Lab pgm 4.
30/1/24

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WAP to demonstrate 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 takes 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 {
    public WrongAge(String s) {
        super(s);
    }
}

class InputScanner {
    Scanner sc;
    public InputScanner() {
        sc = new Scanner(System.in);
    }
}

class Father extends InputScanner {
    private int FAge;

    public Father() throws Exception {
        System.out.println("Enter father's Age:");
        this.FAge = sc.nextInt();
        if (this.FAge < 0) {
            throw new WrongAge("Age cannot be -ve");
        }
```

```
    public void display(){
        System.out.println("Father Age:" + this.FAge);
    }
}
class son extends father
{
    private int SAge;

    public son() throws exception {
        System.out.println("Enter son age:");
        this.SAge = sc.nextInt();
        if (this.SAge<0)
            throw new WrongAge("Age cannot be -ve");

        if (this.SAge >= Super.Age)
            throw new WrongAge("Son age cannot be
                greater than father");

        public void display(){
            Super.display();
            System.out.println("Son age:" + this.SAge);
        }
}
class Main{
    public static void main(String[] args){
        try{
            Son s = new son();
            s.display();
        }
        catch(WrongAge){
            System.out.println("Error:" + e.getMessage());
        }
    }
}
```

Output:

Enter Father Age: -5
Age cannot be -ve

Enter Father Age: 40
Enter son age: -5
Age cannot be -5

Enter Father Age: 40
Enter son Age: 45
Son age cannot be greather that father.

Enter Father Age: 40
Enter Son Age: 12

Father Age: 40
Son Age: 12