

ADD Iteration 3: Addressing Quality Attribute Scenario Driver (QA-11)

A. Step 2: Establish Iteration Goal by Selecting Drivers

For this iteration, the architect will focus on the QA-11 quality attribute scenario: The Admin wants to access the university system settings to manage courses and appoint lectures to courses. The system is secure and only he is able to gain access to the system settings with his credentials.

B. Step 3: Choose One or More Elements of the System to Refine

For this security scenario, the elements that will be refined are the physical nodes that were identified during the first iteration:

- Business Layer
- Modules
- Entities

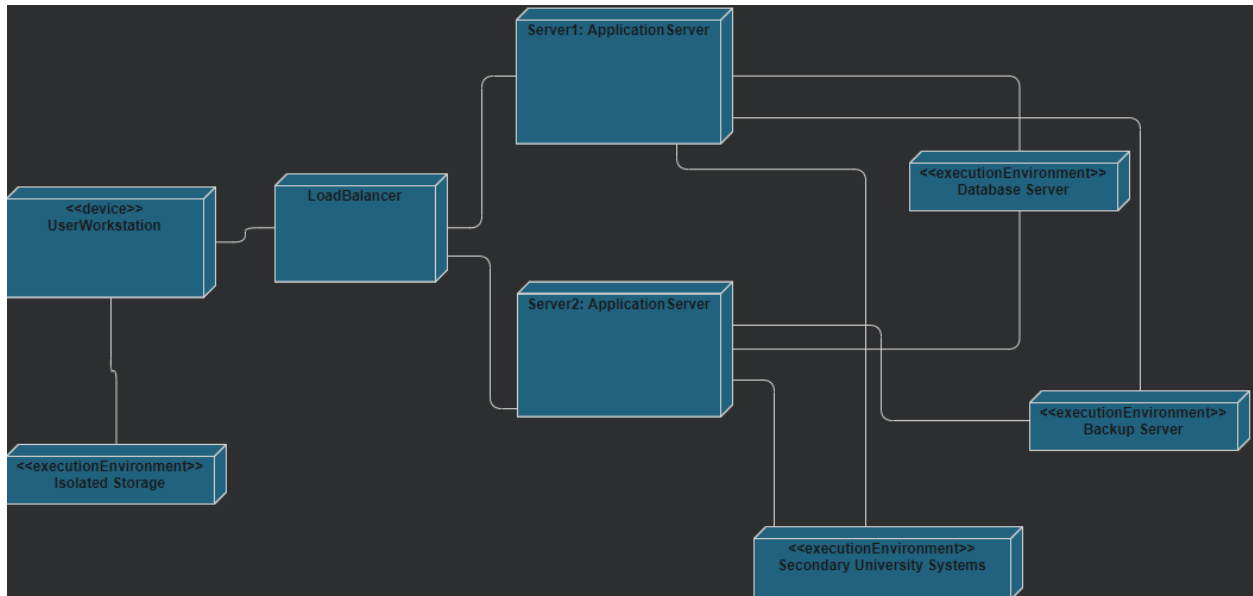
C. Step 4: Choose One or More Design Concepts That Satisfy the Selected Drivers

Design Decision	Rationale
Introduce Revoke Access tactic by limiting access to sensitive resources	By limiting access to sensitive resources even for legitimate users, we can resolve suspected attacks
Introduce Half-Sync/Half-Async to provide a faster experience for the user	By developing in in a concurrent software we can provide parallel processing for the user without sacrificing runtime efficiency

D. Step 5: Instantiate Architectural Elements, Allocate Responsibilities, and Define Interfaces

Design Decision	Rationale
Revoke access to sensitive resources on the application server	Revoking access on the application server would prevent resources from being fetched and prevent suspected attacks
Perform concurrent programming on the application framework	Performing concurrent programming on the application framework will distribute load across the application clusters

E. Step 6: Sketch Views and Record Design Decisions



Element	Responsibility
LoadBalancer	Dispatches client responsibility toward the Application Servers

F. Step 7: Perform analysis of current design & review iteration goal & achievement of design purpose

Ignore UC5,19-22,31 QA3, CON 4,5,7,8 (this is a personal note it will be deleted)

Not Addressed	Partially Addressed	Completed Addressed	Design decisions made during the iteration
QA-1/QA-5			No relevant decisions made
QA-2			No relevant decisions made
		QA-6	Leaturer views and content visibility has been discussed during this iteration certain criteria must be met before the student can be given access to the system
QA-(7-9)			No relevant decisions made
		QA-11	Admin privileges have been explicitly defined with our system and have been further protected during this iteration

CON-1			No relevant decisions made
CON-(2, 3)			No relevant decisions made
	CON-(9-10)		No relevant decisions made
CON-(11-13)			No relevant decisions made
CON-14			No relevant decisions made
		CON-(15-19)	Admin privileges have been explicitly defined with our system and have been further protected during this iteration
CRN-1			No relevant decisions made
	CRN-2		Within this iteration by implementing the revoke access tactic, protecting the system form potential threats
CRN-3			No relevant decisions made
		CRN-5	The load balancer shares work amongst members allowing for a high workload