# CS 255 Module Two Assignment Template

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## Functional Requirements

| **Functional Requirement** | **Rationale for Requirement** | **Source(s), APA format** |
| --- | --- | --- |
| User Account Management | LMS needs to handle the creation, management, and deletion of user accounts for students, instructors, and administrators. This is essential for maintaining the integrity of the users academic records and providing correct access levels. |  |
| Course Content Delivery | The system should have the capability to display course materials, assignments, and resources in various multimedia formats (text, video, audio).  This is crucial for providing a comprehensive learning experience that can cater to different learning stules. |  |
| Assignment submission and grading | There must be a feature for students to submit assignments and for instructors to grade them within the LMS. This streamlines the process of assessing student performance and providing feedback. |  |
| Testing and assessment functionality | The LMS should be able to administer quizzes and exams, including various question types (multiple-choice, essay, etc.), and automatically grade them when applicable. This supports a wide range of assessment strategies to evaluate student understanding |  |
| Discussion Forums and Collaboration Tools | To foster a collaborative learning environment, the LMS should include discussion boards and tools that enable communication between students and instructors. This encourages engagement and facilitates peer-to-peer learning. |  |
| Reporting and analytics | The system should generate reports on student progress, course completion rates, and other analytics to help instructors and administrators monitor and improve the educational process. |  |

## Nonfunctional Requirements

| **Nonfunctional Requirement** | **Rationale for Requirement** | **Source(s), APA format** |
| --- | --- | --- |
| Compatibility | The LMS must be compatible with various operating systems and browsers to ensure accessibility for all users. It should also be responsive to different screen sizes, including mobile devices and tablets. |  |
| Performance | The system should be optimized for speed and responsiveness. Server-side and client-side processing should be balanced to ensure quick load times and smooth interactions, especially for users with slower internet connections. |  |
| Accessibility | The LMS interface should be designed to accommodate users with disabilities, incorporating features like screen reader compatibility, keyboard navigation, and compliance with the Web Content Accessibility Guidelines (WCAG). |  |
| Usability | The user interface of the LMS should be intuitive and user-friendly, minimizing the learning curve for new users and ensuring that all features are easily navigable. |  |
| Reliability | The system should be reliable, with minimal downtime and the ability to handle a high number of simultaneous users without performance degradation. |  |
| Security | The LMS must have robust security measures in place to protect sensitive data, including encryption of data in transit and at rest, secure authentication mechanisms, and regular security audits |  |

## Assumptions

| **Assumption** | **Rationale for Requirement** | **Source(s), APA format** |
| --- | --- | --- |
| Technical Proficiency of Users | It is assumed that users (students, faculty, and administrators) have a basic level of technological proficiency and are able to navigate standard computer interfaces. This assumption is necessary to design an interface that doesn't require extensive training to use. |  |
| **Stable Internet Connectivity** | The LMS assumes that users will have access to stable and reliable internet connectivity to access the system's online resources, participate in discussions, submit assignments, and use the system effectively without interruption. |  |

## Limitations

| **Limitation** | **Rationale for Requirement** | **Source(s), APA format** |
| --- | --- | --- |
| Integration with Existing Systems | The LMS may have limitations in its ability to integrate with existing educational tools and databases at YOUser University. This could affect the seamless transfer of data and may require additional steps to ensure compatibility. |  |
| Resource Constraints | There may be limitations related to the budget, which could affect the choice of technology and the extent of features that can be implemented. Additionally, time constraints could limit the scope of the project, affecting the depth of development and testing phases. |  |

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