

Labprogram_8 (24/11/2020)

Q) FATHER AND SON AGE EXCEPTION HANDLING ?

INSTRUCTIONS-----

```
/*
Write a program that demonstrates handling of exception 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 < 0. In Son class, implement
a constructor that checks both father and son's age and throws an exception
if son's age is >= father's age
*/
import java.util.Scanner;
class Wrongage extends Exception{
    int temp;

    Wrongage(int a){
        temp = a;
    }

    public String toString(){
        return "WRONG AGE : "+temp+"";
    }
}

class Sonage extends Exception{
    int tem;

    Sonage(int c){
        tem = c;
    }
}
```

```

    }

    public String toString(){
        return "SONAGE IS GREATER i.e "+tem+"";
    }
}

class father{
    father(){

    }

    void fatherage(int a)throws Wrongage{
        if(a<=0)
            throw new Wrongage(a);
        System.out.println("AGE IS NOT LESS THAN OR EQUAL TO ZERO");
    }
}

class son extends father{

    void sonage(int a,int c)throws Sonage{
        if(c>=a)
            throw new Sonage(c);
        System.out.println("FATHER's AGE IS GREATER THAN SON");
    }
}

class ageexceptionMain{
    public static void main(String ss[]){
        Scanner sc = new Scanner(System.in);
        father f1 = new father();
        System.out.print("Enter father age : ");
        int m = sc.nextInt();
        System.out.print("Enter son age : ");
        int n = sc.nextInt();
        try{
            f1.fatherage(m);
        } catch (Wrongage e){
            System.out.println("\n-----
            -----\n" + "AGE ASSIGNED IS EITHER ZERO OR LESSTHAN ZERO : "+e+"\n-----
            -----\n");
        }
        son s1 = new son();
        try{
            s1.sonage(m,n);
        }catch (Sonage e){
            System.out.println("\n-----
            -----\n"+"PLEASE CORRECT THE GIVEN INPUT : BCZ "+e+"\n-----
            -----\n");
        }
    }
}

```

OUTPUT

```
C:\Java\jdk1.8.0_261\bin\java.exe ...
```

```
Enter father age : 10
```

```
Enter son age : 50
```

```
AGE IS NOT LESS THAN OR EQUAL TO ZERO
```

```
-----  
PLEASE CORRECT THE GIVEN INPUT : BCZ SONAGE IS GREATER i.e 50  
-----
```

```
C:\Java\jdk1.8.0_261\bin\java.exe ...
```

```
Enter father age : 0
```

```
Enter son age : 10
```

```
-----  
AGE ASSIGNED IS EITHER ZERO OR LESSTHAN ZERO : WRONG AGE : 0  
-----
```

```
-----  
PLEASE CORRECT THE GIVEN INPUT : BCZ SONAGE IS GREATER i.e 10  
-----
```

```
C:\Java\jdk1.8.0_261\bin\java.exe ...
```

```
Enter father age : 50
```

```
Enter son age : 10
```

```
AGE IS NOT LESS THAN OR EQUAL TO ZERO
```

```
FATHER'S AGE IS GREATER THAN SON
```