

## Aranchet Carina

E1)

The screenshot shows an IDE interface with multiple tabs at the top labeled Ej1.java through Ej13.java. The main editor window displays the following Java code:

```
1 /**
2  * Click nbfs://nbhost/SystemFileSystem/Templates/Licenses/license-default.txt to change this license
3  * Click nbfs://nbhost/SystemFileSystem/Templates/Classes/Class.java to edit this template
4 */
5 package tp2_programacion_structurada;
6
7 /**
8 *
9 * @author Carina Aranchet
10 */
11 import java.util.Scanner;
12
13 public class Ej1 {
14
15     public static void main(String[] args) {
16         Scanner sc = new Scanner(System.in);
17         System.out.print("Ingrese un año: ");
18         int anio = sc.nextInt();
19
20         boolean bisiesto = (anio % 400 == 0) || (anio % 4 == 0 && anio % 100 != 0);
21
22         System.out.println("El año " + anio + (bisiesto ? " es bisiesto." : " no es bisiesto."));
23         sc.close();
24     }
25 }
26 }
```

The Navigator panel on the left shows the project structure and the members of the Ej1 class.

E2)

The screenshot shows an IDE interface with multiple tabs at the top labeled Ej1.java through Ej13.java. The main editor window displays the following Java code:

```
1 /**
2  * Click nbfs://nbhost/SystemFileSystem/Templates/Licenses/license-default.txt to change this license
3  * Click nbfs://nbhost/SystemFileSystem/Templates/Classes/Class.java to edit this template
4 */
5 package tp2_programacion_structurada;
6
7 /**
8 *
9 * @author Carina Aranchet
10 */
11 import java.util.Scanner;
12
13 public class Ej2 {
14
15     public static void main(String[] args) {
16         Scanner sc = new Scanner(System.in);
17         System.out.print("Ingrese el primer numero: ");
18         int a = sc.nextInt();
19         System.out.print("Ingrese el segundo numero: ");
20         int b = sc.nextInt();
21         System.out.print("Ingrese el tercer numero: ");
22         int c = sc.nextInt();
23
24         int mayor = a;
25         if (b > mayor) mayor = b;
26         if (c > mayor) mayor = c;
27
28         System.out.println("El mayor es: " + mayor);
29         sc.close();
30     }
31 }
32 }
33 }
```

The Navigator panel on the left shows the project structure and the members of the Ej2 class.

E3)



The screenshot shows the Eclipse IDE interface with the following details:

- Project Explorer (left):** Shows two projects: "Tp1\_Introducción\_Java [main]" and "Tp2\_Programación\_Estructurada [main]". The "Tp1\_Introducción\_Java" project contains a package named "tp1\_introducción\_java" which includes several Java files like Ej1.java, Ej2.java, Ej3.java, etc.
- Source Editor (center):** Displays the content of the "Ej3.java" file from the "Tp2\_Programación\_Estructurada" project. The code is as follows:

```
/*
 * Click nbfs://nbhost/SystemFileSystem/Templates/Licenses/license-default.txt to change this license
 * Click nbfs://nbhost/SystemFileSystem/Templates/Classes/Class.java to edit this template
 */
package tp2_programación_structurada;

/**
 *
 * @author Carina Aranched
 */
import java.util.Scanner;

public class Ej3 {

    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.print("Ingrese su edad: ");
        int edad = sc.nextInt();

        String etapa;
        if (edad < 12) etapa = "Ninio";
        else if (edad >= 17) etapa = "Adolescente";
        else if (edad <= 59) etapa = "Adulto";
        else etapa = "Adulto mayor";

        System.out.println("Eres un " + etapa + ".");
        sc.close();
    }
}
```

- Navigator (bottom-left):** Shows the "Members" view with items: Ej3, Ej30, and main(String[] args).

E4)

E5)

The screenshot shows the Eclipse IDE interface with the following details:

- Project Explorer (left):** Shows the project **Tp1\_Introducción\_Java [main]** with a package **tp1\_introducción** containing files **Ejercicio1.java**, **Ejercicio2.java**, **Ejercicio3.java**, **Ejercicio4.java**, **Ejercicio5.java**, **Ejercicio6.java**, **Ejercicio7.java**, **HolaMundo.java**, and **Tp1\_1\_introducción.Java**. It also lists **Test Packages**, **Libraries**, and **Test Libraries**.
- Source Editor (center):** Displays the Java code for **Ejercicio5**. The code reads integers from the user until 0 is entered, then prints the sum of all even numbers entered.
- Navigator (bottom left):** Shows the members of the **Ejercicio5** class, including the main method.

```
/*
 * Click nbfs://nbshost/SystemFileSystem/Templates/Licenses/license-default.txt to change this license
 * Click nbfs://nbshost/SystemFileSystem/Templates/Classes/Class.java to edit this template
 */
package tp2_programacion_structurada;

/**
 * 
 * @author Carina Aranchet
 */
import java.util.Scanner;

public class Ejercicio5 {

    public static void main(String[] args) {
        Scanner sc = new Scanner(source System.in);
        int suma = 0, n;
        do {
            System.out.print("Ingrese un numero (0 para terminar): ");
            n = sc.nextInt();
            if (n % 2 == 0) suma += n;
        } while (n != 0);
        System.out.println("La suma de los numeros pares es: " + suma);
        sc.close();
    }
}
```

E6)

The screenshot shows the Eclipse IDE interface with the following details:

- Project Explorer (left):** Shows two projects: "Tp1\_Introduccion [main]" and "Tp2\_Programacion\_Estructurada [main]". The "Tp1\_Introduccion" project contains several source files: Ejercicio1.java, Ejercicio2.java, Ejercicio3.java, Ejercicio4.java, Ejercicio5.java, Ejercicio6.java, Ejercicio7.java, Ejercicio8.java, and Holamundo.java. It also contains a file "Tp1\_Introducción.java" and test packages, libraries, and test libraries.
- Source Editor (right):** Displays the content of the "Ej6.java" file under the "Tp2\_Programacion\_Estructurada" project. The code is as follows:

```
/*
 * Click nbfs://nbhost/SystemFile/System/Templates/licenses/licensing-license-default.txt to change this license
 * Click nbfs://nbhost/SystemFile/System/Templates/Classes/Class.java to edit this template
 */
package tp2_programacion_structurada;

/**
 * 
 * @author Carina Aranched
 */
import java.util.Scanner;

public class Ej6 {

    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        int pos = 0, neg = 0, cer = 0;

        for (int i = 1; i <= 10; i++) {
            System.out.print("Ingrese el numero " + i + ": ");
            int n = sc.nextInt();
            if (n > 0) pos++;
            else if (n < 0) neg++;
            else cer++;
        }
        System.out.println("Positivos: " + pos);
        System.out.println("Negativos: " + neg);
        System.out.println("Ceros: " + cer);
        sc.close();
    }
}
```

- Navigator (bottom left):** Shows the members of the "Ej6" class, including "Ej6", "Ej6()", and "main(String[] args)".

E7)



The screenshot shows the Eclipse IDE interface with the following details:

- Project Explorer (left):** Shows the project structure with packages `Tp1_Introduccion_Java` and `Tp2_Programacion_Estructurada`, and files `Ej1.java`, `Ej2.java`, etc.
- Source Editor (center):** Displays the code for `Ej7.java`. The code reads a note from the user, checks if it's between 0 and 10, and prints an error message if not. It then saves the note and closes the scanner.
- Navigator (bottom left):** Shows the members of the current file, including `Ej7` and `main(String[] args)`.

```
/*
 * Click nbfs://nbshost/SystemFileSystem/Templates/Licenses/license-default.txt to change this license
 * Click nbfs://nbshost/SystemFileSystem/Templates/Classes/Class.java to edit this template
 */
package tp2_programacion_structurada;

/**
 *
 * @author Carina Aranchet
 */
import java.util.Scanner;

public class Ej7 {

    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        int nota;
        do {
            System.out.print("Ingrese una nota (0-10): ");
            nota = sc.nextInt();
            if (nota < 0 || nota > 10) {
                System.out.println("Error: Nota invalida. Ingrese una nota entre 0 y 10.");
            }
        } while (nota < 0 || nota > 10);
        System.out.println("Nota guardada correctamente.");
        sc.close();
    }
}
```

E8)

The screenshot shows the Eclipse IDE interface with the following details:

- Project Explorer (Left):** Shows projects "Tp1\_Introduccion [main]" and "Tp2\_Programacion\_Estructurada [main]". The "Tp2\_Programacion\_Estructurada" project is selected.
- Source Editor (Center):** Displays the content of the file "Ej3.java". The code defines a class "Ej3" with a main method that calculates the final price of a product based on its base price, tax, and discount.
- Navigator (Bottom Left):** Shows the members of the "Ej3" class, including the main method and a calculatePriceFinal method.

```
3  * Click http://nbhost/SystemFileSystem/Templates/Classes/Class.java to edit this template
4  */
5  package tp2_programacion_structurada;
6
7  /**
8   * 
9   * @author Carina Aranchet
10  */
11 import java.util.Scanner;
12
13 public class Ej3 {
14
15
16     public static double calcularPrecioFinal(double precioBase, double impuesto, double descuento) {
17         return precioBase + (precioBase * impuesto / 100) - (precioBase * descuento / 100);
18     }
19
20     public static void main(String[] args) {
21         Scanner sc = new Scanner(System.in);
22
23         System.out.print("Ingrese el precio base del producto: ");
24         double precioBase = sc.nextDouble();
25
26         System.out.print("Ingrese el impuesto en porcentaje (Ej: 10 para 10%): ");
27         double impuesto = sc.nextDouble();
28
29         System.out.print("Ingrese el descuento en porcentaje (Ej: 5 para 5%): ");
30         double descuento = sc.nextDouble();
31
32         double precioFinal = calcularPrecioFinal(precioBase, impuesto, descuento);
33
34         System.out.println("El precio final del producto es: " + precioFinal);
35
36         sc.close();
37     }
38 }
39
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```

E9)

The screenshot shows an IDE interface with a project structure on the left and a code editor on the right. The project structure includes 'Tp1\_Introduccion\_Java [main]' and 'Tp2\_Programacion\_Estructurada [main]'. The code editor displays Java code for calculating shipping costs:

```
/*
 * Ejercicio 9
 */
public class Ej9 {
    // a) Metodo para calcular el costo de envio
    public static double calcularCostoEnvio(double peso, String zona) {
        if (zona.equalsIgnoreCase("Nacional")) {
            return peso * 5.0;
        } else if (zona.equalsIgnoreCase("Internacional")) {
            return peso * 10.0;
        } else {
            System.out.println("Zona inválida. Se considera costo 0.");
            return 0.0;
        }
    }

    // b) Metodo para calcular el total de la compra
    public static double calcularTotalCompra(double precioProducto, double costoEnvio) {
        return precioProducto + costoEnvio;
    }

    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);

        System.out.print("Ingrese el precio del producto: ");
        double precioProducto = sc.nextDouble();

        System.out.print("Ingrese el peso del paquete en kg: ");
        double peso = sc.nextDouble();
        sc.nextLine(); // limpiar buffer

        System.out.print("Ingrese la zona de envio (Nacional/Internacional): ");
        String zona = sc.nextLine();

        double costoEnvio = calcularCostoEnvio(peso, zona);
        double total = calcularTotalCompra(precioProducto, costoEnvio);

        System.out.println("El costo de envio es: " + costoEnvio);
        System.out.println("El total a pagar es: " + total);

        sc.close();
    }
}
```

E10)

The screenshot shows an IDE interface with a project structure on the left and a code editor on the right. The project structure includes 'Tp1\_Introduccion\_Java [main]' and 'Tp2\_Programacion\_Estructurada [main]'. The code editor displays Java code for updating product stock:

```
/*
 * Click nbfs://nbhost/SystemFileSystem/Templates/Licenses/license-default.txt to change this license
 * Click nbfs://nbhost/SystemFileSystem/Templates/Classes/Class.java to edit this template
 */
package tp2_programacion_estructurada;

/**
 *
 * @author Carina Aranchet
 */
import java.util.Scanner;

public class Ej10 {

    public static int actualizarStock(int stockActual, int cantidadVendida, int cantidadRecibida) {
        return stockActual - cantidadVendida + cantidadRecibida;
    }

    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);

        System.out.print("Ingrese el stock actual del producto: ");
        int stockActual = sc.nextInt();
        System.out.print("Ingrese la cantidad vendida: ");
        int cantidadVendida = sc.nextInt();
        System.out.print("Ingrese la cantidad recibida: ");
        int cantidadRecibida = sc.nextInt();
        int nuevoStock = actualizarStock(stockActual, cantidadVendida, cantidadRecibida);

        System.out.println("El nuevo stock del producto es: " + nuevoStock);

        sc.close();
    }
}
```

E11)

The screenshot shows the Eclipse IDE interface with the following details:

- Projects View:** Shows two projects: **Tp1\_Introduccion\_Java** and **Tp2\_Programacion\_Estructurada**. The **Ejercicio11** file is selected in the **Tp2\_Programacion\_Estructurada** project.
- Source Editor:** Displays the **Ejercicio11** class code. The code calculates a special discount on a product price.

```
1  /* Click nbfs://nbhost/SystemFileSystem/Templates/Licenses/license-default.txt to change this license
2  * Click nbfs://nbhost/SystemFileSystem/Templates/Classes/Class.java to edit this template
3  */
4  package tp2_programacion_estructurada;
5
6  /**
7   * @author Carina Aranchet
8  */
9
10 public class Ejercicio11 {
11
12     // Variable global
13     static double DESCUENTO_ESPECIAL = 0.10;
14
15     public static void calcularDescuentoEspecial(double precio) {
16         double descuentoAplicado = precio * DESCUENTO_ESPECIAL;
17         double precioFinal = precio - descuentoAplicado;
18
19         System.out.println("El descuento especial aplicado es: " + descuentoAplicado);
20         System.out.println("El precio final con descuento es: " + precioFinal);
21     }
22
23     public static void main(String[] args) {
24
25         Scanner sc = new Scanner(System.in);
26         System.out.print("Ingrese el precio del producto: ");
27         double precio = sc.nextDouble();
28         calcularDescuentoEspecial(precio);
29         sc.close();
30     }
31 }
32
33
34
35
36 }
```

E12)

The screenshot shows the Eclipse IDE interface with the following details:

- Projects View:** Shows two projects: **Tp1\_Introduccion\_Java** and **Tp2\_Programacion\_Estructurada**. The **Ejercicio12** file is selected in the **Tp2\_Programacion\_Estructurada** project.
- Source Editor:** Displays the **Ejercicio12** class code. The code demonstrates how to initialize an array of prices, print them, and modify a specific price.

```
1  /* @author Carina Aranchet
2  */
3  package tp2_programacion_estructurada;
4
5  // a. Declare e inicialice un array con los precios de algunos productos.
6  public class Ejercicio12 {
7
8      public static double[] inicializarPrecios() {
9          return new double[]{199.99, 299.5, 149.75, 399.0, 89.99};
10     }
11
12     // b. Muestre los valores originales de los precios.
13     public static void mostrarPrecios(double[] precios, String mensaje) {
14         System.out.println(mensaje);
15         for (double p : precios) {
16             System.out.println("Precio: $" + p);
17         }
18     }
19
20     // c. Modifique el precio de un producto específico.
21     public static void modificarPrecio(double[] precios, int indice, double nuevoValor) {
22         if (indice >= 0 && indice < precios.length) {
23             precios[indice] = nuevoValor;
24         } else {
25             System.out.println("Indice invalido, no se modifico ningun precio.");
26         }
27     }
28
29     public static void main(String[] args) {
30
31         double[] precios = inicializarPrecios();
32         mostrarPrecios(precios, "Precios originales:");
33         modificarPrecio(precios, indice: 2, nuevoValor: 129.99);
34         mostrarPrecios(precios, "Precios modificados:");
35     }
36 }
37
38
39
40
41
42
43
44
45 }
```

### E13)

The screenshot shows an IDE interface with a project structure and a code editor. The project structure on the left includes packages like Tp1\_Introduccion\_Java and Tp2\_Programacion\_Estructurada, and files such as Ej1.java through Ej13.java. The code editor displays Java code for Exercise 13, which involves initializing an array of prices, printing them recursively, and modifying a specific price.

```
public class Ej13 {
    // a. Declara e inicialice un array con los precios de algunos productos.
    public static double[] inicializarPrecios() {
        return new double[]{199.99, 299.5, 149.75, 399.0, 89.99};
    }

    // b. Use una función recursiva para mostrar los precios originales.
    public static void mostrarPreciosRecursivo(double[] precios, int indice, String mensaje) {
        if (indice == 0) {
            System.out.println(mensaje);
        }
        if (indice < precios.length) {
            System.out.print("PRECIO: " + precios[indice]);
            mostrarPreciosRecursivo(precios, indice + 1, mensaje);
        }
    }

    // c. Modifique el precio de un producto específico.
    public static void modificarPrecio(double[] precios, int indice, double nuevoValor) {
        if (indice >= 0 && indice < precios.length) {
            precios[indice] = nuevoValor;
        } else {
            System.out.println("Índice invalido, no se modificó ningún precio.");
        }
    }

    public static void main(String[] args) {
        double[] precios = inicializarPrecios();
        mostrarPreciosRecursivo(precios, indice: 0, mensaje:"Precios originales:");
        modificarPrecio(precios, indice: 1, nuevoValor: 129.99);
        mostrarPreciosRecursivo(precios, indice: 0, mensaje:"\nPrecios modificados:");
    }
}
```

LINK A REPOSITORIO GITHUB: [https://github.com/carinaAranchet/UTN-TUPaD-P2/tree/main/Pr%C3%A1ctica/Tp2\\_Programacion\\_Estructurada](https://github.com/carinaAranchet/UTN-TUPaD-P2/tree/main/Pr%C3%A1ctica/Tp2_Programacion_Estructurada)