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ROLL : C - 46

Assignment - 05

Problem - 1

```
class Student {
    private String enrollment_id;
    private String name;
    private String contact_no;
    private String aadhaar_no;

    public Student(String enrollment_id, String name) {
        this.enrollment_id = enrollment_id;
        this.name = name;
        System.out.println("Constructor with 2 parameters called");
    }

    public Student(String enrollment_id, String name, String contact_no) {
        this(enrollment_id, name);
        this.contact_no = contact_no;
        System.out.println("Constructor with 3 parameters called");
    }

    public Student(String enrollment_id, String name, String contact_no, String aadhaar_no) {
        this(enrollment_id, name, contact_no);
        this.aadhaar_no = aadhaar_no;
        System.out.println("Constructor with 4 parameters called");
    }

    public void display() {
        System.out.println("Enrollment ID: " + enrollment_id);
        System.out.println("Name: " + name);
        System.out.println("Contact No: " + contact_no);
        System.out.println("Aadhaar No: " + aadhaar_no);
        System.out.println("-----");
    }

    public static void main(String[] args) {
        Student s1 = new Student("E123", "Rehan");
        s1.display();

        Student s2 = new Student("E124", "Ahmed", "9876543210");
        s2.display();

        Student s3 = new Student("E125", "Khan", "8765432109", "1234-5678-9012");
        s3.display();
    }
}
```

Problem - 2

```
import java.util.Scanner;

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

        // Convert number to string with fixed decimal places
        System.out.print("Enter a number (integer or floating point): ");
        double number = scanner.nextDouble();
        System.out.print("Enter the desired decimal places: ");
        int decimalPlaces = scanner.nextInt();

        String formattedNumber = String.format("%. " + decimalPlaces + "f", number);
        System.out.println("Formatted Number String: " + formattedNumber);

        // Convert string to number
        System.out.print("Enter a numeric string: ");
        scanner.nextLine(); // Consume newline
        String numString = scanner.nextLine();

        if (numString.contains(".")) {
            System.out.println("Converted to Double: " + Double.parseDouble(numString));
        } else {
            System.out.println("Converted to Integer: " + Integer.parseInt(numString));
        }

        scanner.close();
    }
}
```

Problem-3

```
import java.io.*;
import java.util.*;

abstract class Book {
    String title;

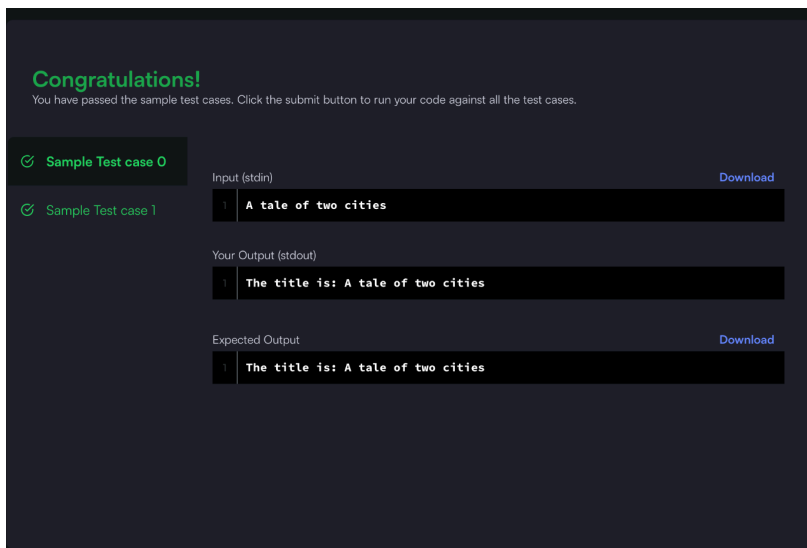
    abstract void setTitle(String s);

    String getTitle() {
        return title;
    }
}

class MyBook extends Book {
    void setTitle(String s) {
        this.title = s;
    }
}

public class Solution {
    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);
        String title = scanner.nextLine();
        scanner.close();

        MyBook new_novel = new MyBook();
        new_novel.setTitle(title);
        System.out.println("The title is: " + new_novel.getTitle());
    }
}
```



Problem-4

```
class Bank {
    private String bank_name;
```

```

private String ifsc_code;
private String branch_name;
private double rate_of_interest;

public Bank(String bank_name, String ifsc_code, String branch_name) {
    this.bank_name = bank_name;
    this.ifsc_code = ifsc_code;
    this.branch_name = branch_name;
}

public void set_Interest(double rate_of_interest) {
    this.rate_of_interest = rate_of_interest;
}

class Account {
    private String account_no;
    private String acct_holder_name;

    public Account(String account_no, String acct_holder_name) {
        this.account_no = account_no;
        this.acct_holder_name = acct_holder_name;
    }

    public void display(double principal, int years) {
        double interest = (principal * rate_of_interest * years) / 100;
        System.out.println("Bank Name: " + bank_name);
        System.out.println("IFSC Code: " + ifsc_code);
        System.out.println("Branch Name: " + branch_name);
        System.out.println("Account No: " + account_no);
        System.out.println("Account Holder: " + acct_holder_name);
        System.out.println("Principal Amount: " + principal);
        System.out.println("Rate of Interest: " + rate_of_interest + "%");
        System.out.println("Time Period: " + years + " years");
        System.out.println("Simple Interest: " + interest);
        System.out.println("-----");
    }
}

public static void main(String[] args) {
    Bank bank = new Bank("HDFC Bank", "HDFC0001234", "Mumbai Branch");
    bank.set_Interest(5.5);

    Bank.Account acc1 = bank.new Account("123456789", "Rehan Ahmed");
    acc1.display(10000, 3);

    Bank.Account acc2 = bank.new Account("987654321", "Ahmed Khan");
    acc2.display(15000, 5);
}

```