

Assignment - 6

```
① import java.util.Date;  
import java.util.concurrent.TimeUnit;  
  
class Account  
{  
    private int id;  
    private double balance;  
    static private double annualInterestRate;  
    private Date dateCreated = new Date();
```

```
    Account ()
```

```
    {  
        id = 0;
```

```
        balance = 0.0;
```

```
        annualInterestRate = 0.0;
```

```
    } dateCreated.setTime ( System.currentTimeMillis()
```

```
Account ( int a , double b)
```

```
{
```

```
    id = a;
```

```
    balance = b;
```

```
    dateCreated.setTime ( System.currentTimeMillis()
```

```
    System.out.println ( dateCreated );  
}
```

```
public int getId()
```

```
{  
    return id ;
```

```
}
```

```
public double getBalance()
```

```
{  
    return balance ;
```

```
}
```

```
public double getAnnualInterestRate ()
```

```
{  
    return annualInterestRate ;
```

```
}
```

```
public void setId (int a)
```

```
{  
    id = a ;
```

```
}
```

```
public void double setBalance (int b)
```

```
{
```

```
    balance = b ;
```

```
}
```

```
public
```

```
void setAnnualInterestRate (double a)
```

```
{
```

```
    annualInterestRate = a ;
```

```
}
```

```
public double getMonthlyInterestRate()
```

```
{
```

```
    return (annualInterestRate / 12);
```

```
}
```

```
public double getMonthlyInterest()
```

```
{
```

```
    double Interest;
```

```
    Interest = getMonthlyInterestRate();
```

```
    return (balance * (Interest / 100));
```

```
public void withdraw (double a)
```

```
{
```

```
    if (a <= balance)
```

```
{
```

```
        balance = balance - a;
```

```
        System.out.println ("withdrawn:" + a);
```

```
}
```

```
else {
```

```
    System.out.println ("insufficient  
balance");
```

```
}
```

```
public void deposit (double i)
```

```
{
```

```
    balance += i;
```

```
}
```

```
class AccountTest
```

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

```
{  
        Account a = new Account (1122, 20000);
```

```
        a.set AnnualInterestRate (12.5);
```

```
        a.withdraw (2500);
```

```
        a.deposit (3000);
```

```
        System.out.println ("Balance: " + a.getBalance());
```

```
        System.out.println ("Monthly Interest: " + a.getMonthlyInterest());
```

```
    }  
}
```

```
② import java.util.Scanner;
```

```
import java.lang.Math;
```

```
class point Type
```

```
{  
    int x, y;
```

```
    void set x (int a)
```

```
{  
        x = a;
```

```
    }
```

```
void setY (int a)
```

```
{
```

```
    y = a;
```

```
}
```

```
int getX()
```

```
{
```

```
    return x;
```

```
}
```

```
int getY()
```

```
{
```

```
    return y;
```

```
}
```

```
void printX()
```

```
{
```

```
    System.out.println("x = " + x + ", y = " + y);
```

```
}
```

```
}
```

```
class circleType extends pointType {
```

```
{
```

```
    int radius;
```

```
    void setRadius (int a)
```

```
{
```

```
        radius = a;
```

```
}
```

```
int get Radius ()  
{  
    return Radius;  
}
```

```
void set Center (int a, int b).  
{  
    x = a  
    y = b  
}
```

```
double area ()  
{  
    return Math.PI * radius * radius;  
}
```

```
double circumference () {
```

```
    return Math.PI * 2 * radius;  
}
```

```
class CircleTest {
```

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

```
{  
    CircleType c = new CircleType ();
```

```
    c.set Radius (5);
```

```
    c.set center (1, 2);
```

```
    double a = c.area ();
```

System.out.println("The Radius" + c.getRadius() + "cm")

System.out.println("The x coordinate of " + c.getCentre().x + " ;

System.out.println("The y coordinate of " + c.getCentre().y + " ;

System.out.println("The area is : " + a);

System.out.println("The circumference : " + c);

}

