CSE 1007

JAVA Programming

LABCAT

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ALGORITHM:

Step 1: Declare an interface called CreditCardAPP.

Step 2: Declare functions getPersonalDetails(), calculatePerYearIncome(), PrintEligibility() in CreditCardAPP.

Step 3: Declare three classes that implemets CreditCardAPP.

Step 4: Override CreditCardAPP methods in each class and give necessary definition.

Step 5: getPersonalDetails() : get all the personal details from the new customer.

Step 6: calculatePerYearIncome() : get the GrossSalary from the user and use it to calculate PerYearIncome.

Step 7: PrintEligibility() : get the EMI per Month and use calculatePerYearIncome to get Eligibility.

Step 8: Use main function to get all inputs from user.

CODE:
```java
import java.util.*;
interface CreditCardAPP
    {
        void getpersonalDetails();
        double CalculatePerYearIncome();
        int PrintEligibility();

    }

    class IndianBank implements CreditCardAPP
    {
        public void getpersonalDetails()
        {
            Scanner sc = new Scanner(System.in);
            System.out.println("Enter name: ");
            String name = sc.next();
            System.out.println("Enter mob: ");
            int mob = sc.nextInt();
            System.out.println("Enter address: ");
            String add = sc.next();
```

```java
            System.out.println("Enter nominee :");

            String nom = sc.next();
            System.out.println("Enter age : ");
            int age = sc.nextInt();
            System.out.println("Enter email : ");
            String email = sc.next();

    }

    public double CalculatePerYearIncome()
    {
            Scanner sc= new Scanner(System.in);
            System.out.println("Enter gross salary ");
            double gs = sc.nextDouble();

            Double NetSalPerMonth = gs-(gs*0.2);
            double PerYearIncome = NetSalPerMonth*12;
            return PerYearIncome;
    }

    public int PrintEligibility()
    {
            Scanner sc = new Scanner(System.in);
            System.out.println("Enter EMI: ");
            double emi = sc.nextDouble();
            int EligibilityScore = 0;
            double pyi = CalculatePerYearIncome();
            if(emi==0)
            {
                EligibilityScore = 3;
            }
            else if(emi<=(0.2*pyi))
            {
                EligibilityScore = 2;
            }
            else if(emi<=(0.4*pyi))
            {
                EligibilityScore = 1;
            }
            else if(emi<=(0.6*pyi))
            {
                EligibilityScore = 0;
            }
            return EligibilityScore;

    }
}

 class SBI implements CreditCardAPP
{
    public void getpersonalDetails()
```

```java
    {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter name: ");
        String name = sc.next();
        System.out.println("Enter mob: ");
        int mob = sc.nextInt();
        System.out.println("Enter address: ");
        String add = sc.next();
        System.out.println("Enter nominee :");

        String nom = sc.next();
        System.out.println("Enter age : ");
        int age = sc.nextInt();
        System.out.println("Enter email : ");
        String email = sc.next();

    }

    public double CalculatePerYearIncome()
    {
        Scanner sc= new Scanner(System.in);
        System.out.println("Enter gross salary ");
        double gs = sc.nextDouble();

        Double NetSalPerMonth = gs-(gs*0.2);
        double PerYearIncome = NetSalPerMonth*12;
        return PerYearIncome;
    }

    public int PrintEligibility()
    {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter EMI: ");
        double emi = sc.nextDouble();
        int EligibilityScore = 0;
        double pyi = CalculatePerYearIncome();
        if(emi==0)
        {
            EligibilityScore = 3;
        }
        else if(emi<=(0.2*pyi))
        {
            EligibilityScore = 2;
        }
        else if(emi<=(0.4*pyi))
        {
            EligibilityScore = 1;
        }
        else if(emi<=(0.6*pyi))
        {
            EligibilityScore = 0;
        }
```

```java
            return EligibilityScore;

    }
}


 class KOTAK implements CreditCardAPP
{
    public void getpersonalDetails()
    {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter name: ");
        String name = sc.next();
        System.out.println("Enter mob: ");
        int mob = sc.nextInt();
        System.out.println("Enter address: ");
        String add = sc.next();
        System.out.println("Enter nominee :");

        String nom = sc.next();
        System.out.println("Enter age : ");
        int age = sc.nextInt();
        System.out.println("Enter email : ");
        String email = sc.next();

    }

    public double CalculatePerYearIncome()
    {
        Scanner sc= new Scanner(System.in);
        System.out.println("Enter gross salary ");
        double gs = sc.nextDouble();

        Double NetSalPerMonth = gs-(gs*0.2);
        double PerYearIncome = NetSalPerMonth*12;
        return PerYearIncome;
    }

    public int PrintEligibility()
    {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter EMI: ");
        double emi = sc.nextDouble();
        int EligibilityScore = 0;
        double pyi = CalculatePerYearIncome();
        if(emi==0)
        {
            EligibilityScore = 3;
        }
        else if(emi<=(0.2*pyi))
        {
            EligibilityScore = 2;
```

```java
            }
            else if(emi<=(0.4*pyi))
            {
                EligibilityScore = 1;
            }
            else if(emi<=(0.6*pyi))
            {
                EligibilityScore = 0;
            }
            return EligibilityScore;

        }
    }



public class HelloWorld
{
    public static void main(String []args){
        SBI a = new SBI();
        a.getpersonalDetails();
        System.out.println("Eligibility Score: "+a.PrintEligibility());
    }
}
```

OUTPUT:

Test Case1:

```
Command Prompt
Caused by: java.lang.NoClassDefFoundError: HelloWorld (wrong name: Helloworld)

C:\Users\Vibhu\OneDrive\Desktop\JAVA LABCAT>javac HelloWorld.java

C:\Users\Vibhu\OneDrive\Desktop\JAVA LABCAT>java HelloWorld
Enter name:
Vibhu
Enter mob:
812192121
Enter address:
Vasundhara
Enter nominee :
sadsa
Enter age :
20
Enter email :
Vibhu@gmail.com
Enter EMI:
0
Enter gross salary
200000
Eligibility Score: 3
```

Test Case2:

■ Command Prompt

```
C:\Users\Vibhu\OneDrive\Desktop\JAVA LABCAT>java HelloWorld
Enter name:
Bhavya
Enter mob:
1212912
Enter address:
Vasundhara
Enter nominee :
bhjsbha
Enter age :
21
Enter email :
Bhavya@gmail.com
Enter EMI:
200
Enter gross salary
2000
Eligibility Score: 2
```