

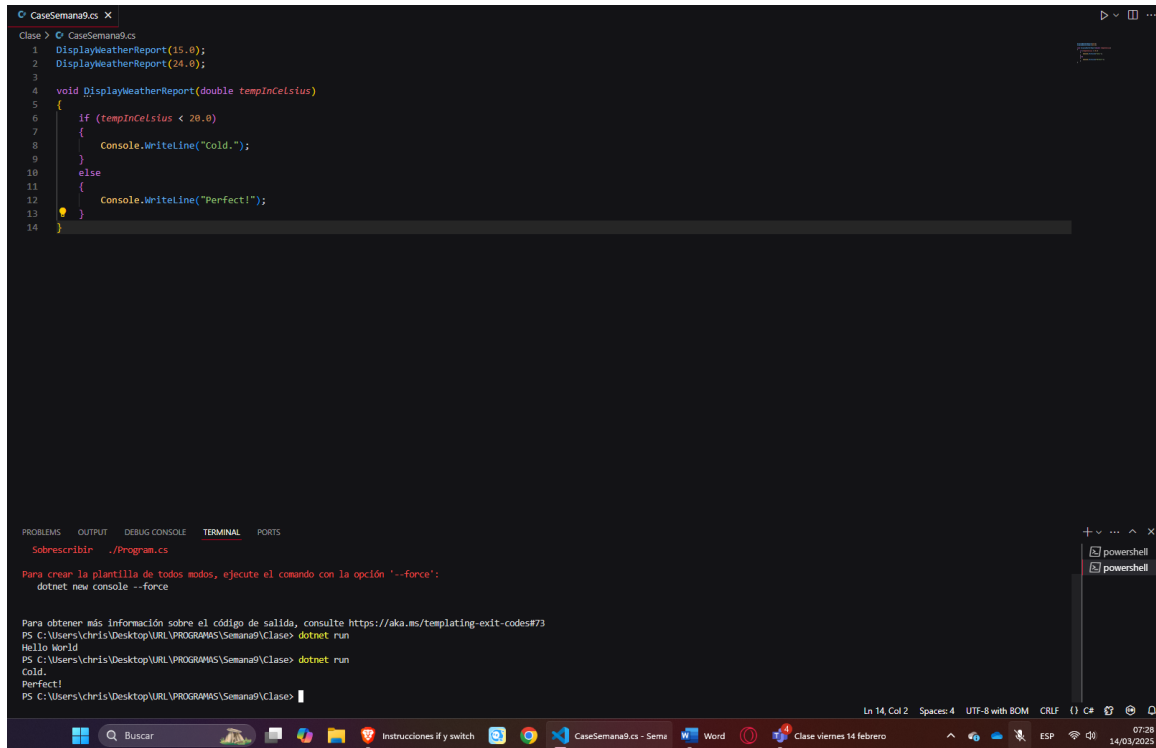
Universidad Rafael Landívar
Facultad de Ingeniería
Ingeniería en Informática y Sistemas
Laboratorio, Sección
Docente: Ing.
Estudiante Auxiliar:

Actividad 3 Semana 9

Estudiante: De la Cruz Gálvez, Christopher Abdel
Carné: 1064625

Guatemala, 14 de marzo de 2025

If, else:



```
CaseSeman9.cs X
Clase > CaseSeman9.cs
1 DisplayWeatherReport(15.0);
2 DisplayWeatherReport(24.0);
3
4 void DisplayWeatherReport(double tempInCelsius)
5 {
6     if (tempInCelsius < 28.0)
7     {
8         Console.WriteLine("Cold.");
9     }
10    else
11    {
12        Console.WriteLine("Perfect!");
13    }
14 }
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

Sobrescribir: ./Program.cs

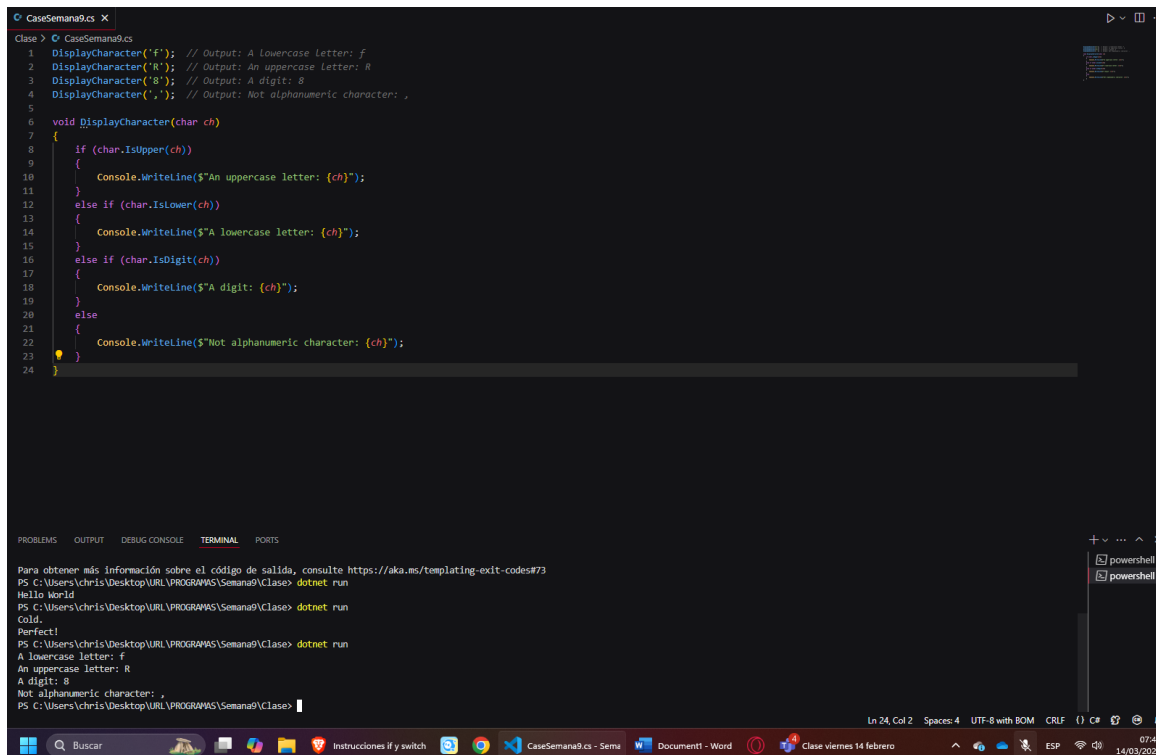
Para crear la plantilla de todos modos, ejecute el comando con la opción '--force':
dotnet new console --force

Para obtener más información sobre el código de salida, consulte <https://aka.ms/templating-exit-codes#73>

PS C:\Users\chris\Desktop\URL\PROGRAMAS\Semana9\Clase> dotnet run
Hello World
PS C:\Users\chris\Desktop\URL\PROGRAMAS\Semana9\Clase> dotnet run
Cold.
Perfect!
PS C:\Users\chris\Desktop\URL\PROGRAMAS\Semana9\Clase>

Ln 14, Col 2 Spaces: 4 UTF-8 with BOM CRLF (1) C# 07:28 14/03/2025

Else if:



```
CaseSeman9.cs X
Clase > CaseSeman9.cs
1 DisplayCharacter('f'); // Output: A lowercase letter: f
2 DisplayCharacter('R'); // Output: An uppercase letter: R
3 DisplayCharacter('8'); // Output: A digit: 8
4 DisplayCharacter(','); // Output: Not alphanumeric character: ,
5
6 void DisplayCharacter(char ch)
7 {
8     if (char.IsUpper(ch))
9     {
10        Console.WriteLine($"An uppercase letter: {ch}");
11    }
12    else if (char.IsLower(ch))
13    {
14        Console.WriteLine($"A lowercase letter: {ch}");
15    }
16    else if (char.IsDigit(ch))
17    {
18        Console.WriteLine($"A digit: {ch}");
19    }
20    else
21    {
22        Console.WriteLine($"Not alphanumeric character: {ch}");
23    }
24 }
```

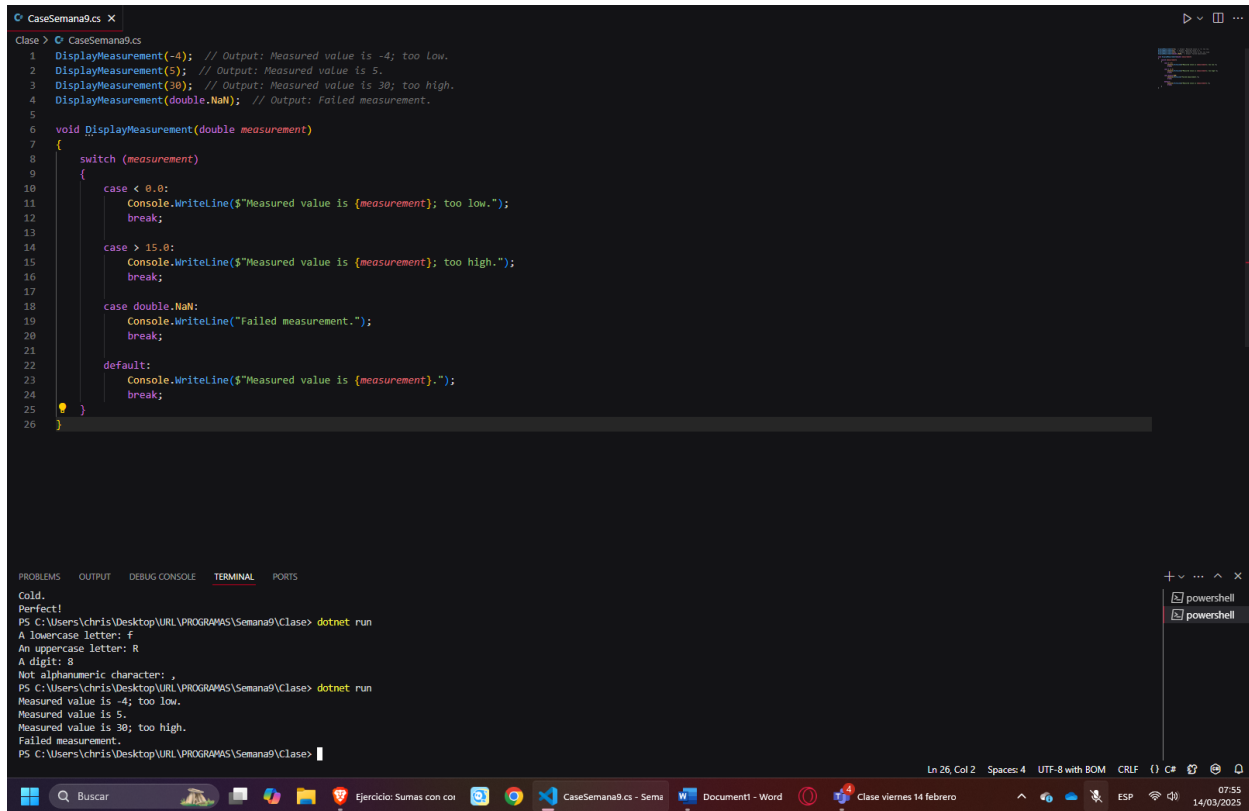
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

Para obtener más información sobre el código de salida, consulte <https://aka.ms/templating-exit-codes#73>

PS C:\Users\chris\Desktop\URL\PROGRAMAS\Semana9\Clase> dotnet run
Hello World
PS C:\Users\chris\Desktop\URL\PROGRAMAS\Semana9\Clase> dotnet run
Cold.
Perfect!
PS C:\Users\chris\Desktop\URL\PROGRAMAS\Semana9\Clase> dotnet run
A lowercase letter: f
An uppercase letter: R
A digit: 8
Not alphanumeric character: ,
PS C:\Users\chris\Desktop\URL\PROGRAMAS\Semana9\Clase>

Ln 24, Col 2 Spaces: 4 UTF-8 with BOM CRLF (1) C# 07:45 14/03/2025

Switch:



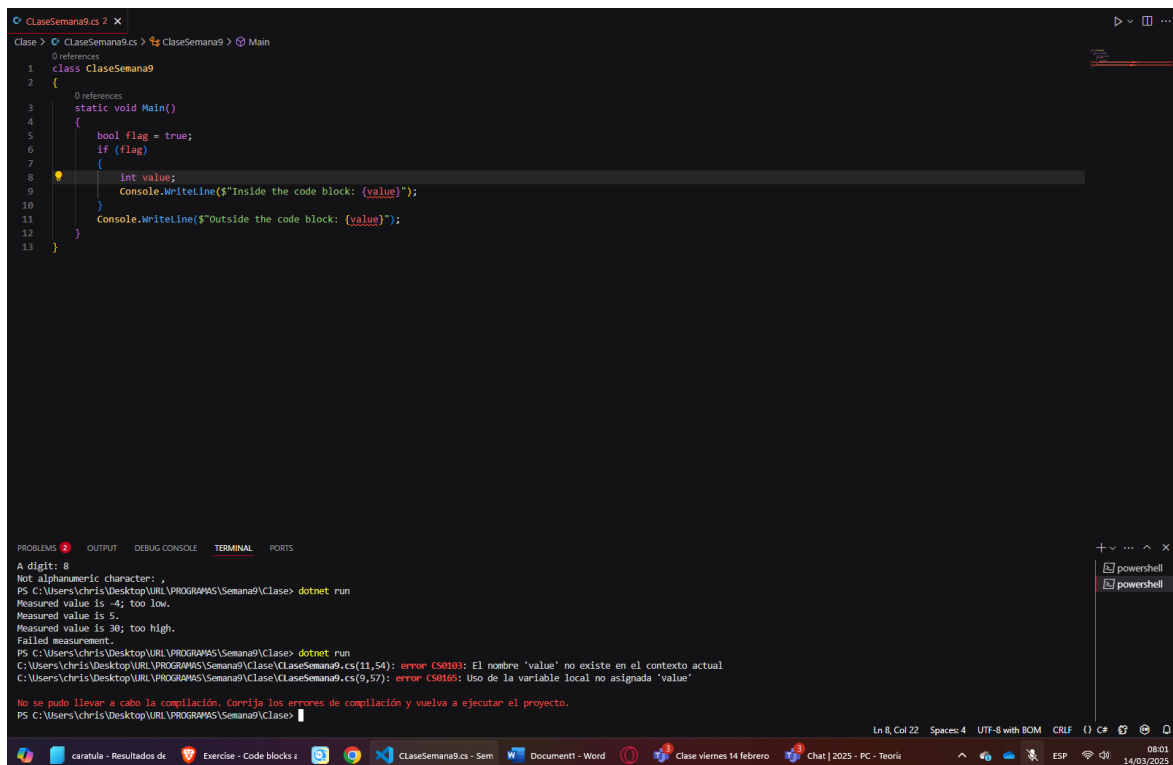
```
CaseSeman9.cs
1 DisplayMeasurement(-4); // Output: Measured value is -4; too low.
2 DisplayMeasurement(5); // Output: Measured value is 5.
3 DisplayMeasurement(30); // Output: Measured value is 30; too high.
4 DisplayMeasurement(double.NaN); // Output: Failed measurement.
5
6 void DisplayMeasurement(double measurement)
7 {
8     switch (measurement)
9     {
10         case < 0.0:
11             Console.WriteLine($"Measured value is {measurement}; too low.");
12             break;
13
14         case > 15.0:
15             Console.WriteLine($"Measured value is {measurement}; too high.");
16             break;
17
18         case double.NaN:
19             Console.WriteLine("Failed measurement.");
20             break;
21
22         default:
23             Console.WriteLine($"Measured value is {measurement}.");
24             break;
25     }
26 }
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

Cold.
Perfect!
PS C:\Users\chris\Desktop\URL\PROGRAMAS\Semana9\Clase> dotnet run
A lowercase letter: f
An uppercase letter: R
A digit: 8
Not alphanumeric character: ,
PS C:\Users\chris\Desktop\URL\PROGRAMAS\Semana9\Clase> dotnet run
Measured value is -4; too low.
Measured value is 5.
Measured value is 30; too high.
Failed measurement.
PS C:\Users\chris\Desktop\URL\PROGRAMAS\Semana9\Clase>

Ln 26, Col 2 Spaces 4 UTF-8 with BOM CRLF () C# 07:55 14/03/2025

4) ejemplo bool



```
ClaseSeman9.cs 2
Clase > ClaseSeman9.cs > ClaseSeman9 > Main
0 references
1 class ClaseSeman9
2 {
3     0 references
4     static void Main()
5     {
6         bool flag = true;
7         if (flag)
8         {
9             int value;
10            Console.WriteLine($"Inside the code block: {value}");
11        }
12        Console.WriteLine($"Outside the code block: {value}");
13    }
14 }
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

A digit: 8
Not alphanumeric character: ,
PS C:\Users\chris\Desktop\URL\PROGRAMAS\Semana9\Clase> dotnet run
Measured value is -4; too low.
Measured value is 5.
Measured value is 30; too high.
Failed measurement.
PS C:\Users\chris\Desktop\URL\PROGRAMAS\Semana9\Clase> dotnet run
C:\Users\chris\Desktop\URL\PROGRAMAS\Semana9\Clase\ClaseSeman9.cs(11,54): error CS0103: El nombre 'value' no existe en el contexto actual
C:\Users\chris\Desktop\URL\PROGRAMAS\Semana9\Clase\ClaseSeman9.cs(9,57): error CS0169: Uso de la variable local no asignada 'value'
No se pudo llevar a cabo la compilación. Corrija los errores de compilación y vuelva a ejecutar el proyecto.
PS C:\Users\chris\Desktop\URL\PROGRAMAS\Semana9\Clase>

Ln 8, Col 22 Spaces 4 UTF-8 with BOM CRLF () C# 08:01 14/03/2025

5) scope funciona (code sample 2)

Consider the following two code samples that appear to serve the same purpose:

```
c#  
  
// Code sample 1  
bool flag = true;  
int value;  
  
if (flag)  
{  
    value = 10;  
    Console.WriteLine($"Inside the code block: {value}");  
}  
  
Console.WriteLine($"Outside the code block: {value}");
```

```
c#  
  
// Code sample 2  
int value;  
  
if (true)  
{  
    value = 10;  
    Console.WriteLine($"Inside the code block: {value}");  
}  
  
Console.WriteLine($"Outside the code block: {value}");
```

You may feel that these two samples should always produce the same result, but the C# compiler interprets these two

6) bloque de código sin llaves

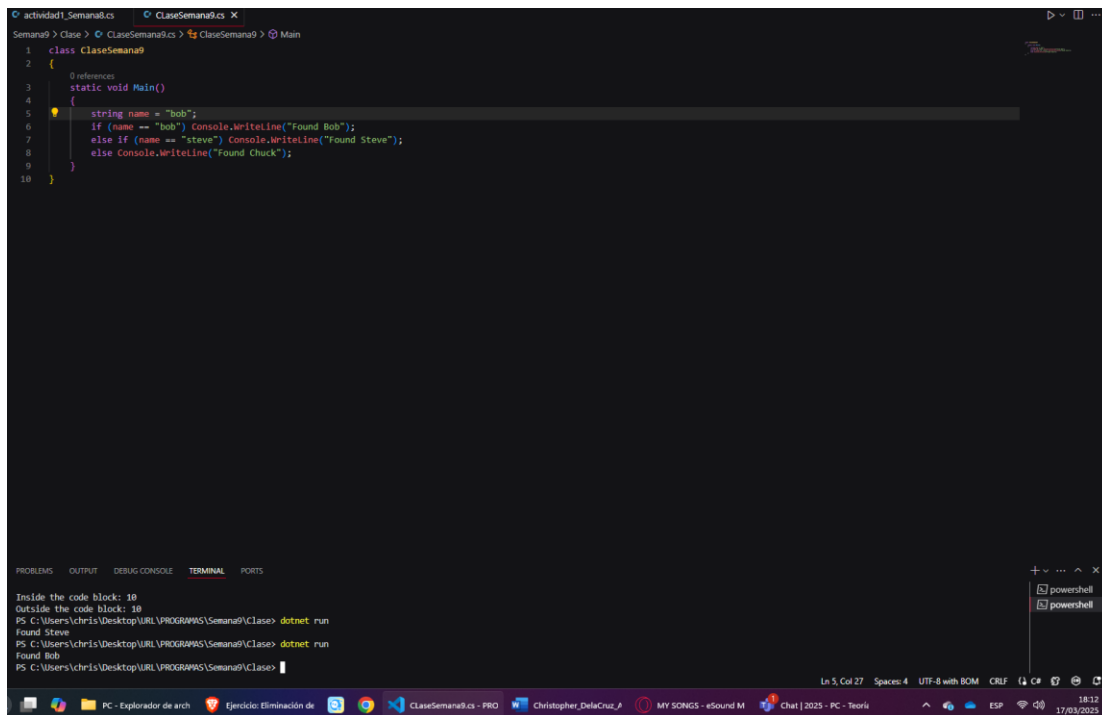
The screenshot shows a Visual Studio IDE with a C# file named `ClaseSemana9.cs`. The code defines a class `ClaseSemana9` with a static method `Main`. Inside `Main`, there is a block of code without curly braces that attempts to declare a variable `name` and perform conditional logic. This results in a compilation error: `CS0106: The modifier 'string' is not valid for this item because it does not have a body`.

```
1 class ClaseSemana9  
2 {  
3     // references  
4     static void Main()  
5     {  
6         string name = "steve";  
7         if (name == "bob") Console.WriteLine("Found Bob");  
8         else if (name == "steve") Console.WriteLine("Found Steve");  
9         else Console.WriteLine("Found Chuck");  
10    }  
11 }
```

The output window shows the following messages:

```
No se pudo llevar a cabo la compilación. Corrija los errores de compilación y vuelva a ejecutar el proyecto.  
PS C:\Users\chris\Desktop\URL\PROGRAMAS\Semana9\Clase> dotnet run  
Inside the code block: 10  
Outside the code block: 10  
PS C:\Users\chris\Desktop\URL\PROGRAMAS\Semana9\Clase> dotnet run  
Found Steve  
PS C:\Users\chris\Desktop\URL\PROGRAMAS\Semana9\Clase>
```

7) poca legibilidad



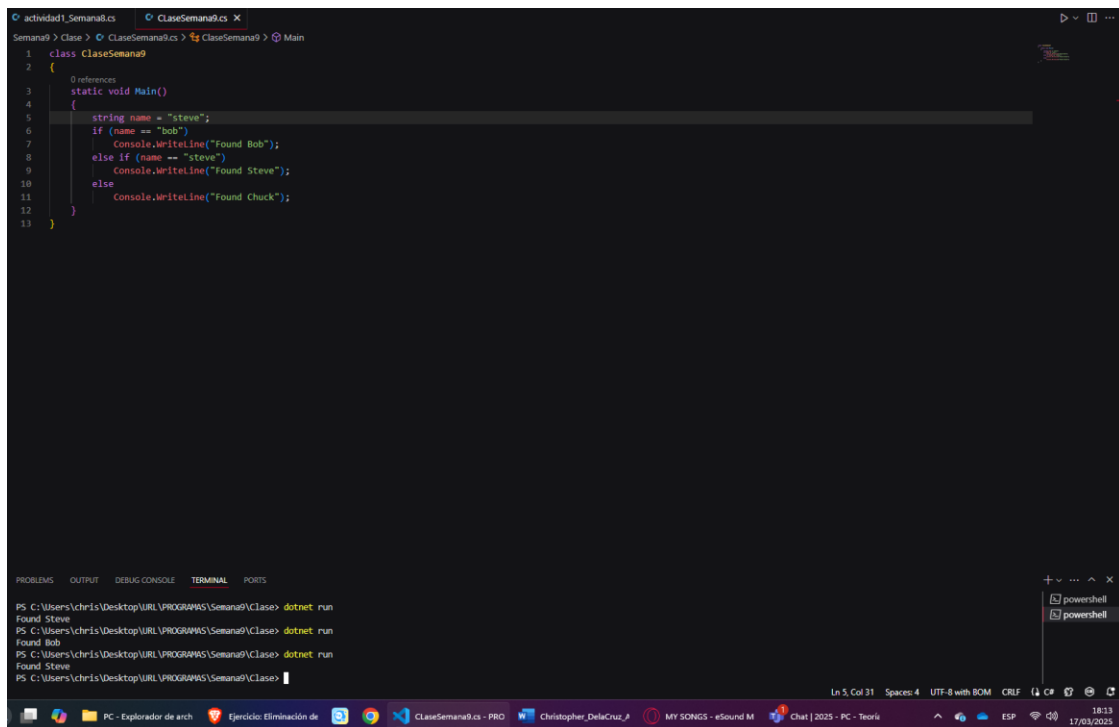
The screenshot shows a Visual Studio Code editor with a C# file named `ClaseSemanas9.cs`. The code is as follows:

```
1 class ClaseSemanas9
2 {
3     0 references
4     static void Main()
5     {
6         string name = "bob";
7         if (name == "bob") Console.WriteLine("Found Bob");
8         else if (name == "steve") Console.WriteLine("Found Steve");
9         else Console.WriteLine("Found Chuck");
10    }
11 }
```

The code is poorly formatted, with the opening curly brace of the `Main` method on the same line as the `static void Main()` declaration. The variable `name` is assigned the value `"bob"`. The `if` statement is also poorly formatted, with the opening curly brace on the same line as the condition. The output window shows the following results:

```
Inside the code block: 10
Outside the code block: 10
PS C:\Users\chris\Desktop\URL\PROGRAMAS\Semanas9\Clase> dotnet run
Found Steve
PS C:\Users\chris\Desktop\URL\PROGRAMAS\Semanas9\Clase> dotnet run
Found Bob
PS C:\Users\chris\Desktop\URL\PROGRAMAS\Semanas9\Clase> 
```

8) bloque de código sin llaves pero mejor legibilidad



The screenshot shows the same Visual Studio Code editor with the same C# file, but the code is now better formatted and more readable. The code is as follows:

```
1 class ClaseSemanas9
2 {
3     0 references
4     static void Main()
5     {
6         string name = "steve";
7         if (name == "bob")
8             Console.WriteLine("Found Bob");
9         else if (name == "steve")
10            Console.WriteLine("Found Steve");
11         else
12            Console.WriteLine("Found Chuck");
13    }
14 }
```

The code is now properly formatted, with the opening curly brace of the `Main` method on the line following the `static void Main()` declaration. The variable `name` is assigned the value `"steve"`. The `if` statement is also properly formatted, with the opening curly brace on the line following the condition. The output window shows the following results:

```
PS C:\Users\chris\Desktop\URL\PROGRAMAS\Semanas9\Clase> dotnet run
Found Steve
PS C:\Users\chris\Desktop\URL\PROGRAMAS\Semanas9\Clase> dotnet run
Found Bob
PS C:\Users\chris\Desktop\URL\PROGRAMAS\Semanas9\Clase> dotnet run
Found Steve
PS C:\Users\chris\Desktop\URL\PROGRAMAS\Semanas9\Clase> 
```

