Main.java

*Instance Of*

class A {}

class B extends A {}

class C extends B {}

class D extends B {}

class E extends C {}

interface X {}

class F implements X {}

interface Y {}

class G extends F implements Y {}

public class Main {

public static void main(String[] args) {

A a = new C();

System.out.println(a instanceof Object); //true

System.out.println(a instanceof A); //true

System.out.println(a instanceof B); //true

System.out.println(a instanceof C); //true

System.out.println(a instanceof D); //false

System.out.println(a instanceof E); //false

System.out.println(a instanceof X); //false

System.out.println(a instanceof Y); //false

//System.out.println(a instanceof F); //Compilation fails. Incompatible conditional operand types A and F

//System.out.println(a instanceof G); //Compilation fails. Incompatible conditional operand types A and G

C c = new C();

System.out.println(c instanceof Object); //true

System.out.println(c instanceof A); //true

System.out.println(c instanceof B); //true

System.out.println(c instanceof C); //true

//System.out.println(c instanceof D); //Compilation fails. Incompatible conditional operand types C and D

System.out.println(c instanceof E); //false

System.out.println(c instanceof X); //false

System.out.println(c instanceof Y); //false

//System.out.println(c instanceof F); //Compilation fails. Incompatible conditional operand types C and F

//System.out.println(c instanceof G); //Compilation fails. Incompatible conditional operand types C and G

B b = new B();

System.out.println(b instanceof Object); //true

System.out.println(b instanceof A); //true

System.out.println(b instanceof B); //true

System.out.println(b instanceof C); //false

System.out.println(b instanceof D); //false

System.out.println(b instanceof E); //false

System.out.println(b instanceof X); //false

System.out.println(b instanceof Y); //false

//System.out.println(b instanceof F); //Compilation fails. Incompatible conditional operand types B and F

//System.out.println(b instanceof G); //Compilation fails. Incompatible conditional operand types B and G

b = null;

System.out.println(b instanceof Object); //false

System.out.println(b instanceof A); //false

System.out.println(b instanceof B); //false

System.out.println(b instanceof C); //false

System.out.println(b instanceof D); //false

System.out.println(b instanceof E); //false

System.out.println(b instanceof X); //false

System.out.println(b instanceof Y); //false

//System.out.println(b instanceof F); //Compilation fails. Incompatible conditional operand types B and F

//System.out.println(b instanceof G); //Compilation fails. Incompatible conditional operand types B and G

X x = new F();

System.out.println(x instanceof Object); //true

System.out.println(x instanceof A); //false

System.out.println(x instanceof B); //false

System.out.println(x instanceof C); //false

System.out.println(x instanceof D); //false

System.out.println(x instanceof E); //false

System.out.println(x instanceof X); //true

System.out.println(x instanceof Y); //false

System.out.println(x instanceof F); //true

System.out.println(x instanceof G); //false

F f = new F();

System.out.println(f instanceof Object); //true

//System.out.println(f instanceof A); //Compilation fails. Incompatible conditional operand types F and A

//System.out.println(f instanceof B); //Compilation fails. Incompatible conditional operand types F and B

//System.out.println(f instanceof C); //Compilation fails. Incompatible conditional operand types F and C

//System.out.println(f instanceof D); //Compilation fails. Incompatible conditional operand types F and D

//System.out.println(f instanceof E); //Compilation fails. Incompatible conditional operand types F and E

System.out.println(f instanceof X); //true

System.out.println(f instanceof Y); //false

System.out.println(f instanceof F); //true

System.out.println(f instanceof G); //false

Y y = new G();

System.out.println(y instanceof Object); //true

System.out.println(y instanceof A); //false

System.out.println(y instanceof B); //false

System.out.println(y instanceof C); //false

System.out.println(y instanceof D); //false

System.out.println(y instanceof E); //false

System.out.println(y instanceof X); //true

System.out.println(y instanceof Y); //true

System.out.println(y instanceof F); //true

System.out.println(y instanceof G); //true

G g = new G();

System.out.println(g instanceof Object); //true

//System.out.println(g instanceof A); //Compilation fails. Incompatible conditional operand types G and A

//System.out.println(g instanceof B); //Compilation fails. Incompatible conditional operand types G and B

//System.out.println(g instanceof C); //Compilation fails. Incompatible conditional operand types G and C

//System.out.println(g instanceof D); //Compilation fails. Incompatible conditional operand types G and D

//System.out.println(g instanceof E); //Compilation fails. Incompatible conditional operand types G and E

System.out.println(g instanceof X); //true

System.out.println(g instanceof Y); //true

System.out.println(g instanceof F); //true

System.out.println(g instanceof G); //true } }