// 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 father extends Exception{
   int f_age;
   father(int a)
   {
      f_age=a;
   }
   public String toString()
   {
      return "Age : "+f_age+"\n Wrong age Input\nage should be greater than 0";
   }
}
class son extends father{
   int s_age;
   son(int f,int s)
   {
      super(f);
      s_age=s;
   }
   public String toString()
   {
      return "\nson age:"+s_age+"\n"+"father age:"+f_age+"\n"+"Son age should be less than father age";
   }
}
class MyException
{
   static void WrongAge(int f_age,int s_age) throws son,father
   {
      if(f_age<0 || s_age<0)
      throw new father(f_age);
      else if(s_age>=f_age)
      throw new son(f_age,s_age);
   }
   static void WrongAge(int age) throws father{
      if(age<0)
      throw new father(age);
```

```
    }
    public static void main(String []args)
    {
        int f_age,s_age;
        Scanner sc=new Scanner(System.in);

        try{
            System.out.println("Enter father age\n");
           f_age=sc.nextInt();
          WrongAge(f_age);
          System.out.println("Enter son age\n");
           s_age=sc.nextInt();
           WrongAge(s_age);
            WrongAge(f_age,s_age);
            System.out.println("No error occured\n"+"son age:"+s_age+"\n"+"father age:"+f_age);
        }
        catch(son s)
        {
             System.out.println("\nError caught\n"+s);
        }
        catch(father f)
        {
            System.out.println("\nError caught\n"+f);
        }


    }
}
```

```
C:\Users\Admin\Desktop\1BM21CS221>javac MyException.java

C:\Users\Admin\Desktop\1BM21CS221>java MyException
Enter father age

46
Enter son age

97

Error caught

son age:97
father age:46
Son age should be less than father age

C:\Users\Admin\Desktop\1BM21CS221>java MyException
Enter father age

-5

Error caught
Age : -5
 Wrong age Input

C:\Users\Admin\Desktop\1BM21CS221>java MyException
Enter father age

67
Enter son age

-6

Error caught
Age : -6
 Wrong age Input

C:\Users\Admin\Desktop\1BM21CS221>javac MyException.java

C:\Users\Admin\Desktop\1BM21CS221>java MyException
Enter father age

54
Enter son age

-6

Error caught
Age : -6
 Wrong age Input
age should be greater than 0
```

```
C:\Users\Admin\Desktop\1BM21CS221>java MyException
Enter father age

76
Enter son age

76

Error caught

son age:76
father age:76
Son age should be less than father age

C:\Users\Admin\Desktop\1BM21CS221>java MyException
Enter father age

54
Enter son age

34
No error occured
```