Assignment #03 - Software Engineering

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Chapter 6. Exercise 6.1

When describing a system, explain why you may have to start the design of the system architecture before the requirements specification is complete.

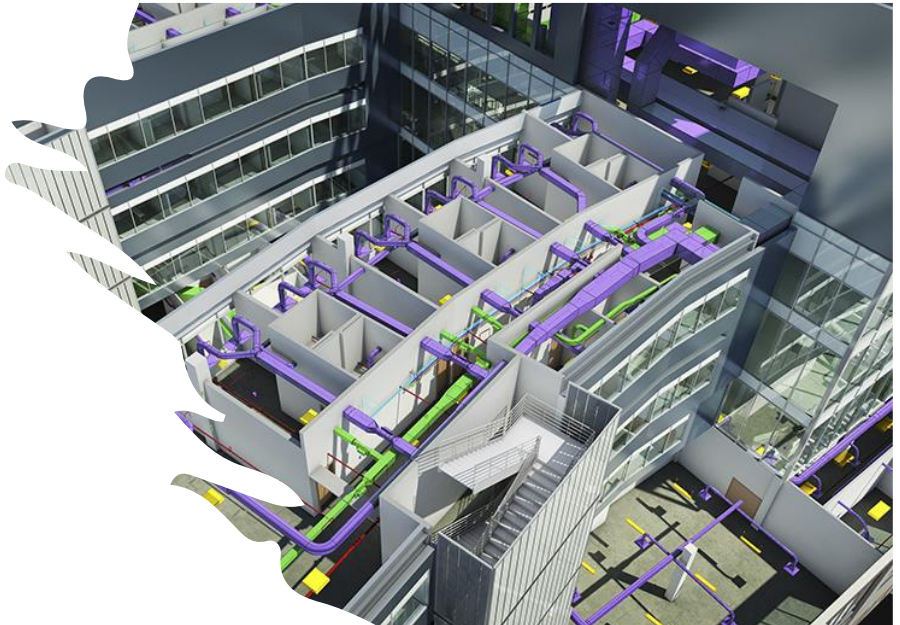
I think the architecture design is the first stage of the system in describing a system. It provides the general background about the structure of the system. Based on this structure, we can develop potential subsystems for the main system. The architecture of the system need to be completed to visualize that customer really need for the system as well as how the analysts understand about the system. Then, requirement specification developed based on the system architecture is more precise.

The architecture has to be designed before specifications are written for the following reasons:

1.To provide a means of structuring.

2.The specification and developing different sub-system specifications concurrently.

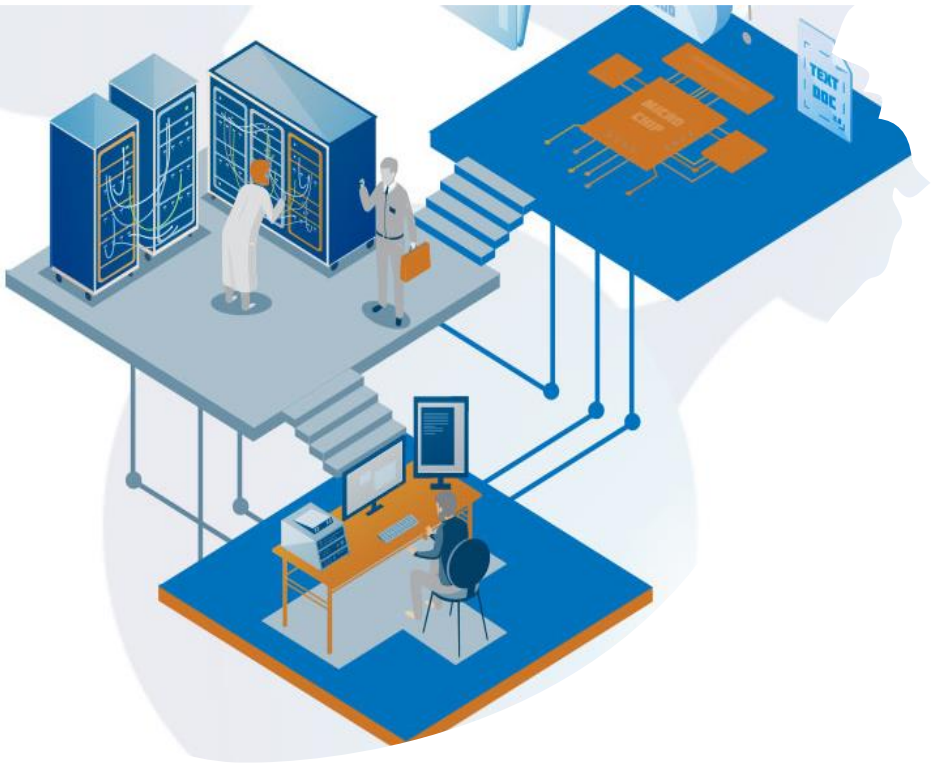
3.To allow manufacture of hardware by sub-contractors and to provide a model for system costing.



Chapter 6. Exercise 6.6

Suggest an architecture for a system (such as iTunes) that is used to sell and distribute music on the internet. What architectural patterns are the basis for your proposed architecture?

iTunes stores all the music they sell in a database there the client can search these tracks by artist name, genre, etc. all via web-based interface. also, tracks can be downloaded and paid accordingly. The architecture needed for this type of system is a client-server model. iTunes will have a database that has records on all the music that is available through their system. These music records can be searched for by the user by artist name, genre, etc., through a web-based interface and downloaded for a certain price. The server handles music orders through the web-based interface. The architectural pattern that is the basis for this is client-server pattern.

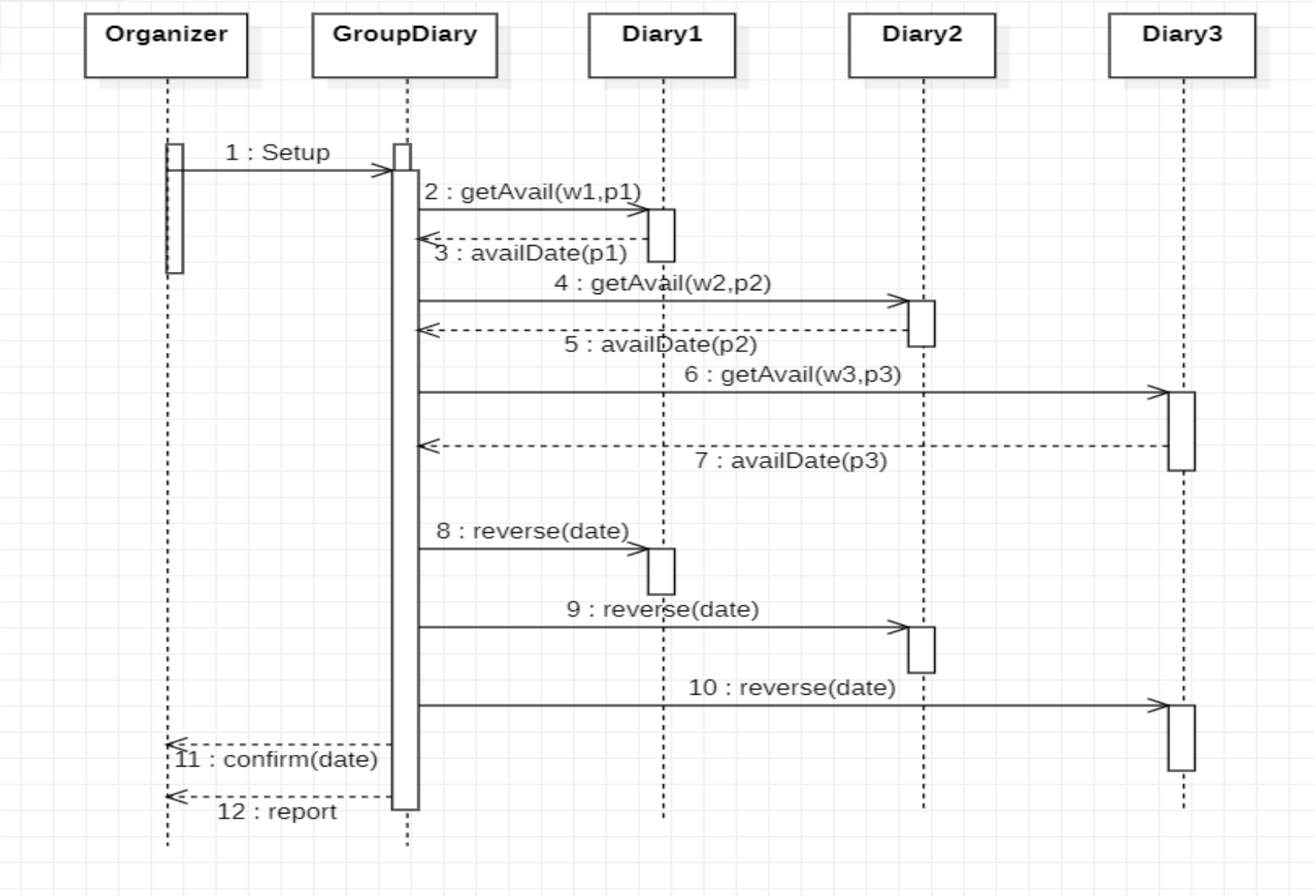


Chapter 6. Exercise 7.2

Assume that the Mentcare system is being developed using an object-oriented approach. Draw a use case diagram showing at least six possible use cases for this system

- The Medical Receptionist is able to register new patients
- The Medical Receptionist is able to view patients' personal information
- The Manager is able to export system statistics
- The Manager is able to generate patient reports
- The Nurse is able to view patient records
- The Nurse is able to edit patient records
- The Doctor is able to set up patient consultations
- The Doctor is able to edit patient records

Chapter 7. Exercise 7.7



Thank you