teachers currently use paper registers or spreadsheets to track student attendance, which is time-consuming and prone to errors.

- **Limited Reporting:** Generating attendance reports is labor-intensive, and analyzing attendance patterns is challenging with manual systems.

- **Communication Gaps:** There's no automated way to notify students, teachers, and parents about attendance concerns.
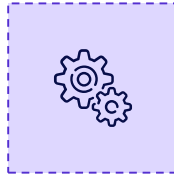
The Purpose Behind Developing Uposthithi

Delayed Information

Existing methods do not offer real-time attendance data, which makes it difficult to detect and address attendance issues on time.
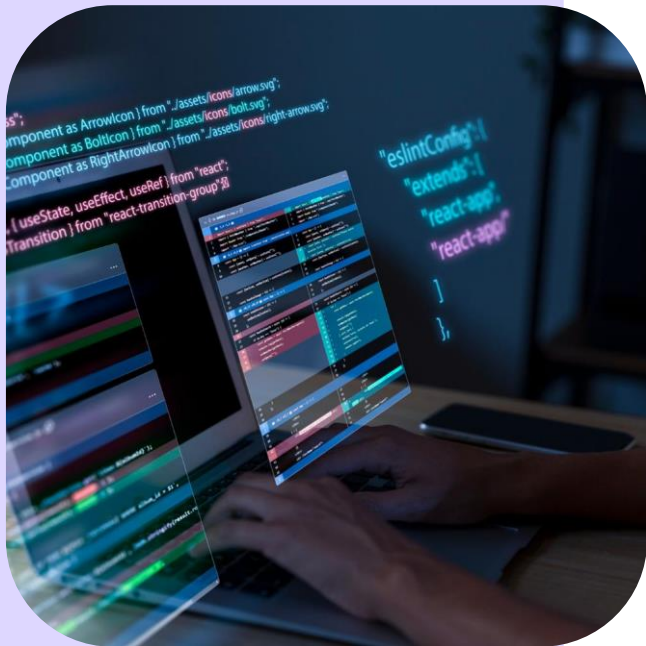
Record Accessibility

Attendance records are often maintained on paper or in separate systems, which makes them hard to access when required.

Scalability Problems

Manual attendance systems are not suitable for institutions with a large number of students.

Uposthithi

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PURPOSE

The Goal Behind Uposthithi

Automation
To simplify and automate the process of recording student attendance in educational institutions.

Real Time Information
Provide real-time attendance updates to teachers, administrators, and students for better monitoring and transparency.
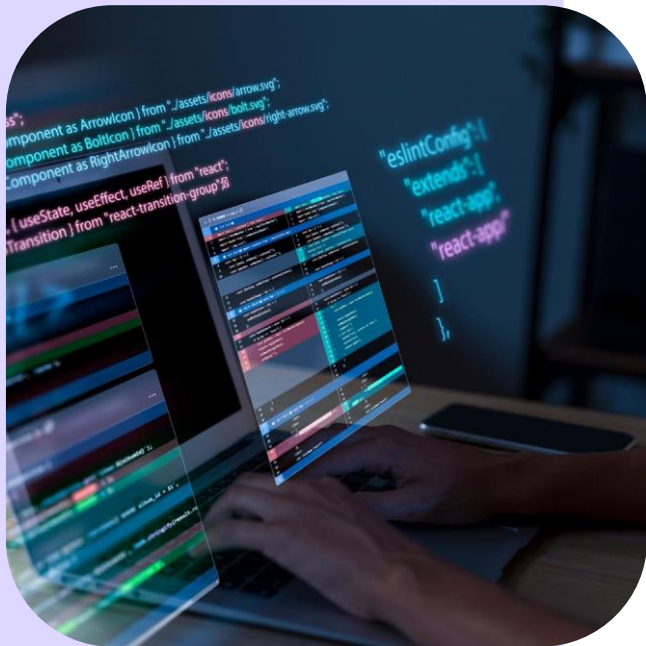
Eliminate Paper Logs
Eliminate paper-based attendance tracking and reduce manual data entry errors.

Reduce Work Load
To reduce the workload of administrators and improve overall efficiency in operations.

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Scope

SCOPE OF UPOSTHITHI

USER MANAGEMENT

Creation and management of accounts for administrators, teachers, and students

COURSE MANAGEMENT

Setup and organization of department, batch, courses, classes, and academic schedules

ATTENDANCE RECORDING

Multiple methods for marking student attendance including manual entry, barcode/QR scanning, and optional biometric verification
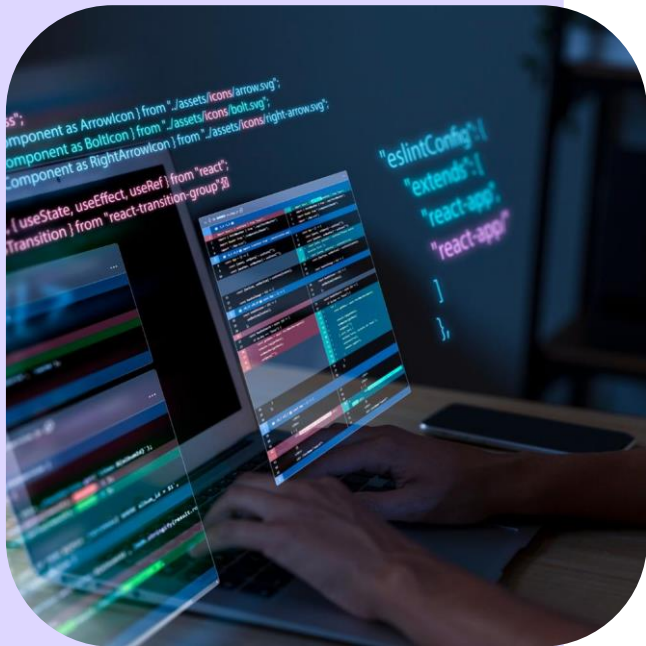
REAL-TIME TRACKING

Provide real-time visibility of student attendance status during ongoing classes to help instructors monitor participation effectively.

REPORTING SYSTEM

The system will generate detailed attendance reports, including summary statistics and visual representations such as charts and graphs.

NOTIFICATION SYSTEM

The system automatically sends alerts regarding attendance issues to the concerned stakeholders, such as students, teachers, and administrators.

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Plans
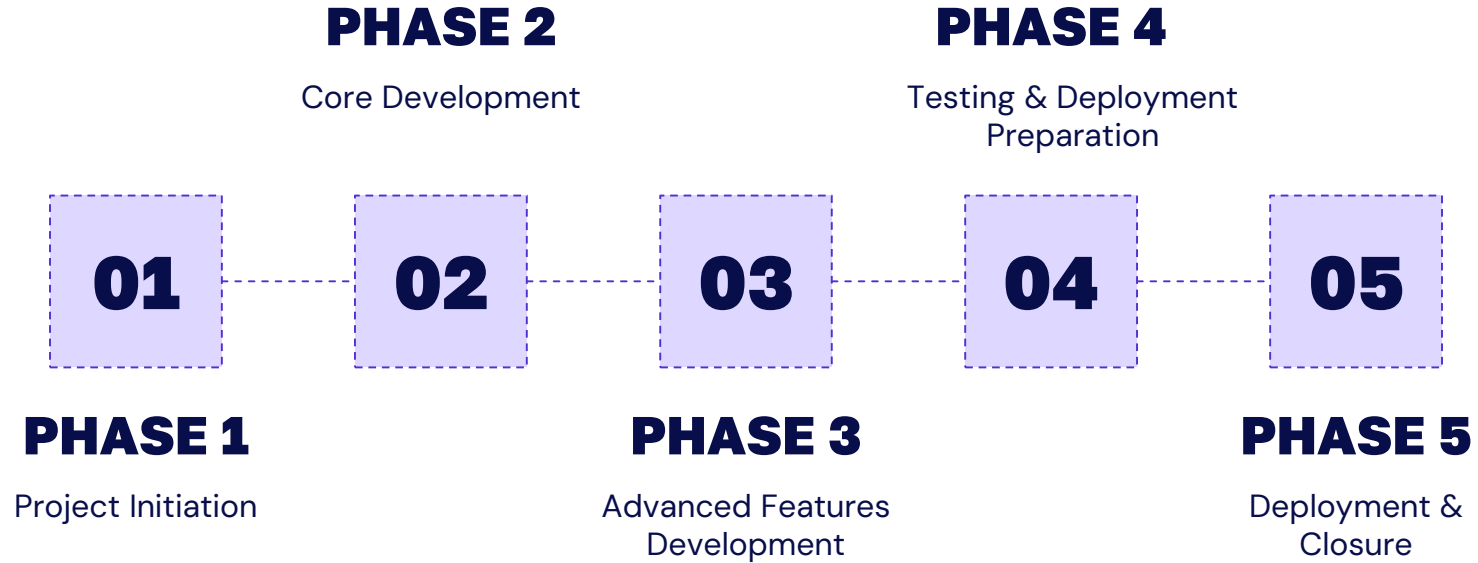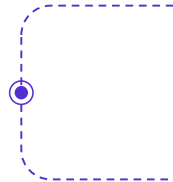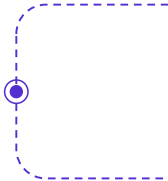
HOW DID I ACHIEVE SUCCESS?

PHASE 2

Core Development

PHASE 4

Testing & Deployment
Preparation

| 01 | 02 | 03 | 04 | 05 |

PHASE 1

Project Initiation

PHASE 3

Advanced Features
Development

PHASE 5

Deployment &
Closure

WEEK 1-2: REQUIREMENT & DESIGN PHASE

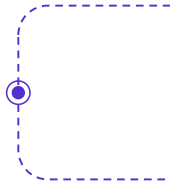| Week	Task Name	Start Date	End Date
Week 1	Requirement Gathering and Analysis	01 May, 25	03 May, 25
Week 1	Finalize Project Scope and Objectives	04 May, 25	05 May, 25
Week 1	Finalize Project Scope and Objectives	06 May, 25	07 May, 25
Week 2	Database schema Design	08 May, 25	09 May, 25
Week 2	Develop UI/UX mockups and prototypes	10 May, 25	13 May, 25
Week 2	Finalize and Setup technology stack and framework	14 May, 25	14 May, 25

WEEK 3-8: DEVELOPMENT PHASE

Week	Task Name	Start Date	End Date
Week 3	User Authentication and Management	15 May, 25	21 May, 25
Week 4	Course and class management modules	22 May, 25	28 May, 25
Week 5	Attendance Tracking	29 May, 25	4 Jun, 25
Week 6	Attendance Reports and Analytics	5 Jun, 25	11 Jun, 25
Week 7	Notifications and Alerts	12 Jun, 25	18 Jun, 25
Week 8	Biometric Authentication	19 Jun, 25	25 Jun, 25

WEEK 9-12: TESTING & DEPLOYMENT PHASE

Week	Task Name	Start Date	End Date
Week 9	Unit and Feature Testing	26 Jun, 25	29 Jun, 25
Week 9	System Performance Testing	30 Jun, 25	02 July, 25
Week 10	Resolve Critical Issue	03 July, 25	09 July, 25
Week 11	Write User Manual	10 July, 25	13 July, 25
Week 11	Prepare Production Environment	14 July, 25	16 July, 25
Week 12	Deployment System and Monitoring	17 July, 25	23 July, 25

RISK ASSESMENT

Technical Risks

- Data Security Vulnerabilities
- System Integration Failures
- Performance Issues
- Data Loss or Corruption

Project Management Risks

- Schedule Delays
- Addition of unplanned features causing delays
- Insufficient developer resources to complete all modules

PROJECT STATUS

Completed Tasks

- Requirement Gathering and Analysis
- Finalize Project Scope and Objectives
- Finalize Project Scope and Objectives
- Finalize and Setup technology stack and framework
- User Authentication and Management
- Course and Class Management (50%

In Progress Tasks

- Develop UI/UX mockups and prototypes
- Course and class management modules
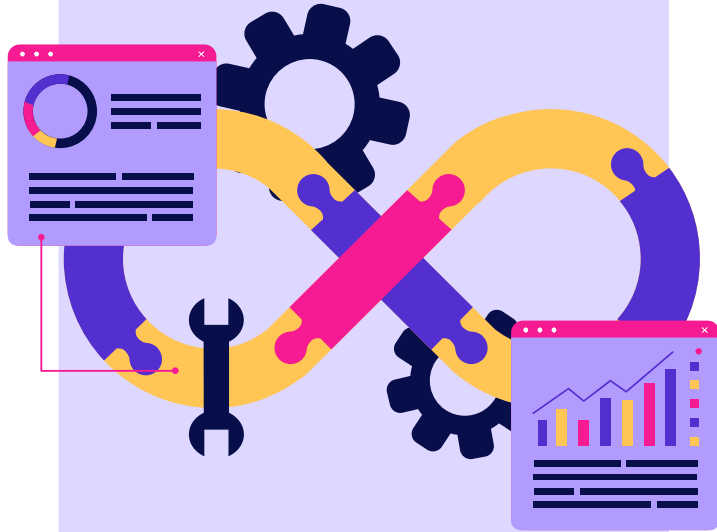- Attendance Tracking

Functional / Non-functional Requirement

Functional Requirement

- The system shall provide secure authentication mechanisms for all users.
- The system shall provide capabilities to create, manage, and deactivate user accounts with
- The system shall provide capabilities to create and manage courses within the educational institution.
- The system shall provide capabilities to define and manage class schedules
- The system shall manage student enrollment in courses and classes
- The system shall provide multiple methods for recording student attendance. (QR Code, Fingerprint)
- And more....

Non Functional Requirement

- The system shall support at least 500 concurrent users without degradation in performance
- The system shall process attendance records within 2 seconds of submission
- The system shall support a database of at least 10,000 students, 1,000 courses, and 5 years of attendance history.
- The system shall provide data backup mechanisms to prevent data loss
- The system shall implement rate limiting to prevent denial of service attacks.
- The system shall log all critical operations for audit purposes.

THANKS!

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