

programación

Trabajo practico: programación estructurada

Alumno

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Comisión: M2025-4

Profesor

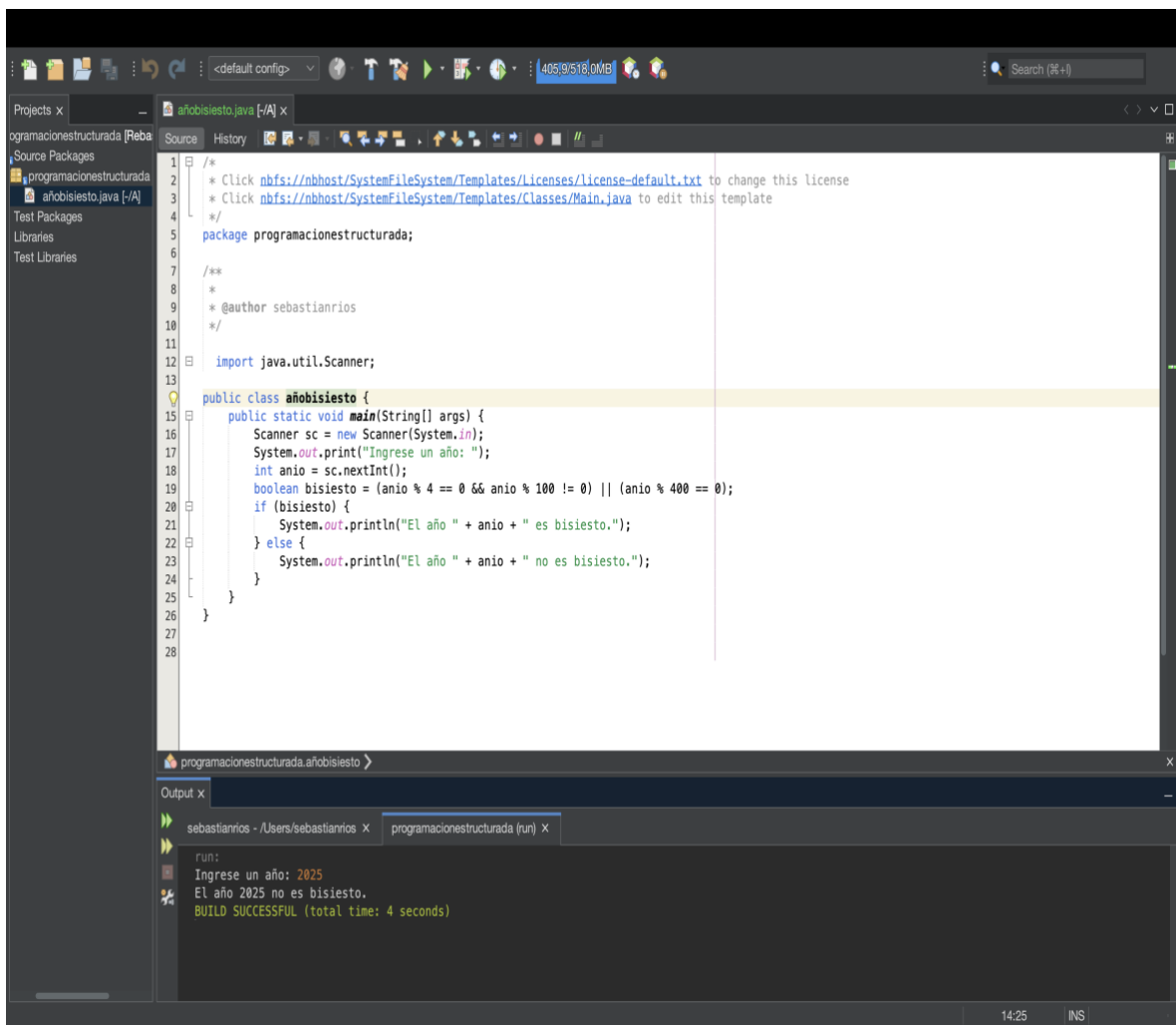
Ariel enferrel

Tutor

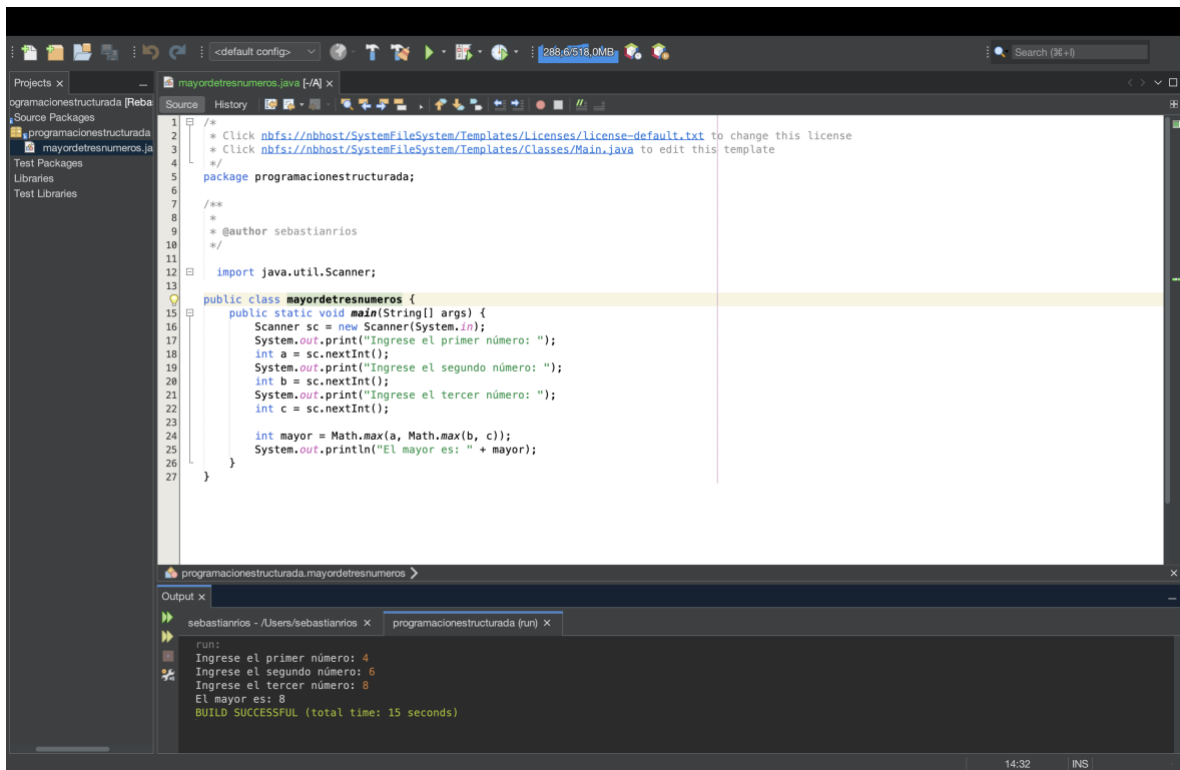
David López

26 de agosto 2025

Ejercicio1



Ejercicio 2



The screenshot shows an IDE with a project named 'programacionestructurada'. The source file 'mayordetresnumeros.java' is open, displaying the following code:

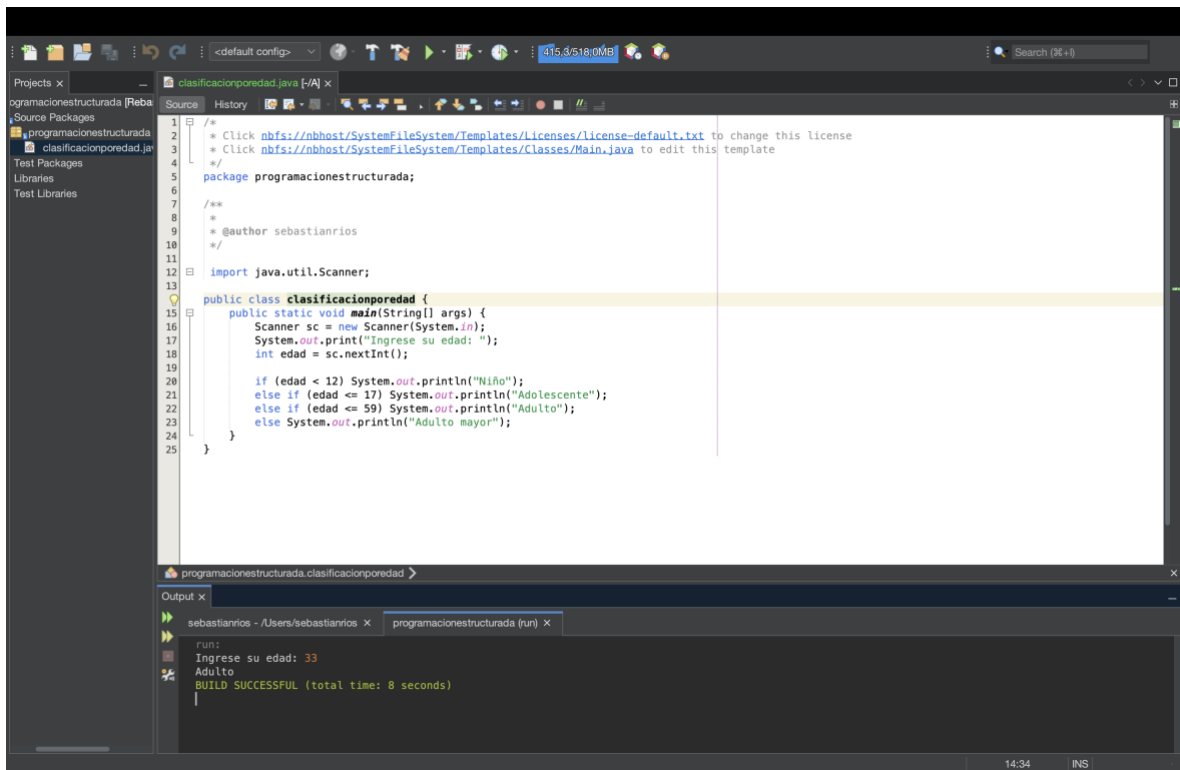
```
1  /*  
2   * Click nbfs://nbhost/SystemFileSystem/Templates/Licenses/license-default.txt to change this license  
3   * Click nbfs://nbhost/SystemFileSystem/Templates/Classes/Main.java to edit this template  
4   */  
5  package programacionestructurada;  
6  
7  /**  
8   *  
9   * @author sebastianrios  
10  */  
11  
12  import java.util.Scanner;  
13  
14  public class mayordetresnumeros {  
15      public static void main(String[] args) {  
16          Scanner sc = new Scanner(System.in);  
17          System.out.print("Ingrese el primer número: ");  
18          int a = sc.nextInt();  
19          System.out.print("Ingrese el segundo número: ");  
20          int b = sc.nextInt();  
21          System.out.print("Ingrese el tercer número: ");  
22          int c = sc.nextInt();  
23  
24          int mayor = Math.max(a, Math.max(b, c));  
25          System.out.println("El mayor es: " + mayor);  
26      }  
27  }
```

The output window shows the execution results:

```
run:  
Ingrese el primer número: 4  
Ingrese el segundo número: 6  
Ingrese el tercer número: 8  
El mayor es: 8  
BUILD SUCCESSFUL (total time: 15 seconds)
```

The status bar at the bottom indicates the time is 14:32 and the location is INS.

Ejercicio 3



The screenshot shows an IDE with a project named 'programacionestructurada'. The source code for 'clasificacionporedad.java' is displayed. The code uses a Scanner to read an age and prints a classification based on the age. The output window shows the program was run successfully with the input '33'.

```
1  /*
2   * Click nbfs://nbhost/SystemFileSystem/Templates/Licenses/license-default.txt to change this license
3   * Click nbfs://nbhost/SystemFileSystem/Templates/Classes/Main.java to edit this template
4   */
5  package programacionestructurada;
6
7  /**
8   *
9   * @author sebastianrios
10  */
11
12  import java.util.Scanner;
13
14  public class clasificacionporedad {
15      public static void main(String[] args) {
16          Scanner sc = new Scanner(System.in);
17          System.out.print("Ingrese su edad: ");
18          int edad = sc.nextInt();
19
20          if (edad < 12) System.out.println("Niño");
21          else if (edad <= 17) System.out.println("Adolescente");
22          else if (edad <= 59) System.out.println("Adulto");
23          else System.out.println("Adulto mayor");
24      }
25  }
```

Output:

```
run:
Ingrese su edad: 33
Adulto
BUILD SUCCESSFUL (total time: 8 seconds)
```

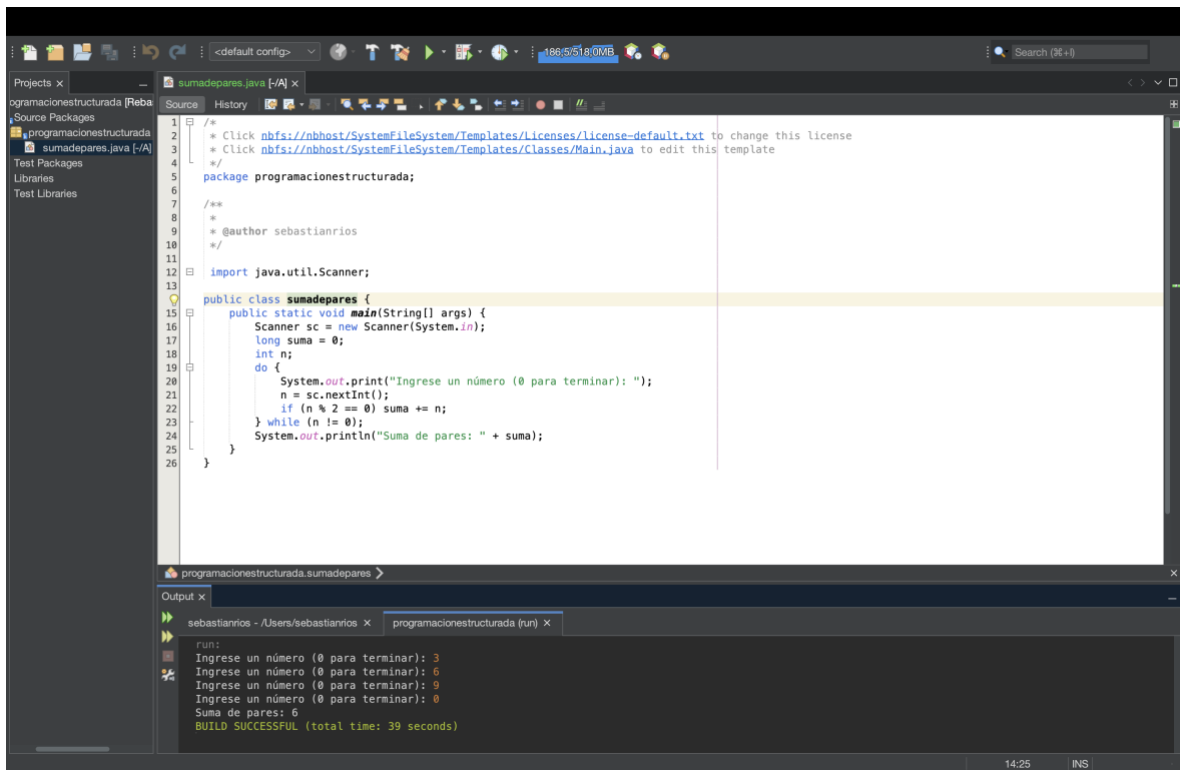
Ejercicio 4

```
1  //
2  *
3  * @author sebastianrios
4  */
5
6  import java.util.Scanner;
7
8  public class descuentoporcategoria {
9      public static void main(String[] args) {
10         Scanner sc = new Scanner(System.in);
11         System.out.print("Precio del producto: ");
12         double precio = sc.nextDouble();
13         System.out.print("Categoria (A/B/C): ");
14         String cat = sc.next().toUpperCase();
15
16         double desc;
17         switch (cat) {
18             case "A" -> desc = 0.10;
19             case "B" -> desc = 0.15;
20             case "C" -> desc = 0.20;
21             default -> {
22                 System.out.println("Categoria inválida.");
23                 return;
24             }
25         }
26         System.out.println("Precio final: " + (precio - precio * desc));
27     }
28 }
```

Output x

```
sebastianrios - /Users/sebastianrios x programacionestructurada (run) x
run:
Precio del producto: 103
Categoria (A/B/C): A
Precio final: 92.7
BUILD SUCCESSFUL (total time: 15 seconds)
```

Ejercicio 5



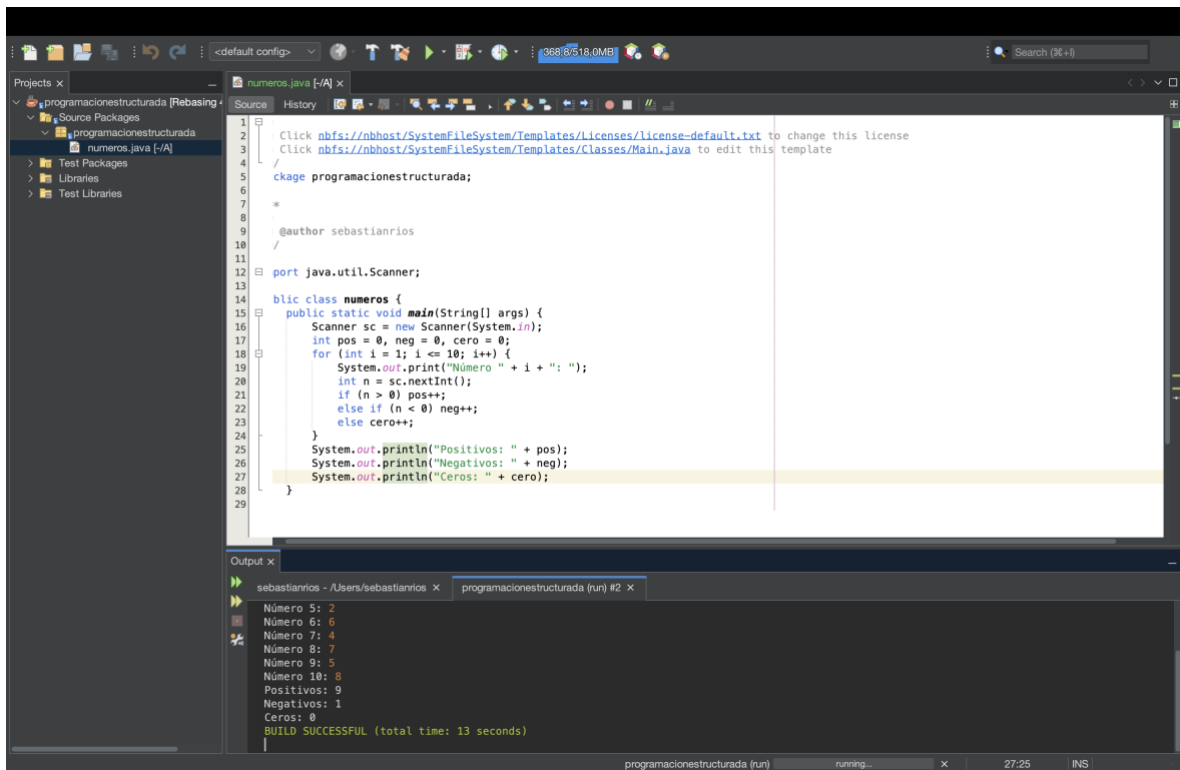
The screenshot shows an IDE with a project named 'programacionestructurada'. The source file 'sumadepares.java' is open, showing the following code:

```
1  /*
2   * Click nbfs://nbhost/SystemFileSystem/Templates/Licenses/license-default.txt to change this license
3   * Click nbfs://nbhost/SystemFileSystem/Templates/Classes/Main.java to edit this template
4   */
5  package programacionestructurada;
6
7  /**
8   *
9   * @author sebastianrios
10  */
11
12  import java.util.Scanner;
13
14  public class sumadepares {
15      public static void main(String[] args) {
16          Scanner sc = new Scanner(System.in);
17          long suma = 0;
18          int n;
19          do {
20              System.out.print("Ingrese un número (0 para terminar): ");
21              n = sc.nextInt();
22              if (n % 2 == 0) suma += n;
23          } while (n != 0);
24          System.out.println("Suma de pares: " + suma);
25      }
26  }
```

The output window shows the execution results:

```
run:
Ingrese un número (0 para terminar): 3
Ingrese un número (0 para terminar): 6
Ingrese un número (0 para terminar): 9
Ingrese un número (0 para terminar): 0
Suma de pares: 6
BUILD SUCCESSFUL (total time: 39 seconds)
```

Ejercicio 6



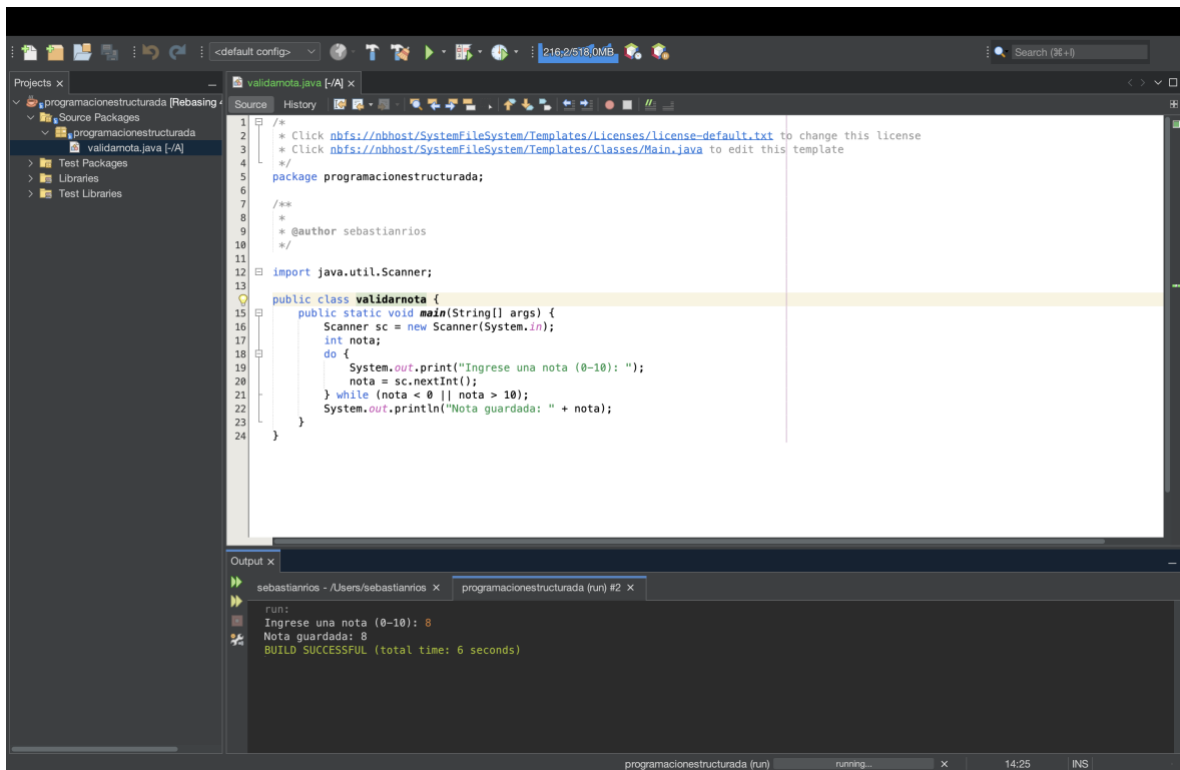
The screenshot shows an IDE with a project named 'programacionestructurada'. The source file 'numeros.java' is open, showing a Java program that reads 10 numbers and counts positives, negatives, and zeros. The output window shows the results of the program execution.

```
1  Click https://nhost/SystemFileSystem/Templates/licenses/license-default.txt to change this license
2  Click https://nhost/SystemFileSystem/Templates/Classes/Main.java to edit this template
3  /
4
5  package programacionestructurada;
6
7  *
8
9  @author sebastianrios
10 /
11
12 import java.util.Scanner;
13
14 public class numeros {
15     public static void main(String[] args) {
16         Scanner sc = new Scanner(System.in);
17         int pos = 0, neg = 0, cero = 0;
18         for (int i = 1; i <= 10; i++) {
19             System.out.print("Número " + i + ": ");
20             int n = sc.nextInt();
21             if (n > 0) pos++;
22             else if (n < 0) neg++;
23             else cero++;
24         }
25         System.out.println("Positivos: " + pos);
26         System.out.println("Negativos: " + neg);
27         System.out.println("Ceros: " + cero);
28     }
29 }
```

Output:

```
Número 5: 2
Número 6: 6
Número 7: 4
Número 8: 7
Número 9: 5
Número 10: 8
Positivos: 9
Negativos: 1
Ceros: 0
BUILD SUCCESSFUL (total time: 13 seconds)
```

Ejercicio 7



Ejercicio 8

The screenshot shows an IDE with a project named 'programacionestructurada'. The source code for 'preciofinal.java' is displayed. The code defines a static method 'calcularPrecioFinal' and a 'main' method that uses a 'Scanner' to take user input for base price, tax, and discount, then prints the final price.

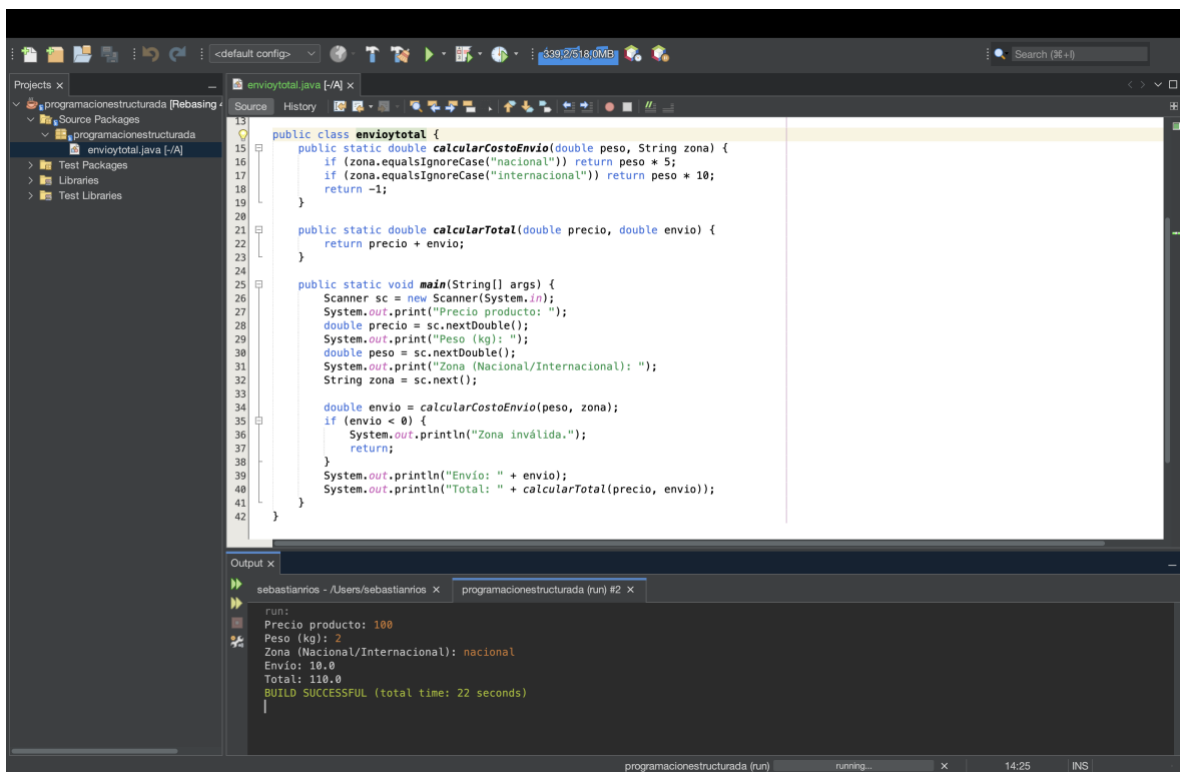
```
3  * Click nbfs://nbhost/SystemFileSystem/Templates/Classes/Main.java to edit this template
4
5  package programacionestructurada;
6
7  /**
8   *
9   * @author sebastianrios
10  */
11
12  import java.util.Scanner;
13
14  public class preciofinal {
15      public static double calcularPrecioFinal(double base, double imp, double desc) {
16          return base + base * imp / 100 - base * desc / 100;
17      }
18
19      public static void main(String[] args) {
20          Scanner sc = new Scanner(System.in);
21          System.out.print("Precio base: ");
22          double base = sc.nextDouble();
23          System.out.print("Impuesto %: ");
24          double imp = sc.nextDouble();
25          System.out.print("Descuento %: ");
26          double desc = sc.nextDouble();
27
28          System.out.println("Precio final: " + calcularPrecioFinal(base, imp, desc));
29      }
30  }
```

The output window shows the execution results:

```
run:
Precio base: 100
Impuesto %: 20
Descuento %: 10
Precio final: 110.0
BUILD SUCCESSFUL (total time: 20 seconds)
```

The status bar at the bottom indicates the program is running.

Ejercicio 9



The screenshot shows an IDE with a project named 'programacionestructurada'. The source file 'envioytotal.java' is open, displaying the following code:

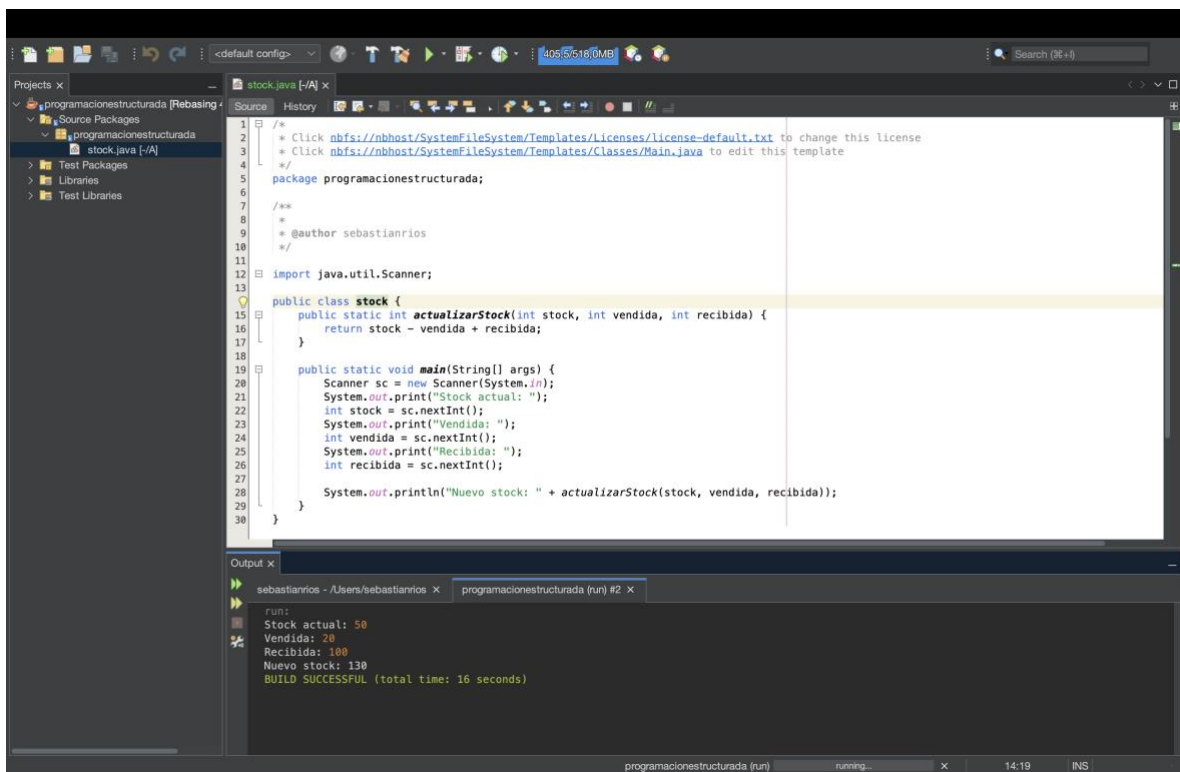
```
15 public class envioytotal {
16     public static double calcularCostoEnvio(double peso, String zona) {
17         if (zona.equalsIgnoreCase("nacional")) return peso * 5;
18         if (zona.equalsIgnoreCase("internacional")) return peso * 10;
19         return -1;
20     }
21
22     public static double calcularTotal(double precio, double envio) {
23         return precio + envio;
24     }
25
26     public static void main(String[] args) {
27         Scanner sc = new Scanner(System.in);
28         System.out.print("Precio producto: ");
29         double precio = sc.nextDouble();
30         System.out.print("Peso (kg): ");
31         double peso = sc.nextDouble();
32         System.out.print("Zona (Nacional/Internacional): ");
33         String zona = sc.next();
34
35         double envio = calcularCostoEnvio(peso, zona);
36         if (envio < 0) {
37             System.out.println("Zona inválida.");
38             return;
39         }
40         System.out.println("Envío: " + envio);
41         System.out.println("Total: " + calcularTotal(precio, envio));
42     }
43 }
```

The Output window shows the execution results:

```
run:
Precio producto: 100
Peso (kg): 2
Zona (Nacional/Internacional): nacional
Envío: 10.0
Total: 110.0
BUILD SUCCESSFUL (total time: 22 seconds)
```

The status bar at the bottom indicates the program is running, with the time 14:25 and the user 'INS'.

Ejercicio 10



The screenshot shows an IDE with a project named 'programacionestructurada'. The source package 'programacionestructurada' contains a file 'stock.java'. The code in 'stock.java' defines a package, imports 'java.util.Scanner', and contains a class 'stock' with a static method 'actualizarStock' and a static method 'main'. The 'main' method uses a 'Scanner' to take input for 'Stock actual', 'Vendida', and 'Recibida', and then prints the 'Nuevo stock' calculated by 'actualizarStock'.

```
1  2  3  4  5  6  7  8  9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
/* Click nbfs://nbhost/SystemFileSystem/Templates/Licenses/license-default.txt to change this license
 * Click nbfs://nbhost/SystemFileSystem/Templates/Classes/Main.java to edit this template
 */
package programacionestructurada;

/**
 *
 * @author sebastianrios
 */
import java.util.Scanner;

public class stock {
    public static int actualizarStock(int stock, int vendida, int recibida) {
        return stock - vendida + recibida;
    }

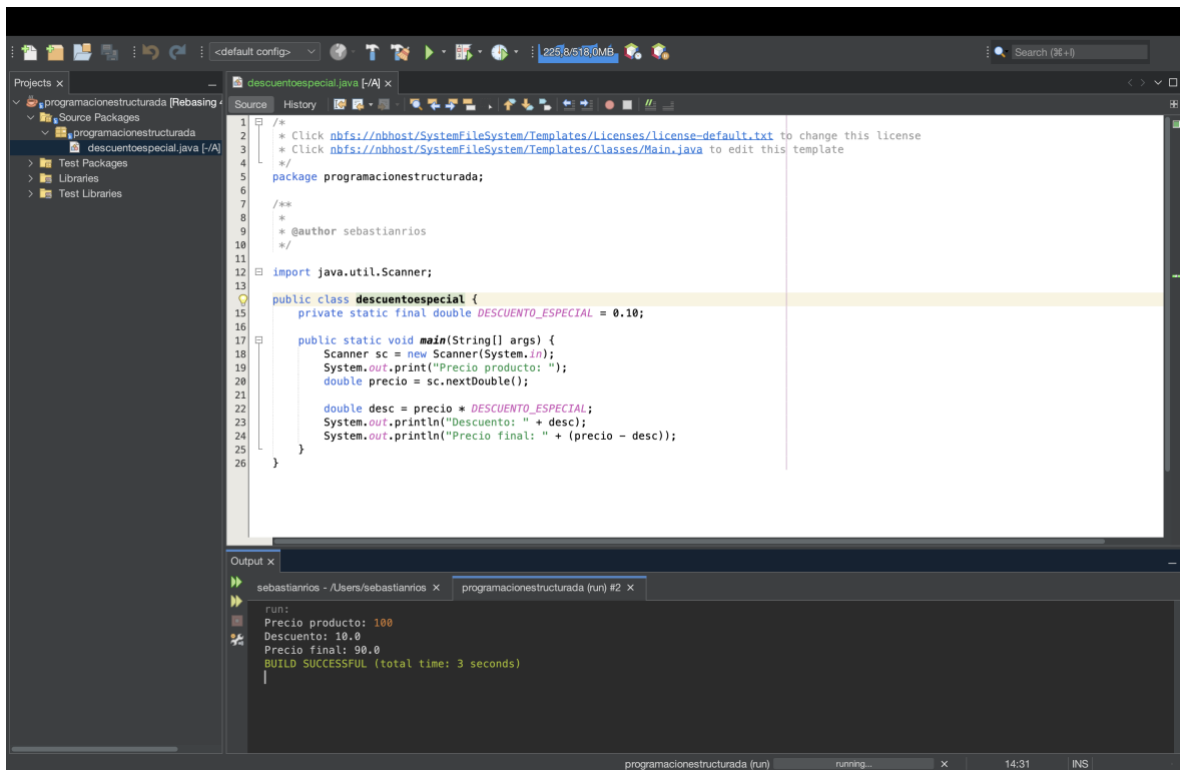
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.print("Stock actual: ");
        int stock = sc.nextInt();
        System.out.print("Vendida: ");
        int vendida = sc.nextInt();
        System.out.print("Recibida: ");
        int recibida = sc.nextInt();

        System.out.println("Nuevo stock: " + actualizarStock(stock, vendida, recibida));
    }
}
```

The output window shows the following text:

```
run:
Stock actual: 50
Vendida: 20
Recibida: 100
Nuevo stock: 130
BUILD SUCCESSFUL (total time: 16 seconds)
```

Ejercicio 11



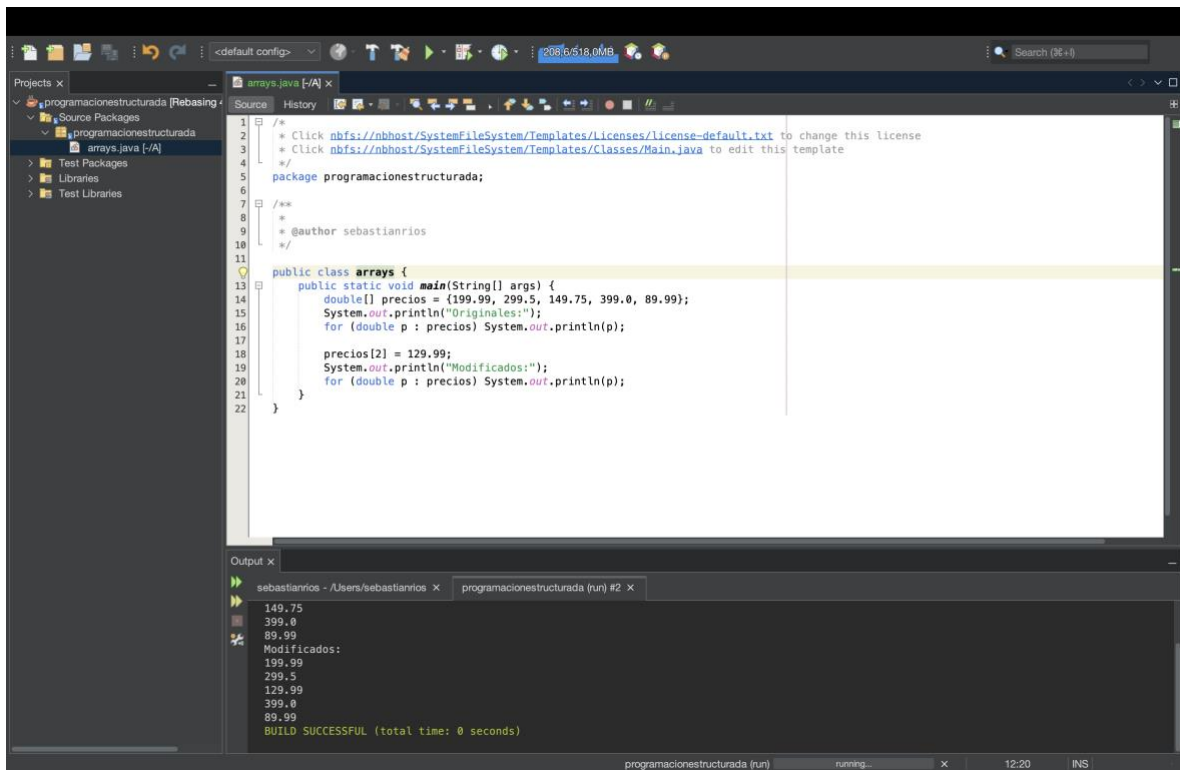
The screenshot shows an IDE with a project named 'programacionestructurada'. The source package 'programacionestructurada' contains a file 'descuento especial.java'. The code in this file defines a package, imports 'java.util.Scanner', and creates a public class 'descuento especial'. Inside this class, there is a private static final double 'DESCUENTO_ESPECIAL' set to 0.10. The 'main' method uses a 'Scanner' to read a product price, calculates a 10% discount, and prints the final price. The output window shows the execution results for a product price of 100, resulting in a discount of 10.0 and a final price of 90.0. The build was successful.

```
1  1  /* Click nbfs://nbhost/SystemFileSystem/Templates/Licenses/license-default.txt to change this license
2  2  * Click nbfs://nbhost/SystemFileSystem/Templates/Classes/Main.java to edit this template
3  3  */
4  4
5  5  package programacionestructurada;
6  6
7  7  /**
8  8  *
9  9  * @author sebastianrios
10 10 */
11 11
12 12 import java.util.Scanner;
13 13
14 14 public class descuento especial {
15 15     private static final double DESCUENTO_ESPECIAL = 0.10;
16 16
17 17     public static void main(String[] args) {
18 18         Scanner sc = new Scanner(System.in);
19 19         System.out.print("Precio producto: ");
20 20         double precio = sc.nextDouble();
21 21
22 22         double desc = precio * DESCUENTO_ESPECIAL;
23 23         System.out.println("Descuento: " + desc);
24 24         System.out.println("Precio final: " + (precio - desc));
25 25     }
26 26 }
```

Output x

```
run:
Precio producto: 100
Descuento: 10.0
Precio final: 90.0
BUILD SUCCESSFUL (total time: 3 seconds)
```

Ejercicio 12



The screenshot shows an IDE with a project named 'programacionestructurada'. The source package 'arrays.java' is open, displaying the following code:

```
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22
/*
 * Click nbfs://nbhost/SystemFileSystem/Templates/Licenses/license-default.txt to change this license
 * Click nbfs://nbhost/SystemFileSystem/Templates/Classes/Main.java to edit this template
 */
package programacionestructurada;

/**
 *
 * @author sebastianrios
 */
public class arrays {
    public static void main(String[] args) {
        double[] precios = {199.99, 299.5, 149.75, 399.0, 89.99};
        System.out.println("Originales:");
        for (double p : precios) System.out.println(p);

        precios[2] = 129.99;
        System.out.println("Modificados:");
        for (double p : precios) System.out.println(p);
    }
}
```

The output window shows the results of the program execution:

```
sebastianrios - /Users/sebastianrios X programacionestructurada (run) #2 X
149.75
399.0
89.99
Modificados:
199.99
299.5
129.99
399.0
89.99
BUILD SUCCESSFUL (total time: 0 seconds)
```

The status bar at the bottom indicates the program is running, with the time 12:20 and the user initials INS.

Ejercicio 13

