**Lab Experiment – 3**

**Aim**: Create an interface called “Bank” and declare a method to get customer details: customer name, customer id , number of years, and customer balance. Three classes: Axes, ICIC, and SBI, should be derived from Bank. The customer details and interest rate should be overridden in the third class. The interest rate for Axes is 5%, ICIC is 7%, and SBI is 8%.

Display the Menu:

1. AXES

2. ICIC

3. SBI

According to the selection, the total amount after a number of years should be calculated for the given balance\_amount, and all the details should be displayed as follows:

CUSTOMER NAME ID NO OF YEARS BALANCE BANK RATE OF INTEREST TOTAL AMOUNT

AAAA 111 5 5000 AXIS 5% 5500

**Code**:

*/\*\**

*\**

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*\*/*

import java.util.Scanner;

interface Bank {

void get\_details();

}

class Axes implements Bank {

String Cname;

int Cid, nay;

double balance, tbalance, roi;

String ROI;

*@Override*

public void get\_details() {

Scanner sc = new Scanner(System.in);

System.out.println("ENTER CUSTOMER NAME: ");

Cname = sc.nextLine();

System.out.println("ENTER CID: ");

Cid = sc.nextInt();

System.out.println("ENTER NUMBER OF YEARS: ");

nay = sc.nextInt();

System.out.println("ENTER CURRENT BALANCE: ");

balance = sc.nextDouble();

roi = 5;

ROI = "5%";

tbalance = balance + ((roi \* balance \* nay) / 100);

}

void show\_details() {

System.out.println("CUSTOMER NAME \t\t ID \t\t NO. OF YEARS \t\t BALANCE \t\t BANK \t\t RATE OF INTEREST \t\t TOTAL AMOUNT");

System.out.println(Cname + "\t\t\t" + Cid + "\t\t\t" + nay + "\t\t\t" + balance + "\t\t\t" + "AXES" + "\t\t\t" + ROI + "\t\t\t" + tbalance);

}

}

class SBI implements Bank {

String Cname;

int Cid, nay;

double balance, tbalance, roi;

String ROI;

*@Override*

public void get\_details() {

Scanner sc = new Scanner(System.in);

System.out.println("ENTER CUSTOMER NAME: ");

Cname = sc.nextLine();

System.out.println("ENTER CID: ");

Cid = sc.nextInt();

System.out.println("ENTER NUMBER OF YEARS: ");

nay = sc.nextInt();

System.out.println("ENTER CURRENT BALANCE: ");

balance = sc.nextDouble();

roi = 8;

ROI = "8%";

tbalance = balance + ((roi \* balance \* nay) / 100);

}

void show\_details() {

System.out.println("CUSTOMER NAME \t\t ID \t\t NO. OF YEARS \t\t BALANCE \t\t BANK \t\t RATE OF INTEREST \t\t TOTAL AMOUNT");

System.out.println(Cname + "\t\t\t" + Cid + "\t\t\t" + nay + "\t\t\t" + balance + "\t\t\t" + "SBI" + "\t\t\t" + ROI + "\t\t\t" + tbalance);

}

}

class ICIC implements Bank {

String Cname;

int Cid, nay;

double balance, tbalance, roi;

String ROI;

*@Override*

public void get\_details() {

Scanner sc = new Scanner(System.in);

System.out.println("ENTER CUSTOMER NAME: ");

Cname = sc.nextLine();

System.out.println("ENTER CID: ");

Cid = sc.nextInt();

System.out.println("ENTER NUMBER OF YEARS: ");

nay = sc.nextInt();

System.out.println("ENTER CURRENT BALANCE: ");

balance = sc.nextDouble();

roi = 7;

ROI = "7%";

tbalance = balance + ((roi \* balance \* nay) / 100);

}

void show\_details() {

System.out.println("CUSTOMER NAME \t\t ID \t\t NO. OF YEARS \t\t BALANCE \t\t BANK \t\t RATE OF INTEREST \t\t TOTAL AMOUNT");

System.out.println(Cname + "\t\t\t" + Cid + "\t\t\t" + nay + "\t\t\t" + balance + "\t\t\t" + "ICIC" + "\t\t\t" + ROI + "\t\t\t" + tbalance);

}

}

public class interBank {

public static void main(String[] args) {

int ch;

Scanner sc = new Scanner(System.in);

System.out.println("1. AXES");

System.out.println("2. ICIC");

System.out.println("3. SBI");

ch = sc.nextInt();

switch (ch) {

case 1 -> {

Axes a = new Axes();

a.get\_details();

a.show\_details();

}

case 2 -> {

ICIC i = new ICIC();

i.get\_details();

i.show\_details();

}

case 3 -> {

SBI s = new SBI();

s.get\_details();

s.show\_details();

}

default -> System.out.println("Invalid choice!");

}

}

}

**Output**:

