```java
1   /*Write a program that demonstrates handling of exceptions in inheritance tree. Create a base
2   class called Father and derived class called Son which extends the base class. In Father
3   class, implement a constructor which takes the age and throws the exception Wrong Age( )
4   when the input age<0. In Son class, implement a constructor that cases both father and son's
5   age and throws an exception if son's age is >=father's age.
6   This program creates a custom exception type.*/
7
8   import java.util.Scanner;
9   class WrongAge extends Exception {
10  private int a;
11  WrongAge(int a1) {
12  a = a1;
13  }
14  public String toString() {
15  return "Input age "+a+" is wrong";
16  }
17  }
18  class Father{
19      int fa;
20      Father (int a) throws WrongAge {
21          fa=a;
22          if(fa<=0)
23              {throw new WrongAge(fa);}
24      }
25  }
26  class Son extends Father{
27      int sa;
28      Son (int a,int b) throws WrongAge{
29          super(b);
30          sa=a;
31          if((sa>=fa)||(sa==0))
32              {throw new WrongAge(sa);    }
```

```java
23              {throw new WrongAge(fa);}
24          }
25    }
26    class Son extends Father{
27        int sa;
28        Son (int a,int b) throws WrongAge{
29            super(b);
30            sa=a;
31            if((sa>=fa)||(sa==0))
32                {throw new WrongAge(sa);      }

34                System.out.println("Correct age");

36        }
37    }
38    class ExceptionDemo {
39    public static void main(String args[]) {
40        try{Scanner ss=new Scanner(System.in);
41        int fage,sage;
42        System.out.println("Enter father's age:");
43        fage=ss.nextInt();
44        System.out.println("Enter son's age:");
45        sage=ss.nextInt();

47        Son s=new Son(sage,fage);
48    } catch (WrongAge e) {
49    System.out.println("Caught Exception: " + e);
50    }
51    }
52    }
53
```

```
C:\Program Files\Java\bin\basic>javac ehandling.java

C:\Program Files\Java\bin\basic>java ExceptionDemo
Enter father's age:
34
Enter son's age:
2
Correct age

C:\Program Files\Java\bin\basic>java ExceptionDemo
Enter father's age:
45
Enter son's age:
67
Caught Exception: Input age 67 is wrong

C:\Program Files\Java\bin\basic>java ExceptionDemo
Enter father's age:
0
Enter son's age:
56
Caught Exception: Input age 0 is wrong
```