Name - Yash Lakhtariya
Enrollment number - 21162101012
Branch - CBA , Batch - 31
OOP Practical - 9

Problem : Karan wants to opt for a student loan to pursue further +2 years of education abroad. Implement a java program which surveys various banks for their rate of interest, and display the returned ROI's through hierarchical inheritance. Consider the ROI of banks are as follows:

SBI 6.9%

HDFC 7.1%

BOI 6.5%

After displaying the ROI, the application accepts the Principal amount requested for the loan and keeping the tenure fix for 5 years, calculate the amount to be paid by the student from the ROI he choose after the display from the bank.

Code :

```
package yash_lakhtariya;
import java.util.Scanner;

public class prac_9
{
  public static void main(String[] args)
  {
     System.out.println("\nList of ROIs of different banks : ");
     Scanner in = new Scanner(System.in);
     sbi s = new sbi();
     hdfc h = new hdfc();
     boi b = new boi();
     s.roi = 6.9;
     h.roi = 7.1;
     b.roi = 6.5;
     s.sbiroi();
```

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```
    h.hdfcroi();
    b.boiroi();
    System.out.print("\nEnter Your Principal amount : ");
    int pa = in.nextInt();
    System.out.println("\n\t1. SBI");
    System.out.println("\n\t2. HDFC");
    System.out.println("\n\t3. BOI");
    System.out.print("\nChoose Your bank : ");
    int c = in.nextInt();
    if (c == 1)
    {
       interest(pa, s.roi);
    } else if (c == 2)
    {
       interest(pa, h.roi);
    } else if (c == 3)
    {
       interest(pa, b.roi);
    }
    else
    {
       System.out.println("Please Enter Valid Input.");
    }
    in.close();
}

 static void interest(int p, double r)
 {
    double intr = (p * r * 5) / 100;
    double amount = intr + p;
    System.out.println("\n\tTotal Interest : " + intr);
```

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```
    System.out.println("\n\tTotal Amount : " + amount);
  }
}
class banks
{
  double roi;
}

class sbi extends banks
{
  void sbiroi()
  {
    System.out.println("\n\tSBI Rate of Interest : " + roi);
  }
}

class hdfc extends banks
{
  void hdfcroi()
  {
    System.out.println("\n\tHDFC Rate of Interest : " + roi);
  }
}

class boi extends banks
{
  void boiroi()
  {
    System.out.println("\n\tBOI Rate of Interest : " + roi + "\n");
  }
}
```

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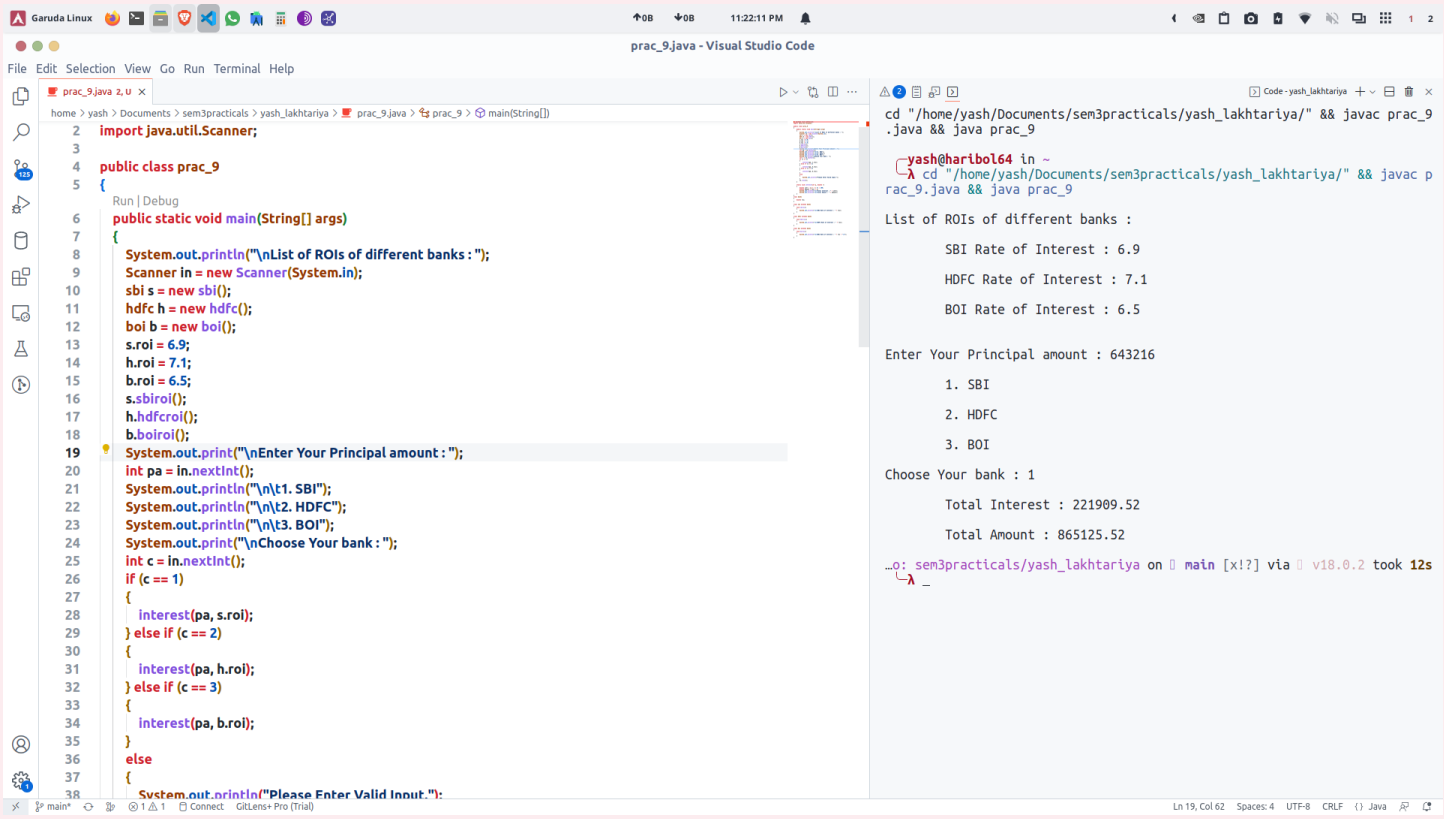
Outputs : (With each input choice)



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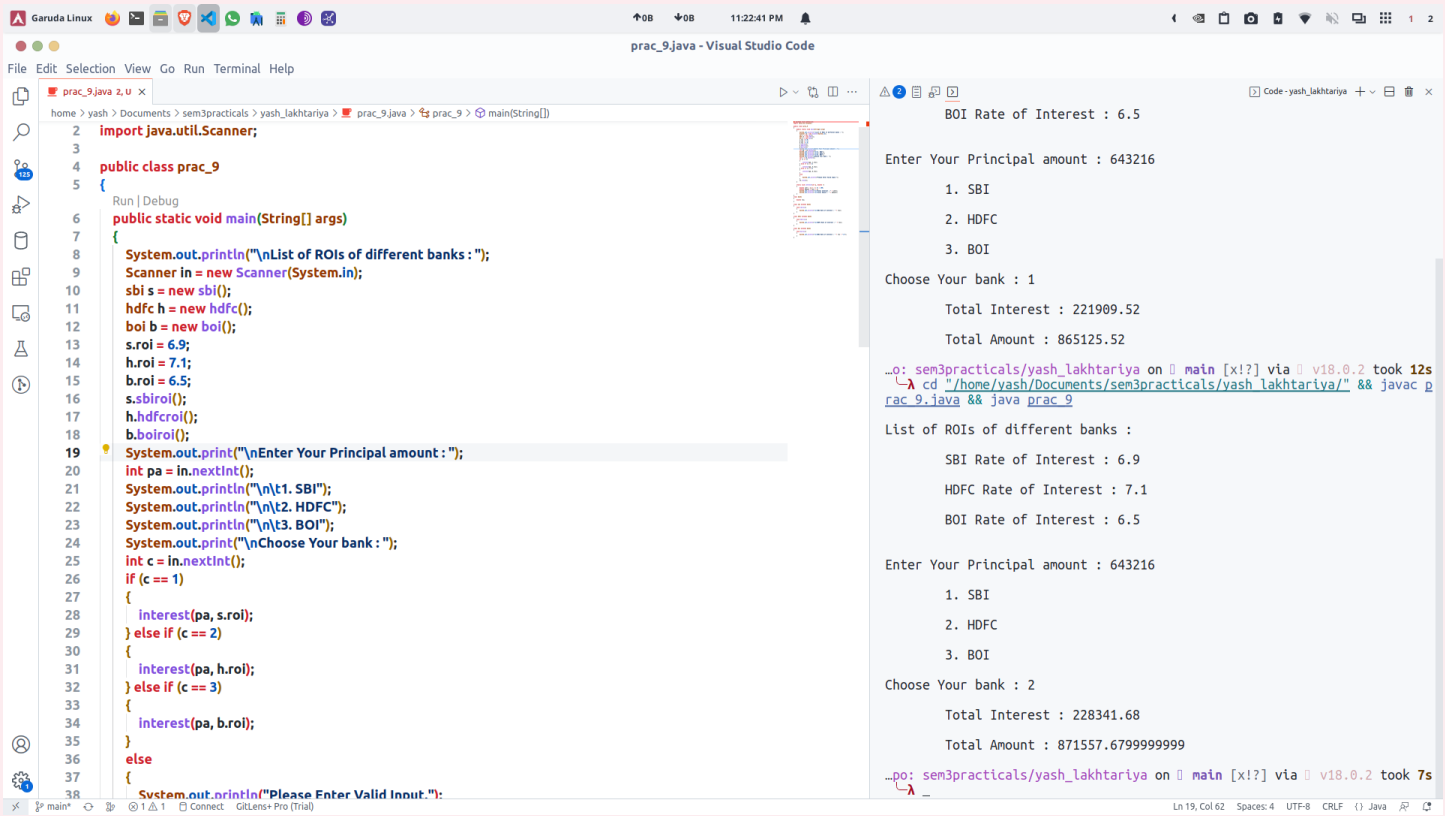

```
import java.util.Scanner;

public class prac_9
{
    Run | Debug
    public static void main(String[] args)
    {
        System.out.println("\nList of ROIs of different banks : ");
        Scanner in = new Scanner(System.in);
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        int pa = in.nextInt();
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        if (c == 1)
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            interest(pa, s.roi);
        } else if (c == 2)
        {
            interest(pa, h.roi);
        } else if (c == 3)
        {
            interest(pa, b.roi);
        }
        else
        {
            System.out.println("Please Enter Valid Input.");
```

```
        BOI Rate of Interest : 6.5

Enter Your Principal amount : 643216

        1. SBI

        2. HDFC

        3. BOI

Choose Your bank : 1

        Total Interest : 221909.52

        Total Amount : 865125.52

…o: sem3practicals/yash_lakhtariya on  main [x!?] via  v18.0.2 took 12s
 λ cd "/home/yash/Documents/sem3practicals/yash_lakhtariya/" && javac p
rac_9.java && java prac_9

List of ROIs of different banks :

        SBI Rate of Interest : 6.9

        HDFC Rate of Interest : 7.1

        BOI Rate of Interest : 6.5

Enter Your Principal amount : 643216

        1. SBI

        2. HDFC

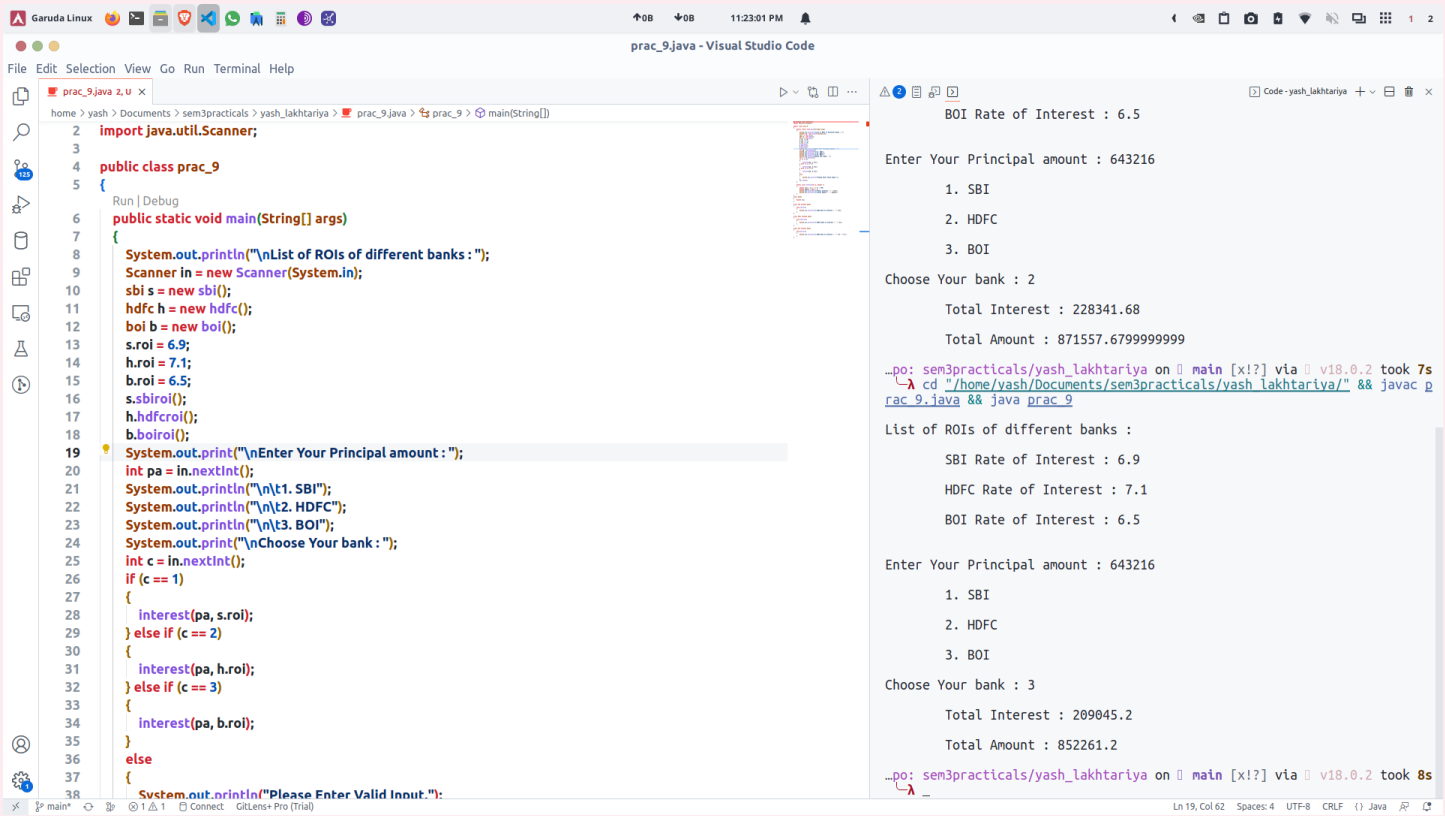
        3. BOI

Choose Your bank : 2

        Total Interest : 228341.68

        Total Amount : 871557.6799999999

…po: sem3practicals/yash_lakhtariya on  main [x!?] via  v18.0.2 took 7s
 λ
```



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        }
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```

```
        BOI Rate of Interest : 6.5

Enter Your Principal amount : 643216

        1. SBI

        2. HDFC

        3. BOI

Choose Your bank : 2

        Total Interest : 228341.68

        Total Amount : 871557.6799999999

…po: sem3practicals/yash_lakhtariya on  main [x!?] via  v18.0.2 took 7s
 λ cd "/home/yash/Documents/sem3practicals/yash_lakhtariya/" && javac p
rac_9.java && java prac_9

List of ROIs of different banks :

        SBI Rate of Interest : 6.9

        HDFC Rate of Interest : 7.1

        BOI Rate of Interest : 6.5

Enter Your Principal amount : 643216

        1. SBI

        2. HDFC

        3. BOI

Choose Your bank : 3

        Total Interest : 209045.2

        Total Amount : 852261.2

…po: sem3practicals/yash_lakhtariya on  main [x!?] via  v18.0.2 took 8s
 λ
```