write a program that demonstrates handling exceptions in inheritance tree. Create a base class called "Father" and 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. In son class, implement a constructor that cases both father and son's age and throws an exception if son's age is > = father's age.

```java
import java.util.*;
class WrongAge extends Exception {
    public WrongAge(string s) {
        super(s);
    }
}

class InputScanner {
    protected Scanner s;
    public InputScanner() {
        s = new Scanner(system.in);
    }
}

class Father extends InputScanner {
    int fatherAge;
    public Father() throws WrongAge {
        system.out.println("Enter fathers age:");
        fatherAge = s.nextInt();
        if (fatherAge < 0) {
            throw new WrongAge("Age cannot be negativi");
        }
    }
    public void display() {
```

```java
        System.out.println("Father's Age:" + fatherAge);
    }
}

class Son extends Father {
    int sonAge;
    public Son() throws WrongAge {
        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() {
        System.out.println("Son's Age " + sonAge);
    }
}

public class ExceptionDemo {
    public static void main(String[] args) {
        try {
            Son sn = new Son();
            sn.display();
        }
        catch (WrongAge e) {
            System.out.println("NegativeError" + e);
            System.out.println(e.getMessage());
        }
    }
}
```

Output :-

Enter father's age :

41

Enter son's Age :

18

Son's Age 18

Enter fathers age :

41

Enter son's Age :

45

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

Enter father's age :

41

Enter son's Age :

-21

Negative Error wrongAge : Age cannot be negative
Age cannot be negative.

Enter fathers age :

45

Enter son's Age :

45

Negative Error WrongAge : Sons age and fathers age
cannot be same

Sons age and fathers age cannot be same

30/1/2024