

LAB 6

```
import java.util. Scanner;
```

```
class WrongAgeException extends Exception {
```

```
    public String toString() {
```

```
        return ("Entered age is negative");
```

```
    }
```

```
}
```

```
class AgeException extends Exception {
```

```
    public String toString() {
```

```
        return ("Age entered of the father is greater than  
that of the son");
```

```
    }
```

```
}
```

```
class Father {
```

```
    int father_age;
```

```
    Father(int x) throws WrongAgeException {
```

```
        father_age = x;
```

```
        if (father_age < 0) {
```

```
            throw new WrongAgeException();
```

```
        }
```

```
    }
```

```
}
```

```
class Son extends Father {
```

```
    int son_age;
```

```
    Son(int x, int b) throws AgeException, WrongAgeException {
```

```

    super(x);
    son-age = y;
    if (son-age < 0) {
        throw new WrongAgeException();
    }
    if (son-age >= father-age) {
        throw new AgeException();
    }
}
}

```

```

class Lab_7 {
    public static void main(String args[]) {
        try {
            Scanner s = new Scanner(System.in);
            System.out.println("Enter the age of father and son:");
            int f = s.nextInt();
            int s = s.nextInt();
            Son so = new Son(f, s);
            System.out.println("Father is " + so.fatherAge + " years old and  
son is " + so.sonAge + " years old");
        } catch (AgeException a) {
            System.out.println(a);
        } catch (Exception e) {
            System.out.println("Enter valid values");
        }
    }
}

```

Output

Enter father's and son's ages

56

22

Father is 56 years old and son is 22 years old

Enter father's and son's ages

34

75

Age entered of the son is greater than that of the father

Enter father's and son's ages

-76

44

Entered age is negative.

~~30/12/2022~~

```

class Son extends Father{
    int son_age;
    Son(int x,int y) throws AgeException, WrongAgeException{
        super(x);
        son_age=y;
        if(son_age<0){
            throw new WrongAgeException();
        }
        if(son_age>=father_age){
            throw new AgeException();
        }
    }
}

class Lab_7{
    public static void main(String[] args){
        try {
            Scanner s=new Scanner(System.in);
            System.out.println("Enter father's and son's ages");
            int x=s.nextInt();
            int y=s.nextInt();
            Son so=new Son(x,y);
            System.out.println("Father is "+x+" years old and son is "+y+" years old");
        } catch (WrongAgeException wa) {
            System.out.println(wa);
        }
        catch (AgeException a){
            System.out.println(a);
        }
        catch (Exception e){
            System.out.println("Enter valid ages");
        }
    }
}

```

```

Command Prompt
Microsoft Windows [Version 10.0.19045.2251]
(c) Microsoft Corporation. All rights reserved.

C:\Users\bmsce>cd C:\Users\bmsce\Desktop\Aryan\week 7
C:\Users\bmsce\Desktop\Aryan\week 7>javac Lab_7.java
C:\Users\bmsce\Desktop\Aryan\week 7>java Lab_7
Enter father's and son's ages
56
22
Father is 56 years old and son is 22 years old
C:\Users\bmsce\Desktop\Aryan\week 7>java Lab_7
Enter father's and son's ages
34
45
Age entered of the son is greater than that of the father
C:\Users\bmsce\Desktop\Aryan\week 7>java Lab_7
Enter father's and son's ages
-76
44
Entered age is negative
C:\Users\bmsce\Desktop\Aryan\week 7>

```