LAB: 08

Program:

Write a program that demonstrates handling of exceptions in inheritance tree. Create a base class called "Father" and derived class called "Son" which extends the base class. In Father class, implement a constructor which takes the age and throws the exception wrongAge() when the input age <0. In Son class, implement a constructor that cases both father and Son's age and throws an exception if Son's age is >=father's age

```
import java.util.*;

class ageException extends Exception{
        int detail;
        age Exception(int a){
            detail =a;
        }
    public String toString(){

        return "Exception:"+detail+" the
    enterred age does not match";
    }
}
    class Father{
        int age;
        Father(int age) throws ageException{
            this.age= age;
        if (this.age <=0) {
                throw new age Exception
                        (this.age);
        }
    }
```

```
void display(){
    System.out.println("Father's age:"
                + this.age);
    }
 }

 class Son extends Father{
     Father f;
     Son(int age, Father f) throws
                 ageException{
     super(age);
      this.f=f;

     if( this.age>= this.f.age){
         throws new ageException(this.age);
     }
 }

 void display(){
     this.f.display();
     System.out.println("Son's age:"+
                 this.age);
 }
}

public class DemoExp{
    public static void main(String[] args){
 try{
     Scanner input = new Scanner(System.in);
     System.out.print("Enter Father's age:");
     Father f = new Father(input.nextInt());
     System.out.print("Enter Son's age:");
     Son s= new Son(input.nextInt(),f);
      s.display();
 }
catch (Exception e) {
        System.out.println(e);
  }
 }
}
```