

## LAB 8

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 cases 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 age;

    WrongAge(int x)

    {

        age=x;

    }

    public String toString()

    {

        return "AGE OF SON="+age+" IS ENTERED INCORRECTLY";

    }

}

class father

{

    int a;

    father(int x)

    {

        a=x;

    }

}

class son extends father{

    int age;

    son(int fage,int sage){

        super(fage);

        age=sage;

    }

}
```

```

void compute() throws WrongAge{
    if(age>=a)
    {
        throw new WrongAge(age);
    }
    else{
        System.out.println("THE AGES ARE ENTERED CORECTLY");
        System.out.println("FATHER'S AGE="+a+"\t"+"SON'S AGE="+age);
    }
}
}

```

```

class lab8
{
    public static void main(String args[])
    {
        Scanner s=new Scanner(System.in);
        System.out.println("ENTER FATHER'S AGE");
        int f=s.nextInt();
        System.out.println("ENTER SON'S AGE");
        int so=s.nextInt();
        son ss=new son(f,so);
        try{
            ss.compute();
        }catch(WrongAge e)
        {
            System.out.println(e);
        }
    }
}

```

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```
28 void compute() throws WrongAge{
29     if(age>=a)
30     {
31         throw new WrongAge(age);
32     }
33     else{
34         System.out.println("THE AGES A
35         System.out.println("FATHER'S A
36     }
37 }
38
39 }
40
41 class lab8
```

Command Prompt

```
C:\java\LAB>javac lab8.java
C:\java\LAB>java lab8
ENTER FATHER'S AGE
0
ENTER SON'S AGE
10
AGE OF SON=10 IS ENTERED INCOR
C:\java\LAB>java lab8
```