

SOFE 3650U - Final Project

ADD Iteration 3

Step 2: Establish Iteration Goal by selecting Drivers

For this iteration, we focus on QA-3: Program will recover to its previous state in 30 seconds if there is an error.

Step 3: Choose One or More Elements of the Systems to Refine

The elements that will be refined are the physical nodes that were identified during the first iteration:

- Database server

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

Design Decisions and Location	Rationale and Assumptions
Introduce active redundancy tactic by replicating the database server	By replicating the database server, the system can withstand the failure of one of the replicated elements without affecting functionality.

Step 5: Instantiate Architectural Elements, Allocate Responsibilities, Define Interface

Design Decision	Rationale Assumptions
Use active redundancy and load balancing in the database server.	Because two replicas of the database server will be active at any time, it is wise to distribute and balance load among the replicas.
Implement load balancing and redundancy using tech support	Many technological options for load balancing and redundancy can be implemented without having to develop one when necessary.

Step 7: Perform Analysis of Current Design and Review Iteration Goal and Achievement of Design Purpose

Not Addressed	Partially Addressed	Completely Addressed	Design Decisions Made During the Iteration

		QA-3	