

Chapter 14 Throw Vs Throws in Java by Munawar

The throw keyword

The throw keyword is used to throw an exception explicitly by the programmer

```
If (a==0)
{
    Throw new Arithmetic Exception ("div by 0")
}
else {
    return b/a;
}
```

In a similar manner, we can throw user defined exceptions:

```
Throw new My Exceptions ("Exception Thrown ");
```

The throws keyword

The java throws keyword is used to declare an exception. This gives an information to the programmer that there might be an exception so, is better to be prepared with a try catch block.

```
Public void calculator (Int a, Int b) throws IO Exception {
// code
}
```

Source Code

```

import java.security.PublicKey;
import java.util.Scanner;

class NegativeRadiusException extends Exception{
    @Override
    public String toString(){
        return "Radius can no be negative";
    }

    @Override
    public String getMessage() {
        return " Radius cannot be negative ";
    }
}

public class Errors_Java {
    public static double area(int r) throws NegativeRadiusException{

        if(r<0){
            throw new NegativeRadiusException();
        }
        double result=Math.PI*r*r;
        return result;
    }

    public static int divide(int a,int b) throws ArithmeticException{

        int result= a/b;
        return result;
    }
    public static void main(String[] args) {

        try {
            //      int c=divide(8,0);
            //      System.out.println(c);

            double areas=area(-10);
            System.out.println(areas);
        }
        catch (Exception e){
            System.out.println("Exception");
        }

    }

}

```

Thank You