

- ⑥ Write a program that demonstrates handling exceptions in inheritance tree. Create a base class called 'Father' & derived class '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.

```
import java.util.*;
```

```
class fatherage extends Exception {
    public String toString() {
        return ("Father's age is less than 0");
    }
}
```

```
class sonage exception extends Exception {
    int a;
    sonage Exception (int age) {
        a = age;
    }

    public String toString() {
        if (a > 0)
            return ("Son's age is less than 0");
        else
            return ("Son's age is more than father's");
    }
}
```

```
class father {
    public int age;
    Scanner s = new Scanner(System.in);
    father() {
        System.out.println("Enter father age");
        age = s.nextInt();
    }
}
```



```

void ex1() throws fatherAgeException {
    if (age1 <= 0)
        throw new fatherAgeException();
}

```

```

class son extends father {

```

```

    public int age2;

```

```

    son() {

```

```

        System.out.print("Enter son's age");

```

```

        age2 = s.nextInt();
    }

```

```

void ex2() throws sonAgeException {

```

```

    if (age2 > 0 || age2 > super.age1)

```

```

        throw new sonAgeException(age2);
    }

```

```

class fatherAnd son {

```

```

    public static void main(String args[])
    {

```

```

        son s = new son();

```

```

        try {

```

```

            s.ex1();

```

```

        }

```

```

        catch (fatherAgeException e) {

```

```

            System.out.println(e);

```

```

        }

```

```

    try {

```

```

        s.ex2();
    }

```

```

    catch (sonAgeException e) {

```

```

        System.out.println(e);
    }

```

```

}

```

```

}

```

```

}

```


Microsoft Windows [Version 6.3.9600]

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C:\Program Files\Java\jdk1.8.0_231\bin>javac father.java

C:\Program Files\Java\jdk1.8.0_231\bin>java fatherson

Error: Could not find or load main class fatherson

C:\Program Files\Java\jdk1.8.0_231\bin>javac father.java

C:\Program Files\Java\jdk1.8.0_231\bin>java fatherson

Enter father's age: 12

Enter son's age: 1

C:\Program Files\Java\jdk1.8.0_231\bin>java fatherson

Enter father's age: 12

Enter son's age: 20

Son's age is more than father's age

C:\Program Files\Java\jdk1.8.0_231\bin>