

Week 7: User defined exception.

```
Exception

import java.lang.*;
import java.util.*;

class WrongAgeException extends Exception {
    String msg = new String();
    WrongAgeException(String m) {
        msg = m;
    }
    public String toString() {
        return "Exception handled successfully" + msg;
    }
}

class Father {
    int f_age;
    Father() throws WrongAgeException {
        Scanner s = new Scanner(System.in);
        System.out.println("Enter father's age:");
        f_age = s.nextInt();
        if (f_age < 0) {
            throw new WrongAgeException("Father's age < 0");
        }
    }
}

void display() {
    System.out.println("Father age: " + f_age);
}

class Son extends Father {
    int s_age;
    Son() throws WrongAgeException {
        Scanner s = new Scanner(System.in);
    }
}
```

PAGE NO :
DATE :

```
System.out.println("Enter son's age:");  
s.age = s.nextInt();
```

```
if (s.age < 0) {  
    throw new WrongAgeException("Son's age < 0");  
}
```

```
else if (s.age > f.age) {  
    throw new WrongAgeException("Son's age is >  
    than father's age!");  
}
```

```
else if (s.age == f.age) {  
    throw new WrongAgeException("Son's age is =  
    to father's age!");  
}
```

```
}
```

```
void display() {
```

```
    System.out.println("Father's age: " + f.age);
```

```
    System.out.println("Son's age: " + s.age);
```

```
}
```

```
}
```

```
class excep {
```

```
    public static void main (String[] args) {
```

```
        try {
```

```
            Son s = new Son();
```

```
            s.display();
```

```
        }
```

```
        catch (WrongAgeException wae) {
```

```
            System.out.println(wae);
```

```
        }
```

```
}
```

Output:

- Enter father's age:

0

Exception handled successfully. Father's age < 0 .

- Enter father's age:

53

Enter son's age:

53

Exception handled successfully. Son's age is $=$ to father's age!

- Enter father's age:

53

Enter son's age:

17

Father's age: 53

Son's age: 17

- Enter father's age:

53

Enter son's age:

54

Exception handled successfully. Son's age is $>$ than father's age!

Done
30/11/2020

```
PS C:\Users\bmsce\Desktop\1bm21cs032> java excep
Enter father's age:
0
Exception handled successfully. Father's age < 0
PS C:\Users\bmsce\Desktop\1bm21cs032> java excep
Enter father's age:
53
Enter son's age:
53
Exception handled successfully. Son's age is = to father's age!
PS C:\Users\bmsce\Desktop\1bm21cs032> java excep
Enter father's age:
53
Enter son's age:
19
Father's age: 53
Son's age: 19
PS C:\Users\bmsce\Desktop\1bm21cs032> java excep
Enter father's age:
53
Enter son's age:
54
Exception handled successfully. Son's age is > than father's age!
```