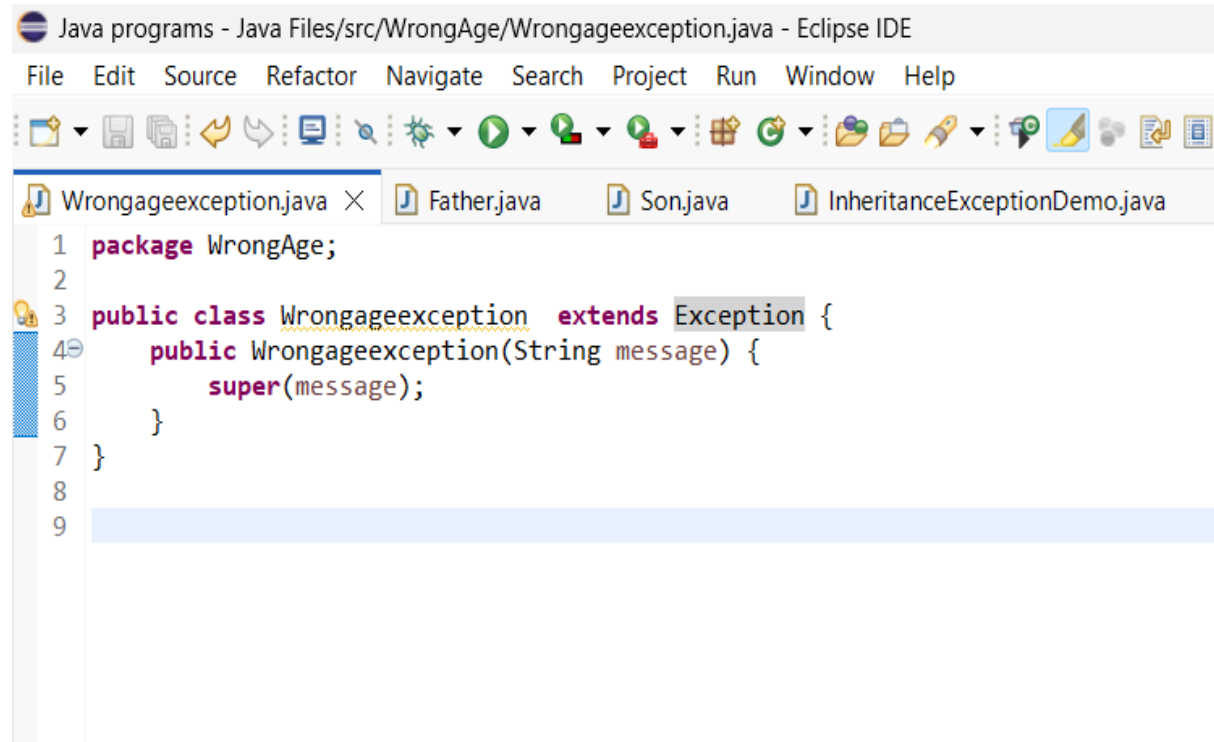


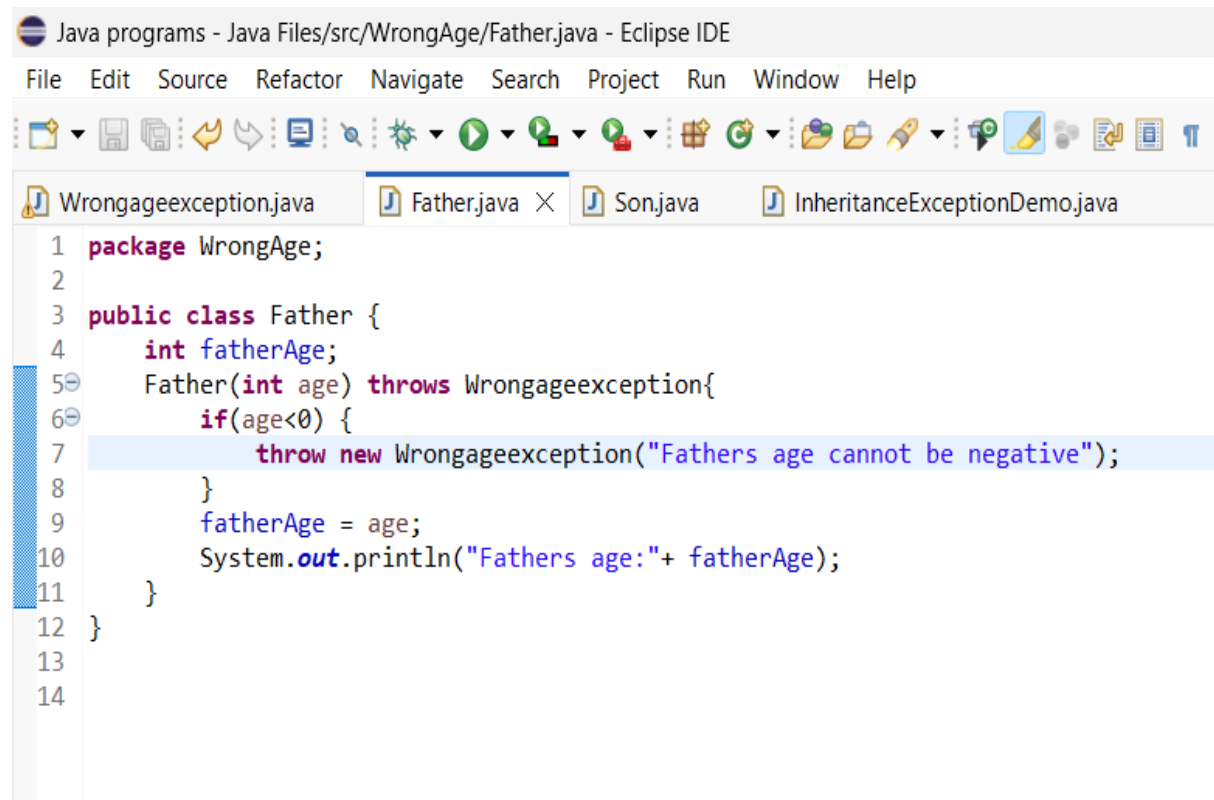
LAB PROGRAM 7:

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 Wrong Age () when the input age=father’s age.



The screenshot shows the Eclipse IDE interface with the file 'WrongAgeexception.java' open. The package is 'WrongAge'. A public class 'WrongAgeexception' extends 'Exception'. It has a constructor 'WrongAgeexception(String message)' that calls 'super(message)'. The IDE tabs show 'WrongAgeexception.java', 'Father.java', 'Son.java', and 'InheritanceExceptionDemo.java'.

```
1 package WrongAge;
2
3 public class WrongAgeexception extends Exception {
4     public WrongAgeexception(String message) {
5         super(message);
6     }
7 }
8
9
```



The screenshot shows the Eclipse IDE interface with the file 'Father.java' open. The package is 'WrongAge'. A public class 'Father' has an attribute 'fatherAge' of type 'int'. The constructor 'Father(int age)' throws 'WrongAgeexception' if 'age' is less than 0, throwing a new 'WrongAgeexception' with the message 'Fathers age cannot be negative'. It then assigns 'fatherAge' to 'age' and prints 'Fathers age:' followed by 'fatherAge'. The IDE tabs show 'WrongAgeexception.java', 'Father.java', 'Son.java', and 'InheritanceExceptionDemo.java'.

```
1 package WrongAge;
2
3 public class Father {
4     int fatherAge;
5     Father(int age) throws WrongAgeexception{
6         if(age<0) {
7             throw new WrongAgeexception("Fathers age cannot be negative");
8         }
9         fatherAge = age;
10        System.out.println("Fathers age:" + fatherAge);
11    }
12 }
13
14
```

Java programs - Java Files/src/WrongAge/Son.java - Eclipse IDE

File Edit Source Refactor Navigate Search Project Run Window Help

Wrongageexception.java Father.java *Son.java X InheritanceExceptionDemo.java

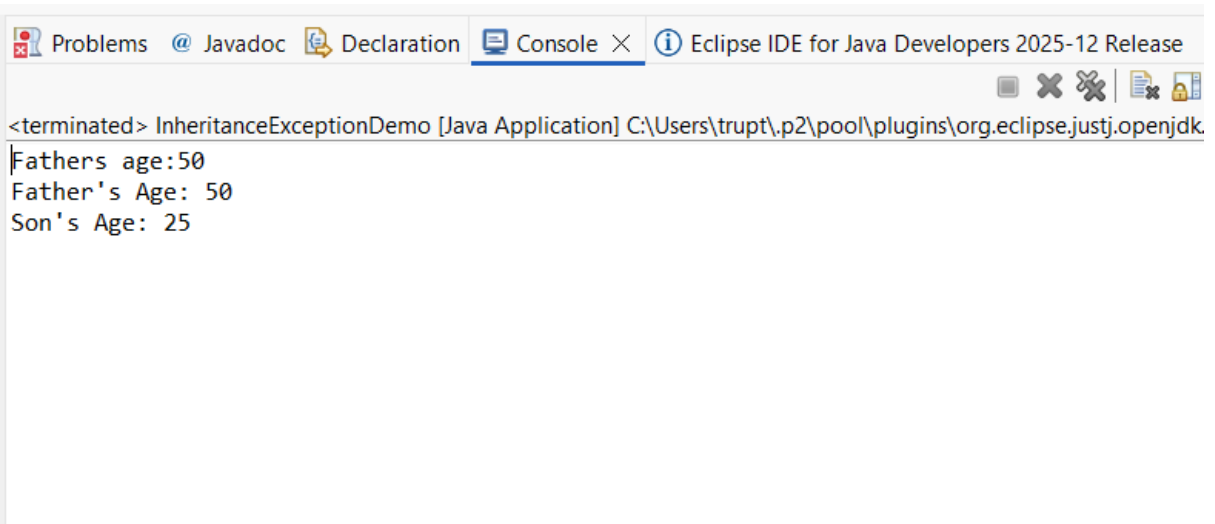
```
1 package WrongAge;
2
3
4
5 class Son extends Father {
6     int sonAge;
7
8     Son(int fAge, int sAge) throws Wrongageexception {
9         super(fAge);
10
11         if (sAge >= fAge) {
12             throw new Wrongageexception("Son's age cannot be greater than or equal to Father's age");
13         }
14         sonAge = sAge;
15     }
16
17     void display() {
18         System.out.println("Father's Age: " + fatherAge);
19         System.out.println("Son's Age: " + sonAge);
20     }
21 }
22
23
24
25
```

Java programs - Java Files/src/WrongAge/InheritanceExceptionDemo.java - Eclipse IDE

File Edit Source Refactor Navigate Search Project Run Window Help

Wrongageexception.java Father.java *Son.java InheritanceExceptionDemo.java X

```
1 package WrongAge;
2
3 public class InheritanceExceptionDemo {
4     public static void main(String[] args) {
5         try {
6             Son s = new Son(50, 25);
7             s.display();
8         } catch (Wrongageexception e) {
9             System.out.println("Exception caught: " + e.getMessage());
10        }
11    }
12 }
13
```



The image shows the Eclipse IDE console window. The title bar includes tabs for 'Problems', 'Javadoc', 'Declaration', 'Console', and 'Eclipse IDE for Java Developers 2025-12 Release'. The 'Console' tab is active. The output text is as follows:

```
<terminated> InheritanceExceptionDemo [Java Application] C:\Users\trupt\p2\pool\plugins\org.eclipse.justj.openjdk.  
Fathers age:50  
Father's Age: 50  
Son's Age: 25
```