**Q.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.**

import java.util.\*;

import java.lang.Exception;

class WrongAge extends Exception{

private int age;

WrongAge(int a){

age = a;

}

public String toString(){

return "Error! Wrong age has been entered:"+age;

}

}

class Father{

int father\_age;

Father(int a){

father\_age = a;

}

void check1() throws WrongAge{

if(father\_age<18){

throw new WrongAge(father\_age);

}

}

}

class Son extends Father{

int son\_age;

Son(int a,int b){

super(a);

son\_age=b;

}

void check2() throws WrongAge{

if((son\_age >= father\_age) || ((father\_age-son\_age)<21) ){

throw new WrongAge(son\_age);

}

}

}

class Main{

public static void main(String args[]){

// Son s2 = new Son(18,16);

Son s2 = new Son(-14,18);

try{

s2.check1();

s2.check2();

System.out.print("The entered age for Father and Son are correct");

}

catch(WrongAge e){

System.out.print("Caught:"+e);

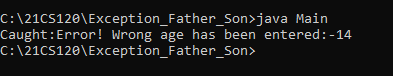
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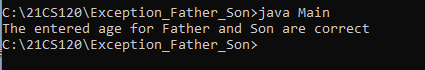
}

**Output:**

For father\_age = -14 and Son\_age = 18

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For father\_age = 25 and Son\_age = 2

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For father\_age = 25 and Son\_age = 35

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