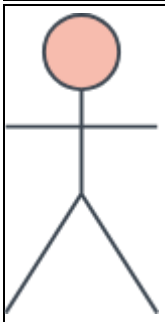
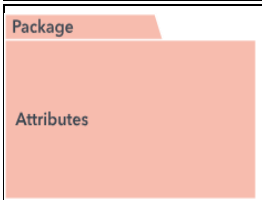
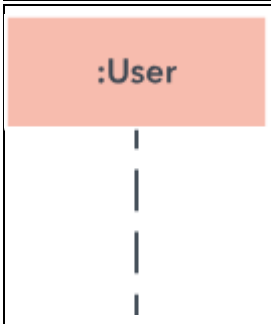
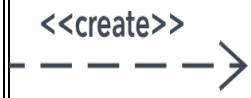
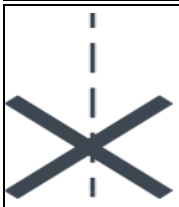
A sequence diagram is a type of interaction diagram because it describes how—and in what order—a group of objects works together. These diagrams are used by software developers and business professionals to understand requirements for a new system or to document an existing process.

Symbol	Name	Description
	Object symbol	Represents a class or object in UML. The object symbol demonstrates how an object will behave in the context of the system. Class attributes should not be listed in this shape.
	Activation box	Represents the time needed for an object to complete a task. The longer the task will take, the longer the activation box becomes.
	Actor symbol	Shows entities that interact with or are external to the system.
	Package symbol	Used in UML 2.0 notation to contain interactive elements of the diagram. Also known as a frame, this rectangular shape has a small inner rectangle for labeling the diagram.

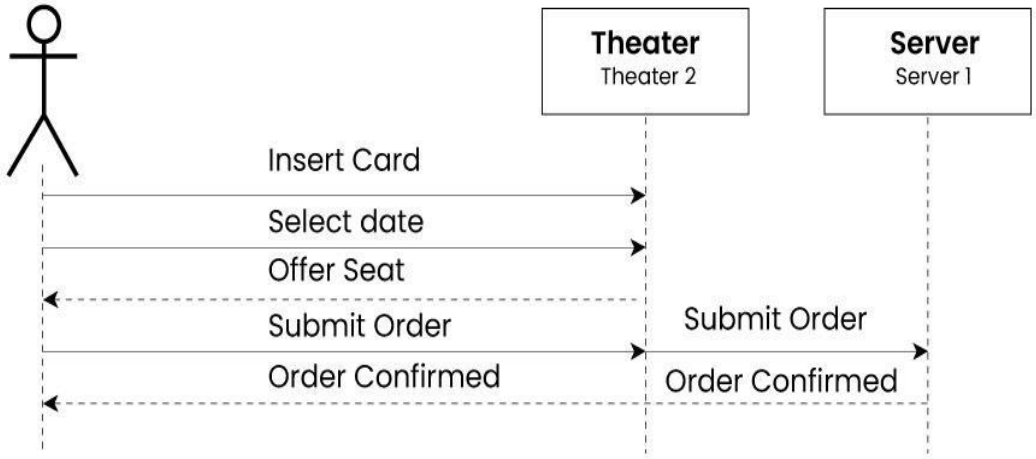
Symbol	Name	Description
	Lifeline symbol	Represents the passage of time as it extends downward. This dashed vertical line shows the sequential events that occur to an object during the charted process. Lifelines may begin with a labeled rectangle shape or an actor symbol.
	Option loop symbol	Used to model if/then scenarios, i.e., a circumstance that will only occur under certain conditions.
	Alternative symbol	Symbolizes a choice (that is usually mutually exclusive) between two or more message sequences. To represent alternatives, use the labeled rectangle shape with a dashed line inside.

Symbol	Name	Description
	Synchronous message symbol	Represented by a solid line with a solid arrowhead. This symbol is used when a sender must wait for a response to a message before it continues. The diagram should show both the call and the reply.

Symbol	Name	Description
	Asynchronous message symbol	Represented by a solid line with a lined arrowhead. Asynchronous messages don't require a response before the sender continues. Only the call should be included in the diagram.
	Asynchronous return message symbol	Represented by a dashed line with a lined arrowhead.
	Asynchronous create message symbol	Represented by a dashed line with a lined arrowhead. This message creates a new object.
	Reply message symbol	Represented by a dashed line with a lined arrowhead, these messages are replies to calls.
	Delete message symbol	Represented by a solid line with a solid arrowhead, followed by an X. This message destroys an object.

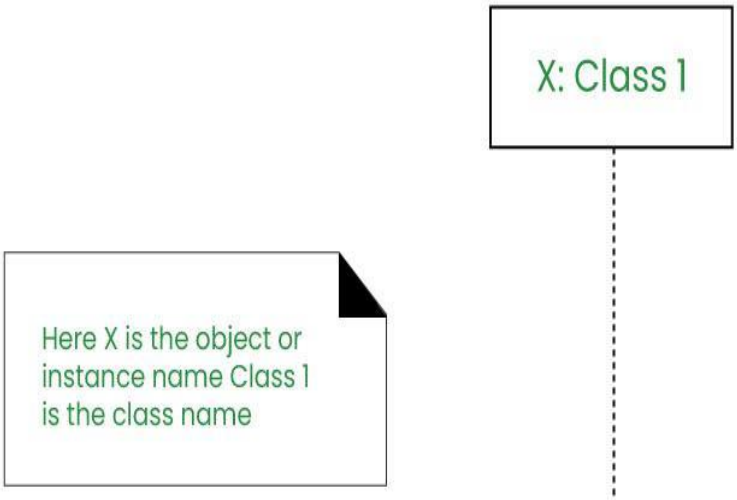
Examples:

User interacting with seat reservation system



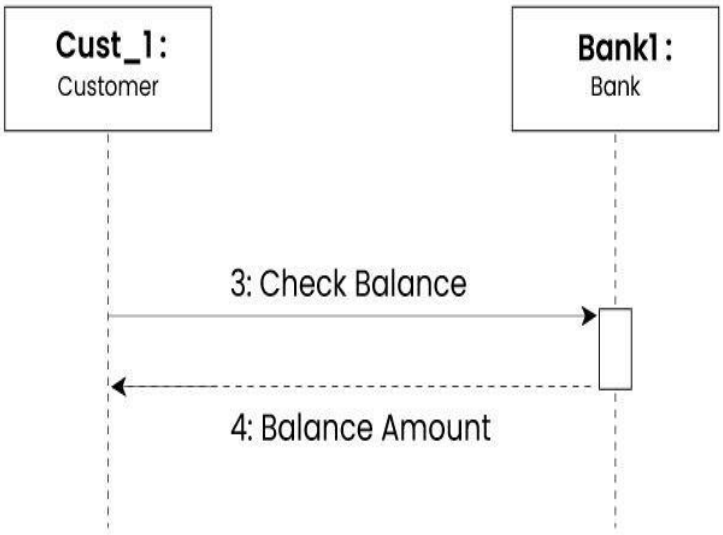
Sequence Diagrams

Lifeline

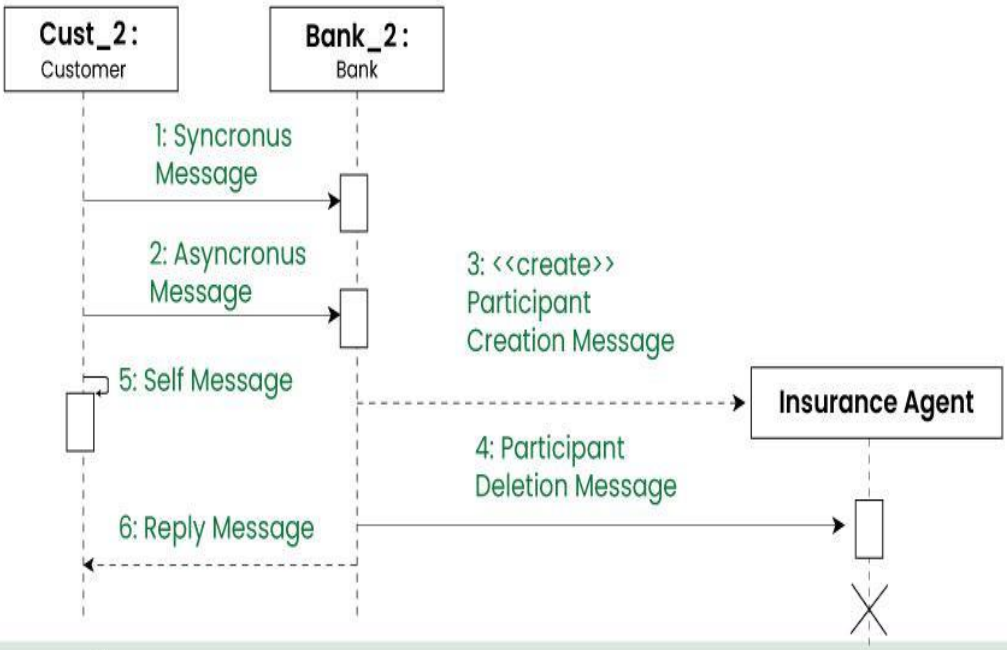


Sequence Diagrams

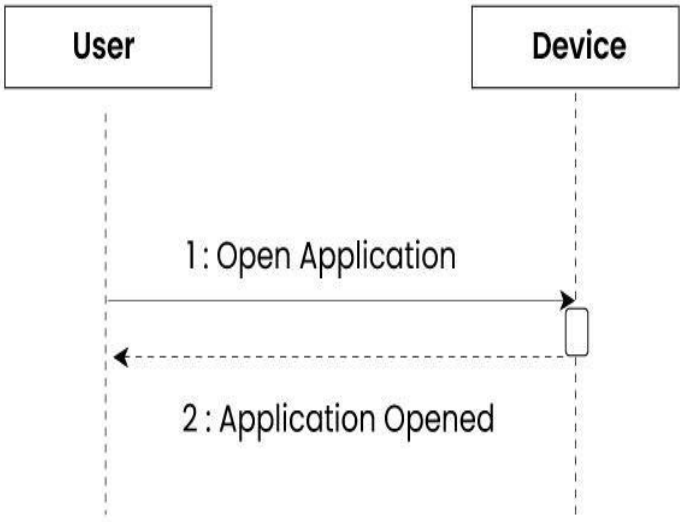
Sequence Diagram



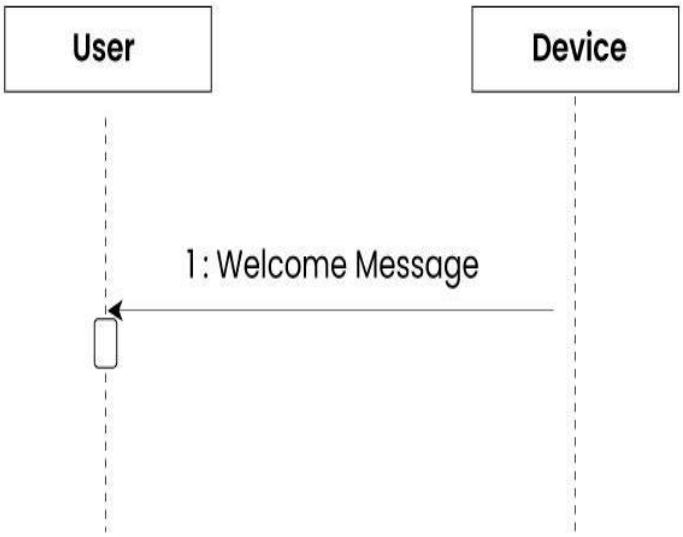
Different Types of Messages



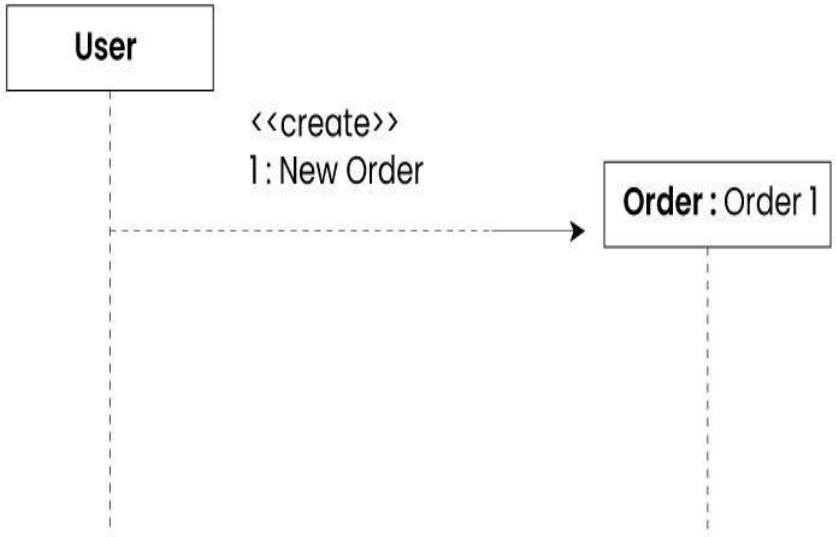
Synchronus Message



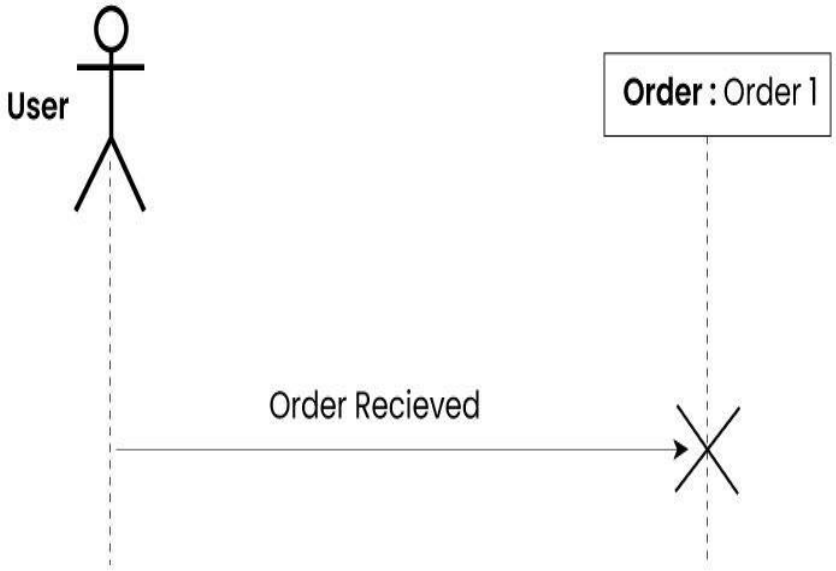
Asynchronus Message



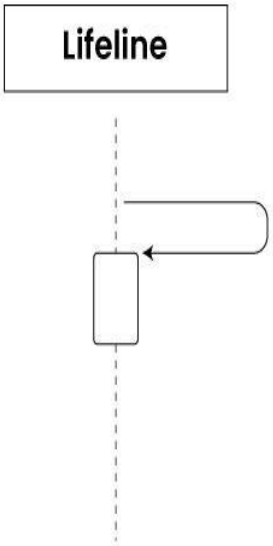
Create Message



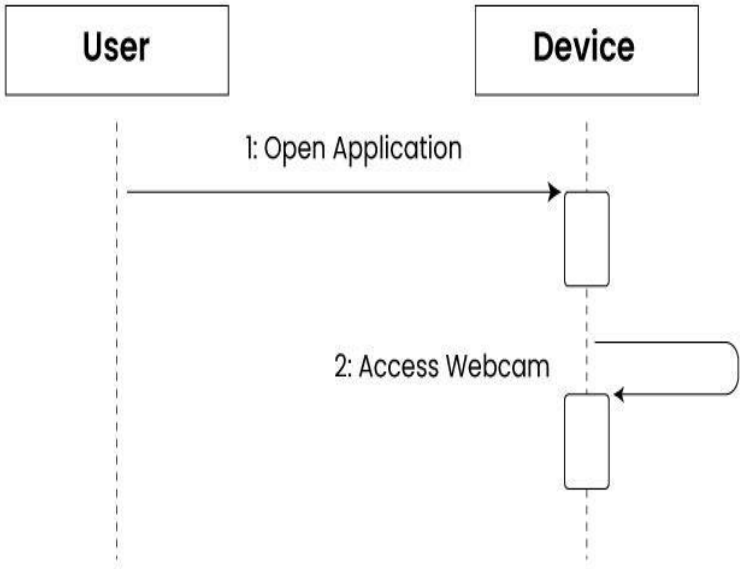
Delete Image



Self Image

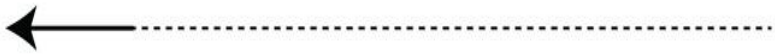


Self Image

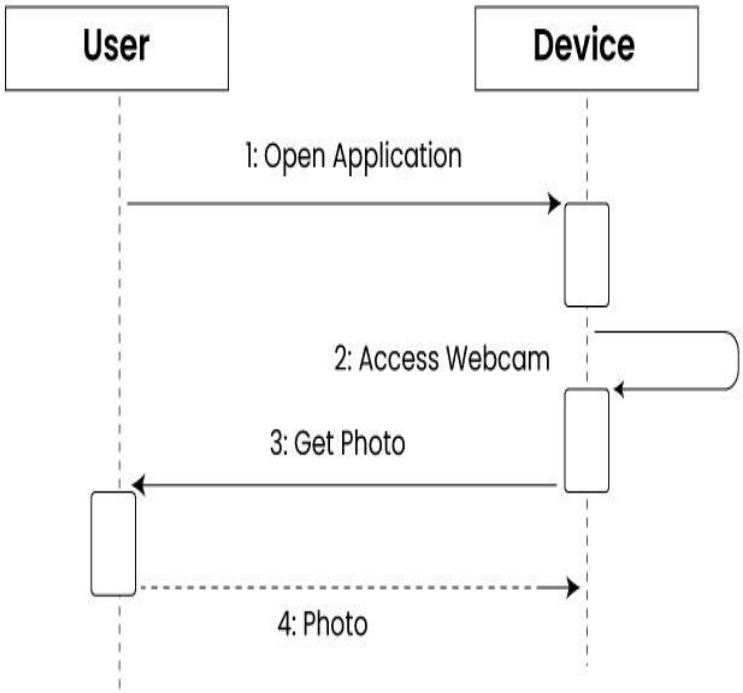


Sequence Diagrams

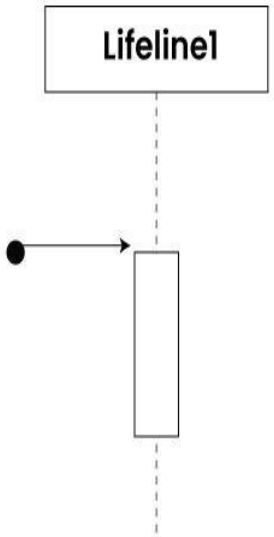
Reply Message



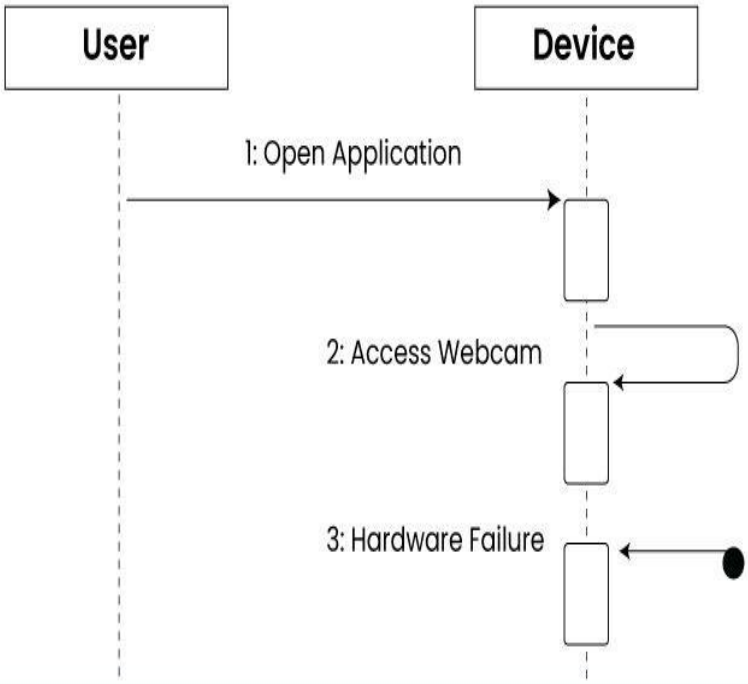
Reply Message Example



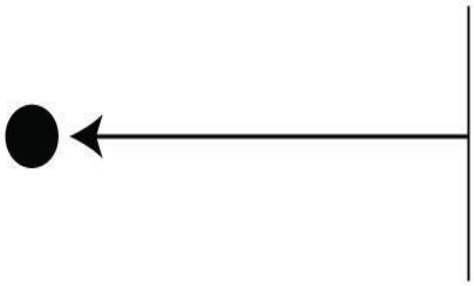
Found Message



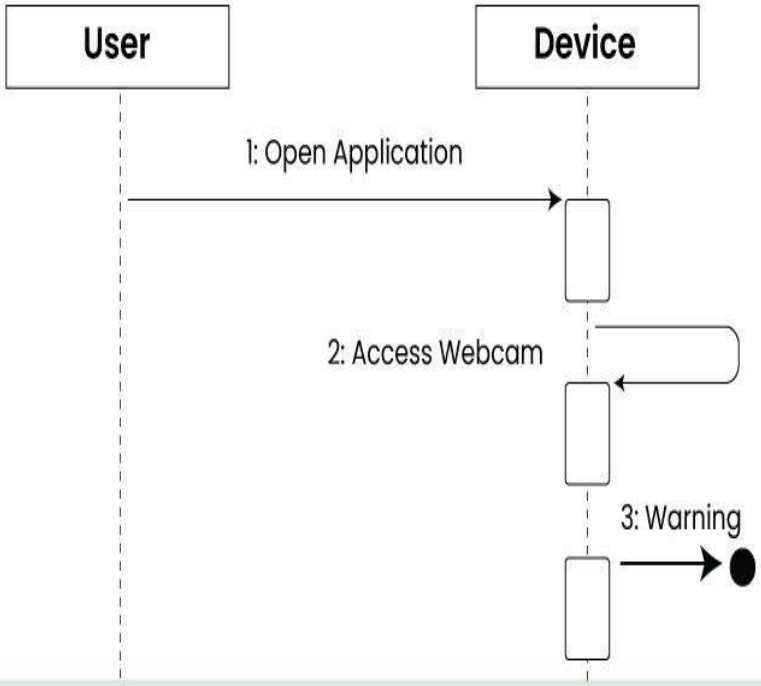
Found Message Example



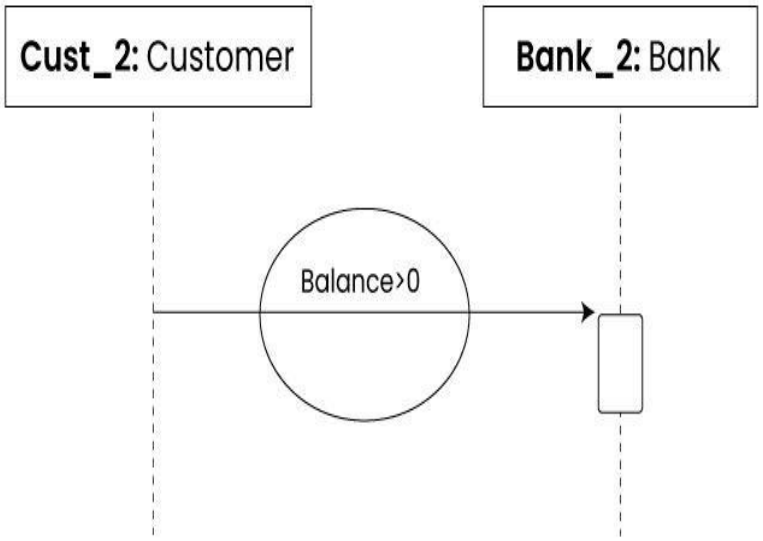
Lost Image



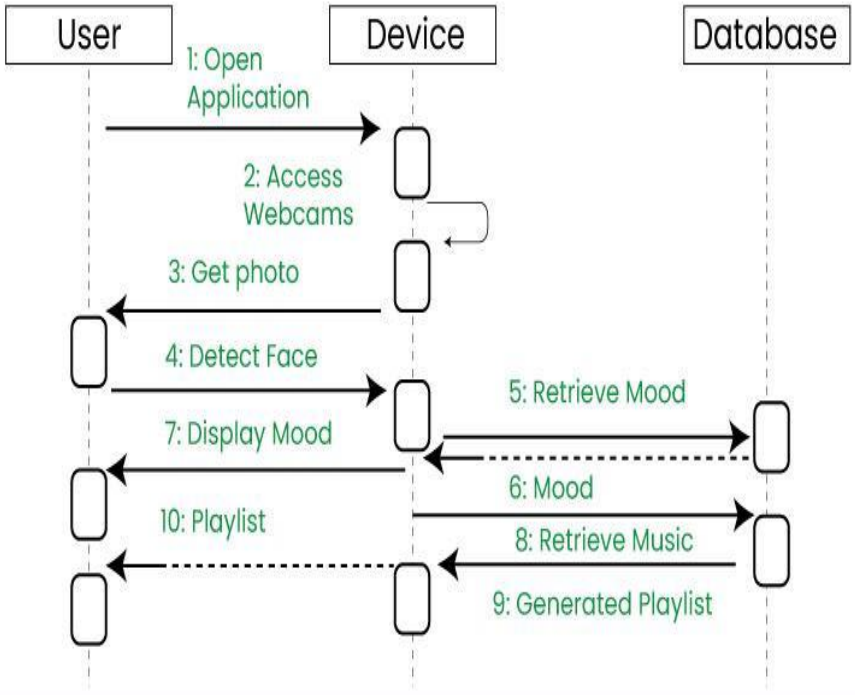
Lost Image Example



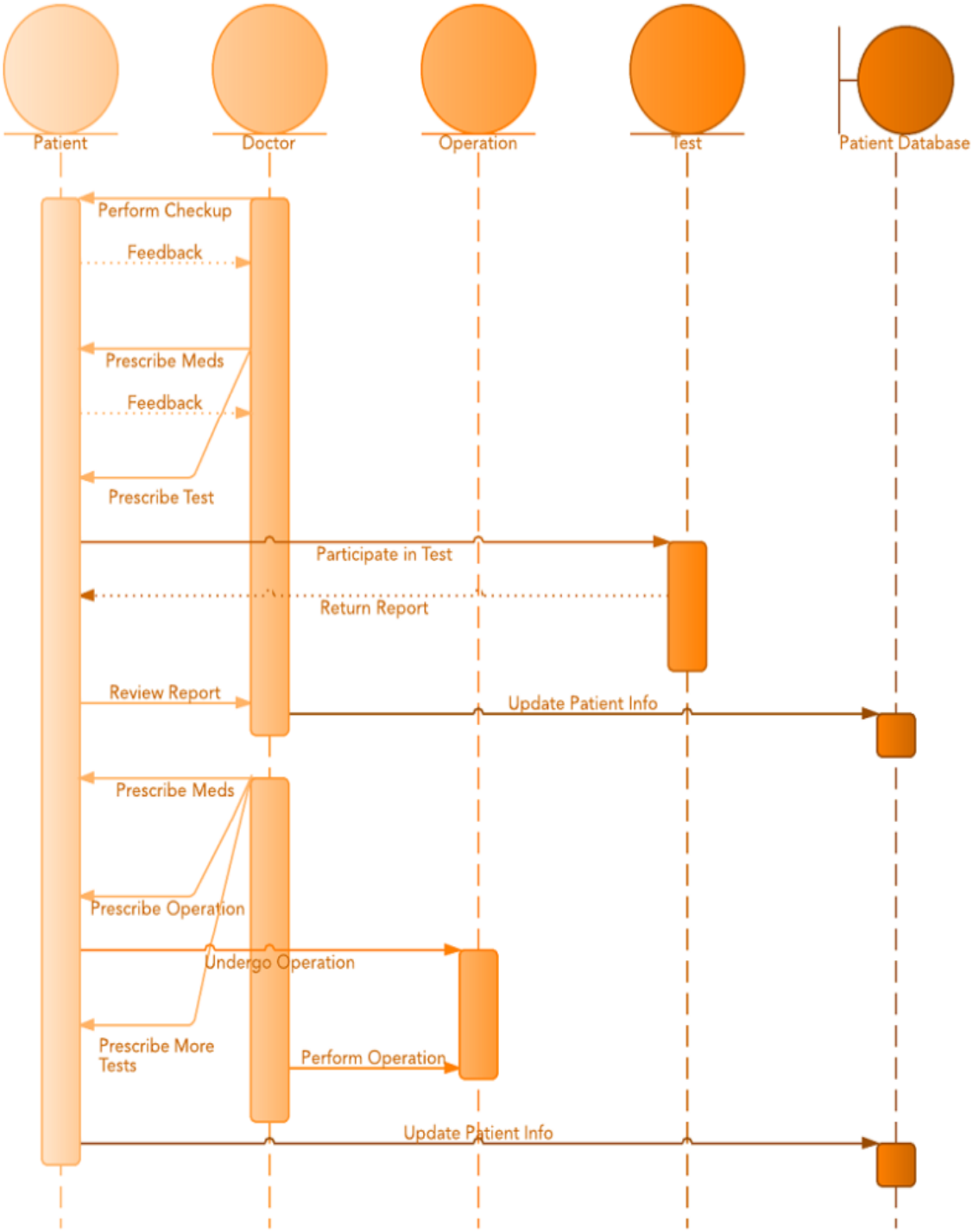
Guards

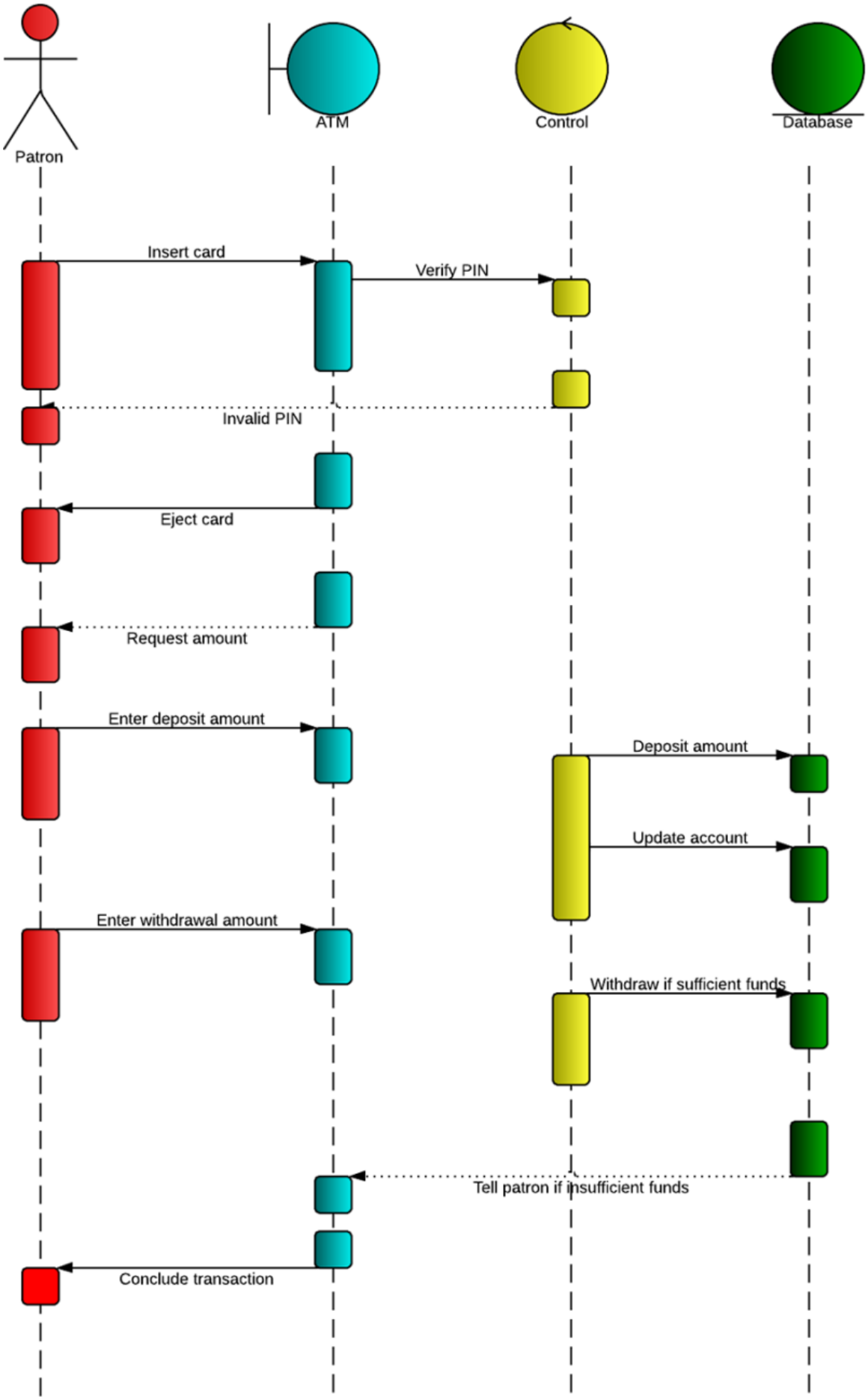


Example sequence diagram



Sequence Diagrams


Patient
Doctor
Operation
Test
Patient Database
Perform Checkup
Feedback
Prescribe Meds
Feedback
Prescribe Test
Participate in Test
Return Report
Review Report
Update Patient Info
Prescribe Meds
Prescribe Operation
Undergo Operation
Prescribe More Tests
Perform Operation
Update Patient Info


Patron
ATM
Control
Database
Insert card
Verify PIN
Invalid PIN
Eject card
Request amount
Enter deposit amount
Deposit amount
Update account
Enter withdrawal amount
Withdraw if sufficient funds
Tell patron if insufficient funds
Conclude transaction