

Q) 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 >= father's age.

CODE:

and derived class called 'Son' which extends the base class. In Father class, implement a constructor which takes age and throws the 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 >= father's age.

```

import java.util.Scanner;

class FatherAgeException extends Exception {
    public String toString() {
        return ("Father's age is less than 0");
    }
}

class SonAgeException extends Exception {
    int f;
    SonAgeException(int f, int s) {
        f = f;
    }
    public String toString() {
        if (f < 0)
            return ("Son's age is less than 0");
        else
            return ("Son's age is more than father's age");
    }
}

```

class Father

{

und ge;

Scanner in = new Scanner(System.in);

Father()

{

System.out.println("Enter the father's age:");

age = in.nextInt();

}

void ex() throws FatherAgeException

{

if (age < 0)

throw new FatherAgeException();

}

class Son extends Father

{

und age;

Son()

{

System.out.println("Enter the age of son:");

age = in.nextInt();

}

void ex() throws SonAgeException

{

if (age < 0 || age > 120)

throw new SonAgeException(age);

}

}

class Except {

public static void main (String[] args) {

Son s = new Son();

try {

s.exec();

} catch (FatherAgeException e) {

System.out.println(e);

}

try {

s.exec();

}

} catch (SonAgeException e) {

System.out.println(e);

}

Output

Enter father's age:

73

Enter son's age:

99

Son's age is more than father's age.

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OUTPUT

```
C:\Users\sanja\OneDrive\Desktop\1bm21cs062>javac except.java
C:\Users\sanja\OneDrive\Desktop\1bm21cs062>java except
Enter the father's age:
13
Enter the age of son:
19
Son's age is more than father's age
C:\Users\sanja\OneDrive\Desktop\1bm21cs062>_
```