C.java

*Polymorphism*

**class** A {

**public** **char** x = 'A';

**public** **void** getX() {

System.***out***.println("getX() from A. Value of x = " + x);

}

}

**class** B **extends** A {

//public char x = 'B';

**public** **void** getX() {

System.***out***.println("getX() from B. Value of x = " + x);

}

}

**public** **class** C **extends** B {

**public** **char** x = 'C';

**public** **void** getX() {

System.***out***.println("getX() from C. Value of x = " + x);

}

**public** **static** **void** main(String[] args) {

A a = **new** A();

System.***out***.println("Value of a.x = " + a.x); //prints: Value of a.x = A

a.getX(); //prints: getX() from A. Value of x = A

B b = **new** B();

System.***out***.println("Value of b.x = " + b.x); //prints: Value of b.x = A

b.getX(); //prints: getX() from B. Value of x = A

C c = **new** C();

System.***out***.println("Value of c.x = " + c.x); //prints: Value of c.x = C

c.getX(); //prints: getX() from C. Value of x = C

System.***out***.println("-----------------------------");

A ac = **new** C();

System.***out***.println("Value of ac.x = " + ac.x);//prints: Value of ac.x = A

ac.getX(); //prints: getX() from C. Value of x = C

B bc = **new** C();

System.***out***.println("Value of bc.x = " + bc.x);//prints: Value of bc.x = A

bc.getX(); //prints: getX() from C. Value of x = C

C cc = **new** C();

System.***out***.println("Value of cc.x = " + cc.x);//prints: Value of cc.x = C

cc.getX(); //prints: getX() from C. Value of x = C

System.***out***.println("-----------------------------");

A aac = **new** C();

B bbc = **new** C();

C ccc = **new** C();

aac = bbc;

System.***out***.println("Value of aac.x = " + aac.x); //prints: Value of aac.x = A

aac.getX(); //prints: getX() from C. Value of x = C

aac = ccc;

System.***out***.println("Value of aac.x = " + aac.x); //prints: Value of aac.x = A

aac.getX(); //prints: getX() from C. Value of x = C

bbc = ccc;

System.***out***.println("Value of bbc.x = " + bbc.x); //prints: Value of bbc.x = A

bbc.getX(); //prints: getX() from C. Value of x = C

System.***out***.println("-----------------------------");

A aaac = **new** C();

B bbbc = **new** C();

C cccc = **new** C();

bbbc = (B)aaac;

System.***out***.println("Value of bbbc.x = " + bbbc.x); //prints: Value of bbbc.x = A

bbbc.getX(); //prints: getX() from C. Value of x = C

cccc = (C)aaac;

System.***out***.println("Value of cccc.x = " + cccc.x); //prints: Value of cccc.x = C

cccc.getX(); //prints: getX() from C. Value of x = C

cccc = (C)bbbc;

System.***out***.println("Value of cccc.x = " + cccc.x); //prints: Value of cccc.x = C

cccc.getX(); //prints: getX() from C. Value of x = C

}

}