SOURCE CODE:

**package**Daimention;

**publicclass**shapes{

**publicvoid**displayArea(){

// **TODO** Auto-generated method stub System.***out***.println("Theareaofshapsishere:");

}

}

**package**Daimention;

**publicclass**circle**extends**shapes{

# privatedoubler;

**public**circle(**double**r){

**this**.r=r;

}

**publicvoid**displayArea(){

**double** area = 3.14 \* r \* r; System.***out***.println("AreaoftheCircle:"+area);

}

}

**package**Daimention;

**publicclass**rectangle**extends**shapes{

# privatedoublel;

**privatedouble**b;

**public**rectangle(**double**l,**double**b){

**this**.l=l;

**this**.b=b;

}

**publicvoid**displayArea(){

**double**area=l\*b;

System.***out***.println("AreaoftheRectangle:"+area);

}

}

**package**Daimention;

**import**java.util.\*;

**publicclass**result{

**public static** <Shape>**void** main(String[] args) { ArrayList<Shape>shapes=**new**ArrayList<>(); shapes.add((Shape) **new** circle(5.0)); shapes.add((Shape)**new**rectangle(4.0,6.0));

**for**(Shapeshape:shapes){

# try{

e.getMessage());

((shapes)shape).displayArea();

}**catch**(Exceptione){

System.***err***.println("Anerroroccurred:"+

}**finally**{

System.***out***.println("Areacalculationcomplete.");

}

}

}

}

GITHUB LINK: <https://github.com/sunitha-hub/practice-project2.git>