

Week 8

1) ~~import java.util.Scanner;~~
abstract class Shape {

int b, h;

Shape (int base, int height) {

this.b = base;

this.h = height;

}

void ~~print~~ printArea () { }

}

class Rectangle extends Shape {

Rectangle (int base, int height) {

super (base, height);

}

void printArea () { }

System.out.println ("Area of the rectangle is = " + ~~b~~ + (b * h));

}

}

class Triangle extends Shape {

Triangle (int base, int height) {

super (base, height);

}

void printArea () { }

System.out.println ("Area of the triangle is = " + ((b * h) / 2));

}

}

class Circle extends Shape {

Circle (int height) {

super (0, height);

}

```
void printArea () {
```

```
System.out.println ("Area of the circle is = " + (3.14 * h * h)) ;
```

```
}
```

```
}
```

```
Class Wh8prog1 {
```

```
public static void main (String [] args) {
```

```
Rectangle r = new Rectangle (10, 5) ;
```

```
Triangle t = new Triangle (10, 5) ;
```

```
Circle c = new Circle (10) ;
```

```
r.printArea () ;
```

```
t.printArea () ;
```

```
c.printArea () ;
```

```
}
```

```
}
```

```
2) import java.util.Scanner;  
abstract class Account {  
    String cust_name;  
    String acc_no;  
    String acc_type;  
    double balance;  
    double min_bal = 1000.0;  
  
    Account (String cust_name, String acc_no, String acc_type, double  
            balance) {  
        this.cust_name = new cust_name;  
        this.acc_no = acc_no;  
        this.acc_type = acc_type;  
        this.balance = balance;  
    }  
  
    abstract void deposit (double amount);
```

```
abstract void display();  
abstract void withdraw(double amount);  
}
```

Class Current extends Account {

```
double penalty = 100.0;
```

```
Current(String cust_name, String acc_no, String acc_type, double balance);  
Super(cust_name, acc_no, acc_type, balance);  
System.out.println("Name of the customer : " + cust_name);  
System.out.println("Account Number accno : " + acc_no);  
System.out.println("Account type : " + acc_type);  
System.out.println("Balance : " + balance);  
}
```

void deposit(double amount) {

```
this.balance = this.balance + amount;
```

}

void withdraw(double amount) {

```
this.balance = this.balance - amount;
```

imposepenalty()

```
System.out.println("The current balance is " + balance);  
}
```

void imposepenalty() {

```
if (this.balance < min_bal) {
```

```
this.balance = this.balance - penalty;
```

```
System.out.println("The balance amount is insufficient, the penalty  
imposed = 100 Rs.");  
}
```

}

void display() {

```
System.out.println("Balance is : " + this.balance);  
}
```

}

class ~~Sav~~ Sav_acct extends Account {

```
Sav_acct(String cust_name, String acc_no, String acc_type, double balance) {
    Super(cust_name, acc_no, acc_type, balance);
    System.out.println("Name of customer : " + cust_name cust_name);
    System.out.println("Account No Number accno : " + acc_no);
    System.out.println("Account type : " + acc_type);
    System.out.println("Balance : " + balance);
}
```

void deposit(double amount) {

this.balance = this.balance + amount;

```
System.out.println("The balance is " + this.balance);
```

}

void interest() {

int rate = 10, time = 1;

```
float ci = (float)(this.balance * Math.pow(1 + rate / 100.0, time) -
```

this.balance);

this.balance = this.balance + ci;

```
System.out.println("The balance is " + this.balance);
```

```
System.out.println("The interest amount added to balance is ? " + ci);
```

}

void withdrawal(double amount) {

this.balance = this.balance - amount;

```
System.out.println("The current balance is " + balance);
```

}

void display() {

```
System.out.println("Balance is : " + this.balance);
```

}

}

Class Wk8prog2 {

public static void main (String [] args) {

```
Scanner sc = new Scanner(System.in);
```

double amount ;

int flag = 0 ;

while (flag == 0) {

System.out.println ("Enter the type of Account : In 1: Current account

In 2 : Savings account In 3 : Exit ");

int choice = xx.nextInt();

switch (choice) {

Case 1 :

System.out.println ("In Current account In ");

System.out.println ("Enter the name of account holder ");

String f = xx.next();

System.out.println ("Enter the account Number ");

String g = xx.next();

System.out.println ("Enter the balance amount ");

double h = xx.nextDouble();

CurrAcct c = new CurrAcct (f, g, "current ", h);

int flag1 = 0;

while (flag1 == 0) {

System.out.println ("Enter your choice In 1 : Deposit amount In 2 : Display Balance In 3 : Withdraw In 4 : Exit ");

int choice1 = xx.nextInt();

switch (choice1) {

Case 1 :

System.out.println ("Enter amount to be deposited : ");

amount = xx.nextDouble();

c.withdraw (amount);

break;

Case 2 :

c.display();

break;

Case 3 :

```
System.out.println ("Enter amount you want to withdraw : ");  
amount = xx.nextInt();  
C.withdrawal (amount);  
break;  
default :  
flag = 1;  
}  
}  
break;
```

Case 2 :

```
System.out.println ("Enter Savings account: In ");  
System.out.println ("Enter the name of account holder ");  
String p = xsc.next();  
System.out.println ("Enter the account number ");  
String q = xsc.next();  
System.out.println ("Enter the balance amount ");  
double s = xsc.nextDouble();  
Savacct s = new Savacct (p, q, "Savings", s);  
int flag2 = 0;  
while (flag2 == 0) {
```

```
System.out.println("Enter your choice \n1 : Deposit Amount \n2 : Display  
Balance and Interest \n3 : Withdraw \n4 : Exit ");
```

```
int choice2 = xx.nextInt();
```

switch (choice2) {

Case 1 : System.out.println ("Enter the amount to be deposited : ");

```
amount = x26.nextDouble();
```

deposit (amount) :

breathe:

Case2 : S.display();

S. interest() ;

break ;

Case 3 :

System.out.println("Enter the amount you want to withdraw?");

amount = xx.nextDouble();

s.withdraw(amount);

break;

default : flag2 = 1;

}

}

break;

default : flag = 1;

}

}

}

}