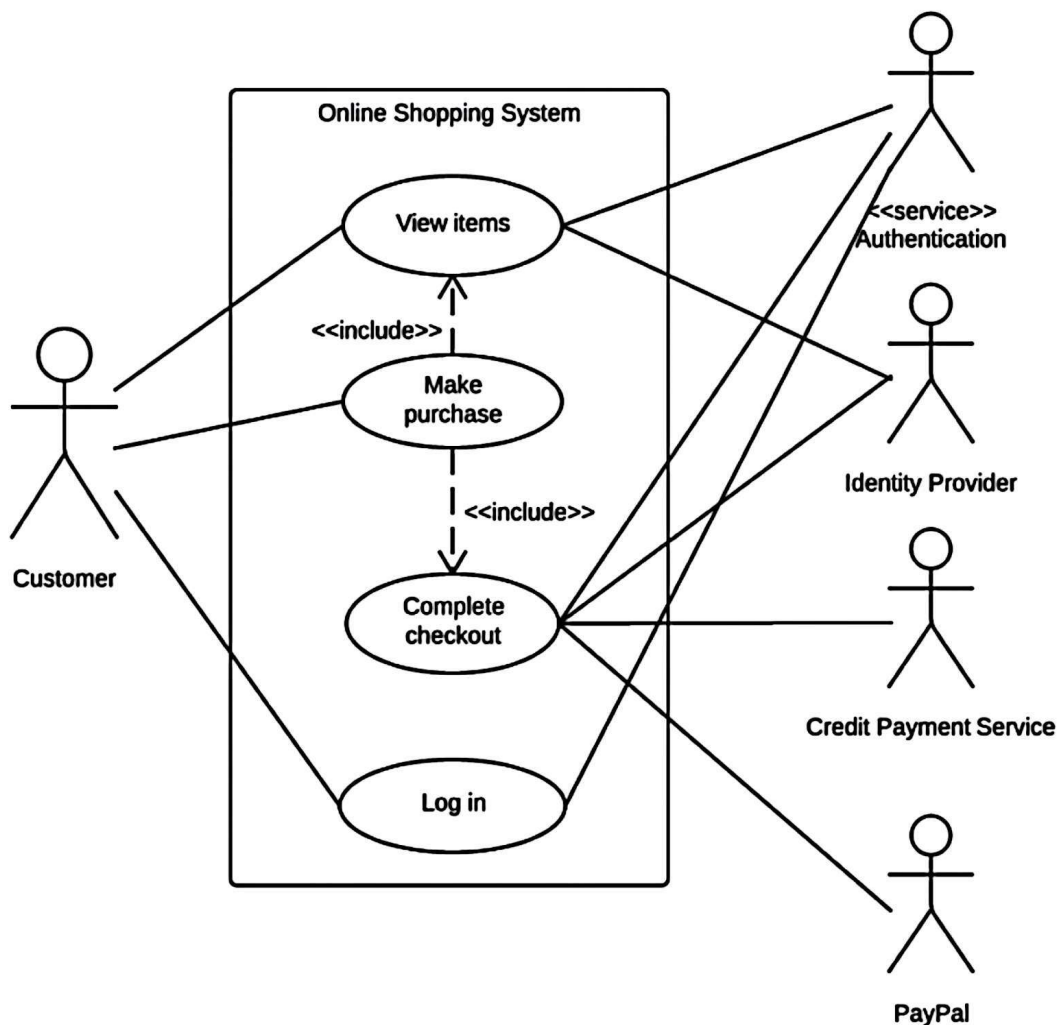# 1. Use case diagram

"Draw and explain a UML Use Case Diagram for an *Online Shopping System*. The system should include the following:

- A customer can view items, make purchases, and complete checkout.

- Authentication and Identity Provider services should be included.

- Payment can be completed through Credit Payment Service or PayPal.

- The system should also support a login process."

2. Use case description

Use Case: Make Purchase

Goal:
Customer selects an item and adds it to the shopping cart in order to buy later.

Prepared by: Rohan Sarker (Sec:-D)

Preconditions:

- Customer is logged in.
- Customer has already viewed items.

Success End Condition:

- Item is successfully added to the shopping cart.

Failed End Condition:

- Item is not added to the cart (e.g., due to stock issues or invalid selection).

Primary Actor:
Customer

Secondary Actors:

- Inventory System
- Shopping Cart Service

Trigger:
Customer clicks the "Add to Cart" button after selecting an item.

Description / Main Success Scenario

Step Action

Step	Action
1	Customer views available items.
2	Customer selects a desired item.
3	System retrieves item details (price, stock, description).
4	Customer clicks "Add to Cart."
5	System verifies item availability.
6	System adds the item to the shopping cart.
7	System shows confirmation message ("Item added to cart").

Alternative Flows

Step Branching Action

Step	Branching Action
5a	If item is out of stock 'n System shows "Out of Stock" message.
5b	If item selection is invalid 'n System shows "Invalid Selection" error.
6a	If cart service is unavailable 'n System shows "Unable to add item, try again later."

Prepared by: Rohan Sarker (Sec:-D)