

8. Write a program that demonstrates 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 Wrong Age() when the input age=father's age.

```
import java.util.Scanner;  
  
class fatherAgeException extends Exception  
{  
    public String toString()  
    {  
        return("Father's age is less than 0");  
    }  
}
```

```
class sonAgeException extends Exception  
{  
    int a;  
    sonAgeException(int age)  
    {  
        a = age;  
    }  
    public String toString()  
    {  
        if(a<0)  
            return("Son's age is less than 0");  
    }  
}
```

```

        else
            return("Son's age is more than father's age");
    }
}

class Father
{
    public int age1;
    Scanner scan = new Scanner(System.in);
    int age1;
    Father()
    {
        System.out.println("Enter father's age: ");
        age1 = scan.nextInt();
    }
    void ex1() throws fatherAgeException
    {
        if (age1 < 0)
            throw new fatherAgeException();
    }
}

class Son extends Father
{
    public int age2;
    Son()

```

```

{
    System.out.println("Enter son's age: ");
    age2 = scan.nextInt();
}
void ex2() throws sonAgeException
{
    if(age2 < 0 || age2>super.age1)
        throw new sonAgeException (age2);
}
}
class Main
{
    public static void main (String [] args){
        Son s = new Son();{
            try{
                s.ex1();
            }
            catch(fatherAgeException e)
            {
                System.out.println(e);
            }
            try
            {
                s.ex2();
            }
        }
    }
}

```

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

Output:

```
Enter father's age:  
12  
Enter son's age:  
45  
Son's age is more than father's age
```