

7. Write a program that demonstrates handling of exceptions in inheritance. 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 calls both father and son's age and throws an exception if son's age \geq father's age.

```

import java.util.Scanner;
class WrongAge extends Exception {
    public WrongAge(String message)
    {
        super(message);
    }
}
class InputScanner {
    protected Scanner S;
    public InputScanner()
    {
        S = new Scanner(System.in);
    }
}
class Father extends InputScanner {
    protected int FatherAge;
    public Father() throws WrongAge {
        System.out.println("Enter Father's age:");
    }
}

```

FatherAge = S.nextInt();

if (FatherAge < 0)

{
 throw new WrongAge("Age cannot be negative");
}

public void display()

{
 System.out.println("Father's age: " + FatherAge);
}

class Son extends Father

{
 protected int SonAge;

 public Son() throws WrongAge

 {
 System.out.println("enter Son's age:");

 SonAge = S.nextInt();

 if (SonAge >= FatherAge)

 {
 throw new WrongAge("Son's age can't be greater than or equal to father's age");
 }

 if (SonAge < 0)

 {
 throw new WrongAge("Age cannot be negative");
 }

 public void display()

{


```
Super.display();  
System.out.println("Son's Age: " + SonAge);  
  
public class Main2  
{  
    public static void main (String args[])  
    {  
        Son son = new Son();  
        son.display();  
        catch (WrongAge e)  
        {  
            System.out.println("Error: " + e.getMessage());  
        }  
    }  
}
```

Output :-

Enter Father's age:

25

Enter Son's age:

25

Error: Son's age can't be greater than or equal to father's age.

Enter Father's age:

-35

Error: Age cannot be negative

enter Father's Age: 34

34

enter Son's age: -9

-9

Error: Age cannot be negative

enter Father's age: 35

35

enter Son's age: 13

13

Father's age: 35

Son's age: 13

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