

Week 8

Shape.java

```
import java.util.Scanner;
```

```
abstract class Shape {
```

```
    int int1, int2;
```

```
    abstract double printArea();
```

```
}
```

```
class Rectangle extends Shape {
```

```
    Rectangle(int a, int b) {
```

```
        int1 = a;
```

```
        int2 = b;
```

```
    }
```

```
    double printArea() {
```

```
        System.out.println("For Rectangle ");
```

```
        return int1 * int2;
```

```
    }
```

```
}
```

```
class Triangle extends Shape {
```

```
    Triangle(int a, int b) {
```

```
        int1 = a;
```

```
        int2 = b;
```

```
    }
```

```
    double printArea() {
```

```
System.out.println ("For Triangle ");  
return (int 1 * int 2) / 2;  
}  
}
```

```
class circle extends shape {  
    circle(int a) {  
        int 1 = a;  
    }
```

```
    double print Area() {  
        System.out.println ("For circle ");  
        return 3.14 * int 1 * int 1;  
    }  
}
```

```
class shapeMain {  
    public static void Main (String arge []) {  
        Rectangle r = new Rectangle (10, 20);  
        Triangle T = new Triangle (20, 30);  
        circle c = new circle (35);
```

```
        System.out.println (Area of Rectangle is: " + r.printArea());  
        System.out.println ("Area of triangle is: " + t.printArea());  
        System.out.println ("Area of circle is: " + c.printArea());  
    }  
}
```

Account.java

```
import java.util.Scanner;
class account
{
    private String name;
    private double account_no;
    private char account_type;
    private double balance;
    void getdata(char ch)
    {
        Scanner xx = new Scanner(System.in);
        System.out.println("Enter the name of customer :");
        name = xx.next();
        xx.nextLine();
        System.out.println("Enter the account number of customers :");
        account_no = xx.nextDouble();
        System.out.print("Enter the balance of the customer :");
        balance = xx.println next Double();
        account_type = ch;
    }
    void updatebalance(double n)
    {
        balance = balance + n;
    }
}
```



```

void update balance (double x)
{
    balance = balance - x;
}

double get balance ()
{
    return balance;
}

void display balance ()
{
    System.out.println ("The balance is: " + balance);
}

class Saving-Account extends Accounts {
    private double interest_rate;
    Saving-Account ()
    {
        Scanner xx = new Scanner (System.in);
        get data ('s');
        System.out.println ("Enter the Interest rate:");
        interest_rate = xx.nextDouble();
    }

    void get Deposit ()
    {
        Scanner xx = new Scanner (System.in);

```

```
System.out.println("Enter amount to be deposited: ");
double x = xx.nextDouble();
update balance(x);
}

Void computeinterest();
{
double x = (get balance() * interestrate) / 100;
update balance(x);
System.out.println("The computed interest is : " + x);
display balance();
}

Void withdrawl()
{
System.out.println("Enter the ammount to be withdrawm:");
Scanner xx = new Scanner(System.in);
double x = xx.nextDouble();
while (x > getbalance())
{
System.out.println("The amount withdrawls more than the
                    balance enter again:");
}

updatebalance1(x);
display balance();
}
}
```

```

class Current_Account extends Account {
    private double min_balance;
    private int check_book;
    Current_Account()
    {
        Scanner xn = new Scanner(System.in);
        getdata('c');
        System.out.println("Enter the minimum balance:");
        min_balance = xn.nextDouble();
    }

    void get_deposit()
    {
        Scanner xx = new Scanner(System.in);
        System.out.println("Enter amount of the check:");
        double x = xx.nextDouble();
        if (x > (get_balance() - min_balance))
        {
            System.out.println("You have issued a check of more than the  

            minimum balance and you have been charged a  

            penalty:");
            update_balance(100);
        }
        else
        {
            update_balance(x);
        }
    }
}

```



```
display balance ();  
}
```

```
void withdrawl ()  
{
```

```
System.out.println ("Enter the amount to be withdrawn : ");
```

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

```
double x = xx.nextDouble ();
```

```
while (x > (get balance () - min_balance))  
{
```

```
System.out.println ("The account withdrawn is more than the  
balance enter again : ");
```

```
x = xx.nextDouble ();  
}
```

```
update balance (x);
```

```
display balance ();  
}
```

```
}
```

```
class AccountMain {
```

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

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

```
char ch;
```

```
System.out.println ("Enter the type of account you want (C/S) : ");
```

```
ch = input.next().charAt (0);
```

```
if (ch == 'S' || ch == 's')
```

```
{
```

```

Saving_Account s = new Saving_Account();
int n = 1;
while (n != 0)
{
    System.out.println("Enter 0 for exit:");
    System.out.println("Enter 1 for deposit:");
    System.out.println("Enter 2 for balance enquiry:");
    System.out.println("Enter 3 for calculate interest:");
    System.out.println("Enter 4 for withdrawal:");
    n = input.nextInt();
    if (n == 0)
        break;
    else if (n == 1)
    {
        s.getdeposit();
    }
    else if (n == 2)
    {
        s.displaybalance();
    }
    else if (n == 3)

```


{

s.computeinterest();

}

else if (n==4)

{

s.withdrawal();

}

}

}

else

{

Current_Account s=new Current_Account();

int n=1;

while (n!=0)

{

System.out.println("Enter 0 for exit:");

System.out.println("Enter 1 for deposit:");

System.out.println("Enter 2 for balance enquiry:");

System.out.println("Enter 3 to apply for cheque:");

System.out.println("Enter 4 for withdrawal:");

x=input.nextInt();

if (n==0)

break;

else if (n==1)

{

```
S.getdeposit ();
```

```
}
```

```
else if (x == 2)
```

```
{
```

```
S.displaybalance ();
```

```
}
```

```
else if (x == 3)
```

```
{
```

```
S.issuecheck ();
```

```
}
```

```
else if (x == 4)
```

```
{
```

```
S.withdrawal ();
```

```
}
```

```
}
```

```
}
```

```
}
```

```
}
```