```
Week-7
Write a Program that demonstrate handling of
 Secreptions in inhuitance tree. Create a bose change
       "father" and derived close valled "Son",
which Extends the bare closs implement a Constructor which tokes the age and throws the exception which tokes the age and throws in Con dolo which tokes the age.
worg Agec? When the Infut age <0. in Son close
striblement a Constructor that comes book
 John & Sons age & thouas an Suchtion if Sons
 age is > = faturés age
  imbort Java. Util. Scanner;
   closs Wrong Age Estendson Esice blon d
        Public Wrong Age (String merroge) &
            Suber (meriage);
```

z ecoss Father & Protected int father Ages Public Father (intage). Throws Wrong Age & father Age = age) sicaro s du

if (totherAge <0). L'irangAge ("Fathers" age
throw new WrongAge ("Fathers" age
(connot be nigative");

3

Son Extends Father d Private int SonAge;

Public Son (int fother Age, int Son Age) throws Wrong Age & Suber (forther Age);

thy. Sontige = Son Age; if (Son Age & - Son Age; 14 (Son Age < =0) & trouble new "Wrong Age (n son's age Connot be sono or regative"); 3 if (Son Age = fother Age) thorow new wrong Age ("Son) age Connot be greater than or Equal to famous age "); Public class Main 25 & Public Static Void main (String [1] angs) Swanner Stanner = new Scanner (System.in) Exception Caught: brong Age: Soni agy Convot by System. Out. Print ("Entor fathers age:"); int form Age = Scanner nextInt(); System. Out Printer & Enter son & doge: "); SonAge = Scanner (next In tl); Son Son = news Son (father Age, son Age); System. Out. Println (Father age: " + father Age); System, out. Println (" Son's Orge: " + son Age); } Catch (wrong Age e) L System. and . Printlala Exception Cought: "+e); System. Out. Println ("Exception Cought: 17 e. getney, y

Coutch (Exception e) { System. out println. ("Error:" +e); System. out. Print In (" Error: " + e-get Mercagecy). finally (Light restor & spAnd) Sconner close () 3. Moutput: Entier fathers age: 50 (M. my2) es modEnten, son's age: -10 s'edus Exception Caught: brong Age: Son's age Connot be eption Caught: Drony , Enter fathus rage: 30 A morros (Enter Sons age: 3 40 Exception cought: Wrong Age: Sons age Connot chemet : see in the fothers age: 102 no? (ogthers per greator thomas Equal to (51 100 F " : 200 102 1) White to many 2 I (s spf grong) what f Sierce 34 . Prottner Cacepter printly ("Escrition Conghit: 7 c. getmen

```
import java.util.Scanner;
class WrongAge extends Exception {
    public WrongAge(String message) {
        super(message);
class Father {
    protected int fatherAge;
    public Father(int age) throws WrongAge {
        fatherAge = age;
        if (fatherAge < 0) {</pre>
            throw new WrongAge(message:"Father's age cannot be negative");
class Son extends Father {
    private int sonAge;
    public Son(int fatherAge, int sonAge) throws WrongAge {
        super(fatherAge);
        this.sonAge = sonAge;
        if (sonAge \ll 0) {
            throw new WrongAge(message: "Sons's age cannot be zero or negative");
```

```
if (sonAge >= fatherAge) {
            throw new WrongAge(message: "Son's age cannot be greater than or equal to father's age");
public class Main25 {
   Run | Debug
    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);
        try {
            System.out.print(s:"Enter father's age: ");
            int fatherAge = scanner.nextInt();
            System.out.print(s:"Enter son's age: ");
            int sonAge = scanner.nextInt();
            Son son = new Son(fatherAge, sonAge);
            System.out.println("Father's age: " + fatherAge);
            System.out.println("Son's age: " + sonAge);
         catch (WrongAge e) {
            System.out.println("Exception caught: " + e);
            System.out.println("Exception caught: " + e.getMessage());
          catch (Exception e) {
```

```
Son son = new Son(fatherAge, sonAge);
   System.out.println("Father's age: " + fatherAge);
   System.out.println("Son's age: " + sonAge);
} catch (WrongAge e) {
   System.out.println("Exception caught: " + e);
   System.out.println("Exception caught: " + e.getMessage());
} catch (Exception e) {
   System.out.println("Error: " + e);
   System.out.println("Error: " + e.getMessage());
} finally {
   scanner.close();
```

cd "/Users/mrunalini/Desktop/java programs/" && javac Main25.java && java Main25

mrunalini@mrunalinis-MacBook-Air java programs % cd "/Users/mrunalini/Desktop/java programs/
" && javac Main25.java && java Main25
Enter father's age: 50
Enter son's age: -10
Exception caught: WrongAge: Son's age cannot be negative or zero
Exception caught: Son's age cannot be negative or zero

mrunalini@mrunalinis-MacBook-Air java programs % cd "/Users/mrunalini/Desktop/java programs/
" && javac Main25.java && java Main25
Enter father's age: 30
Enter son's age: 40
Exception caught: WrongAge: Son's age cannot be greater than or equal to father's age
Exception caught: Son's age cannot be greater than or equal to father's age
omrunalini@mrunalinis-MacBook-Air java programs %