Quiz-1

Object Oriented Programming

CSE221

Section:65_I

1. Explain the concept of classes and objects in Object-Oriented Programming (OOP). How do they relate to each other, and why are they fundamental to OOP? Provide examples to illustrate your explanation.   4

2. Find out area of rectangle, triangle, and circle (Take values from user)   4

3. Create a `Product` class with the following properties and methods: 7

- `productName` → Stores the name of the product.
- `price` → Stores the price of the product.
- `stockQuantity` → Stores the available stock of the product.
  - `purchaseProduct(int quantity)`:

    o If the requested quantity is **available**, reduce the stock and display the total price.
    o If not, display `"Insufficient stock available"`.
  - `displayProductDetails()`: Displays the product name, price, and available stock.

1. Create two `Product` objects with user input.
2. Display product details.
3. Allow the user to **purchase a product** (taking quantity input).
4. Show the final updated product details after purchase.