



COMSATS University, Islamabad  
Department of Computer Science

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**Assignment 2**

Deadline: 25/03/2025

**[CLO 2]** "EcoMart" is an online grocery store that offers a wide range of products, including fresh produce, dairy, baked goods, and household items. EcoMart provides services such as product recommendations, customer reviews, and personalized shopping lists. As the lead software architect at EcoMart, you are tasked to create a class diagram for the online system by keeping in view the following requirements:

**Products:**

There are different categories of products, such as **FreshProduce**, **Dairy**, **BakedGoods**, and **HouseholdItems**. Each product has a **name**, **product ID**, **price**, and **quantity in stock**.

**Customers:**

EcoMart customers can have a **customer ID**, **name**, **email**, and **address**.

**Reviews:**

Customers can leave reviews for products. Each review has a **rating** (out of 5) and **comments**.

**Recommendations:**

The system provides personalized product recommendations to customers based on their purchase history.

**Orders:**

Customers can place orders for products. The system should be able to store **order ID**, **order date**, and the **list of products ordered**.