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/* 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=father's age. */

class WrongAgeException extends Exception {
    public WrongAgeException(String message) {
        super(message);
    }
}

class Father {
    int fatherAge;

    Father(int age) throws WrongAgeException {
        if (age < 0) {
            throw new WrongAgeException("Father's age cannot be negative!");
        }
        this.fatherAge = age;
        System.out.println("Father's age: " + fatherAge);
    }
}

class Son extends Father {
    int sonAge;

    Son(int fatherAge, int sonAge) throws WrongAgeException {
        super(fatherAge);
        if (sonAge >= fatherAge) {
            throw new WrongAgeException("Son's age must be less than Father's age!");
        }

        this.sonAge = sonAge;
        System.out.println("Son's age: " + sonAge);
    }
}

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

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        Son s1 = new Son(45, 20);
        System.out.println("Object created
successfully!\n");

        Son s2 = new Son(40, 40);
    } catch (WrongAgeException e) {
        System.out.println("Exception caught: " +
e.getMessage());
    }

    try {
        Son s3 = new Son(-50, 10);
    } catch (WrongAgeException e) {
        System.out.println("Exception caught: " +
e.getMessage());
    }
}
}

```

OUTPUT:-



The screenshot shows a terminal window with the following content:

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PROBLEMS 12 OUTPUT DEBUG CONSOLE TERMINAL PORTS
PS C:\Users\Admin\Desktop\IWN24CS181> cd "c:\Users\Admin\Desktop\IWN24CS181\java" ; if ($?) { javac Except.java } ; if ($?) { java Except }

Father's age: 45
Son's age: 20
Object created successfully!

Father's age: 40
Exception caught: Son's age must be less than Father's age!
Exception caught: Father's age cannot be negative!
PS C:\Users\Admin\Desktop\IWN24CS181\Java>

```