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 WrongAge( ) when the input age<0. In Son class, implement a constructor that cases both father and son’s age and throws an exception if son’s age is >=father’s age.

CODE

```
import java.util.*;
class Wrongage extends Exception
{ int detail;
  Wrongage(int d)
  {
    detail=d;
  }
 public String toString()
{
return "Entered Wrong age is ["+detail+"]";
}

}

class Father {
int f;
Scanner in=new Scanner(System.in);
Father()
{

System.out.println("Enter father age ");
f=in.nextInt();
}
void checkage() throws Wrongage
{
if(f<0)
{
throw new Wrongage(f);
}
System.out.println("Father age positive");
}
}


class Son extends Father{
```

```
int s;
Scanner in=new Scanner(System.in);
Son()
{
super();
System.out.println("Enter son age ");
s=in.nextInt();
}

void checkages() throws Wrongage
{
super.checkage();
if(s<0)
{
throw new Wrongage(f);
}
System.out.println("Son age positive");
}


void checkage() throws Wrongage
{
if(s>f)
{
throw new Wrongage(s);
}
System.out.println("Father-Son age correct");
}

}


class Newdemo{
public static void main(String args[])
{

int f,s;

Father fath=new Father();

Father r;
r=fath;
try{
r.checkage();
```

```
}
catch(Wrongage e){
System.out.println("Father age wrong"+e);
}
Son sn=new Son();
r=sn;

try{

sn.checkages();
r.checkage();
}
catch(Wrongage e){
System.out.println("Son age wrong"+e);
}
}
}
```

OUTPUT

```
C:\Users\Admin\Desktop\1BM21CS235>javac Newdemo.java

C:\Users\Admin\Desktop\1BM21CS235>java Newdemo
Enter father age
-20
Father age wrongEntered Wrong age is [-20]
Enter father age
25
Enter son age
30
Father age positive
Son age positive
Son age wrongEntered Wrong age is [30]

C:\Users\Admin\Desktop\1BM21CS235>java Newdemo
Enter father age
40
Father age positive
Enter father age
45
Enter son age
30
Father age positive
Son age positive
Father-Son age correct

C:\Users\Admin\Desktop\1BM21CS235>java Newdemo
Enter father age
12
Father age positive
Enter father age
12
Enter son age
12
Father age positive
Son age positive
Son age wrongEntered Wrong age is [12]

C:\Users\Admin\Desktop\1BM21CS235>java Newdemo
Enter father age
-12
Father age wrongEntered Wrong age is [-12]
Enter father age
-89
Enter son age
-56
Son age wrongEntered Wrong age is [-89]

C:\Users\Admin\Desktop\1BM21CS235>
```