DAY-4 TASK

1)Employee class with salary caluculation

```
class Employee {

    String name;
    int id;
    double basicSalary;


    Employee(String name, int id, double basicSalary) {
        this.name = name;
        this.id = id;
        this.basicSalary = basicSalary;
    }


    double calculateSalary() {
        double hra = 0.10 * basicSalary;  // HRA: 10% of basic salary
        double da = 0.05 * basicSalary;   // DA: 5% of basic salary
        return basicSalary + hra + da;    // Total salary
    }


    void displayDetails() {
        System.out.println("Employee ID: " + id);
        System.out.println("Employee Name: " + name);
        System.out.println("Total Salary: " + calculateSalary());
    }


    public static void main(String[] args) {

        Employee emp1 = new Employee("Anushika", 101, 30000);


        emp1.displayDetails();
    }
}
```

Output:

```
Employee ID: 101
Employee Name: Anushika
Total Salary: 34500.0
```

2)Demonstrate overloading(sum(int,int)and sum(double,double))

```
public class Calculator {

    int sum(int a, int b) {
        return a + b;
    }


    double sum(double a, double b) {
        return a + b;
    }

    public static void main(String[] args) {
        Calculator calc = new Calculator();


        int intResult = calc.sum(10, 20);
        System.out.println("Sum of integers: " + intResult);


        double doubleResult = calc.sum(10.5, 20.3);
        System.out.println("Sum of doubles: " + doubleResult);
    }
}
```

Output:

```
Sum of integers: 30
Sum of doubles: 30.8
```

3)Student Mangement System(create student,assign mark,display results)

```
import java.util.Scanner;

class Student {
    String name;
    int mark;
```

```
    void getDetails() {
        Scanner sc = new Scanner(System.in);
        System.out.print("Enter student name: ");
        name = sc.nextLine();
    }

    void assignMark() {
        Scanner sc = new Scanner(System.in);
        System.out.print("Enter mark: ");
        mark = sc.nextInt();
    }

    void displayResult() {
        System.out.println("\n--- Student Result ---");
        System.out.println("Name: " + name);
        System.out.println("Mark: " + mark);
    }
}

public class SimpleStudentSystem {
    public static void main(String[] args) {
        Student s = new Student();
        s.getDetails();
        s.assignMark();
        s.displayResult();
    }
}
```

Output:

```
Enter student name: Anu
Enter mark: 34

--- Student Result ---
Name: Anu
Mark: 34
```

4)BankAccount class with deposit/withdraw ,methods

```
class Bank {
    double balance = 0;
```

```
    void deposit(double amount) {
        balance += amount;
    }

    void withdraw(double amount) {
        balance -= amount;
    }

    void show() {
        System.out.println("Balance: " + balance);
    }

    public static void main(String[] args) {
        Bank b = new Bank();
        b.deposit(500);
        b.show();
        b.withdraw(200);
        b.show();
    }
}
```

Output:

```
Balance: 500.0
Balance: 300.0
```