

CLASS and OBJECT - Assignment

A. Product Inventory with Stock Management

Scenario:

Create a **Product** class to manage product details and stock.

- **Fields:** productName (string), price (double), stockQuantity (int)
- **Methods:**
 - AddStock(int quantity) (quantity > 0)
 - Sell(int quantity) (quantity > 0 and ≤ stock)
- **Override** ToString() to show product details.

B. Employee Salary with Bonus Calculation

Scenario:

Create an **Employee** class to store name, base salary, and years of service.

- **Fields:** name (string), baseSalary (double), yearsOfService (int)
- **Methods:**
 - CalculateBonus() → Bonus is baseSalary * 0.05 * yearsOfService
 - TotalSalary() → baseSalary + bonus
- **Override** ToString() to show employee salary details.

C. Movie Ticket Booking

Scenario:

Create a MovieTicket class to manage ticket sales.

- **Fields:** movieName (string), totalSeats (int), bookedSeats (int)
- **Methods:**
 - BookSeats(int seats) (only if seats available)
 - CancelSeats(int seats) (cannot cancel more than booked)
- **Override** ToString() to show booking status.