

Write a program that demonstrates handling of exceptions in inheritance tree. Create a base class called "Father" & derived class called "son" which extends the base class. In Father class, implement a constructor which takes age & throws exception WrongAge() when the input age < 0. In son class, implement a constructor that takes both father & son's age & throws an exception if son's age is \geq father's age

```
import java.util.Scanner;
```

```
class WrongAge extends Exception {
    public WrongAge(String e) {
        super(e);
    }
}
```

```
class InputScanner {
    Scanner s = new Scanner(System.in);
}
```

```
class Father extends InputScanner {
    int fatherAge;
```

```
    public Father() throws WrongAge {
        System.out.println("Enter Father's age:");
        fatherAge = s.nextInt();
        if (fatherAge < 0)
            throw new WrongAge("Age cannot be negative");
    }
}
```

```
public void display () {  
    System.out.println("Father's age : " +  
        fatherAge);  
}
```

```
}  
  
class Son extends Father {  
    int sonAge;  
    public Son() throws WrongAge {  
        super();  
        System.out.println("Enter Son's age :");  
        sonAge = s.nextInt();  
        if (sonAge >= fatherAge) {  
            throw new WrongAge("Son's Age cannot  
- be greater than father's age");  
        }  
        else if (sonAge < 0) {  
            throw new WrongAge("Age cannot be  
negative");  
        }  
    }  
}
```

```
public void display () {  
    super.display();  
    System.out.println("Son's age : " + sonAge);  
}
```

```
}  
  
public class main {  
    public static void main (String[] args) {  
        try {  
            Son son = new Son();  
            son.display();  
        }  
    }  
}
```



```
catch (Exception e) {  
    System.out.println("Error: " + e.getMessage());  
}
```

Output:-

Enter father's age : 60

Enter son's age : 22

Father's age : 60

Son's age : 22

Enter father's age : 55

Enter son's age : -18

Error: Age cannot be negative

Enter father's age : 70

Enter son's age : 80

Error: Son's age cannot be greater than father's age

✓
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