

Quality Attribute Specification Assignment

- 1- You are working in company XYZ required you to develop ticketing system for Cinema, the owner of Cinema is focusing on two things:
 - a. Security system for purchase ticket using Credit Cards.
 - b. The performance of booking tickets.

Write scenarios for each requirement to get you client signature.

a.

Source: Customer

Stimulus: Make payment using credit cards

Artifact: Ticketing system

Environment: normal operations

Response: Authenticates credit card and customer identity

Response Measure: Verify the user's identity within 10 seconds.

b.

Source: Customer

Stimulus: Initiate transactions

Artifact: Ticketing system

Environment: Under normal operations

Response: Transactions are processed

Response Measure: With average latency of 1 second

- 2- You are working in governmental sector and your boss required you to develop architecture to remove the overhead of official stamping for the documents without losing security.

Propose a proper architecture tactic to achieve this feature.

This architecture policy should be available to ensure security, be able to detect attacks and be able to defend against attacks by authenticating and authorizing participants. There is also a need to restrict the people who can access the documents, as the permission to stamp them belongs to

only a select group of people. We can apply a hash function to the stamping. The hash function should be unique. Locking out computer users when identities are not authorised to revoke their access to documents. If a document is deleted by someone, the document should be able to be recovered.

- 3- You are working in a starting company with limited budget and your boss required you suggest some tactics to reduce the maintainability cost of the software.

Propose three tactics for this objective.

1. Maintainability Tactics:

Maintainability costs are mainly caused by change requests from customers or by problems with the ageing operation of the system. Therefore, to reduce costs, we can:

- (1) Reduce the size of modules
- (2) Increase cohesion and reduce coupling
- (3) Use appropriate architectural styles and patterns
- (4) Maintain detailed reporting.

2. Availability Tactics

Testing activities need to be completed before the program is officially launched. If the client finds some defects, it will damage the company's reputation. Damage to the company's interests

3. Performance Tactics

Without early performance analysis, problems will be identified later in the development process. Many software alternatives will no longer be cost effective and customer pricing will be fixed, so configuration upgrades will have a negative impact on the bottom line

- Submit your answers at in your github host.
- We will pick up randomly 5 students next session to present their answers.