

Prog5.java - Notepad

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```
import java.util.Scanner;

abstract class Shape
{
    int a;
    int b;
    abstract void printArea();

    public Shape(int a, int b) {
        this.a = a;
        this.b = b;
    }
}

class Rectangle extends Shape
{
    public Rectangle(int a, int b) {
        super(a, b);
    }

    void printArea()
    {
        System.out.println("Area of rectangle:"+ (a*b));
    }
}

class Triangle extends Shape
{
    public Triangle(int a, int b) {
        super(a, b);
    }

    void printArea() {
```

PS C:\Users\sarayu\Desktop\ooj> javac Prog5.java
PS C:\Users\sarayu\Desktop\ooj> java Prog5
Enter length of rectangle:12

Prog5.java - Notepad

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```
class Triangle extends Shape
{
    public Triangle(int a, int b) {
        super(a, b);
    }

    void printArea() {
        System.out.println("Area of triangle:"+ (a*b));
    }
}

class Circle extends Shape
{
    public Circle(int a, int b) {
        super(a, b);
    }

    void printArea() {
        System.out.println("Area of Circle:"+(3.142*a*b));
    }
}

class Prog5 {

    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.print("Enter length of rectangle:");
        int l_rec = sc.nextInt();
        System.out.print("Enter breadth of rectangle:");
        int b_rec = sc.nextInt();
    }
}
```

```
void printArea() {
    System.out.println("Area of Circle:"+(3.142*a*b));
}
}

class Progs {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.print("Enter length of rectangle:");
        int l_rec = sc.nextInt();
        System.out.print("Enter breadth of rectangle:");
        int b_rec = sc.nextInt();

        System.out.print("Enter height of triangle:");
        int l_tri = sc.nextInt();
        System.out.print("Enter base of triangle:");
        int b_tri = sc.nextInt();

        System.out.print("Enter radius of circle:");
        int r_cir = sc.nextInt();

        Rectangle r = new Rectangle(l_rec,b_rec);
        Triangle t = new Triangle(l_tri,b_tri);
        Circle c = new Circle(r_cir,r_cir);
        System.out.println("-----");
        r.printArea();
        t.printArea();
        c.printArea();
    }
}
```

PS C:\Windows PowerShell

```
PS C:\Users\sarayu\Desktop\ooj> javac Prog5.java
PS C:\Users\sarayu\Desktop\ooj> java Prog5
Enter length of rectangle:12
Enter breadth of rectangle:15
Enter height of triangle:10
Enter base of triangle:21
Enter radius of circle:6
-----
Area of rectangle:180
Area of triangle:210
Area of Circle:113.112
PS C:\Users\sarayu\Desktop\ooj> -
```

Area.

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

```
abstract class Shape  
{
```

```
    int a;
```

```
    int b;
```

```
    abstract void printArea();
```

```
public Shape (int a, int b) {
```

```
    this.a = a;
```

```
    this.b = b;
```

3

3

```
class Rectangle extends Shape
```

{

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

```
        super (a, b);
```

3

```
    void printArea()
```

{

```
    System.out.println ("Area of rectangle: " + (a * b));
```

3

```
class Triangle extends Shape
```

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

```
        super (a, b);
```

3

```
    void printArea()
```

```
    System.out.println ("Area of triangle  
: " + (a * b));
```

3

Class Circle extends Shape

{

public Circle (int a, int b) {
super (a, b);

}

void print Area() {

System.out.print ("Area of
Circle : " + (3.14 * a * b));

}

}

Class Prog5 {

public static void main (String args) {

Scanner sc = new Scanner (System.in);

System.out.print ("Enter length of
rectangle : ");

int l_rec = sc.nextInt();

System.out.print ("Enter breadth of
rectangle : ");

int b_rec = sc.nextInt();

System.out.print ("Enter radius of circle : ");

int r_cir = sc.nextInt();

Rectangle r = new Rectangle (l_rec, b_rec);

Triangle t = new Triangle (l_tri, b_tri);

Circle c = new Circle (r_cir, r_cir);

System.out.print (" ");

r.print Area();

t.print Area();

c.print Area();

}

}

Output :

Enter length of rectangle : 12

Enter breadth of rectangle : 15

Enter height of triangle : 10

Enter base of triangle : 21

Enter radius of circle : 6

Area of rectangle : 180

Area of triangle : 210

Area of circle : 113.112

BankMain.java - Notepad

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```
import java.util.Scanner;
class Account{
    private String name;
    private int accountNumber;
    private String type;
    public Account(string name,int accountNumber,string type){
        this.name=name;
        this.accountNumber=accountNumber;
        this.type=type;
    }
    public void setName(string name){
        this.name=name;
    }
    public void setAccountNumber(int accountNumber){
        this.accountNumber=accountNumber;
    }
    public void setType(string type){
        this.type=type;
    }
    public string getName(){
        return this.name;
    }
    public int getAccountNumber(){
        return this.accountNumber;
    }
    public string getType(){
        return this.type;
    }
}
class Curr_acct extends Account{
    private double balance;
    private boolean checkBook;
    private static double minBalance;
```

BankMain.java - Notepad

File Edit Format View Help

```
}

}

class Curr_acct extends Account{
    private double balance;
    private boolean checkBook;
    private static double minBalance;
    private static double serviceCharge;
    public static double getServiceCharge(){
        return serviceCharge;
    }
    public Curr_acct(String name,int accountNumber,String type,boolean checkBook){
        super(name,accountNumber,type);
        this.checkBook=checkBook;
        this.balance=0;
    }
    static{
        minBalance=1000.00;
        serviceCharge=5.00;
    }
    public double getBalance(){
        return this.balance;
    }
    public void deposit(double amt){
        this.balance+=amt;
    }
    public int withdraw(double amt){
        if(this.balance-amt<minBalance && this.balance-amt>0){
            this.balance-=serviceCharge*0.01*amt;
            this.balance-=amt;
            return 1;
        }if(this.balance-amt<0){
            return -1;
        }
    }
}
```

BankMain.java - Notepad

File Edit Format View Help

```
        this.balance-=amt;
        return 2;
    }
}

class Sav_acct extends Account{
    private double balance;
    private static double interestRate;
    public Sav_acct(String name,int accountNumber,String type){
        super(name,accountNumber,type);
        this.balance=0;
    }
    static{
        interestRate=8.0;
    }
    public double getBalance(){
        return this.balance;
    }
    public void deposit(double amt){
        this.balance+=amt;
    }
    public int withdraw(double amt){
        if(this.balance-amt<0){
            return -1;
        }
        this.balance-=amt;
        return 2;
    }
    public double calculateInterest(){
        double amt=(this.balance*(1.0+(interestRate*0.01)));
        double interest=amt-this.balance;
        this.balance=amt;
        return interest;
    }
}
```

dows PowerShell

```
\Users\sarayu\Desktop\oop> javac BankMain.java
\Users\sarayu\Desktop\oop> java BankMain
the name
```

BankMain.java - Notepad

File Edit Format View Help

```
}
```

```
class BankMain{
    public static void main(String args[]){
        Scanner s=new Scanner(System.in);
        System.out.println("Enter the name");
        String name=s.next();
        System.out.println("Enter the account number");
        int accountNumber=s.nextInt();
        System.out.println("Enter the type");
        System.out.println("1.Savings");
        System.out.println("2.Current");
        int type=s.nextInt();
        if(type==2){
            System.out.println("Do u want a check book ?? y or n");
            String checkBookString=s.next();
            boolean checkBook;
            if(checkBookString=="y")
                checkBook=true;
            else
                checkBook=false;
            curr_acct curr_acct=new Curr_acct(name,accountNumber,"Current",checkBook);
            int c;
            do{
                displayMenu(false);
                c=s.nextInt();
                double amt;
                switch(c){
                    case 1:
                        System.out.println("The balance in account is "+curr_acct.getBalance());
                        break;
                    case 2:
                        System.out.println("Enter the amount to deposit");
                        amt=s.nextDouble();
                }
            }while(c!=3);
        }
    }
}
```

File Edit Format View Help

```
        System.out.println("The balance in account is "+sav_acct.getBalance());
        break;
    case 3:
        System.out.println("Enter the amount to withdraw");
        amt=s.nextDouble();
        int exp=sav_acct.withdraw(amt);
        if(exp==-1)
            System.out.println("Insufficient Balance");
        System.out.println("The balance in account is "+sav_acct.getBalance());
        break;
    case 4:
        System.out.println("The interest amount is "+sav_acct.calculateInterest());
        System.out.println("The balance in account is "+sav_acct.getBalance());
        break;
    case 5:
        break;
    default:
        System.out.println("Please enter valid choice");
    }
}while(c!=5);
}
public static void displayMenu(boolean isSavingsAccount){
    System.out.println("1.Check balance");
    System.out.println("2.Deposit Cash");
    System.out.println("3.Withdraw Cash");
    if(isSavingsAccount)
        System.out.println("4.Calculate Interest");
    System.out.println("5.Exit");
    System.out.println("Enter your choice");
}
```

Windows PowerShell

```
PS C:\Users\sarayu\Desktop\oop> javac BankMain.java
PS C:\Users\sarayu\Desktop\oop> java BankMain
← Enter the name
xyz
← Enter the account number
123456789
← Enter the type
1.Savings
2.Current
1
1.Check balance
2.Deposit Cash
3.Withdraw Cash
4.Calculate Interest
5.Exit
← Enter your choice
1
The balance in account is 0.0
1.Check balance
2.Deposit Cash
3.Withdraw Cash
4.Calculate Interest
5.Exit
← Enter your choice
```

Bank

```
import java.util.Scanner;  
class Accounts {
```

```
    private String name;
```

```
    private int accountNumber;
```

```
    private String type;
```

```
    public Account(String name, int accountNumber, String type) {
```

```
        this.name = name;
```

```
        this.accountNumber = accountNumber;
```

```
        this.type = type;
```

```
} public void setName(String name) {
```

```
    this.name = name;
```

```
}
```

```
public void setAccountNumber(int accountNumber) {
```

```
    this.accountNumber = accountNumber;
```

```
}
```

```
public void setType(String type) {
```

```
    this.type = type;
```

```
}
```

```
public String getName() {
```

```
    return this.name;
```

```
}
```

```
public int getAccountNumber() {
```

```
    return this.accountNumber;
```

```
} public String getType() {
```

```
    return this.type;
```

```
}
```

```
class CurrentAccount extends Account {
```

```
    private double balance;
```

private boolean checkBook;

private static double minBalance;

private static double serviceCharge;

public static double getServiceCharge() is
return ServiceCharge;

3

public currAcct(String name, int account

Number, String type, boolean checkBook) {

super(name, accountNumber, type);

this.checkBook = checkBook;

this.balance = 0;

3

Static {

minBalance = 1000.00;

serviceCharge = 5.00;

3

public double getBalance() {

return this.balance;

3

public void deposit(double amt) {

this.balance += amt;

3

public int withdraw(double amt) {

if (this.balance - amt < minBalance) ~~return~~ this.

balance - amt > 0) {

this.balance -= ServiceCharge * 0.01 * amt;

this.balance -= amt;

return 1;

3

if (this.balance - amt < 0) {

return -1;

3

3

this.balance = amt;
return 2;

3

3

class Sav-Acc extends Account {

private double balance;

private static double interestRate;

public Sav-Acc(String name, int accountNum,
String type) {

Super(name, accountNumber, type);

this.balance = 0;

3

static {

interestRate = 8.0;

3

public double getBalance() {

return this.balance;

3

public int withdrawal(double amt) {

if (this.balance - amt < 0) {

return -1;

3

this.balance -= amt;

return 2;

3

public double calculateInterest() {

double amt = (this.balance * (1.0 +

(interestRate * 0.01));

double interest = amt - this.balance;

this.balance = amt;

return interest;

Output :-

Enter the name

Xyz

Enter the account Number

12345678

Enter the type

1. Savings

2. Current

1

1. Check Balance

2. Deposit Cash

3. Withdraw Cash

4. Calculate Interest

5. Exit

Enter Your choice

1

The balance in account is 0.0