

**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 occurred\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\HP\Desktop>java MyException
Enter father age

50
Enter son age

78

Error caught

son age:78
father age:50
Son age should be less than father age

C:\Users\HP\Desktop>java MyException
Enter father age

0

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

C:\Users\HP\Desktop>java MyException
Enter father age

12
Enter son age

-1

Error caught
Age : -1
Wrong age Input
age should be greater than 0

```