Week 5

```
import java.util.Scanner;
import java.lang.Math;

class Account{

	String name = new String();
	int acc_no;
	double balance;

	void setd(){
		Scanner S = new Scanner(System.in);
		System.out.println("Enter your name : ");
		name = S.nextLine();
		System.out.println("Enter Account number : ");
		acc_no = S.nextInt();
		System.out.println("Enter balance: ");
		balance = S.nextDouble();
	}
	void display(){
		System.out.println("Name  :  " + name);
		System.out.println("Account number  :  " + acc_no);
		System.out.println("Balance  :  " + balance);
	}
	Account(){}
}

class Savings extends Account{
	Scanner S = new Scanner(System.in);
	Savings(){
		System.out.println("Facilities avilable are : ");
		System.out.println("1.Withdraawal \n 2.Compound Intrest \n 3.No Cheque");
		}

	void deposit(){
		int choice;
		double dep;
		double wd;
		System.out.println("Enter 1 to deposit : ");
		choice = S.nextInt();
		if(choice == 1){
			System.out.println("Enter the amount to deposit : ");
			dep = S.nextDouble();
			balance += dep;
		}
		else
```

```
                        System.out.println("Invalid Input");
        }
        void intrest()
        {
                System.out.println("Enter rate of interest  : ");
                double r = S.nextDouble();
 r = r/100;
                System.out.println("Enter frequency of interest applied per time period  : ");
                int n = S.nextInt();
                System.out.println("Enter  time periods : ");
                int t = S.nextInt();
                double x = (1+(r/n));
                double compond_intrest = balance*Math.pow(x,n*t);
                System.out.println("Interest amount="+compond_intrest-balance+" \nBalance
amount without interest is"+balance);
 balance = compound_intrest;
                System.out.println("Available balance after updating is : "+balance);
        }
        void withdraw(){
           double wd;
           int choice;
                System.out.println("Enter 1 to withdraw : ");
                choice = S.nextInt();
                if(choice == 1){
                        System.out.println("Enter the amount you want : ");
                        wd = S.nextDouble();
                        if(wd < balance){
                                balance = balance - wd;
                                System.out.println("Avilable balance is : " + balance);
                        }
                        else
                           System.out.println("Insufficient balance");
                }
                else
                     System.out.println("Invalid Input");
        }
}

class Current extends Account{
        Scanner S = new Scanner(System.in);
        Current()
        {
                System.out.println("Cheque Facility available ");

        }
        void deposit()
        {
                int choice;
```

```
		double amount;
		System.out.println("Press 1 to deposit ");
		choice = S.nextInt();
		if(choice==1)
		{
			System.out.println("Enter amount to be deposited ");
			amount=S.nextDouble();
			balance += amount;
		}
		else
			System.out.println("Invalid Input");
	}

	void withdraw()
	{
		System.out.println("Press 1 to withdraw ammount");
		int choice=S.nextInt();
		if(choice==1)
		{
			System.out.println("Enter the amount to be withdrawn ");
			double wd=S.nextDouble();
			balance = balance - wd;
			System.out.println("Available Balance:"+balance);
		}
		else
			System.out.println("Invalid input");

		if(balance<1000)
		{
			System.out.println("You are running out of minimum balance \nAmount of rs
500 has been debited as service charge for having low balance");
			balance =balance - 500;
			System.out.println("Your Available Balance:"+balance);
		}
	}
}

class Lab5
{
	public static void main(String xx[])
{
		Scanner S = new Scanner(System.in);
		int choice;
		System.out.println("\nPress\n 1. for Savings account \n2.for Current account");
		choice = S.nextInt();
		switch(choice)
	{
		case 1:
```

```
                    Savings s1=new Savings();
                     s1.setd();
                     s1.display();
                     s1.deposit();
                     s1.intrest();
                     s1.withdraw();
                     break;
                case 2:
                    Current c1=new Current();
                     c1.setd();
                     c1.display();
                     c1.deposit();
                     c1.withdraw();
                     break;
                default : System.exit(0);
        }
}

}
```

Lab-5

5) Develop a java Program to Create a Class Bank that maintain two type of account for its Customer, one Saving account. Saving provide Compound interest, withdrawal but no Cheque. Current provides Cheque but no interest. Current account should maintain minimum balance if fall below, a Charges imposed.

Create a class Account store name & ace-no. From this derive Cur-acct & Sav-acct. Perform

1) Accept deposit
2) Display Balance
3) Compute interest
4) Permit withdrawal & update Balance
5) Check min balance

```
import java.util.Scanner;
import java.lang.Math.
Class Account{
    String name = new String();
    int accno;
    double balance;
    void add(){
        Scanner S= new Scanner(System.in);
        System.out.println("Enter name:");
        name = S.nextLine();
```

```
System.out.println("Enter account no:");
acc_no = S.nextInt();
System.out.println("Balance:");
balance = S.nextDouble();
}
void display(){
    System.out.println("Name:"+name);
    System.out.println("Account Number"+acc_no);
    System.out.println("Balance:"+balance);
    }
    Account(){}
}
class Savings extends Account{
    Scanner S=new Scanner(System.in);
    Savings(){
        System.out.println("Facilities available are:");
        System.out.println("1. withdrawal \n2.Compound
        ");
    void deposit(){
        int choice;
        double dep;
        double bal;
        System.out.println("Enter 1 to deposit:");
        choice=S.nextInt();
    if(choice==1){
```

```
System.out.println("Enter the amount to deposit : ");
    dep = S.nextDouble();
    balance += dep;
}
else
  System.out.println("Invalid input");
    }
void insert()
{ System.out.println("Enter intrest rate");
   double r = S.nextDouble()/100;
   System.out.println("Enter time Period");
   int t = S.nextInt()
   double x = (1+(r/1));
double Compound_interest = balance * Math.pow(x, nt
System.out.println("Enter " + Compound_interest + "\n
Balance " + balance);
   balance = Compound_interest ;
   System.out.println("Available balance : " + bal
   }
void withdraw(){
  double od;
  Scanner
 System.out.println("Enter 1 to withdraw");
      choice = S.nextInt();
```

```
void withdraw()
{ System.out.println("Press 1 to withdraw amount");
  int choice = S.nextInt();
  if(choice==1
  { System.out.println("Press 1 to withdraw amount");
    double wd = S.nextDouble();
    balance = balance - wd;
    System.out.println("Balance:"+Balance);
    }
    else
      System.out.println("Invalid");
  if(balance<1000)
  { System.out.println("Low Balance Service charge 500");
    balance = balance - 500;
    System.out.println("Balance:"+balance);
    }
  }
}

class
```

```
if(cho==1) {
System.out.println("Enter amount");
    wd=S.nextDouble();
    if(wd<balance)
        balance = balance-wd;
System.out.println("Balance "+balance);
}
  else
    System.out.println("Insufficient balance");
}
}
class Current extends Account {
  Scan S= new Scan(System.in);
  Current()
{ System.out.println("Cheque Facility available");
}
void deposit()
{
  int choice;
  double amount;
  System.out.println("enter amount to be deposited");
    amount = S.nextDouble();
    balance += amount;
  }
  else
    System.out.println("Invalid Input");
      }
```

```
class lab5{
public static void main(String[]){
Scanner S= new Scanner(System.in);
int choice
choice= S.nextInt();
switch(choice){

case 1:
   SavingAcc S1= new SavingAcc();
          S1.setAcc();
          S1.display();
          S1.deposit();
          S1.withdraw();
          S1.withdraw();
          break;

case 2:
      CurrentAcc C1= new CurrentAcc();
          C1.setAcc();
          C1.display();
          C1.deposit();
          C1.withdraw();
          break;

default: System.exit(0);
}
}
}
```

Output.

```
Enter
1. For Saving Account
2. For Current Account.
1
Facilities available are:
1. Withdrawal
2. Compound interest
Enter your name:
Suraj
Enter Account no:
123
Enter balance
1000
Name: Suraj
Accno: 123
Balance: 1000
Enter 1 to deposit
1
Enter Amount
1000
Enter rate of interest
5
Enter frequency of interest
1
Interest amount = 100.0
Balance amount without interest 2000.0
Available balance after interest: 2100.0
```

Rate I to withdraw:

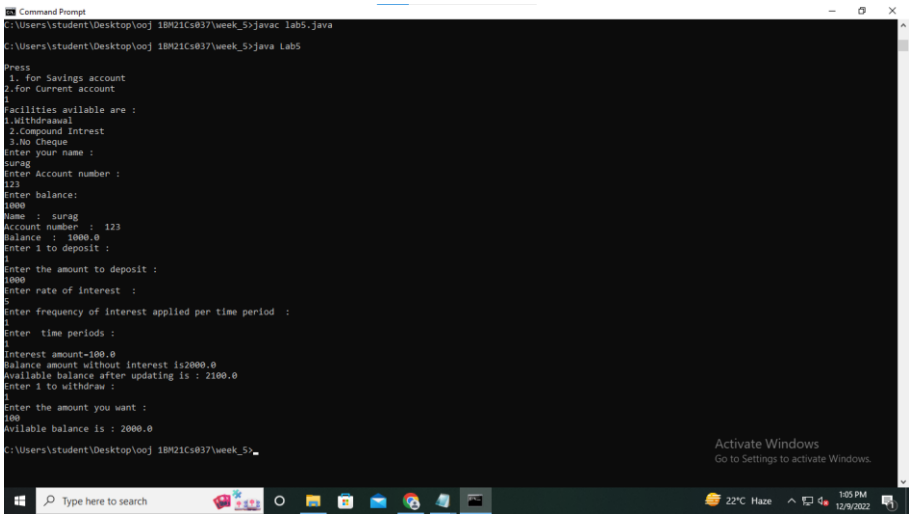
1

Rate Amount

100

Available balance is: 2000

09/12/2022


Command Prompt
C:\Users\student\Desktop\ooj 1BM21Cs037\week_5>javac lab5.java
C:\Users\student\Desktop\ooj 1BM21Cs037\week_5>java Lab5
Press
1. for Savings account
2.for Current account
1
Facilities avilable are :
1.Withdraawal
2.Compound Intrest
3.No Cheque
Enter your name :
surag
Enter Account number :
123
Enter balance:
1000
Name : surag
Account number : 123
Balance : 1000.0
Enter 1 to deposit :
1
Enter the amount to deposit :
1000
Enter rate of interest :
5
Enter frequency of interest applied per time period :
1
Enter time periods :
1
Interest amount-100.0
Balance amount without interest is2000.0
Available balance after updating is : 2100.0
Enter 1 to withdraw :
1
Enter the amount you want :
100
Avilable balance is : 2000.0
C:\Users\student\Desktop\ooj 1BM21Cs037\week_5>
Activate Windows
Go to Settings to activate Windows.
Type here to search
22°C Haze
1:05 PM
12/8/2022