



Interim Presentation
2nd Year Software Project - Group Laser

Learning Management System for Mahapola Ports and Maritime Academy

24/12/2024

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- 02 | Introduction and Overview
- 03 | Software Requirements Specification (SRS)
- 04 | UML and EER Diagrams
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Our Team



B.H.A.R.Kulasekera

Leader



T. A. Hettige

Member



J. Dinuja

Member



R. Sharan

Member



M.B.F. Bushra

Member

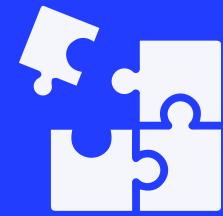
Understanding the Problem

The Current System

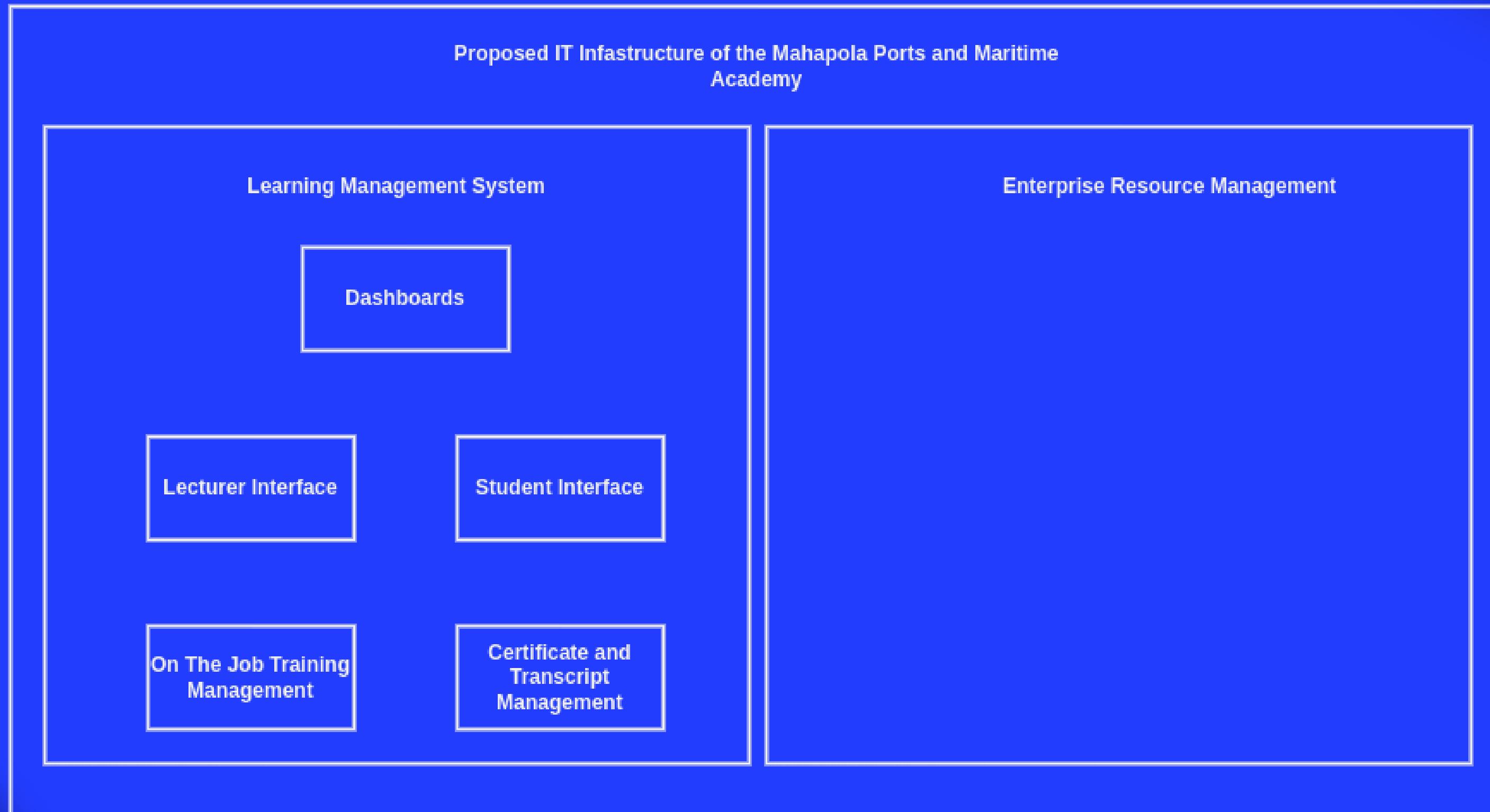
- Manual paper based system, with a student database.
- System takes longer than it needs to in this day and age
- Difficult to keep track of Student Progress
- Difficult to maintain records of students who complete the courses available
- Difficult to manage the staff members

The Proposed Solution

- Modernize the learning experience.
- Improve accessibility to learning materials.
- Enhance communication and collaboration.
- Streamline administrative tasks related to learning.



Overall Architecture Diagram



Core Components



DASHBOARDS AND ADMINISTRATION

Interface for all user to interact with including Administrators,



LECTURER INTERFACE

Lecturers to Manage Course Content, and engage with Students



STUDENT INTERFACE

Students to access course content and attempt quizzes and assignments online



ON THE JOB TRAINING

Trainign records to be handeled by the system in a semi auto mated manner



DOCUMENT MANAGEMENT

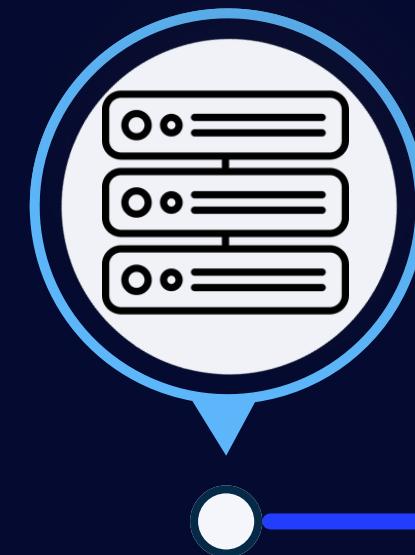
Manage Documents and Cetificates of students and for them to be accessed.

Vision

To empower the Mahapola Ports and Maritime Academy and its learners through a cutting-edge Learning Management System that delivers accessible, engaging, and effective maritime education for the 21st century.



Technologies Used



HARDWARE

Virtual Machines



CONTAINERS

Docker



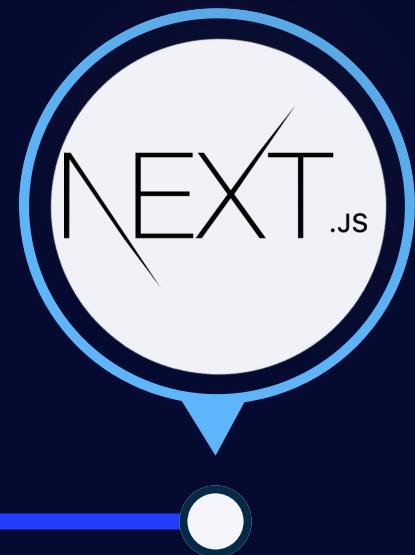
DATABASE

Postgress Database



BACKEND

Java Springboot



**FRONT
END**

NextJS

SRS - Target Audience

01

OUR TEAM

02

THE FACULTY

03

THE MAHAPOLA PORTS AND MARITIME ACADEMY

Functional Requirements

01
02
03
04
05
06

User Management

Course Management

Material Delivery

Assignment And Grading

Communication and Collaboration

Reporting and Analysis



Non Functional Requirements

01

Performance Requirements

02

Safety Requirements

03

Security Requirements

04

Software Quality Attributes

05

Business Rules



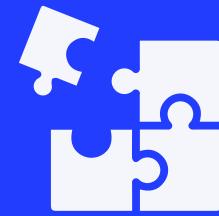
UML and EER diagrams

We have prepared,

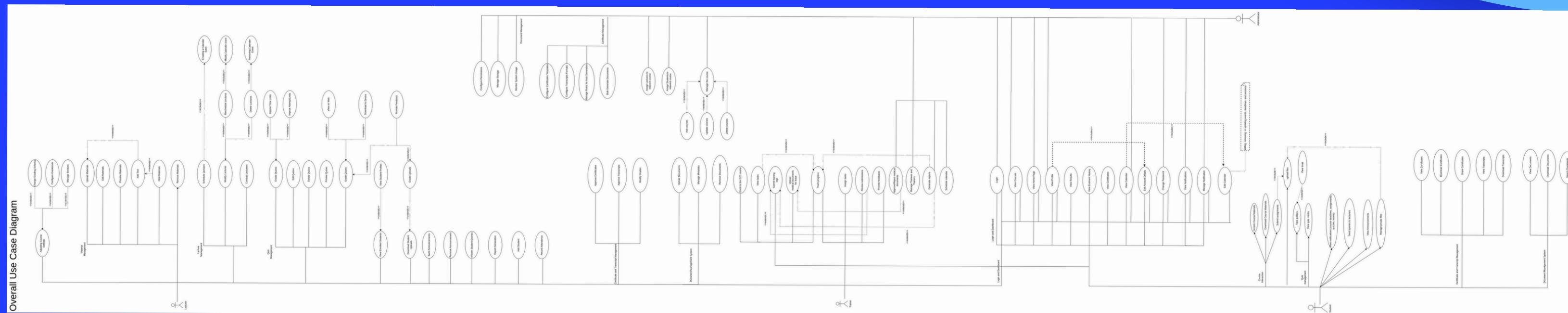
1. Use Case Diagrams
2. Activity Diagrams
3. Class Diagrams
4. EER Diagrams

Covering the full scope of the project!



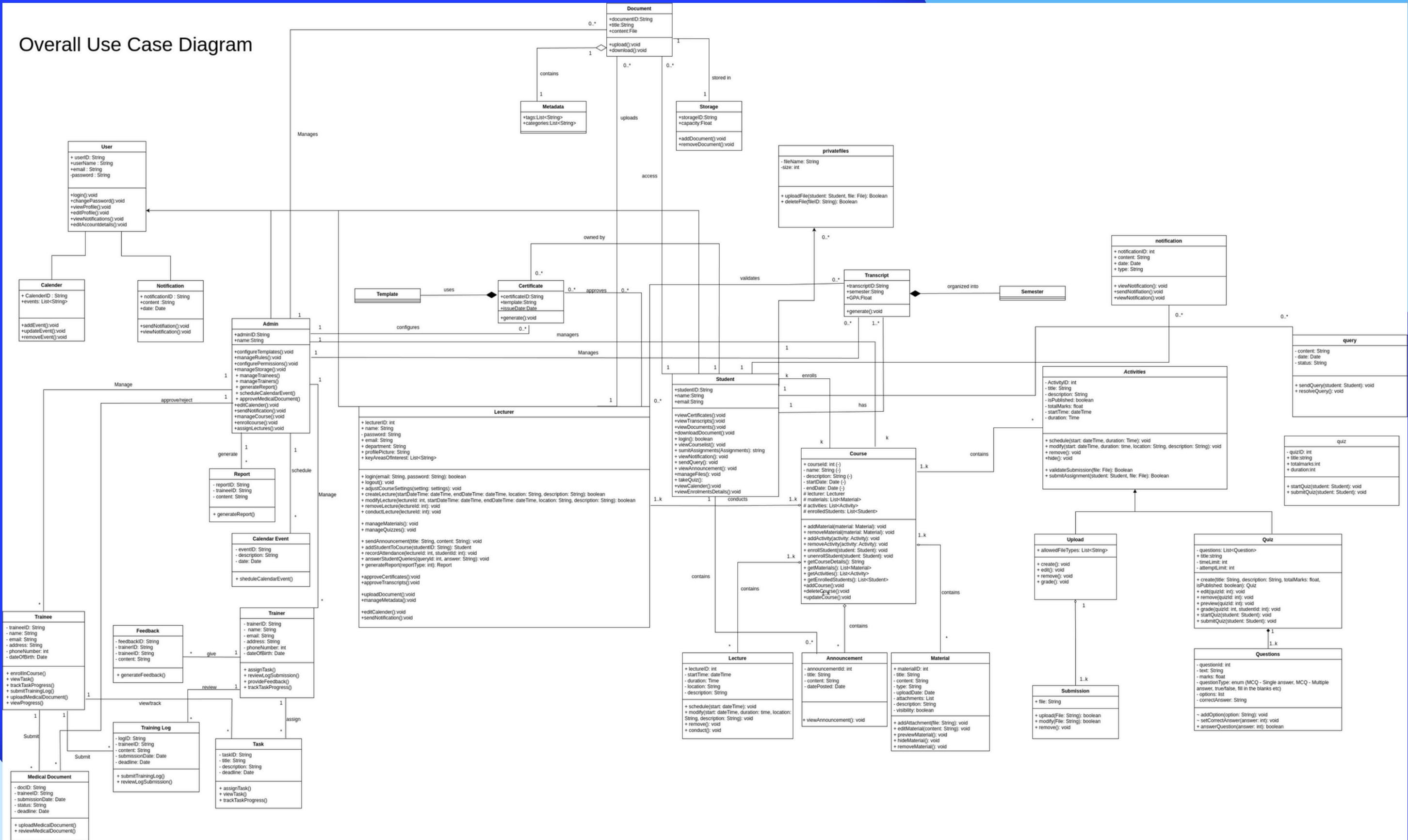


Overall Use Case Diagram





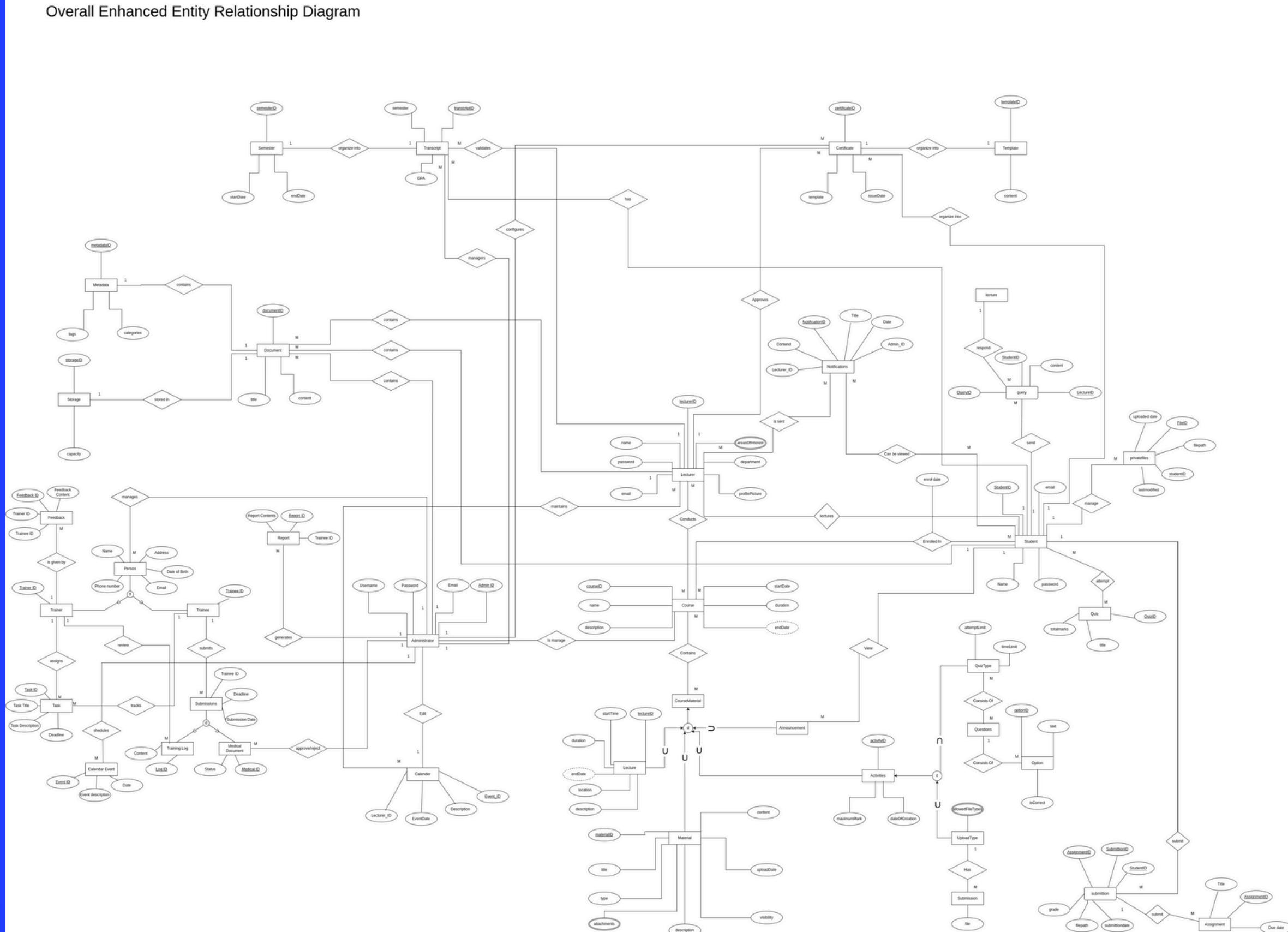
Overall Class Diagram





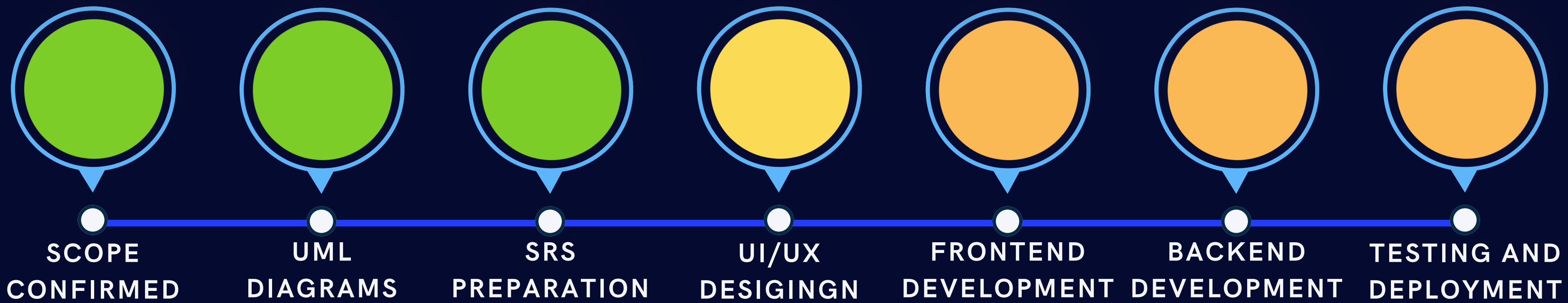
Overall EER Diagram

Overall Enhanced Entity Relationship Diagram

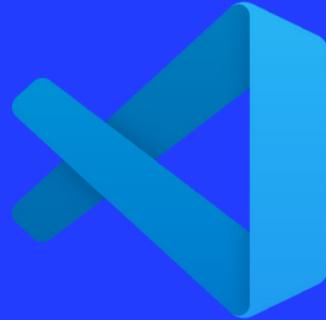




Project Progress and Timeline



Tooling Used in Development



VS CODE

Interface for all user to interact with including Administrators,



INTELLIJ

Interface for all user to interact with including Administrators,



O365

Interface for all user to interact with including Administrators,



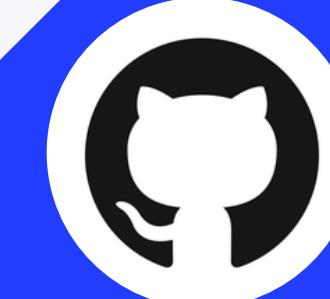
GOOGLE DOCS

Interface for all user to interact with including Administrators,



CANVA

Interface for all user to interact with including Administrators,



GITHUB

Interface for all user to interact with including Administrators,



CLICKUP

Interface for all user to interact with including Administrators,

Individual Contributions

24th Dec

- **Lecturer Interface**
 - Page Design
 - Use Case Diagram
 - Activity Diagram
 - Class Diagram
 - EER Diagram
- Preparing the SRS document
- Integrating All Diagrams
- Interim Presentation

February
2025

- High Fidelity Figma Design
- NextJS FrontEnd Development
- SpringBoot BackEnd Development
- Database Design

May
2025

- Containerizing
- Unit Testing
- Integration Testing
- Load Testing



224112A

B.H.A.R.Kulasekera

Individual Contributions



- Certificate Management and Data Management System
 - Use Case Diagram
 - Activity Diagram
 - Class Diagram
 - EER Diagram

- High Fidelity Figma Design
- NextJS FrontEnd Development
- SpringBoot BackEnd Development
- Database Design

- Containerizing
- Unit Testing
- Integration Testing
- Load Testing



224074G

T.A. Hettige

Individual Contributions



224256R

J.Dinuja

24th Dec

February
2025

May
2025

- **Student Interface**
 - Page Design
 - Use Case Diagram
 - Activity Diagram
 - Sequence Diagram
 - Class Diagram
 - EER Diagram
- Contributing to Prepare the Interim Report

- High Fidelity Figma Design
- NextJS FrontEnd Development
- SpringBoot BackEnd Development
- Database Design

- Containerizing
- Unit Testing
- Integration Testing
- Load Testing

Individual Contributions



224254J

R. Sharan

24th Dec

February
2025

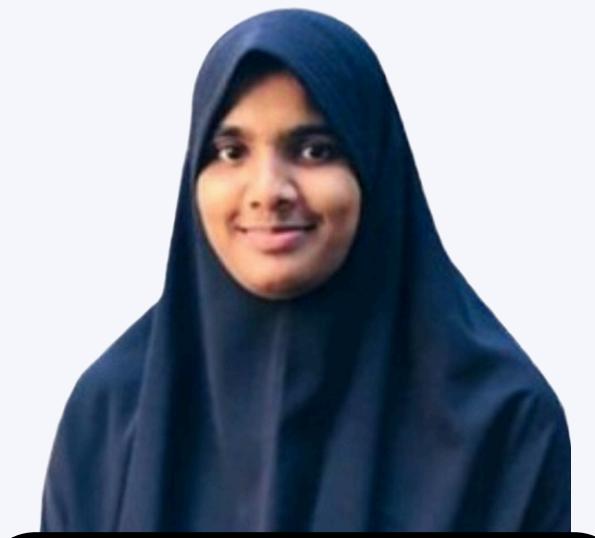
May
2025

- Dashboard
 - Page Design
 - Use Case Diagram
 - Activity Diagram
 - Class Diagram
 - EER Diagram
- Contributing to prepare interim report

- High Fidelity Figma Design
- NextJS FrontEnd Development
- SpringBoot BackEnd Development
- Database Design

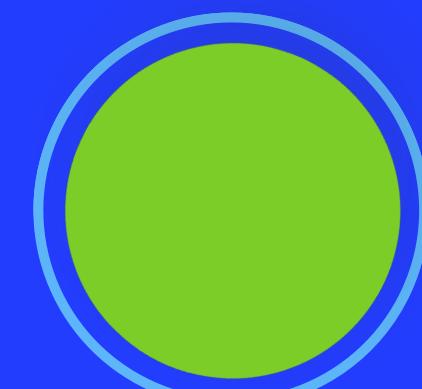
- Containerizing
- Unit Testing
- Integration Testing
- Load Testing

Individual Contributions

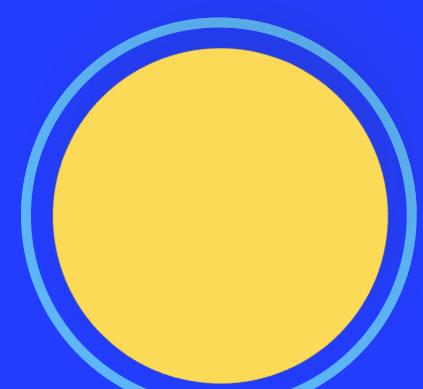


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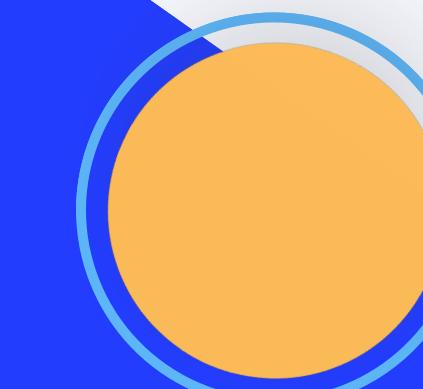
M.B.F. Bushra



- **OJT Course Module**
 - Page Design
 - Use Case Diagram
 - Activity Diagram
 - Class Diagram
 - EER Diagram
- Preparing the interim Report



- High Fidelity Figma Design
- NextJS FrontEnd Development
- SpringBoot BackEnd Development
- Database Design



- Containerizing
- Unit Testing
- Integration Testing
- Load Testing



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Q&A



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Thank you!

