Universidad de las Fuerzas Armadas

CLASS NAME: *OBJECT ORIENTED PROGRAMMING*
PROFESSOR: *EDISON LASCANO*
NRC: *14575* ***Workshop #:*** *40*
TOPIC:

Rubric:

```
public class A {                          //0.5
    private ArrayList<A> as;              //0.4
    //constructors                        //0.1
    //getters,setters                     //0.1
public class B extends A{                 //0.1
    private ArrayList<G> gs;              //0.9
   //constructors                         //0.1
    //getters,setters                     //0.1
public class C extends A{                  //1
    private ArrayList<E> es;              //0.9
    private E ess[];                      //0.3
   //constructors                         //0.1
    //getters,setters                     //0.1
public class D extends A {                //1
    private E es[] = new E[5];            //0.9
    private ArrayList<F> fs;              //0.9
    //constructors                        //0.1
    //getters,setters                     //0.1
public class E {                          //1
    //extra attribut                      //-1
    //constructors                         //0.1
public class F {                          //1
    //extra attribut                      //-1
    //constructors                        //0.1
public class G implements H{              //1
    public void f(J j){                    //1
    }
    public J f(){                          //1
        return new J();
    }
public interface H {                       //1
    public void m(J j);                   //1
public class J {                           //1
    public static void main(String[] args) { //0.5
        A a;                               //0.1
        ArrayList<A> as;                  //0.1
        B b;                              //0.1
```

```
        ArrayList<B> bs;                //0.1
        C cs[] = new C[3];              //0.1
        D ds[] = new D[4];              //0.1
        D d;                            //0.1
        E e;                            //0.1
        E[] ess = new E[5];             //0.1
        ArrayList<E> es;                //0.1
        F f;                            //0.1
        ArrayList<F> fs;                //0.1
        ArrayList<G> gs;                 //0.1
        G g;                            //0.1
        J j;                             //0.1
```

RONY STIVEN CEDEÑO MONTOYA
Inspector: Jefferson Yépez
Total: 13.8

Rubric:

```
public class A {                        0.5//0.5
    private ArrayList<A> as;            0.4//0.4
    //constructors                      0//0.1
    //getters,setters                   0//0.1
public class B extends A{               1//1
    private ArrayList<G> gs;            0.9//0.9
   //constructors                       0//0.1
    //getters,setters                   0//0.1
public class C extends A{               1 //1
    private ArrayList<E> es;            0.9//0.9
    private E ess[];                    0.3//0.3
   //constructors                       0//0.1
    //getters,setters                   0//0.1
public class D extends A {              1//1
    private E es[] = new E[5];          0.9//0.9
    private ArrayList<F> fs;            0.9//0.9
    //constructors                      0//0.1
    //getters,setters                   0//0.1
public class E {                        1//1
    //extra attribut                    0//-1
    //constructors                      0 //0.1
public class F {                        1//1
    //extra attribut                    0//-1
    //constructors                      0//0.1
public class G implements H{            1//1
    public void f(J j){                 0 //1
    }
    public J f(){                        1//1
```

```
        return new J();
    }
public interface H {                        1 //1
    public void m(J j);                     0 //1
public class J {                            1//1
    public static void main(String[] args) { 0//0.5
        A a;                                0 //0.1
        ArrayList<A> as;                    0//0.1
        B b;                                0//0.1
        ArrayList<B> bs;                    0//0.1
        C cs[] = new C[3];                  0//0.1
        D ds[] = new D[4];                  0//0.1
        D d;                                0//0.1
        E e;                                0//0.1
        E[] ess = new E[5];                 0//0.1
        ArrayList<E> es;                    0//0.1
        F f;                                0//0.1
        ArrayList<F> fs;                    0//0.1
        ArrayList<G> gs;                    0 //0.1
        G g;                                0//0.1
        J j;                                0 //0.1
```

DAVID GUSTAVO CEPEDA SALGUERO
Inspector : Rony Cedeño
TOTAL: 10.3

```
public class A {                            0.5//0.5
    private ArrayList<A> as;                0.4//0.0
    //constructors                          0.1//0.0
    //getters,setters                       0.1//0.0
public class B extends A{                   1//1
    private ArrayList<G> gs;                0.9//0.0
   //constructors                           0.1//0.0
    //getters,setters                       0.1//0.0
public class C extends A{                   1//1
    private ArrayList<E> es;                0.9//0.9
    private E ess[];                        0.3//0.0
   //constructors                           0.1//0.0
    //getters,setters                       0.1//0.0
public class D extends A {                  1//1
    private E es[] = new E[5];              0.9//0.5
    private ArrayList<F> fs;                0.9//0.9
    //constructors                          0.1//0.0
    //getters,setters                       0.1//0.0
public class E {                            1//1
    //extra attribut                        -1//0.0
    //constructors                          0.1//0.0
public class F {                            1//1
    //extra attribut                        -1//0.0
```

```
   //constructors                          0//0.0
public class G implements H{               1//1
   public void f(J j){                     1 //0
   }
   public J f(){                            1//0
      return new J();
   }
public interface H {                       1//1
   public void m(J j);                     1//0
public class J {                           1//0
   public static void main(String[] args) { 0.5//0.5
```

MATEO GABRIEL CRIOLLO LLUMIQUINGA
Inspector: David Cepeda
TOTAL: 9.55

Rubric:

```
public class A {                           0.5//0.5
   private ArrayList<A> as;                0.4//0.4
   //constructors                          0.1//0.1
   //getters,setters                       0.1//0.1
public class B extends A{                  1//1
   private ArrayList<G> gs;                0//0.9
  //constructors                           0.1//0.1
   //getters,setters                       0.1//0.1
public class C extends A{                  1 //1
   private ArrayList<E> es;                0.6//0.9
   private E ess[];                        0//0.3
  //constructors                           0.1//0.1
   //getters,setters                       0.1//0.1
public class D extends A {                 1//1
   private E es[] = new E[5];              0.5//0.9
   private ArrayList<F> fs;                0.8//0.9
   //constructors                          0.1//0.1
   //getters,setters                       0.05//0.1
public class E {                           1//1
   //extra attribut                        0//-1
   //constructors                          0 //0.1
public class F {                           1//1
   //extra attribut                        0//-1
   //constructors                          0//0.1
public class G implements H{               1//1
   public void f(J j){                     0 //1
   }
   public J f(){                            0//1
      return new J();
```

```
   }
public interface H {                        1 //1
   public void m(J j);                      0 //1
public class J {                            1//1
   public static void main(String[] args) { 0//0.5
      A a;                                  0 //0.1
      ArrayList<A> as;                      0//0.1
      B b;                                  0//0.1
      ArrayList<B> bs;                      0//0.1
      C cs[] = new C[3];                    0//0.1
      D ds[] = new D[4];                    0//0.1
      D d;                                  0//0.1
      E e;                                  0//0.1
      E[] ess = new E[5];                   0//0.1
      ArrayList<E> es;                      0//0.1
      F f;                                  0//0.1
      ArrayList<F> fs;                      0//0.1
      ArrayList<G> gs;                      0 //0.1
      G g;                                  0//0.1
      J j;                                  0 //0.1
```

BRAYAN SEBASTIAN CRIOLLO VEGA

Inspector : Mateo Criollo

```
public class A {                            0.5//0.5
   private ArrayList<A> as;                 0//0.4
   //constructors                           0//0.1
   //getters,setters                        0//0.1
public class B extends A{                   1//1
   private ArrayList<G> gs;                 0//0.9
  //constructors                            0//0.1
   //getters,setters                        0.1//0.1
public class C extends A{                   1 //1
   private ArrayList<E> es;                 0//0.9
   private E ess[];                         0//0.3
  //constructors                            0//0.1
   //getters,setters                        0.1//0.1
public class D extends A {                  1//1
   private E es[] = new E[5];               0//0.9
   private ArrayList<F> fs;                 0//0.9
   //constructors                           0//0.1
   //getters,setters                        0.1//0.1
public class E {                            1//1
   //extra attribut                         //-1
   //constructors                           0 //0.1
public class F {                            1//1
   //extra attribut                         //-1
   //constructors                           0//0.1
```

```
public class G implements H{          0//1
    public void f(J j){               1 //1
    }
    public J f(){                      0 //1
        return new J();
    }
public interface H {                   0//1
    public void m(J j);               0 //1
public class J {                      1  //1
    public static void main(String[] args) {0.5 //0.5
        A a;                          0  //0.1
        ArrayList<A> as;              0//0.1
        B b;                          0.1//0.1
        ArrayList<B> bs;              0//0.1
        C cs[] = new C[3];            0//0.1
        D ds[] = new D[4];            0//0.1
        D d;                          0.1//0.1
        E e;                          0.1//0.1
        E[] ess = new E[5];           0//0.1
        ArrayList<E> es;              0//0.1
        F f;                          0//0.1
        ArrayList<F> fs;              0//0.1
        ArrayList<G> gs;              0 //0.1
        G g;                          0//0.1
        J j;                          0 //0.1
```

Total: 8.6

```
/*
 * @author kevin
 */
public class Exam {

    /**
     * @param args the command line arguments
     */
    public static void main(String[] args) {
        B b = new B(); //0.1
        C c = new C(); //0.1
        D d = new D();//0.1
        E e = new E();//0.1
        c.print(e); //0.5
    }

}
```

```
4   */
5   package ec.edu.espe.exam.model;
6
7   /**
8    *
9    * @author Sebastian
10   */
11  abstract class H {   //Not interface
12      public abstract void print();   // Error
13  }
14
```

ALEX DARIO CUZCO YAMASCA
INSPECTOR:CRIOLLO SEBASTIAN

```
public class A {                      0.5//0.5
    private ArrayList<A> as;          0//0.4
    //constructors                    0//0.1
    //getters,setters                 0//0.1
public class B extends A{             1//1
    private ArrayList<G> gs;          0//0.9
   //constructors                     0//0.1
    //getters,setters                 0.1//0.1
public class C extends A{             1 //1
```

```
    private ArrayList<E> es;              0//0.9
    private E ess[];                      0//0.3
   //constructors                       0//0.1
    //getters,setters                    0.1//0.1
public class D extends A {               1//1
    private E es[] = new E[5];            0//0.9
    private ArrayList<F> fs;              0//0.9
    //constructors                       0//0.1
    //getters,setters                    0.1//0.1
public class E {                         1//1
    //extra attribut                     //-1
    //constructors                       0 //0.1
public class F {                         1//1
    //extra attribut                     //-1
    //constructors                       0//0.1
public class G implements H{             0//1
    public void f(J j){                  1 //1
    }
    public J f(){                         0 //1
        return new J();
    }
public interface H {                      0//1
    public void m(J j);                  0 //1
public class J {                         1  //1
    public static void main(String[] args) {0.5 //0.5
        A a;                             0  //0.1
        ArrayList<A> as;                 0//0.1
        B b;                             0.1//0.1
        ArrayList<B> bs;                 0//0.1
        C cs[] = new C[3];               0//0.1
        D ds[] = new D[4];               0//0.1
        D d;                             0.1//0.1
        E e;                             0.1//0.1
        E[] ess = new E[5];              0//0.1
        ArrayList<E> es;                 0//0.1
        F f;                             0//0.1
        ArrayList<F> fs;                 0//0.1
        ArrayList<G> gs;                 0 //0.1
        G g;                             0//0.1
        J j;                             0 //0.1
```

Total: 9.1

STEFANY MARICELA DIAZ ANTUN

Inspector : Alex Cuzco

Rubric:

```
public class A {                         // 0.5/0.5
    private ArrayList<A> as;             // 0.4/0.4
```

```
    //constructors                          // 0.1/0.1
    //getters,setters                       // 0.1/0.1   Total class A: 1.1
public class B extends A{                   // 1/1
    private ArrayList<G> gs;                // 0.9/0.9
   //constructors                           // 0.1/0.1
    //getters,setters                       // 0.1/0.1   Total class B: 2.1
public class C extends A{                   // 1/1
    private ArrayList<E> es;                // 0.9/0.9
    private E ess[];                        // 0/0.3
   //constructors                           // 0.1/0.1
    //getters,setters                       // 0.1/0.1    Total class C: 2.1
public class D extends A {                  // 1/1
    private E es[] = new E[5];              // 0.5/0.9
    private ArrayList<F> fs;                // 0.9/0.9
    //constructors                          // 0.1/0.1
    //getters,setters                       // 0.1/0.1   Total class D: 2.6
public class E {                            // 1/1
    //constructors                          // 0/0.1     Total class E: 1
public class F {                            // 1/1
    //constructors                          // 0/0.1      Total class F: 1
public class G implements H{                // 1/1
    public void f(J j){                     // 0/1
    }
    public J f(){                           // 0/1
        return new J();
    }                                                     Total class G: 1
public interface H {                        // 1/1
    public void m(J j);                     // 0/1       Total class H: 1
public class J {                            // 1/1       Total class J: 1
    public static void main(String[] args) {      // 0.5/0.5
        A a;                                      // 0.1/0.1
        ArrayList<A> as;                          // 0.1/0.1
        B b;                                      // 0.1/0.1
        ArrayList<B> bs;                          // 0.1/0.1
        C cs[] = new C[3];                        // 0.1/0.1
        D ds[] = new D[4];                        // 0.1/0.1
        D d;                                      // 0.1/0.1
        E e;                                      // 0.1/0.1
        E[] ess = new E[5];                       // 0.1/0.1
        ArrayList<E> es;                          // 0/0.1
        F f;                                      // 0/0.1
        ArrayList<F> fs;                          // 0/0.1
        ArrayList<G> gs;                          // 0/0.1
        G g;                                      // 0/0.1
        J j;                                      // 0/0.1     Total main: 1.4
```

Total : 14.3

MATEO JAREN GARCIA GALARZA

Inspector: Stefany Díaz

Rubric:

```
public class A {                          //0.5/0.5
    private ArrayList<A> as;              //0.4/0.4
    //constructors                        //0.1/01
    //getters,setters                     //0.1/0.1
public class B extends A{                 //1/1
    private ArrayList<G> gs;              //0.0/0.9
   //constructors                         //0.1/0.1
    //getters,setters                     //0.1/0.1
public class C extends A{                  //1/1
    private ArrayList<E> es;              //0.0/0.9
    private E ess[];                      //0.3/0.3
   //constructors                         //0.1/0.1
    //getters,setters                     //0.1/0.1
public class D extends A {                //1/1
    private E es[] = new E[5];            //0.9/0.9
    private ArrayList<F> fs;              //0.9/0.9
    //constructors                        //0.1/0.1
    //getters,setters                     //0.1/0.1
public class E {                          //1/1
    //extra attribut                      //-1
    //constructors                         //0.1/0.1
public class F {                          //1/1
    //extra attribut                      //-1
    //constructors                        //0.1/0.1
public class G implements H{              //1/1
    public void f(J j){                    //1/1
    }
    public J f(){                          //0/1
        return new J();
    }
public interface H {                       //1/1
    public void m(J j);                    //0/1
public class J {                           //1/1
    public static void main(String[] args) { //0.5/0.5
        A a;                               //0.1/0.1
        ArrayList<A> as;                   //0.0/0.1
        B b;                               //0.1/0.1
        ArrayList<B> bs;                   //0.0/0.1
        C cs[] = new C[3];                 //0.0/0.1
        D ds[] = new D[4];                 //0.0/0.1
        D d;                               //0.1/0.1
        E e;                               //0.1/0.1
        E[] ess = new E[5];                //0.0/0.1
        ArrayList<E> es;                   //0.0/0.1
```

```
        F f;                                    //0.1/0.1
        ArrayList<F> fs;                        //0.0/0.1
        ArrayList<G> gs;                         //0.0/0.1
        G g;                                    //0.1/0.1
        J j;                                     //0.1/0.1
```
Total: 14.2

EDUARDO DAVID GARCIA ROMERO
Inspector: Mateo García

Rubric:

```
public class A {                        0.5//0.5
    private ArrayList<A> as;            0.4//0.4
    //constructors                      0.1//0.1
    //getters,setters                   0.1//0.1
public class B extends A{               1//1
    private ArrayList<G> gs;            0//0.9
   //constructors                       0.1//0.1
    //getters,setters                   0//0.1
public class C extends A{                1//1
    private ArrayList<E> es;            0.9//0.9
    private E ess[];                    0//0.3
   //constructors                       0.1//0.1
    //getters,setters                   0.1//0.1
public class D extends A {              1//1
    private E es[] = new E[5];          0//0.9
    private ArrayList<F> fs;            0.9//0.9
    //constructors                      0.1//0.1
    //getters,setters                   0.1//0.1
public class E {                        1//1
    //extra attribut                    //-1
    //constructors                      0.1//0.1
public class F {                        1//1
    //extra attribut                    //-1
    //constructors                      0.1//0.1
public class G implements H{            1//1
    public void f(J j){                  0//1
    }
    public J f(){                       0//1
        return new J();
    }
public interface H {                     0//1
    public void m(J j);                  0//1
public class J {                         0//1
    public static void main(String[] args) {0.5//0.5
        A a;                             0.1//0.1
        ArrayList<A> as;                0//0.1
        B b;                            0//0.1
```

```
        ArrayList<B> bs;                0//0.1
        C cs[] = new C[3];              0//0.1
        D ds[] = new D[4];              0//0.1
        D d;                            0//0.1
        E e;                            0//0.1
        E[] ess = new E[5];             0//0.1
        ArrayList<E> es;                0//0.1
        F f;                            0//0.1
        ArrayList<F> fs;                0//0.1
        ArrayList<G> gs;                0 //0.1
        G g;                            0//0.1
        J j;                             0//0.1
```

Total: 13..5

JUAN CARLOS GRANDA ARCOS

Inspector : Eduardo García

```
public class A {                        0.5//0.5
    private ArrayList<A> as;            004//0.4
    //constructors                      0.1//0.1
    //getters,setters                   0.1//0.1
public class B extends A{               1//1
    private ArrayList<G> gs;            0//0.9
   //constructors                       0.1//0.1
    //getters,setters                   0.1//0.1
public class C extends A{               1 //1
    private ArrayList<E> es;            0.9//0.9
    private E ess[];                    0//0.3
   //constructors                       0.1//0.1
    //getters,setters                   0.1//0.1
public class D extends A {              1//1
    private E es[] = new E[5];          0.9//0.9
    private ArrayList<F> fs;            0.9//0.9
    //constructors                      0.1//0.1
    //getters,setters                   0.1//0.1
public class E {                        1//1
    //extra attribut                    //-1
    //constructors                      0 .1//0.1
public class F {                        1//1
    //extra attribut                    //-1
    //constructors                      0.1//0.1
public class G implements H{            0.1//1
    public void f(J j){                 1 //1
    }
    public J f(){                        1//1
        return new J();
    }
public interface H {                     1//1
    public void m(J j);                 0 //1
```

```
public class J {                          1  //1
   public static void main(String[] args) {0.5 //0.5
      A a;                                0.1 //0.1
      ArrayList<A> as;                    0.1//0.1
      B b;                                0.1//0.1
      ArrayList<B> bs;                    0//0.1
      C cs[] = new C[3];                  0//0.1
      D ds[] = new D[4];                  0.1//0.1
      D d;                                0.1//0.1
      E e;                                0.1//0.1
      E[] ess = new E[5];                 0//0.1
      ArrayList<E> es;                    0.1//0.1
      F f;                                0.1//0.1
      ArrayList<F> fs;                    0.1//0.1
      ArrayList<G> gs;                    0 //0.1
      G g;                                0//0.1
      J j;                                0 //0.1
```

Total: 13.8

JOSUE DANIEL GUAYASAMÍN HEREDIA

Inspector : Juan Granda

```
public class A {                          0.5//0.5
   private ArrayList<A> as;               004//0.4
   //constructors                         0.1//0.1
   //getters,setters                      0.1//0.1
public class B extends A{                 1//1
   private ArrayList<G> gs;               0//0.9
  //constructors                         0.1//0.1
   //getters,setters                      0.1//0.1
public class C extends A{                 1 //1
   private ArrayList<E> es;               0.9//0.9
   private E ess[];                       0//0.3
  //constructors                         0.1//0.1
   //getters,setters                      0.1//0.1
public class D extends A {                1//1
   private E es[] = new E[5];             0.9//0.9
   private ArrayList<F> fs;               0.9//0.9
   //constructors                         0.1//0.1
   //getters,setters                      0.1//0.1
public class E {                          1//1
   //extra attribut                       //-1
   //constructors                         0 .1//0.1
public class F {                          1//1
   //extra attribut                       //-1
   //constructors                         0.1//0.1
public class G implements H{              0.1//1
   public void f(J j){                    1 //1
```

```
    }
    public J f(){                              1//1
        return new J();
    }
public interface H {                           1//1
    public void m(J j);                        0 //1
public class J {                               1  //1
    public static void main(String[] args) {0.5 //0.5
        A a;                                   0.1 //0.1
        ArrayList<A> as;                       0.1//0.1
        B b;                                   0.1//0.1
        ArrayList<B> bs;                       0//0.1
        C cs[] = new C[3];                     0//0.1
        D ds[] = new D[4];                     0.1//0.1
        D d;                                   0.1//0.1
        E e;                                   0.1//0.1
        E[] ess = new E[5];                    0//0.1
        ArrayList<E> es;                       0.1//0.1
        F f;                                   0.1//0.1
        ArrayList<F> fs;                       0.1//0.1
       ArrayList<G> gs;                        0 //0.1
        G g;                                   0//0.1
        J j;                                   0 //0.1
```

Total: 13.8

CARLOS ORLANDO HERNANDEZ ALMEIDA

Inspector: Josué Guayasamín.

Rubric:

```
public class A {                       0.5//0.5
   private ArrayList<A> as;            0.4//0.4
   //constructors                      0//0.1
   //getters,setters                   0//0.1
public class B extends A{              1//1
   private ArrayList<G> gs;            0.9//0.9
  //constructors                       0//0.1
   //getters,setters                   0//0.1
public class C extends A{              1 //1
   private ArrayList<E> es;            0.9//0.9
   private E ess[];                    0.3//0.3
  //constructors                       0//0.1
   //getters,setters                   0//0.1
public class D extends A {             1//1
   private E es[] = new E[5];          0.9//0.9
   private ArrayList<F> fs;            0.9//0.9
   //constructors                      0//0.1
   //getters,setters                   0//0.1
public class E {                       1//1
```

```
    //extra attribut                    0//-1
    //constructors                      0 //0.1
public class F {                        1//1
    //extra attribut                    0//-1
    //constructors                      0//0.1
public class G implements H{            1//1
    public void f(J j){                 0 //1
    }
    public J f(){                        0//1
        return new J();
    }
public interface H {                     1 //1
    public void m(J j);                 0 //1
public class J {                         1//1
    public static void main(String[] args) { 0//0.5
        A a;                             0 //0.1
        ArrayList<A> as;                0//0.1
        B b;                            0//0.1
        ArrayList<B> bs;                0//0.1
        C cs[] = new C[3];              0//0.1
        D ds[] = new D[4];              0//0.1
        D d;                            0//0.1
        E e;                            0//0.1
        E[] ess = new E[5];             0//0.1
        ArrayList<E> es;                0//0.1
        F f;                            0//0.1
        ArrayList<F> fs;                0//0.1
        ArrayList<G> gs;                0 //0.1
        G g;                            0//0.1
        J j;                            0 //0.1
      TOTAL: 12.8
```

JUAN MATEO IZA BARRIONUEVO
Inspector : Carlos Hernandez
TOTAL: 14.2

```
public class A {                        0.5//0.5
    private ArrayList<A> as;            0.4//0.0
    //constructors                      0.1//0.0
    //getters,setters                   0.1//0.0
public class B extends A{               1//1
    private ArrayList<G> gs;            0.9//0.0
   //constructors                       0.1//0.0
    //getters,setters                   0.1//0.0
public class C extends A{                1//1
    private ArrayList<E> es;            0.9//0.9
    private E ess[];                    0.3//0.0
   //constructors                       0.1//0.0
    //getters,setters                   0.1//0.0
```

```
public class D extends A {              1//1
    private E es[] = new E[5];          0.9//0.5
    private ArrayList<F> fs;            0.9//0.9
    //constructors                      0.1//0.0
    //getters,setters                   0.1//0.0
public class E {                        1//1
    //extra attribut                    -1//0.0
    //constructors                       0.1//0.0
public class F {                        1//1
    //extra attribut                    -1//0.0
    //constructors                      0//0.0
public class G implements H{            1//1
    public void f(J j){                 1 //0
    }
    public J f(){                        1//0
        return new J();
    }
public interface H {                     1//1
    public void m(J j);                  1//0
public class J {                         1//0
    public static void main(String[] args) { 0.5//0.5
```

DAVID ALEJANDRO LOPEZ VILLACIS
Inspector JUAN MATEO IZA BARRIONUEVO
TOTAL: 12.7

```
public class A {                        0.5//0.5
    private ArrayList<A> as;            0.4//0.4
    //constructors                      0.1//0.1
    //getters,setters                   0.1//0.1
public class B extends A{               1//1
    private ArrayList<G> gs;            0//0.9
   //constructors                       0.1//0.1
    //getters,setters                   0.1//0.1
public class C extends A{               1 //1
    private ArrayList<E> es;            0//0.9
    private E ess[];                    0//0.3
   //constructors                       0.1//0.1
    //getters,setters                   0.1//0.1
public class D extends A {              1//1
    private E es[] = new E[5];          0.9//0.9
    private ArrayList<F> fs;            0//0.9
    //constructors                      0.1//0.1
    //getters,setters                   0.1//0.1
public class E {                        1//1
    //extra attribut                    0//-1
    //constructors                      0.1 //0.1
```

```
public class F {                          1//1
   //extra attribut                       0//-1
   //constructors                         0.1//0.1
public class G implements H{              1//1
   public void f(J j){                    1 //1
   }
   public J f(){                           1 //1
      return new J();
   }
public interface H {                      1  //1
   public void m(J j);                    0 //1
public class J {                          1//1
   public static void main(String[] args) { 0.5//0.5
      A a;                                  0.1//0.1
      ArrayList<A> as;                    0//0.1
      B b;                                0//0.1
      ArrayList<B> bs;                    0//0.1
      C cs[] = new C[3];                  0//0.1
      D ds[] = new D[4];                  0//0.1
      D d;                                0//0.1
      E e;                                0//0.1
      E[] ess = new E[5];                 0//0.1
      ArrayList<E> es;                    0//0.1
      F f;                                0//0.1
      ArrayList<F> fs;                    0//0.1
      ArrayList<G> gs;                    0 //0.1
      G g;                                0//0.1
      J j;                                0 //0.1
```

CARLOS ISAAC ÑATO CAIZA
Inspector: David Alejandro Lopez Villacis
TOTAL:

```
public class A {                          0.5//0.5
   private ArrayList<A> as;               0.4//0.4
   //constructors                         0//0.1
   //getters,setters                      0//0.1
public class B extends A{                 1//1
   private ArrayList<G> gs;               0.9//0.9
  //constructors                          0.1//0.1
   //getters,setters                      0.1//0.1
public class C extends A{                  1//1
   private ArrayList<E> es;               0.9//0.9
   private E ess[];                       0//0.3
  //constructors                          0//0.1
   //getters,setters                      0//0.1
public class D extends A {                1//1
   private E es[] = new E[5];             0.9//0.9
   private ArrayList<F> fs;               0//0.9
```

```
    //constructors                          0//0.1
    //getters,setters                       0//0.1
public class E {                            1//1
    //extra attribut                        0//-1
    //constructors                          0//0.1
public class F {                            1//1
    //extra attribut                        0//-1
    //constructors                          0.1//0.1
public class G implements H{                0//1
    public void f(J j){                     1//1
    }
    public J f(){                           1//1
        return new J();
    }
public interface H {                        0//1
    public void m(J j);                     0//1
public class J {                            1//1
    public static void main(String[] args) { 0.5//0.5
        A a;                                0//0.1
        ArrayList<A> as;                    0.1//0.1
        B b;                                0.1//0.1
        ArrayList<B> bs;                    0.1//0.1
        C cs[] = new C[3];                  0.1//0.1
        D ds[] = new D[4];                  0.1//0.1
        D d;                                0//0.1
        E e;                                0//0.1
        E[] ess = new E[5];                 0.1//0.1
        ArrayList<E> es;                    0.1//0.1
        F f;                                0.1//0.1
        ArrayList<F> fs;                    0.1//0.1
        ArrayList<G> gs;                    0.1//0.1
        G g;                                0.1//0.1
        J j;                                0.1//0.1
```

FLAVIO OLIVIER PASPUEL CASTILLO
Total 13.1/15
Inspector: **Carlos Ñato**

Rubric:

```
public class A {                            0.5//0.5
    private ArrayList<A> as;                0//0.4
    //constructors                          0//0.1
    //getters,setters                       0//0.1
public class B extends A{                   1//1
    private ArrayList<G> gs;                0//0.9
   //constructors                           0//0.1
    //getters,setters                       0//0.1
```

```
public class C extends A{                1//1
    private ArrayList<E> es;             0.9//0.9
    private E ess[];                     0.3//0.3
   //constructors                       0//0.1
    //getters,setters                    0//0.1
public class D extends A {               1//1
    private E es[] = new E[5];           0.9//0.9
    private ArrayList<F> fs;             0.9//0.9
    //constructors                       0//0.1
    //getters,setters                    0//0.1
public class E {                         1//1
    //extra attribut                     0//-1
    //constructors                        0//0.1
public class F {                         1//1
    //extra attribut                     0//-1
    //constructors                       0//0.1
public class G implements H{             1//1
    public void f(J j){                  1//1
    }
    public J f(){                        0 //1
        return new J();
    }
public interface H {                     1 //1
    public void m(J j);                  0 //1
public class J {                         1  //1
    public static void main(String[] args) {0.5 //0.5
        A a;                             0.1 //0.1
        ArrayList<A> as;                 0//0.1
        B b;                             0//0.1
        ArrayList<B> bs;                 0//0.1
        C cs[] = new C[3];               0//0.1
        D ds[] = new D[4];               0//0.1
        D d;                             0//0.1
        E e;                             0//0.1
        E[] ess = new E[5];              0//0.1
        ArrayList<E> es;                 0//0.1
        F f;                             0//0.1
        ArrayList<F> fs;                 0//0.1
        ArrayList<G> gs;                  0//0.1
        G g;                             0//0.1
        J j;                              0//0.1
```

ANTONIO ADRIÁN REVILLA ANCHAPAXI

Total 15/15

Inspector: **Olivier Paspuel**

Rubric:

```
public class A {                         0.5//0.5
    private ArrayList<A> as;             0.4//0.4
```

```
    //constructors                          0.1//0.1
    //getters,setters                       0//0.1
public class B extends A{                   1//1
    private ArrayList<G> gs;                0//0.9
   //constructors                           0.1//0.1
    //getters,setters                       0//0.1
public class C extends A{                    1//1
    private ArrayList<E> es;                0.9//0.9
    private E ess[];                        0//0.3
   //constructors                           0.1//0.1
    //getters,setters                       0//0.1
public class D extends A {                  1//1
    private E es[] = new E[5];              0.9//0.9
    private ArrayList<F> fs;                0.9//0.9
    //constructors                          0.1//0.1
    //getters,setters                       0//0.1
public class E {                            1//1
    //extra attribut                        //-1
    //constructors                          0.1 //0.1
public class F {                            1//1
    //extra attribut                        0//-1
    //constructors                          0.1//0.1
public class G implements H{                1//1
    public void f(J j){                      1//1
    }
    public J f(){                            0 //1
        return new J();
    }
public interface H {                         1//1
    public void m(J j);                     1 //1
public class J {                             1//1
    public static void main(String[] args) { 0.5//0.5
        A a;                                 0.1 //0.1
        ArrayList<A> as;                    0.1//0.1
        B b;                                0//0.1
        ArrayList<B> bs;                    0//0.1
        C cs[] = new C[3];                  0.1//0.1
        D ds[] = new D[4];                  0.1//0.1
        D d;                                0.1//0.1
        E e;                                0//0.1
        E[] ess = new E[5];                 0.1//0.1
        ArrayList<E> es;                    0.1//0.1
        F f;                                0.1//0.1
        ArrayList<F> fs;                    0//0.1
        ArrayList<G> gs;                     0//0.1
        G g;                                0.1//0.1
        J j;                                 0.1//0.1
```

ILHAN RANDY ROGEL VILLA

Inspector: Antonio Revilla

Total: 10.3 pts.

```
public class A {                                0.5//0.5
    private ArrayList<A> as;                    0.2//0.4
    //constructors                              0//0.1
    //getters,setters                           0.1//0.1
public class B extends A{                       1//1
    private ArrayList<G> gs;                    0//0.9
   //constructors                               0//0.1
    //getters,setters                           0.1//0.1
public class C extends A{                       1 //1
    private ArrayList<E> es;                    0//0.9
    private E ess[];                            0.3//0.3
   //constructors                               0//0.1
    //getters,setters                           0.1//0.1
public class D extends A {                      1//1
    private E es[] = new E[5];                  0.9//0.9
    private ArrayList<F> fs;                    0.5//0.9
    //constructors                              0//0.1
    //getters,setters                           0.1//0.1
public class E {                                1//1
    //extra attribut                            -1//-1
    //constructors                              0.1 //0.1
public class F {                                1//1
    //extra attribut                            0//-1
    //constructors                              0//0.1
public class G implements H{                    1//1
    public void f(J j){                          1//1
    }
    public J f(){                                0//1
        return new J();
    }
public interface H {                             1//1
    public void m(J j);                          0//1
public class J {                                 0//1
    public static void main(String[] args) { 0.5 //0.5
        A a;                                     0 //0.1
        ArrayList<A> as;                        0//0.1
        B b;                                    0//0.1
        ArrayList<B> bs;                        0//0.1
        C cs[] = new C[3];                      0//0.1
        D ds[] = new D[4];                      0//0.1
        D d;                                    0//0.1
        E e;                                    0//0.1
        E[] ess = new E[5];                     0//0.1
        ArrayList<E> es;                        0//0.1
```

```
        F f;                                    0//0.1
        ArrayList<F> fs;                        0//0.1
        ArrayList<G> gs;                        0//0.1
        G g;                                    0//0.1
        J j;                                     0//0.1
```

MATEO NICOLAY ROGERON MAILA

Inspector: Antonio Revilla

Total: 10 pts.

```
public class A {                                0.5//0.5
    private ArrayList<A> as;                    0.4//0.4
    //constructors                              0.1//0.1
    //getters,setters                           0//0.1
public class B extends A{                       1//1
    private ArrayList<G> gs;                    0.9//0.9
   //constructors                               0.1//0.1
    //getters,setters                           0//0.1
public class C extends A{                       1 //1
    private ArrayList<E> es;                    0.9//0.9
    private E ess[];                            0//0.3
   //constructors                               0.1//0.1
    //getters,setters                           0//0.1
public class D extends A {                      1//1
    private E es[] = new E[5];                  0//0.9
    private ArrayList<F> fs;                    0.5//0.9
    //constructors                              0//0.1
    //getters,setters                           0//0.1
public class E {                                1//1
    //extra attribut                            0//-1
    //constructors                              0 //0.1
public class F {                                1//1
    //extra attribut                            0//-1
    //constructors                              0//0.1
public class G implements H{                    0//1
    public void f(J j){                          0//1
    }
    public J f(){                                0//1
        return new J();
    }
public interface H {                             1//1
    public void m(J j);                          0//1
public class J {                                 0//1
    public static void main(String[] args) { 0.5 //0.5
        A a;                                     0 //0.1
        ArrayList<A> as;                        0//0.1
        B b;                                    0//0.1
        ArrayList<B> bs;                        0//0.1
        C cs[] = new C[3];                      0//0.1
```

```
        D ds[] = new D[4];                  0//0.1
        D d;                                0//0.1
        E e;                                0//0.1
        E[] ess = new E[5];                 0//0.1
        ArrayList<E> es;                    0//0.1
        F f;                                0//0.1
        ArrayList<F> fs;                    0//0.1
        ArrayList<G> gs;                    0//0.1
        G g;                                0//0.1
        J j;                                 0//0.1
```

ANDRÉS ALEJANDRO ROMERO ZAMBRANO

Inspector : Mateo Rogeron

Total: 16.6

Rubric:

```
public class A {                        0.5//0.5
   private ArrayList<A> as;             0//0.4
   //constructors                       0.1//0.1
   //getters,setters                    0.1//0.1
public class B extends A{               1//1
   private ArrayList<G> gs;             0.9//0.9
  //constructors                        0.1//0.1
   //getters,setters                    0.1//0.1
public class C extends A{                1//1
   private ArrayList<E> es;             0.9//0.9
   private E ess[];                     0.3//0.3
  //constructors                        0.1//0.1
   //getters,setters                    0.1//0.1
public class D extends A {              1//1
   private E es[] = new E[5];           0.9//0.9
   private ArrayList<F> fs;             0.9//0.9
   //constructors                       0.1//0.1
   //getters,setters                    0.1//0.1
public class E {                        1//1
   //extra attribut                     0//-1
   //constructors                        0.1//0.1
public class F {                        1//1
   //extra attribut                     0//-1
   //constructors                       0.1//0.1
public class G implements H{            1//1
   public void f(J j){                   1//1
   }
   public J f(){                         0.5//1
      return new J();
   }
public interface H {                     1 //1
   public void m(J j);                  0 //1
public class J {                         1//1
   public static void main(String[] args) { 0.5//0.5
```

```
A a;                                0.1 //0.1
ArrayList<A> as;                    0.1//0.1
B b;                                0.1//0.1
ArrayList<B> bs;                    0.1//0.1
C cs[] = new C[3];                  0.1//0.1
D ds[] = new D[4];                  0.1//0.1
D d;                                0.1//0.1
E e;                                0//0.1
E[] ess = new E[5];                 0.1//0.1
ArrayList<E> es;                    0.1//0.1
F f;                                0.1//0.1
ArrayList<F> fs;                    0.1//0.1
ArrayList<G> gs;                    0.1//0.1
G g;                                0//0.1
J j;                                0//0.1
```

LUIS EDUARDO SAGNAY PILAMUNGA

Inspector: Andrés Romero

TOTAL: 13.9

Rubric:

```
public class A {                    0.5//0.5
    private ArrayList<A> as;        0.4//0.4
    //constructors                  0.1//0.1
    //getters,setters               0.1//0.1
public class B extends A{           1//1
    private ArrayList<G> gs;        0//0.9
   //constructors                   0.1//0.1
    //getters,setters               0.1//0.1
public class C extends A{           1//1
    private ArrayList<E> es;        0//0.9
    private E ess[];                0.3//0.3
   //constructors                   0.1//0.1
    //getters,setters               0.1//0.1
public class D extends A {          1//1
    private E es[] = new E[5];      0.9//0.9
    private ArrayList<F> fs;        0.9//0.9
    //constructors                  0.1//0.1
    //getters,setters               0.1//0.1
public class E {                    1//1
    //extra attribut                0//-1
    //constructors                  0.1//0.1
public class F {                    1//1
    //extra attribut                0//-1
    //constructors                  0.1//0.1
public class G implements H{        1//1
    public void f(J j){             1//1
    }
    public J f(){                   1 //1
```

```
        return new J();
    }
public interface H {                        1//1
    public void m(J j);                    1 //1
public class J {                            1//1
    public static void main(String[] args) { 0.5//0.5
        A a;                                0.1//0.1
        ArrayList<A> as;                   0.1//0.1
        B b;                               0.1//0.1
        ArrayList<B> bs;                   0.1//0.1
        C cs[] = new C[3];                 0//0.1
        D ds[] = new D[4];                 0//0.1
        D d;                               0.1//0.1
        E e;                               0.1//0.1
        E[] ess = new E[5];                0//0.1
        ArrayList<E> es;                   0.1//0.1
        F f;                               0.1//0.1
        ArrayList<F> fs;                   0//0.1
        ArrayList<G> gs;                    0//0.1
        G g;                               0.1//0.1
        J j;                                0.1//0.1
```

FREDERICK SANTIAGO TIPÁN MORENO

Inspector : Luis Sagnay

Rubric:

```
public class A {                        0.5//0.5
    private ArrayList<A> as;            0.4//0.4
    //constructors                      0//0.1
    //getters,setters                   0//0.1
public class B extends A{               1//1
    private ArrayList<G> gs;            //0.9
   //constructors                       //0.1
    //getters,setters                   //0.1
public class C extends A{                1//1
    private ArrayList<E> es;            0//0.9
    private E ess[];                    0.3//0.3
   //constructors                       //0.1
    //getters,setters                   //0.1
public class D extends A {              1//1
    private E es[] = new E[5];          0.9//0.9
    private ArrayList<F> fs;            0.9//0.9
    //constructors                      //0.1
    //getters,setters                   //0.1
public class E {                        1//1
    //extra attribut                    //-1
    //constructors                       //0.1
public class F {                        1//1
```

```
    //extra attribut                    //-1
    //constructors                      //0.1
public class G implements H{            1//1
    public void f(J j){                  //1
    }
    public J f(){                        1//1
        return new J();
    }
public interface H {                     1 //1
    public void m(J j);                  //1
public class J {                         //1
    public static void main(String[] args) { 0.5//0.5
        A a;                             //0.1
        ArrayList<A> as;                 0.1//0.1
        B b;                             //0.1
        ArrayList<B> bs;                 //0.1
        C cs[] = new C[3];               //0.1
        D ds[] = new D[4];               //0.1
        D d;                             //0.1
        E e;                             //0.1
        E[] ess = new E[5];              //0.1
        ArrayList<E> es;                 //0.1
        F f;                             //0.1
        ArrayList<F> fs;                 //0.1
        ArrayList<G> gs;                  //0.1
        G g;                             //0.1
        J j;                              //0.1
```

GABRIEL NICOLAS VIVANCO RAZA

Inspector : Fréderick Tipán

TOTAL: 13.4

```
public class A {                        0.5//0.5
    private ArrayList<A> as;            0//0.4
    //constructors                      0//0.1
    //getters,setters                   0.1//0.1
public class B extends A{               1//1
    private ArrayList<G> gs;            0//0.9
   //constructors                       0.1//0.1
    //getters,setters                   0.1//0.1
public class C extends A{               1 //1
    private ArrayList<E> es;            0.9//0.9
    private E ess[];                    0//0.3
   //constructors                       0.1//0.1
    //getters,setters                   0.1//0.1
public class D extends A {              1//1
    private E es[] = new E[5];          0.9//0.9
    private ArrayList<F> fs;            0.9//0.9
    //constructors                      0.1//0.1
```

```
   //getters,setters                    0.1//0.1
public class E {                        1//1
   //extra attribut                     //-1
   //constructors                       0//0.1
public class F {                        1//1
   //extra attribut                     //-1
   //constructors                       0//0.1
public class G implements H{            1//1
   public void f(J j){                  1//1
   }
   public J f(){                        0//1
      return new J();
   }
public interface H {                    1//1
   public void m(J j);                  1//1
public class J {                        0//1
   public static void main(String[] args) { 0.5//0.5
      A a;                              0//0.1
      ArrayList<A> as;                  0//0.1
      B b;                              0//0.1
      ArrayList<B> bs;                  0//0.1
      C cs[] = new C[3];                0//0.1
      D ds[] = new D[4];                0//0.1
      D d;                              0//0.1
      E e;                              0//0.1
      E[] ess = new E[5];               0//0.1
      ArrayList<E> es;                  0//0.1
      F f;                              0//0.1
      ArrayList<F> fs;                  0//0.1
      ArrayList<G> gs;                  0//0.1
      G g;                              0//0.1
      J j;                              0//0.1
```

JEFFERSON DAVID YEPEZ MORAN

inspector: Gabriel Vivanco

TOTAL:14.1

```
public class A {                        0.5//0.5
   private ArrayList<A> as;             0.4//0.4
   //constructors                       0.1//0.1
   //getters,setters                    0.1//0.1
public class B extends A{               1//1
   private ArrayList<G> gs;             0.9//0.9
  //constructors                        0.1//0.1
   //getters,setters                    0.1//0.1
public class C extends A{               1//1
   private ArrayList<E> es;             0//0.9
   private E ess[];                     0.3//0.3
  //constructors                        0.1//0.1
```

```
    //getters,setters                          0.1//0.1
public class D extends A {                     1//1
    private E es[] = new E[5];                 0.9//0.9
    private ArrayList<F> fs;                   0.9//0.9
    //constructors                             0.1//0.1
    //getters,setters                          0.1//0.1
public class E {                               1//1
    //extra attribut                           -1//-1
    //constructors                              0.1//0.1
public class F {                               1//1
    //extra attribut                           0//-1
    //constructors                             0//0.1
public class G implements H{                   1//1
    public void f(J j){                        1 //1
    }
    public J f(){                               0//1
        return new J();
    }
public interface H {                            1//1
    public void m(J j);                        0//1
public class J {                               1 //1
    public static void main(String[] args) { 0.5//0.5
        A a;                                    0.1//0.1
        ArrayList<A> as;                       0//0.1
        B b;                                   0.1//0.1
        ArrayList<B> bs;                       0//0.1
        C cs[] = new C[3];                     0//0.1
        D ds[] = new D[4];                     0//0.1
        D d;                                   0.1//0.1
        E e;                                   0.1//0.1
        E[] ess = new E[5];                    0//0.1
        ArrayList<E> es;                       0//0.1
        F f;                                   0.1//0.1
        ArrayList<F> fs;                       0//0.1
        ArrayList<G> gs;                        0//0.1
        G g;                                   0.1//0.1
        J j;                                   0.1 //0.1
```