

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 takes both father and son's age and throws an exception if son's age is \geq father's age.

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

```
class WrongAge extends Exception {
```

```
    public WrongAge(String s)
```

```
    { super(s);
```

```
    }
```

```
}
```

```
class Father {
```

```
    int f-age;
```

```
    Father() throws WrongAge
```

```
    { System.out.println("Enter Father's age");
```

```
      Scanner s = new Scanner(System.in);
```

```
      f-age = s.nextInt();
```

```
      if (f-age < 0)
```

```
      { throw new WrongAge("Age cannot
```

```
        be negative");
```

```
      }
```

```
    }
```

```
void display()
```

```
{ System.out.println("Father's Age is : " + f_age);
```

```
}
```

```
}
```

```
class Son extends Father{
```

```
int s_age
```

```
son() throws WrongAge
```

```
{ System.out.println("Enter Son's age");
```

```
Scanner s = new Scanner(System.in);
```

```
s_age = s.nextInt();
```

```
if (s_age >= f_age)
```

```
{ throw new WrongAge("Son's age  
cannot be greater than father's age");
```

```
}
```

```
else if (s_age < 0)
```

```
{ throw new WrongAge("Age can not  
be negative");
```

```
}
```

```
}
```

```
void sdisplay()
```

```
{ System.out.println("Son's Age is : " + s_age);
```

```
}
```

```
}
```

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~~class~~
class Exception {

public static void main(String args[])

{ try {

~~son = new~~

son s = new son();

s.display();

s.sdisplay();

}

catch (WrongAge e) {

System.out.println(e.getMessage());

~~System.out.println(e.getMessage());~~

}

}

}

Output :

1) Enter Father's age

10

Enter son's age

20

WrongAge: son's age can not be ~~greater~~ greater than father's age.

2) Enter Father's age

-5

WrongAge: Age can not be negative

3) Enter Father's age

25

Enter son's age

-3

WrongAge: Age can not be negative

Ques
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