Forum Application

# Document Version Control

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Abstract

The purpose of this study is to develop a forum application for students to post articles and share their knowledge and ideas. The application aims to provide a platform for students to exchange information and engage in discussions on various academic and non-academic topics.

The application will feature user-friendly interfaces, allowing students to easily post articles and start discussions. Users will also be able to interact with each other through commenting .

The study will be conducted through a combination of user interviews, focus groups, and usability testing to ensure that the application meets the needs of its intended users. The results of this study will contribute to the development of a functional and effective forum application for students.

Keywords: forum application, student, article, discussion, knowledge exchange, engagement.

In conclusion, the forum application for students to post articles will provide a valuable resource for knowledge exchange and engagement among students. The application will be user-friendly, feature-rich, and tailored to the needs of its intended users, ensuring that it meets its goal of fostering student engagement and academic growth.

1. **Introduction**

##### Why this High-Level Design Document?

The purpose of this High-Level Design (HLD) Document is to add the necessary detail to the current project description to represent a suitable model for coding. This document is also intended to help detect contradictions prior to coding, and can be used as a reference manual for how the modules interact at a high level.

The HLD will:

* + - Present all of the design aspects and define them in detail
    - Describe the user interface being implemented
    - Describe the hardware and software interfaces
    - Describe the performance requirements
    - Include design features and the architecture of the project
    - List and describe the non-functional attributes like: o Security
      * Reliability
      * Maintainability
      * Portability
      * Reusability
      * Application compatibility
      * Resource utilization
      * Serviceability

#### Scope

The HLD documentation presents the structure of the system, such as the database architecture, application architecture (layers), application flow (Navigation), and technology architecture. The HLD uses non-technical to mildly-technical terms which should be understandable to the administrators of the system.



1. **User Requirements**

The student forum application will have the following requirements:

User-friendly interface

Ability to post articles and start discussions

Ability to edit or delete articles

Ability to comment on articles and discussions

1. **Architecture**

The student forum application will be developed as a web-based application and will use a three-tier architecture. The three tiers are:

Presentation tier: This tier will be responsible for presenting the user interface to the users and handling user interactions. It will be built using React with tailwind css.

Application tier: This tier will be responsible for processing user requests, managing user authentication and authorization, and performing database operations. It will be built using a server-side scripting language such as node js .

Database tier: This tier will be responsible for storing the data for the application. It will use a non-relational database management system such as

mongodb .

1. **Functionality**

The student forum application will have the following functionality:

User registration and login

Article posting

Edit Article

Delete Article

Commenting on articles and discussions

1. **Technologies**

The following technologies will be used in the development of the student forum application:

HTML, JavaScript, React and tailwind CSS for the presentation tier

Node js and express js for the application tier

mongodb for the database tier

1. **Conclusion**

In conclusion, the HLD report provides an overview of the design of the student forum application. The application will be a web-based application that will allow students to post articles and engage in discussions on various academic and non-academic topics. The architecture of the application will be based on a three-tier design, and the main functionality and technologies used in the development of the application have been described.