Date LAB-6

Shapes programam

```
import java.io.*;
import java.lang.*;
import java.util.*;
abstract class Shape {
int len, wid;
Shape (int l, int w)
{
  len = l;
  wid = w;
}
abstract void printArea();
}
class rectangle extends Shape
{
rectangle (int a, int b)
{
   super (a, b);
}
void printArea().
{System.out.println("Area of Rectangle is" +
     (len * wid));
}
}
class triangle extends Shape
{
triangle (int a, int b)
{
 super (a, b);
}
 void PrintArea()
{ System.out.println ("Area of the triangle
```

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is " + (0.5 * len * wid));
}

Class circle extends Shape
{
circle (int r1, int r2)
{
super (r1, r2);
}
void printArea()
{
System.out.println("Area of the circle is" +
(3.142 * len * len));
}

class test
{
Public static void main (String [] args)
{
Int l, b, rad;
Scanner sc = new Scanner (System.in);
System.out.println ("Enter the length/base of
the rectangle/Triangle respectively");
l = sc.nextInt();
System.out.println ("Enter the breadth/height
of the rectangle/Triangle respectively");
b = sc.nextInt();
System.out.println ("Enter the radius of
the circle");
rad = sc.nextint();
Shape s;
Rectangle r = new rectangle (l, b);
triangle t = new triangle (l, b);
circle c = new circle (rad, rad);

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```
S = r;
S.printArea(); //Prints the area of the rectangle

S = t;
S.printArea(); //Prints the area of the triangle.

S = C;
S.printArea(); //Prints the area of the circ
}
}
```

OUTPUT

```
Enter the length/base of the rectangle/Trian
respectively.
4
Enter the breadth/height of the rectangle/
Triangle respectively.
4
Enter the radius of the circle.
4
Area of Reactangle is 16
Area of the Triangle is 8
Area of the circle is 50.272.
```

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Bank Programm

```
import java.io.*;
import java.long.*;
import java.util.*;
abstract class account
{
  String name;
  String acc_no;
  String type;
  double balance;
  account (String n, String a, String t, double b)
  {
    name = n;
    acc_no = a;
    type = t;
    balance = b;
  }
  abstract void deposit();
  abstract void display();
  abstract void withdraw();
  abstract void fine();
  abstract void inter();
}
class curr_acc extends account
{
  curr_acc (String n, String a, String t,
            double b)
  {
    super (n, a, t, b);
  }
  void fine()
  {
  if (balance < 1000)
  {
  System.out.println ("you will be fined
```

```
500 Rs Because minimum balance In your
    Account must be 1000");
balance = balance - 500;
 display ();
}
 else
{
 System.out.println("you will not be cha
                Any Fine Thank you");
  display ();
}
}
void display ()
{
System.out.println("Name of the Account
        Holder is" + name);
System.out.println("Account Number of
        the Account Holder is + acc_no);
System.out.println("Balance In your
        Account is" + balance);
}
 void deposit ()
 {
   double sum;
Scanner sc = new Scanner (System.in);
system.out.println("Enter the amount
    you want to withdraw");
 sum = sc.nextdouble ();
balance = balance - sum;
if (balance > 1000)
 {
   display ();
}
  else
```

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```
        System.out.println("you cannot withdraw
                This much Amount");
        fine()
    }
}

void inter()
{
    System.out.println("your Account Type is
            not Elgible For Any Interest");
}
}

Class Sav_acc extends account
{
    Sav-acc(String n, String a, String t,
                double b)
    {
        super(n, a, t, b);
    }
    void display()
    {
        System.out.println("name of the Account
                Holder is" + name);
        System.out.println("Account Number of
                the Account Holder is" + acc_no);
        System.out.println("Type of the Account
                of the Account Holder is" + type);
        System.out.println("Balance in your
                Account is" + balance);
    }
    Void withdraw()
    {
        double sum;
        Scanner sc = new scanner(system.in);
        System.out.println("Enter the amount you
```

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```
want to withdraw ");
System.out.println();
Sum = sc.nextDouble();
balance = balance - Sum;
display();
}
Void deposit()
{
int Sum;
Scanner sc = new Scanner(System.in);
System.out.println("Enter the principal
        amount you want to submit");
Sum = sc.nextInt();
}
Void inter()
{
double int r, t;
double cpy = balance;
double interest;
Scanner sc = new Scanner(System.in);
System.out.println("Enter the Rate of
        interest");
r = sc.nextint();
System.out.println("Enter the year of
    time Account has to be elapsed");
t = sc.nextInt();
System.out.println("Enter the period
    per year, when interest has to be
        calculated");
n = sc.nextInt();
balance = (balance) * (math.pow((1+(r/n)
                    t)));
Interest = balance - copy; cpy;
system.out.println("Interest Accumul
```

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```
In your Account is" + interest);
display ();
System.out.println ();
}
Void fine ()
{
System.out.println (" your have no Restric
    tion on your minimum Balance Thankyou
System.out.println ();
}
}
Class test
{
Public static void main (String [] args)
{
  account a;
Scanner sc = new Scanner (System.in);
String name, acc-num, typ;
 int option;
 double bal;
System.out.println ("Enter the name of the
    account holder");
name = sc.next ();
System.out.println (" Enter the account
                    Number");
 acc_num = sc.next ();
 typ = " current Account";
System.out.println ("Enter the minimun
      Balance in the account");
 bal = sc.next double ();
System.out.println (" 1: current Account
System.out.println ("2: Savings Account");
System.out.println ("3: Exit");
```

```
System.out.println ("Enter your choi
  option = sc.nextInt ();
Switch (option)
{
   Case 1;
  curr_acc c = new curr_acc (name, acc
                    type, bal);
   a = c;
  int counter;
  do
{
  System.out.println ("1: Check For Fin
  System.out.println ("2: Deposit");
  System.out.println ("3: withdraw");
  System.out.Println ("4: Exit");
  System.out.println ("Enter your choic
    counter = sc.nextInt ();
  Switch (counter)
  {
     Case 1;
     a.fine ();
     break;
    case 2;
     a.deposit ();
     break;
    case 3;
     a.withdraw ();
     break;
    case 4;
     System.exit (0);
     break;
  }
  while (counter != 4);
     break;
```

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```
case 2;
Sav_acc s=new Sav_acc(name, acc_num,
                typ, bal);
a=s;
int cnr;
do
{
  System.out.println("1; Deposit with
          Interest");
System.out.println("2; withdraw");
System.out.println("3; Exit");
System.out.println("Enter your choice");
   cur = sc.nextInt();
  Switch (cnr)
 {
    case 1 ;
    a.deposit ();
    break;

    case 2;
    a.withdraw ();
    break;

    case 3;
    System.exit (0);
    break;
}
} while (cnr!=3);
   break;
  case 3;
  System.exit (0);
  break;
}
}
```

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OUTPUT

Enter the name of the Account holde
Hari
Enter the Account Number
1bm19cs153
Enter the minimum balance in the account
2000
1 : current Account
2 : Saving Account
3 : Exit
Enter your choice
2
~~Enter the rate of~~
1 : Deposit
2 : withdraw
3 : Interest
4 : Exit

Enter your choice
1
Enter ~~your~~ the principle amount ~~of~~ yo
want to submit
500
Name of the Account Holder is hari
Account Number of the Account holder
Current Account
Balance in your Account is 2500.
1 : Deposit
2 : withdraw
3 : Interest
4 : Exit
Enter your choice
3

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Enter the rate of the interest

5

Enter the year of the time Account has tobe elapped.

4

Interest Accumalted In your Account is 538.7656.

Name of the Account holder is Hari

Account Number of the Account Holder is 1bm19cs153

Type of the Account of the Account Holder is current Account

Balance In your Account is 3038.7656