

EXPERIMENT 7

Question:

Draw a UML diagram for online purchasing system. Provide top level use cases for a web customer making purchases online. Web customer actor uses some web site to make purchases online. Top level use cases are View Items, Make Purchase and Client Register.

Aim:

To design a **UML Use Case Diagram** for an **Online Purchasing System**, showcasing the interactions between a **Web Customer** and the system, focusing on **top-level use cases** such as **View Items, Make Purchase, and Client Register**.

Procedure:

Step 1: Identify the System and Actors

- The system: Online Purchasing System
- The primary actor: Web Customer (User who interacts with the system)
- Possible secondary actors: Payment System (for processing payments), Admin (for managing items)

Step 2: Identify the Use Cases

- View Items: Allows the web customer to browse available products.
- Make Purchase: Enables the web customer to select items, add them to the cart, and make a payment.
- Client Register: New users can create an account to make future purchases easier.

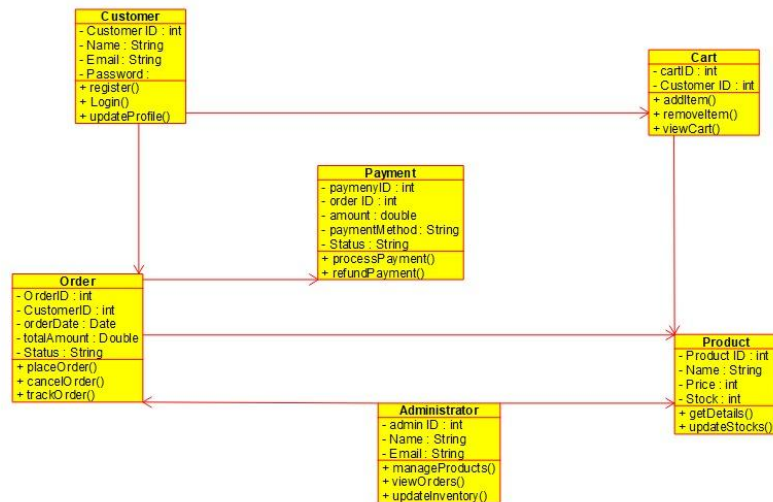
Step 3: Define Relationships Between Use Cases

- **Include relationships:**
 - "Make Purchase" includes "View Items" because a customer must view items before purchasing.
 - "Make Purchase" includes "Payment Processing" as payment is an essential part of completing an order.
- **Extend relationships:**

- "Client Register" extends "Make Purchase" if registration is required before checkout.

Output:

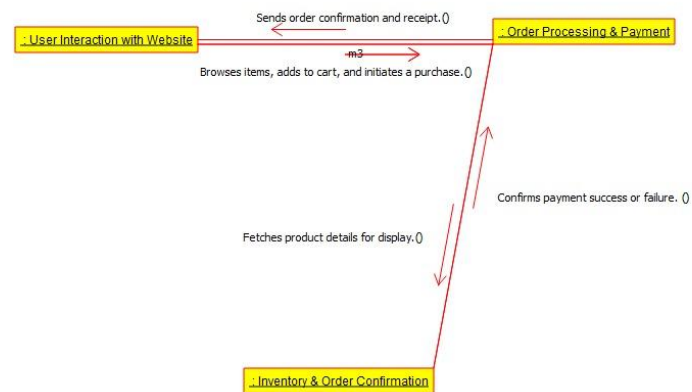
Class Diagram



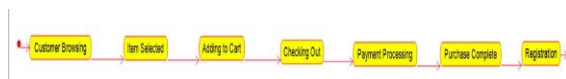
Sequence Diagram



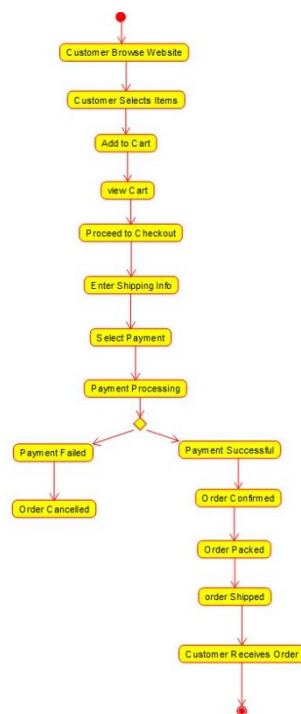
Communication Diagram



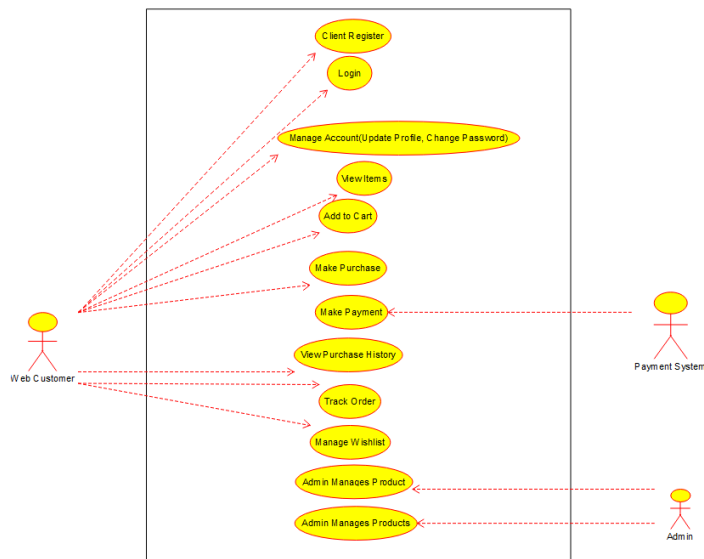
State Diagram



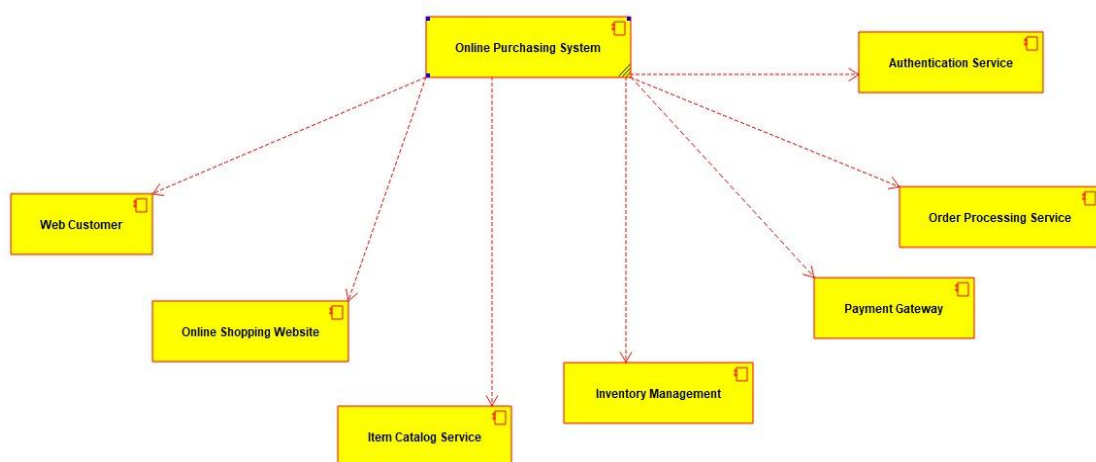
Activity Diagram



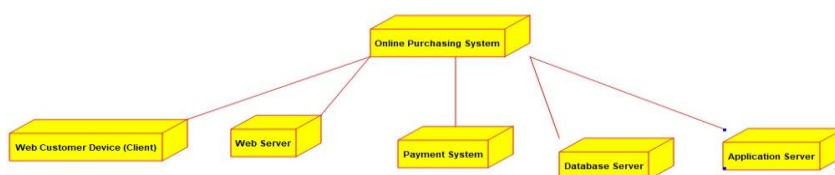
Usecase Diagram



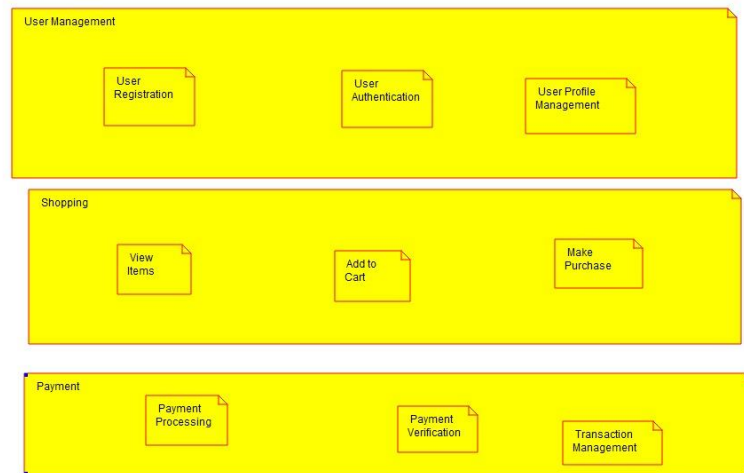
Component Diagram



Deployment Diagram



Package Diagram



Result

The **Online Purchasing System** UML includes **Web Customer** and **Payment System** as actors. The main use cases are **View Items**, **Make Purchase**, and **Client Register**, with **Payment Processing** included under **Make Purchase**. Relationships include "Make Purchase" including "View Items" and "Payment Processing," while "Client Register" may extend "Make Purchase."