Software Design and Architecture:
Deliverable 3
CRN: 43509 - Group #33

SOFE 3650U

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Iteration 3

Addressing the key quality attributes scenarios (QA-2)
This iteration will focus on fulfilling the quality attributes. These quality attributes are used and built on in the decision-making process in iterations one and two. For this case the quality attribute that was used is QA-2.

Step 1 - Review Inputs:
The inputs in iteration one were reviewed.

Step 2 - Establish the iteration goal by selecting drivers:
For this iteration we are going to focus on QA-2 which is: Throughout the process, the system's user interface provides descriptive text for all elements, ensuring that Professors can easily understand and interact with the CMS.

Step 3 - Choose one or more elements of the system to refine:
The elements that we will be refining are focus on the usability of the system (QA -2) which include the client server side, web client interface.

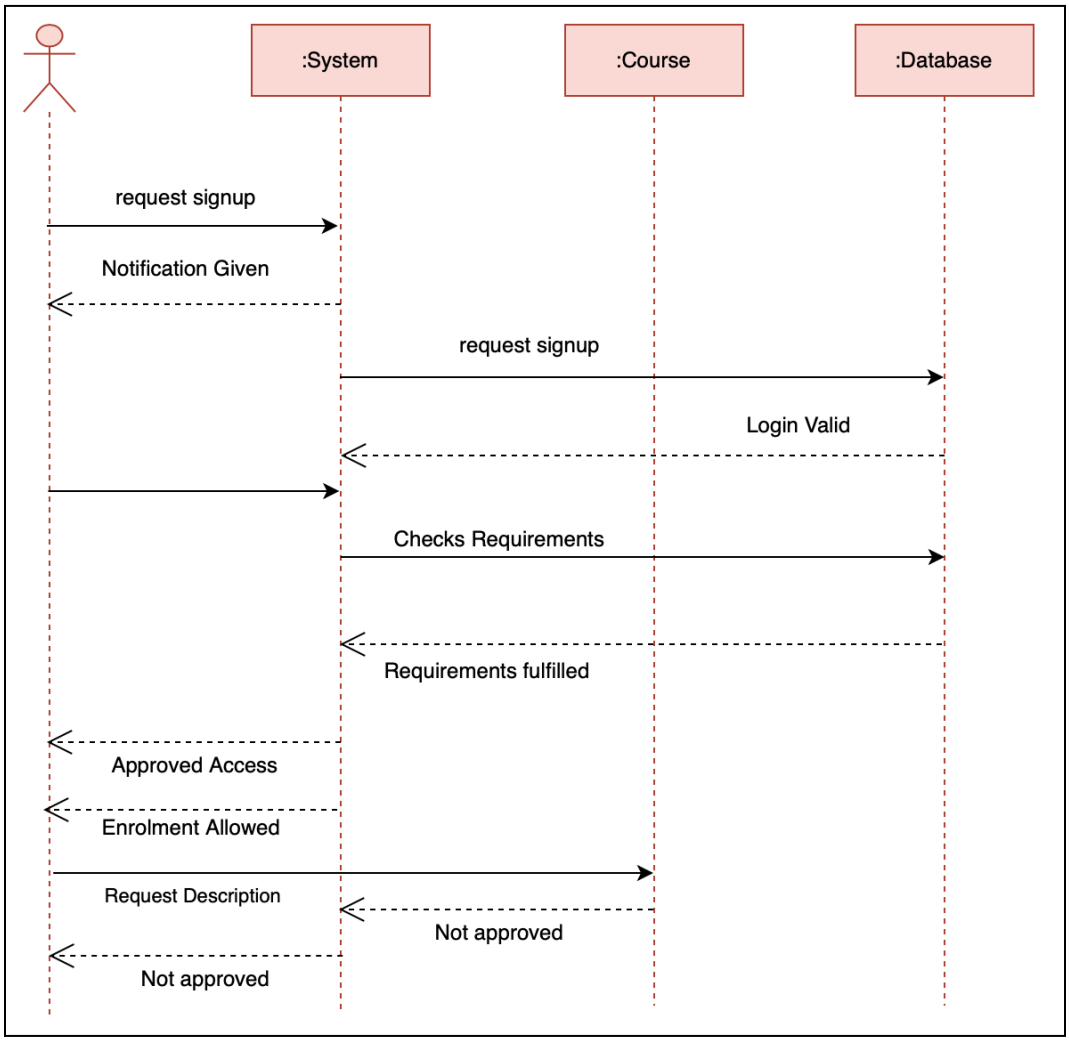
Step 4 - Choose one or more design concepts that satisfy the chosen drivers:

Design Decision and Location	Rationale and Assumptions
Add a Tailor interface to the web client	Teachers can personalize their user experience with a tailor interface according to their preferences, pedagogy, and most used features. The CMS interaction may become more effective and pleasurable as a result of this personalization.
Establish automated routines for system maintenance that operate during periods of low usage.	Stability and responsiveness are improved by automated maintenance, which guarantees the CMS stays in top shape.
Provide a task-oriented guidance system in the CMS to help instructors finish routine assignments.	Professors can more easily navigate and use the CMS with task-oriented guidance, which simplifies complicated processes.

Step 5 - Instantiate architectural elements, allocate responsibilities and define interfaces:

Design Decision	Reasoning
Apply the description text for all the elements from the usability tactic.	This tactic would allow the professors to have a description text for all of the elements and a greater understanding of the UI.
Apply maintain task	To assist the professor and other users in making the CMS more simple and understandable.
Apply maintain system	to create a more stable system for the CMS in case of any interruptions or program errors/failures.

Step 6 - Record design decisions:



Step 7 - Analysis:

Not Addressed	Partially Addressed	Completely Addressed	Design Decisions Made During the Iteration
	QA-1		Load balancing to distribute incomings requests evenly across multiple servers. As traffic increases, new server instances begin to automatically handle the load. In addition, minimizing the downtime to allow continuous access for students and lecturers.
	QA-2		The system will monitor the activities and login attempts. Any suspicious activity, or unauthorized access will trigger and alert the security system team. Protecting the data is important especially when its personal academic information like grades, confidential details, etc.
	QA-3		The system's user interface provides descriptive text. This is essential for all user's (students, lecturers, maintainers, and administrators) because everyone should be able to easily navigate, have quick access to all functions, and be able to work efficiently. This ensures that professors can easily interact with the CMS.
QA-4			
	CON-1		Leverage the efficiency and retrieval of the system
	CON-3		User access and permissions
	CON-5		Core usability attribute
CRN-2			Attach team's knowledge and experience in framework and other technologies