

Non-Functional Requirements:

1. Security:

- All user data, including personal details, login credentials, and submitted assignments, should be encrypted to ensure data security.
- The platform must implement secure login processes with multi-factor authentication for administrators to enhance account security.
- Access to sensitive information, such as grades and user details, should be role-based and restricted to authorized personnel.

2. Scalability:

- The platform should be designed to handle a scalable number of users, courses, and assignments to accommodate potential growth in user base and content.

3. Performance:

- The system response time for actions such as logging in, updating user details, and accessing course materials should be optimized to provide a seamless user experience.
- The platform should be able to handle concurrent submissions and grading processes without significant performance degradation.

4. Availability:

- The platform should have high availability, with minimal downtime for maintenance, updates, or unexpected issues.
- A reliable backup and recovery system should be in place to prevent data loss and ensure quick recovery in case of system failures.

5. Compliance:

- The platform must comply with relevant data protection laws and regulations to ensure the privacy and security of user data.
- Accessibility standards should be followed to make the platform usable by individuals with disabilities.

6. User Interface:

- The user interface should be intuitive, with clear navigation and user-friendly design, to enhance the overall user experience for teachers, students, and administrators.

Protocols/Personas:

1. Administrator Persona:

- Name: Admin Aiden
- Role: System Administrator
- Responsibilities: Overseeing platform operations, managing user accounts, creating and approving courses, monitoring assignment workflows.
- Protocols:
 - Admins log in using a secure multi-factor authentication process.
 - Admins can search for user accounts and edit details, with changes logged for auditing purposes.

- Admins have tools to troubleshoot issues related to assignment submissions and grading.

2. **Teacher Persona:**

- Name: Teacher Taylor
- Role: Educator
- Responsibilities: Creating and managing courses, creating assignments, grading student work.
- Protocols:
 - Teachers log in securely to access their teaching dashboard and manage courses.
 - Teachers can easily update their profile information, and changes are reflected immediately.
 - Teachers create and publish course materials with multimedia elements.
 - The system provides features for creating various assignment types with specified deadlines and grading criteria.

3. **Student Persona:**

- Name: Student Sam
- Role: Learner
- Responsibilities: Enrolling in courses, submitting assignments, viewing grades.
- Protocols:
 - Students register and log in securely to access learning materials and participate in courses.
 - The process of enrolling in a course is simple, with clear instructions provided.
 - Students submit assignments directly on the platform, and the system acknowledges receipt and tracks submission status.
 - The platform provides a feature for students to view grades with an intuitive and detailed feedback interface.