1. **Shape.java**

package graphics;

import java.util.Scanner;

public interface Shape{

void rectangle();

void triangle();

void square();

void circle();

public class Area implements Shape {

int x,y,b,h,r;

double a,ar,are,c;

Scanner s=new Scanner(System.in);

public void rectangle()

{ System.out.println("Enter the length of Rectangle: ");

x=s.nextInt();

System.out.println("Enter the breadth of Rectangle: ");

y=s.nextInt();

a=x\*y;

System.out.println("Area of Rectangle: "+a);

}

public void triangle() {

System.out.println("Enter the base length of Triangle: ");

b=s.nextInt();

System.out.println("Enter the height of Triangle: ");

h=s.nextInt();

ar=0.5\*b\*h;

System.out.println("Area of Triangle: "+ar);

}

public void square()

{

System.out.println("Enter the side length of Square: ");

a=s.nextInt();

are=a\*a;

System.out.println("Area of Square: "+are);

}

public void circle()

{

System.out.println("Enter the radius of Circle: ");

r=s.nextInt();

c=Math.PI\*r\*r;

System.out.println("Area of Circle: "+c);

}}}

Result.java

package graphics;

import graphics.Shape;

import graphics.Shape.Area;

public class Result {

public static void main(String[] args)

{

Area a=new Area();

a.circle();

a.triangle();

a.rectangle();

a.square();

}}

1. import java.util.Scanner;

class uhandle extends Exception {

public uhandle (String msg) {

super(msg);

}

}

class phandle extends Exception {

public phandle(String msg) {

super(msg);

}

}

public class handle {

public static void main(String[] args) {

Scanner s = new Scanner(System.in);

String username, password;

System.out.print("Enter username :: ");

username = s.nextLine();

System.out.print("Enter password :: ");

password = s.nextLine();

int length = username.length();

int length1=password.length();

try {

if(length < 6)

throw new uhandle("Username must be greater than 6 characters ???");

else if(length1<6)

throw new phandle("Incorrect password type");

else

System.out.println("Successful !!!");

}

catch (uhandle u) {

u.printStackTrace();

}

catch (phandle p) {

p.printStackTrace();

} }}

1. import java.applet.\*;

import java.awt.\*;

public class MyApplet extends Applet{

public void paint(Graphics g) {

g.setColor(Color.red);

g.drawOval(200, 160, 200, 160);

g.drawOval(200, 160, 200, 160);

g.drawLine(50, 400, 300, 400);

g.drawRect(20, 60, 200, 40);

}

}

/\*

<applet code="myfirstapplet.class" width="500" height="700" border="2">

</applet>

\*/

**4.**

import java.applet.\*;

import java.awt.\*;

import java.awt.event.\*;

public class maximum extends Applet implements ActionListener

{

TextField t1,t2,t3,t4;

Button b1;

public void init(){

setLayout(null);

t1 = new TextField(15);

t1.setBounds(100,25,50,20);

t2 = new TextField(15);

t2.setBounds(100,50,50,20);

t3 = new TextField(15);

t3.setBounds(100,75,50,20);

t4 = new TextField("Ans");

t4.setBounds(175,40,50,20);

b1 = new Button("Find");

b1.setBounds(175,65,50,30);

add(t1);

add(t2);

add(t3);

add(t4);

add(b1);

b1.addActionListener(this);

}

public void actionPerformed(ActionEvent e){

int i,j,k;

i = Integer.parseInt(t1.getText());

j=Integer.parseInt(t2.getText());

k=Integer.parseInt(t3.getText());

if(i<j){

if(j<k)

t4.setText(""+k);

else

t4.setText(""+j);

}

else

t4.setText(""+i);

}}

**5.**

import java.applet.\*;

import java.awt.\*;

import java.awt.Graphics;

import java.awt.event.\*;

public class face extends Applet implements ActionListener {

Label l1,l2,l3,l4,l5,l6;

TextField t1,t2,t3,t4,t5,t6;

Button b;

public void init(){

l1 = new Label("MARK 1:");

t1 = new TextField();

l2 = new Label("MARK 2:");

t2 = new TextField();

l3 = new Label("MARK 3:");

t3 = new TextField();

l4 = new Label("MARK 4:");

t4 = new TextField();

l5 = new Label("MARK 5:");

t5 = new TextField();

l6 = new Label("PERCENTAGE:");

t6 = new TextField();

b = new Button("SEE STATUS");

setLayout(null);

l1.setBounds(450,50,70,20);

t1.setBounds(520,50,100,20);

l2.setBounds(450,80,70,20);

t2.setBounds(520,80,100,20);

l3.setBounds(450,110,70,20);

t3.setBounds(520,110,100,20);

l4.setBounds(450,140,70,20);

t4.setBounds(520,140,100,20);

l5.setBounds(450,170,70,20);

t5.setBounds(520,170,100,20);

l6.setBounds(450,200,100,20);

t6.setBounds(550,200,100,20);

b.setBounds(450,290,80,30);

add(l1);

add(l2);

add(l3);

add(l4);

add(l5);

add(l6);

add(t1);

add(t2);

add(t3);

add(t4);

add(t5);

add(t6);

add(b);

b.addActionListener(this);

}

public void actionPerformed(ActionEvent e){

float m1, m2,m3, m4,m5,percent;

m1= Float.parseFloat(t1.getText());

m2= Float.parseFloat(t2.getText());

m3= Float.parseFloat(t3.getText());

m4= Float.parseFloat(t4.getText());

m5= Float.parseFloat(t5.getText());

percent=((m1+m2+m3+m4+m5)\*100)/500;

t6.setText(String.valueOf(percent));

repaint();

}

public void paint(Graphics g){

float p;

p= Float.parseFloat(t6.getText());

if(p> 50.0) {

g.setColor(Color.YELLOW);

g.fillOval(0,0,100,100);

g.setColor(Color.black);

g.fillOval(25,25,10,10);

g.fillOval(65,25,10,10);

g.setColor(Color.black);

g.fillArc (25,35,50,50,0,-180);

}

else {

g.setColor(Color.YELLOW);

g.fillOval(0,0,100,100);

g.setColor(Color.black);

g.fillOval(25,25,10,10);

g.fillOval(75,25,10,10);

g.setColor(Color.black);

g.drawArc(25,35,50,50,0,180);

} }}

/\*

<applet code="face.class" border="2" width="500" height="500">

</applet>

\*/