

```

import java.util.Scanner;

class WrongAge extends Exception{
    double age;

    WrongAge(double x){
        age = x;
    }

    public String toString(){
        return "Age of son " + age + " is invalid";
    }
}

class Father {
    double fage;
    Father (double father_age){
        fage = father_age;
    }
}

class Son extends Father{
    double sage;

    Son(double fage, double age){
        super(fage);
        sage = age;
    }

    void calculate() throws WrongAge{
        if(sage>=fage){
            throw new WrongAge(sage);
        }
        else{
            System.out.println("The age of Father is: " +fage);
            System.out.println("The age of Son is: " +sage);
        }
    }
}

```

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}

class Son extends Father{
    double sage;

    Son(double fage, double age){
        super(fage);
        sage = age;
    }

    void calculate() throws WrongAge{
        if(sage>=fage){
            throw new WrongAge(sage);
        }
        else{
            System.out.println("The age of Father is: " +fage);
            System.out.println("The age of Son is: " +sage);
        }
    }
}

class ExeMain{
    public static void main(String args[]){
        Scanner s1 = new Scanner(System.in);
        System.out.println("Enter father's age:");
        double f = s1.nextDouble();
        System.out.println("Enter son's age:");
        double s = s1.nextDouble();
        Son sa = new Son(f, s);
        try{
            sa.calculate();
        }
        catch(WrongAge e){
            System.out.println("Input invalid"+ e);
        }
    }
}

```



```
java — zsh — 90x35
Last login: Mon Dec 28 01:05:29 on ttys000
(base) jathinsmacbookpro@Jathins-MacBook-Pro ~ % cd Desktop
(base) jathinsmacbookpro@Jathins-MacBook-Pro Desktop % cd java
(base) jathinsmacbookpro@Jathins-MacBook-Pro java % javac lab8.java
(base) jathinsmacbookpro@Jathins-MacBook-Pro java % java ExeMain
Enter father's age:
45
Enter son's age:
50
Input invalidAge of son 50.0 is invalid
(base) jathinsmacbookpro@Jathins-MacBook-Pro java % java ExeMain
Enter father's age:
45
Enter son's age:
19
The age of Father is: 45.0
The age of Son is: 19.0
(base) jathinsmacbookpro@Jathins-MacBook-Pro java %
```