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package _3_Assignment_Inheritance;
import java.util.*;
```

```
class Employee {
    String empName;
    String empld;
    String address;
    String mailld;
    String mobileNo;

    Employee(String empName, String empld, String address, String mailld, String mobileNo) {
        this.empName = empName;
        this.empld = empld;
        this.address = address;
        this.mailld = mailld;
        this.mobileNo = mobileNo;
    }
}
```

```
class Programmer extends Employee {
    double basicPay;

    Programmer(String empName, String empld, String address, String mailld, String mobileNo, double
basicPay) {
        super(empName, empld, address, mailld, mobileNo);
        this.basicPay = basicPay;
    }

    double calculateDA() {
        return basicPay * 0.97;
    }

    double calculateHRA() {
        return basicPay * 0.10;
    }

    double calculatePF() {
        return basicPay * 0.12;
    }

    double calculateStaffClubFund() {
        return basicPay * 0.001;
    }

    double calculateGrossSalary() {
        return basicPay + calculateDA() + calculateHRA();
    }
}
```

```

double calculateNetSalary() {
    return calculateGrossSalary() - (calculatePF() + calculateStaffClubFund());
}
}

public class PaySlipGenerator {

    // Validation for email
    private static boolean isValidEmail(String email) {
        String emailRegex = "^[a-zA-Z0-9._-]+@[a-zA-Z0-9.-]+\\.[a-zA-Z]{2,6}$";
        return Pattern.matches(emailRegex, email);
    }

    // Validation for mobile number
    private static boolean isValidMobile(String mobile) {
        return mobile.matches("\\d{10}");
    }

    // Validation for basic pay
    private static boolean isValidBasicPay(double basicPay) {
        return basicPay >= 10000; // Assuming minimum basic pay is 10,000
    }

    public static void main(String[] args) {
        Scanner vk = new Scanner(System.in);

        System.out.print("Enter Employee Name: ");
        String empName = vk.nextLine();

        System.out.print("Enter Employee ID: ");
        String empId = vk.nextLine();

        System.out.print("Enter Address: ");
        String address = scanner.nextLine();

        String mailId;
        do {
            System.out.print("Enter Mail ID: ");
            mailId = scanner.nextLine();
            if (!isValidEmail(mailId)) {
                System.out.println("Invalid Email ID. Please enter a valid email.");
            }
        } while (!isValidEmail(mailId));

        String mobileNo;
        do {
            System.out.print("Enter Mobile No: ");
            mobileNo = scanner.nextLine();
            if (!isValidMobile(mobileNo)) {
                System.out.println("Invalid Mobile Number. Please enter a valid 10-digit mobile number.");
            }
        } while (!isValidMobile(mobileNo));

        double basicPay;
        do {

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System.out.print("Enter Basic Pay: ");
while (!scanner.hasNextDouble()) {
    System.out.println("Invalid input. Please enter a numeric value for basic pay.");
    vk.next(); // Consume the invalid input
}
basicPay = scanner.nextDouble();
if (!isValidBasicPay(basicPay)) {
    System.out.println("Basic Pay must be at least 30,000. Please enter a valid amount.");
}
} while (!isValidBasicPay(basicPay));

// Create Programmer object
Programmer programmer = new Programmer(empName, empld, address, mailId, mobileNo,
basicPay);

// Display Pay Slip
System.out.println("\nPay Slip:");
System.out.println("-----");
System.out.printf("| %-15s | %-10s | %-10s | %-10s |\n", "Basic Pay", "DA", "HRA", "Net Salary");
System.out.println("-----");
System.out.printf("| %-15.2f | %-10.2f | %-10.2f | %-10.2f |\n",
    programmer.basicPay,
    programmer.calculateDA(),
    programmer.calculateHRA(),
    programmer.calculateNetSalary());
System.out.println("-----");

vk.close();
}
}

```