## LAB PROGRAM - 6

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 cases both father and son's age and throws an exception if son's age is >=father's age.

```
import java.util.*;
class WrongAgeException extends Exception
{
String msg = new String();
WrongAgeException(String x)
{
msg=x;
}
public String toString()
{
return msg;
}
}
class Father
{
int f_age;
Father ()
throws WrongAgeException
{
Scanner s = new Scanner(System.in);
```

```
System.out.println("Enter father's age:");
f_age = s.nextInt();
if (f_age < 0)
{
throw new WrongAgeException("Father age < 0");
}
}
void display()
{
System.out.println("Father age: "+f_age);
}
}
class Son extends Father{ int s_age;
Son() throws WrongAgeException
{
Scanner s = new Scanner(System.in);
System.out.println("Enter son's age:");
s_age = s.nextInt();
if (s_age < 0)
{
throw new WrongAgeException("Son age < 0");</pre>
}
else if (s_age > f_age)
{
throw new WrongAgeException("Son age is > that father's age!");
}
}
void display()
{
System.out.println("Father age: "+f_age);
```

```
System.out.println("Son age: "+s_age);
}
}
class excep
public static void main(String[] args)
{
try
{
Father f = new Father();
f.display();
Son s = new Son();
s.display();
}
catch (WrongAgeException wae)
{
System.out.println(wae);
}
}
}
```

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     E-traco new luxage ("fathoris age cannot be less
than son's age")
   333
 das main
& public static void main (string args (7)
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   father 11 = new father();
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& SOP (can) /3
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& SOP (la) /3
```

```
Enter father's age:
50
Father age: 50
Enter father's age:
50
Enter son's age:
20
Father age: 50
Son age: 20
C:\Users\STUDENT\Desktop\1bm1cs034\java excep
Enter father's age:
10
Father age: 10
Enter father's age:
10
Enter son's age:
20
Son age is > that father's age!
```