### **E-Commerce Application Assignment**

#### **Objective:**

Develop a simple eCommerce application using Object-Oriented Programming (OOP) principles in Java. The application should allow users to manage products, customers, and orders.

#### **Requirements:**

1. **Classes and Relationships:**
   * **Product**
     + Attributes: id, name, description, price, stockQuantity
     + Methods: Constructors, getters, setters, toString()
   * **Customer**
     + Attributes: id, name, email, address
     + Methods: Constructors, getters, setters, toString()
   * **Order**
     + Attributes: id, customer, productList (List of Product), totalAmount
     + Methods: Constructors, getters, setters, calculateTotalAmount(), toString()
   * **OrderManager**
     + Attributes: orderList (List of Order)
     + Methods: addOrder(Order order), removeOrder(int orderId), viewAllOrders()
   * **CustomerManager**
     + Attributes: customerList (List of Customer)
     + Methods: addCustomer(Customer customer), removeCustomer(int customerId), viewAllCustomers()
   * **ProductManager**
     + Attributes: productList (List of Product)
     + Methods: addProduct(Product product), removeProduct(int productId), viewAllProducts(), updateStock(int productId, int newStock)
2. **Main Application:**
   * Create a Main class with a main method to interact with the user.
   * Implement a simple text-based menu to perform the following actions:
     + Add a new product
     + Remove a product
     + View all products
     + Add a new customer
     + Remove a customer
     + View all customers
     + Create a new order
     + View all orders