Lab 8

```
//Main.Father.java

import java.util.Scanner;
import java.lang.Exception;

class WrongAge extends Exception{
        WrongAge(String s){
                super(s);
        }
}

class InputScanner {
    Scanner sc = new Scanner(System.in);
    int Age;
    InputScanner(){
        if(this.getClass() == Father.class){
                System.out.println("Enter father age");
                Age = sc.nextInt();
        }
    }

class Father extends InputScanner{
    int FatherAge;
    Father() throws WrongAge{
        FatherAge = Age;
        if(FatherAge<0)
            throw new WrongAge("Age cannot be <0");
```

```
class Son extends Father{
    int SonAge;
    Son() throws WrongAge{
        super();
        System.out.println("Enter son age:");
        SonAge = sc.nextInt();
        if(FatherAge < SonAge){
            throw new WrongAge("Age cannot be");
        }
    }
    void display(){
        System.out.println("Son Age = "+SonAge);
    }
}
class FatherMain{
    public static void main(String[] args){
        try{
            Father father = new Father();
            Son son = new Son();
            father.display();
            son.display();
        }
        catch(WrongAge e){
            System.out.println(e.getMessage());
        }
    }
}
```

Output:

1) Enter father age: 40
:0
Enter son age:
5
Father Age: 40
son age: 5

2) Enter father age
-1
Age cannot be <0

3) Enter father age:
14
Enter son age:
16
Age cannot be greater for son.

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