1. Introduction

The purpose of this document is to outline the high-level design principles, architectural patterns, and design patterns to be employed in the development of the platform. This platform aims to provide a robust and scalable solution for the e learning platform.

2. High-Level Design Principles

Modularity: The platform will be built with small reusable components.

Scalability: It will work good even if the number of users increases

Flexibility: Any new design to the application can be easily added

Security: The application will have good security and protect against malicious attacks

Usability: The application will be user friendly

3. Architectural Patterns

3.1. Microservices Architecture: The platform will utilize microserices like REST apis, datasbase connection,etc

3.2. Event-Driven Architecture: The platform will use API calls to start any process which runs in the background and provide the output

4. Design Patterns

4.1. Singleton Pattern: It is used for database connection

4.2. Factory Pattern: It can be used for payment of the fees.

5. Conclusion The platform will be designed using a combination of high-level design principles, architectural patterns, and design patterns to achieve scalability, maintainability, and flexibility.