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Quality Attribute Specification Assignment

You are working in company XYZ required you to develop ticketing system for Cinema, the owner of Cinema is focusing on two things, write scenarios for each requirement to get you client signature.

1- :
   a. Security system for purchase ticket using Credit Cards.
      Source stimulus: Customer
      Stimulus: buy ticket using credit card and enter credit card information
      Environment: under normal operation
      Artifact: ticketing system
      Response: card number will be encrypted and show last four number on screen, other replace with symbol '*' and when ticketing system want to validate credit card, it will send to bank the encrypted credit card information and bank can unencrypted the information and check validation. If credit card is valid, payment will be success.
      Response measure: in 5 minutes

      Customer buy ticket at ticketing system that under normal operation by using credit card and enter credit card information. Credit card number will be encrypted and show last four number on screen, other replace with symbol '*' and when ticketing system want to validate credit card, it will send to bank the encrypted credit card information and bank can unencrypted the information and check validation. If credit card is valid, payment will be success. The whole process is in 5 minutes.

   b. The performance of booking tickets.
      Source: Customer
      Stimulus: buy ticket in maximum 700 transactions per minute
      Artifact: ticketing system
      Environment: under normal operation
      Response: process those transactions
      Response measure: in average latency of 3 seconds.

      Ticketing system under normal operation allow maximum 700 transactions per minute made by customer to buy ticket and process those transactions in average latency of 3 seconds.

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.

Architecture should resist attack. When remove overhead of official stamping for document, it need for authentication for the person that removing.Then, it can maintain data confidently and limit exposure to person who is not related.Besides, architecture should be can detect attacks. It should apply intrusion detection and it is better to block the intrusion. Other than that, if it already being attacked, it should be can recovering from attacks. It should be can identify the part that being attack using audit trail and can be restored by observe availability of it.

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. Documentation.
   When the previous developer done for documentation, the developer continue his work will be more understand about his code and it need lesser time to understand code. So when need to maintain the software, the time spend is less because less time needed for understanding the code, then less cost needed.
2. Collaborate with other team.
   Adding new team members is always a source of new ideas and a chance to cover all the gaps within the internal team. As a bonus, you'll have more time to focus on solving priority problems.
3. Try not to involve too many new technology in software.
   It is because the developers need more time to understand new technology and if they involve those new technology in software, then they need time to learn how to maintain or modify the new technology. More time needed, more cost needed.

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