

Software Processes

SPS611S

Traceability and validation of requirements

In-Class Exercise



In-Class Exercise

Scenario: You are working as a software engineer in a development team tasked with building an online banking system. You have been provided with a set of requirements for the system.

Requirements:

1. Users should be able to log in to their accounts securely using a username and password.
2. Users should be able to view their account balance and transaction history.
3. Users should be able to transfer money between their accounts and to other users.
4. The system should send email notifications for important account activities, such as password changes and large transactions.
5. The system should encrypt sensitive user information to ensure data security.



In-Class Exercise (cont...)

Requirement Traceability:

Task 1: Create a traceability matrix mapping each requirement to its source (e.g., stakeholder interview, business document) and to any related design, implementation, and testing artifacts (e.g., design document, code module, test case).

Task 2: Identify any missing or ambiguous requirements and propose clarifications or enhancements to improve their clarity and completeness.

Requirement Validation:

Task 3: Perform a review of the requirements to ensure they are consistent, complete, and feasible. Identify any inconsistencies or conflicts between requirements and propose resolutions.

Task 4: Validate the requirements against stakeholder expectations by conducting a requirements walkthrough or review session with a hypothetical stakeholder group (e.g., bank customers, managers). Gather feedback on the requirements and incorporate any necessary changes or revisions.

