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## Functional Requirements

| **Functional Requirement** | **Rationale for Requirement** | **Source(s), APA format** |
| --- | --- | --- |
| Chat Feature within the system | Students/teachers will need to chat for quick conversations regarding assignments, group work, or for projects that involve real-time conversations | (Pappas, 2021) |
| Automatic Grading Feature for In-System created quizzes/tests | For professors to be more productive, functions should enable automatic grading of assignments capable of being graded by machine | (Mardinger, 2021) |
| Mailto Feature within the system | As users need to contact one another outside class hours, they should be able to send mail to one another within the system itself, keeping it self-contained in it’s own ecosystem separate from the web | (W., 2017) |
| Import Documents to Class Feature that imports and converts documents | Professors may want outside reading or personal documents added to classrooms in their dashboard; import function should allow users to convert to various document types for easy access to others within the same system, or to PDF for display on the classroom page directly without needing any separate software | (Mardinger, 2021) |
| Random Group Assignment Feature to assign users through selected criteria | Online classes can be large, assigning students to groups can be difficult when done by hand. Random assignment can be done with a function that takes into account various pre-selected attributes for users, such as age, gender, physical location, etc, when these things are applicable to the project assigned. | (M, 2019) |
| Calendar Pop-up Feature to show reminder of upcoming events | Reminders to complete various assignments or important postings should have a pop-up message available to be turned on by users | (Mardinger, 2021) |

## Nonfunctional Requirements

| **Nonfunctional Requirement** | **Rationale for Requirement** | **Source(s), APA format** |
| --- | --- | --- |
| System is Accessible from Web or Mobile App | The system should be accessible to all users regardless of the platform. No proprietary software needs to be installed to access the system | (Infinity Media Group, 2020) |
| System implements an Easy UI | The user interface is intuitive and simple to use, for all users of the system. | (W., 2017) |
| System incorporates a Maintainable Design | The system is designed in such a way as to make it easy to find and eliminate bugs and make changes quickly so that the system does not go offline during these changes | (Phelps, 2021) |
| Performance on all Web Browsers is equal | The performance of the system is the same across all web browsers, ensuring that no user has a better experience than others based simply on their preferred web browser; likewise, no web browser should bar a user from accessing the system | (Phelps, 2021) |
| System is Scalable | It is easy to add features to the system in order to accomodate more users, without jeopardizing the performance of the system; this can be achieved with the cloud-based system model | (Phelps, 2021) |
| System is Secure | The system is secure for all users, and user data is protected from outside attacks; authentication functions are enabled to ensure user data is accessed appropriately | (Phelps, 2021) |

## Assumptions

| **Assumption** | **Rationale for Requirement** | **Source(s), APA format** |
| --- | --- | --- |
| All developers will have skill needed to develop the system as required | The developers picked for this project have shown that they can complete the various requirements through their work on other projects within the company | (“Assumptions and constraints in project management” n.d.) |
| The hardware used for system deployment is adequate to support user traffic | The client has sent us the specifications for their hardware, indicating it will meet the minimum requirements necessary to handle the system and the users that will interact with it, as well as all other LMS related items (uploads, class hosting, chats, ets) | (“Assumptions and constraints in project management” n.d.) |

## Limitations

| **Limitation** | **Rationale for Requirement** | **Source(s), APA format** |
| --- | --- | --- |
| The system must be deployed before the next school year | In order to get the system adopted quickly and students transitioned, it needs to be developed, tested, and ready for deployment before next school year, essentially 10 months from now | (Estuate, 2021) |
| Only a limited number of developers are available to work on the system | Due to other projects being developed, the team for the system will be small to start off; more team members will be added as they are freed from other projects | (Estuate, 2021) |

Citations

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