UML (USE CASE DIAGRAM)

A Use Case Diagram in Unified Modeling Language is a visual representation that illustrates the interactions between users (actors) and a system. It captures the functional requirements of a system, showing how different users engage with various use cases, or specific functionalities, within the system. Use case diagrams provide a high-level overview of a system's behavior, making them useful for stakeholders, developers, and analysts to understand how a system is intended to operate from the user's perspective, and how different processes relate to one another. They are crucial for defining system scope and requirements.

A Use Case Diagram is a type of Unified Modeling Language (UML) diagram that represents the interaction between actors (users or external systems) and a system under consideration to accomplish specific goals. It provides a high-level view of the system's functionality by illustrating the various ways users can interact with it.

Use Case Diagram Notations

UML notations provide a visual language that enables software developers, designers, and other stakeholders to communicate and document system designs, architectures, and behaviors in a consistent and understandable manner.

1. Actors

Actors are external entities that interact with the system. These can include users, other systems, or hardware devices. In the context of a Use Case Diagram, actors initiate use cases and receive the outcomes. Proper identification and understanding of actors are crucial for accurately modeling system behavior.
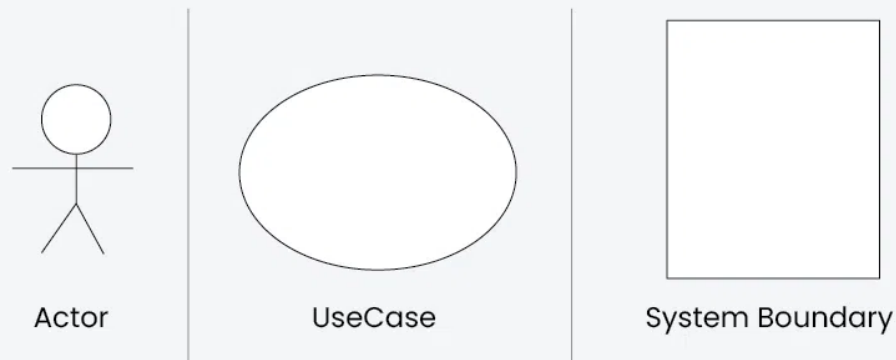
Use Cases

Use cases are like scenes in the play. They represent specific things your system can do. In the online shopping system, examples of use cases could be "Place Order," "Track Delivery," or "Update Product Information". Use cases are represented by ovals.
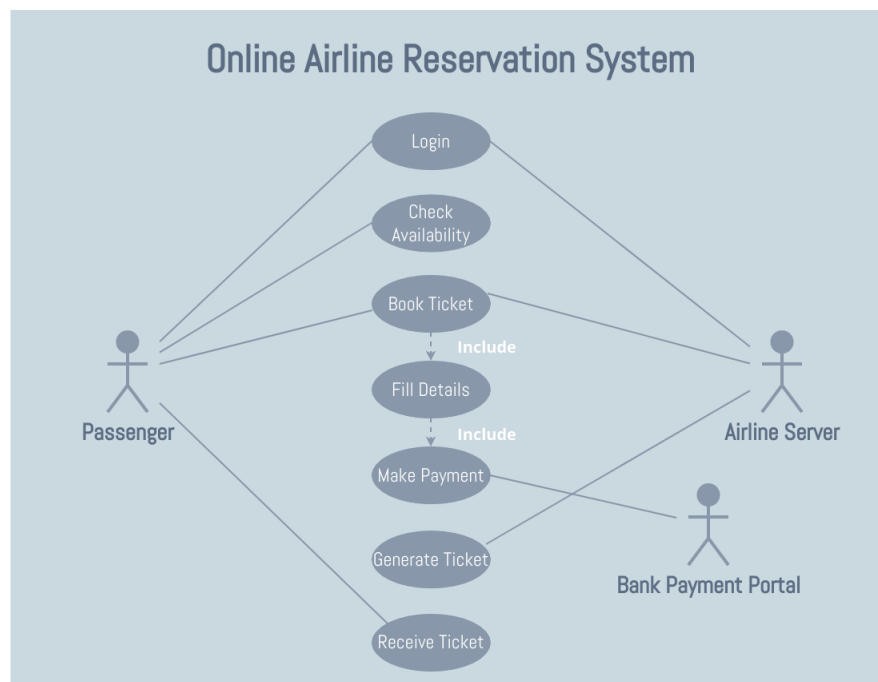
System Boundary

The system boundary is a visual representation of the scope or limits of the system you are modeling. It defines what is inside the system and what is outside. The boundary helps to establish a clear distinction between the elements that are part of the system and those that are external to it. The system boundary is typically represented by a rectangular box that surrounds all the use cases of the system

Use Case Diagram Notations

Actor   UseCase   System Boundary

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USE CASE DIAGRAM (Airline Management System)

Online Airline Reservation System

Login
Check Availability
Book Ticket
Include
Fill Details
Include
Make Payment
Generate Ticket
Receive Ticket

Passenger   Airline Server   Bank Payment Portal

Use Case diagram of an Online Shopping System

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