

LAF PROGRAM - 7

Write a program that demonstrates handling of exceptions in inheritance.

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 ~~exp~~ exception WrongAge() when the input age < 0. In son class, implement a constructor that takes both father's age and son's age and throws an exception if son's age is \geq father's age.

code:

```
import java.util.Scanner;

public class ExceptionInheritance {
    static class Father {
        int age;

        Father(int age) throws WrongAge {
            if (age < 0) {
                throw new WrongAge("Father's age cannot be negative");
            }
            this.age = age;
        }
    }

    static class Son {
        int age;
        Father father;

        Son(int fatherAge, int sonAge) throws WrongAge {
            father = new Father(fatherAge);
            if (sonAge >= father.age) {
                throw new WrongAge("son's age cannot be equal or greater than father's age");
            }
        }
    }
}
```

this.age = sonAge;

```
static class WrongAge extends IOException {  
    WrongAge (String message) {  
        super (message);  
    }  
}
```

```
public static void main (String[] args) {  
    Scanner scanner = new Scanner (System.in);  
    System.out.println ("Enter father's age :");  
    int fatherAge = scanner.nextInt();  
    System.out.println ("Enter son's age :");  
    int sonAge = scanner.nextInt();  
}
```

try {

```
    Son son = new Son (fatherAge, sonAge);  
    System.out.println ("Son's age : " + son.age);  
}
```

```
catch (Exception WrongAge e) {  
    System.out.println (e.getMessage());  
}
```

~~30/11/24~~

Output:

Enter father's age :
29

Enter son's age
39

Son's age cannot be equal or greater than father's age