2024/01/30
Tuesday
Lab-7

* Exception Handling *

7. WAP that demonstrate handling of exception in inheritance tree. Create a base class called "Father" & derives class called "Son" which extends the base class. Implement a constructor that cases both Father and Son's age and throws an exception if son's age is >= Father age.

```
Import java.util.*;

class WrongAge extends Exception{
        public WrongAge(String s){
            super(s);
        }
}
class InputScanner{
        Scanner sc;
        public InputScanner(){
            sc = new Scanner (System.in);
        }
}
```

```
class Father extends InputScanner {
    int FatherAge;
    public Father() throws wrongAge {
        InputScanner.ss=new InputScanner();
    System.out.println("Enter the fatherage:");
    FatherAge = ss.sc.nextInt();
     if(father.Age<0){
            throw new wrongAge("
        Age cannot be negative");
        }
}
Void Fdisplay(){
        System.out.println("Father age is:"
                +FatherAge);
    }
}
class Son extends Father{
    int sonAge;
    public son() throws WrongAge{
InputScanner ss=new InputScanner();
sonAge=ss.sc.nextInt();
 if(SonAge>FatherAge){
        throw new wrongAge("
    Son's age cannot be greaterthan
    father's age");
```

```
}
else if (sonAge<0){
        throw new wrongAge("Son's
Age cannot be greater than father's
                age");
}
else if (sonAge==0){
        throw new wrongAge("
Age cannot be negative");
}
else if (sonAge==fatherAge){
        throw new wrongAge("Age cannot be
                same");
void sdisplay(){
    System.out.println("son's
age is:"+sonAge);
}
}
public class Exceptionhanding{
    public static void main(String
                args[]){
    Son p;
    try{
        p=new Son();
        p.Fdisplay();
        p.Sdisplay();
    }
```

```
catch(WrongAge e){
        System.out.println(e);
    }
}
}
```

Output:

Enter the Father age: 12
Enter the Son's age: 25

WrongAge: Son's age cannot be greater than father's age

Enter the Father age: -25
WrongAge: Age cannot be negative

Enter the Father age: 35
Enter the Son age: 15
Father age is 35
Son age is 15.
Enter father's age - 12
Enter Sons age - 12
WrongAge: Age cannot be Same

30/1/2024