

Experiment 6: Sketch Sequence diagram for the project

Learning Objective: Students will able to draw Sequence diagram for the project

Tools: Microsoft Word, Creately.

Theory:

A sequence diagram shows, as parallel vertical lines (*lifelines*), different processes or objects that live simultaneously, and, as horizontal arrows, the messages exchanged between them, in the order in which they occur. This allows the specification of simple runtime scenarios in a graphical manner.

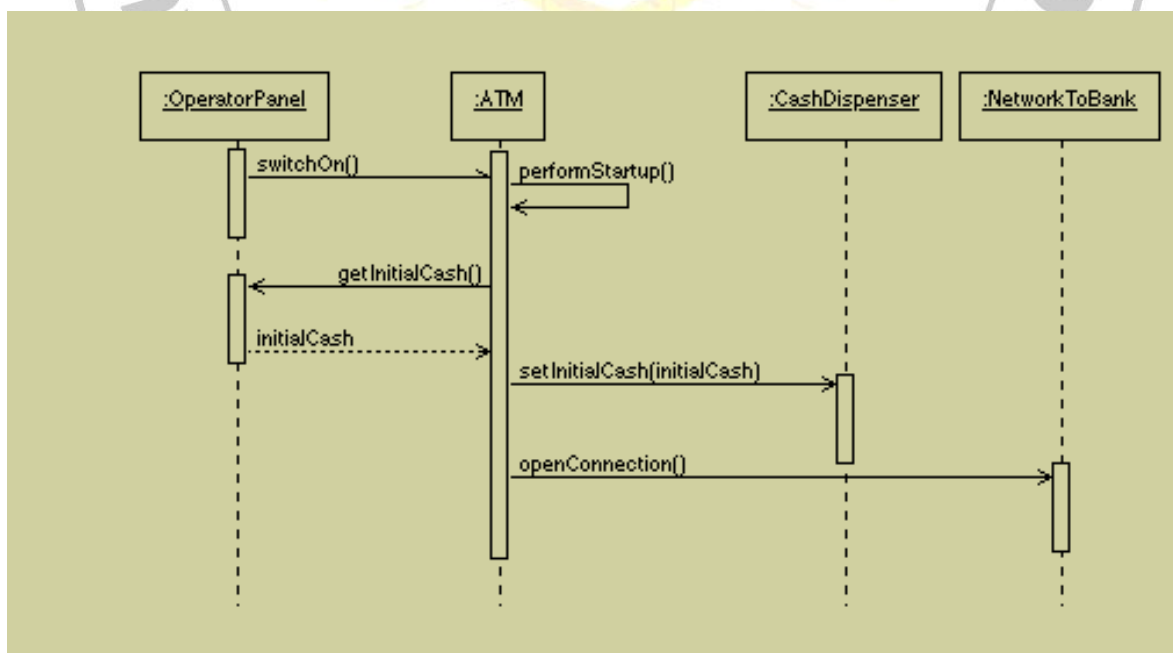
Sequence Diagram representation

- Call Message: A message defines a particular communication between Lifelines of an Interaction.
- Destroy Message: Destroy message is a kind of message that represents the request of destroying the lifecycle of target lifeline.
- Lifeline: A lifeline represents an individual participant in the Interaction.
- Recursive Message: Recursive message is a kind of message that represents the invocation of message of the same lifeline. Its target points to an activation on top of the activation where the message was invoked from.

Purpose of a Sequence Diagram

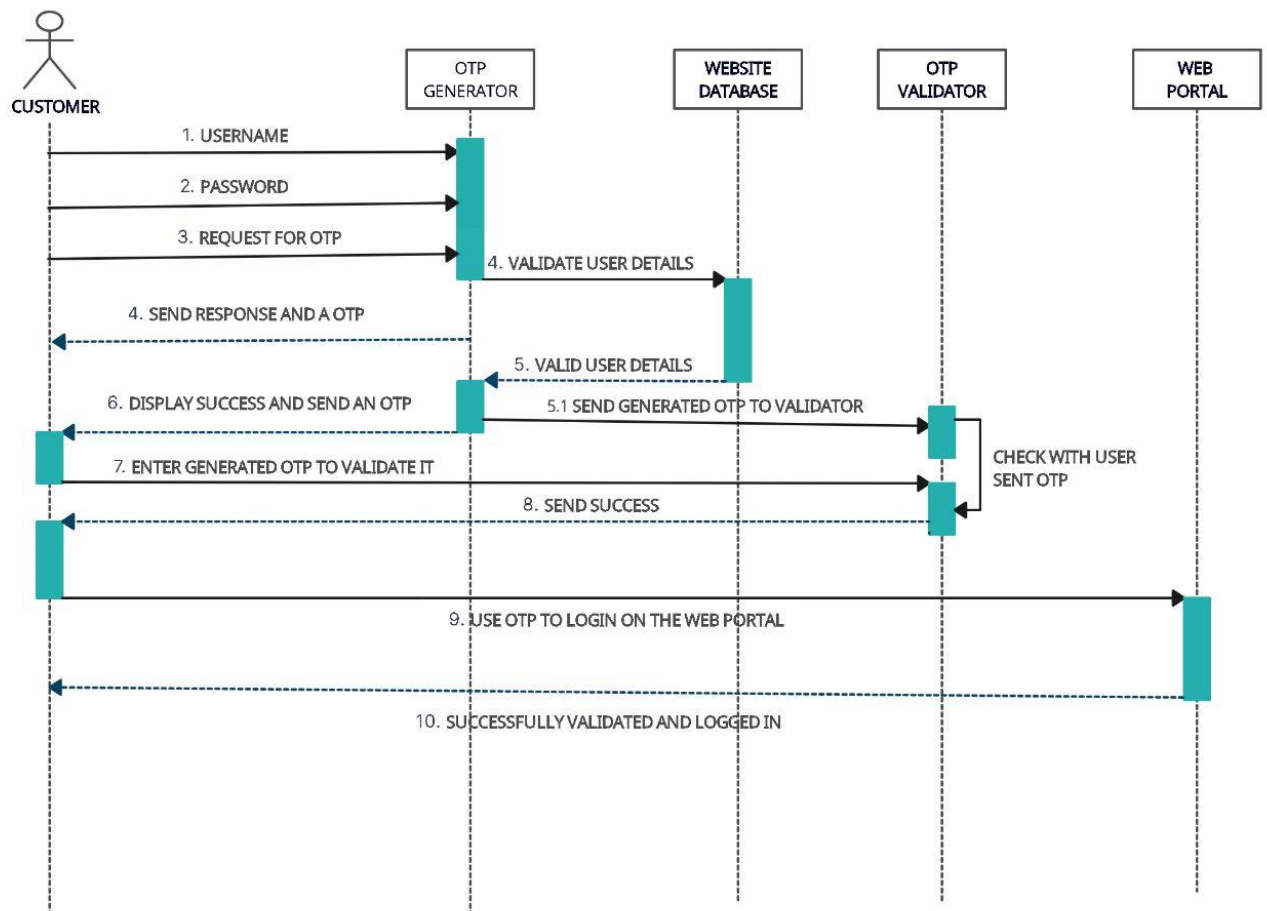
- To model high-level interaction among active objects within a system.
- To model interaction among objects inside a collaboration realizing a use case.
- It either models generic interactions or some certain instances of interaction.

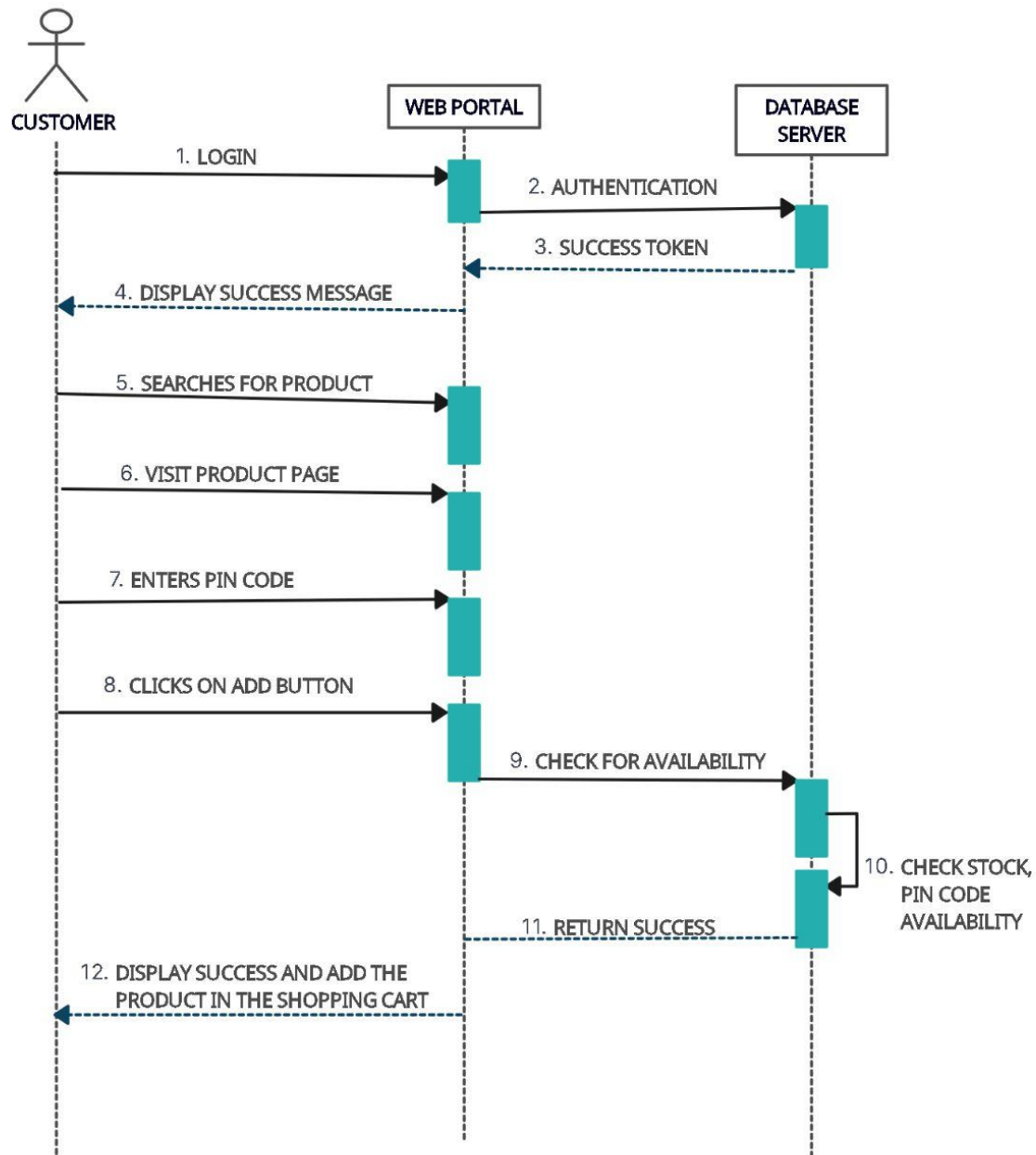
Sequence Diagram: Example for ATM System startup



It is clear that sequence charts have a number of very powerful advantages. They clearly depict the sequence of events, show when objects are created and destroyed, are excellent at depicting concurrent operations, and are invaluable for hunting down race conditions. However, with all their advantages, they are not perfect tools. They take up a lot of space, and do not present the interrelationships between the collaborating objects very well.

Implementation: We have implemented a Sequence diagram for our respective project title





Learning Outcomes: Students should have the ability to:

- LO1: Identify the classes and objects.
- LO2: Identify the interactions between the objects
- LO3: Develop a sequence diagram for different scenarios

Outcomes: Upon completion of the course students will be able to draw the sequence diagram for the project.

Conclusion:

In this experiment, we were introduced to the concept of UML- Sequence Diagram. We studied in depth about the various notations of the same. We practiced a few examples for the diagrams, and implemented a Sequence diagram that was relevant to our project title.

For Faculty Use

Correction Parameters	Formative Assessment [40%]	Timely completion of Practical [40%]	Attendance / Learning Attitude [20%]	
Marks Obtained				

Estd. 2001

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