

```
1  /*Write a program that demonstrates handling of exceptions in inheritance tree.
2  Create a base class called "Father" and derived class called "Son" which extends
3  the base class. In Father class, implement a constructor which takes the age and
4  throws the exception Wrong Age() when the input age<0. In Son class, implement a
5  constructor that takes both father and son's age and throws an exception if
6  son's age is >=father's age.*/
7  import java.util.Scanner;
8  class fatherAgeException extends Exception
9  {
10     public String toString()
11     {
12         return("Wrong Age!! Father's age is less than 0");
13     }
14 }
15
16 class sonAgeException extends Exception
17 {
18     int a, b;
19     sonAgeException (int sage, int fage)
20     {
21         a = sage;
22         b = fage;
23     }
24     public String toString()
25     {
26         if(a==b)
27             return("Wrong Age!! Son's age is equal to father's age");
28         else
29             return("Wrong Age!! Son's age is more than father's age");
30     }
31 }
```

```
33 class Father
34 {
35     Scanner scan = new Scanner(System.in);
36     int age1;
37     Father()
38     {
39         System.out.print("Enter father's age: ");
40         age1 = scan.nextInt();
41     }
42     void ex1() throws fatherAgeException
43     {
44         if (age1 < 0)
45             throw new fatherAgeException();
46     }
47 }
48
49 class Son extends Father
50 {
51     public int age2;
52     Son()
53     {
54         System.out.print("Enter son's age: ");
55         age2 = scan.nextInt();
56     }
57     void ex2() throws sonAgeException
58     {
59         if (age2 >= age1)
60             throw new sonAgeException (age2, age1);
61     }
62 }
63
64 1
```

```

64 class Main
65 {
66     public static void main(String [] args){
67         Son s = new Son();{
68             try{
69                 s.ex1();
70             }
71             catch(fatherAgeException e)
72             {
73                 System.out.println(e);
74             }
75             try
76             {
77                 s.ex2();
78             }
79             catch (sonAgeException e)
80             {
81                 System.out.println(e);
82             }
83         }
84     }
85 }
86

```

input

```

Enter father's age: -4
Enter son's age: 3
Wrong Age!! Father's age is less than 0
Wrong Age!! Son's age is more than father's age

```

...Program finished with exit code 0