Introduction to VB.Net

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VB.NET

Agenda

- About VB.net

- Installation

- Getting to know the UI of Visual Basic 2017 Express

- First Step
  - Hello World
  - Object & Functions
  - Variables

- Exos

About VB.net

About VB.net

- It is an extremely simple language to:
  - Create programs easily;
  - Develop graphical user interfaces in Windows;
  - Design forms;
  - Managing time;
  - Write to the files;
  - Accessing a database;
  - And subsequently build websites (yes, you heard right!).

- **BASIC**: Beginner's All-purpose Symbolic Instruction Code
- Designed in 1964 by John George Kemeny and Thomas Eugene Kurtz at Dartmouth College in New Hampshire, USA
- Provide computer access to non-science students
- At the time, nearly all use of computers required writing custom software, which was something only scientists and mathematicians tended to do.

About VB.net

- The eight design principles of BASIC are:
  - Be easy to use for beginners (Beginner)
  - Be a general-purpose language (All-purpose)
  - Allow the addition of features for experts (while keeping the language simple for beginners)
  - Be interactive
  - Provide clear error messages and user-friendly
  - Have a low response time for small programs
  - Not require an understanding of computer hardware
  - Isolate the user operating system

About VB.net

- Visual Basic was derived from BASIC and enables the rapid application development (RAD) of graphical user interface (GUI) applications, access to databases using Data Access Objects (DAO), Remote Data Objects (RDO), or ActiveX Data Objects (ADO), and creation of ActiveX controls and objects. Scripting languages such as VBA and VBScript are syntactically similar to Visual Basic, but perform differently.
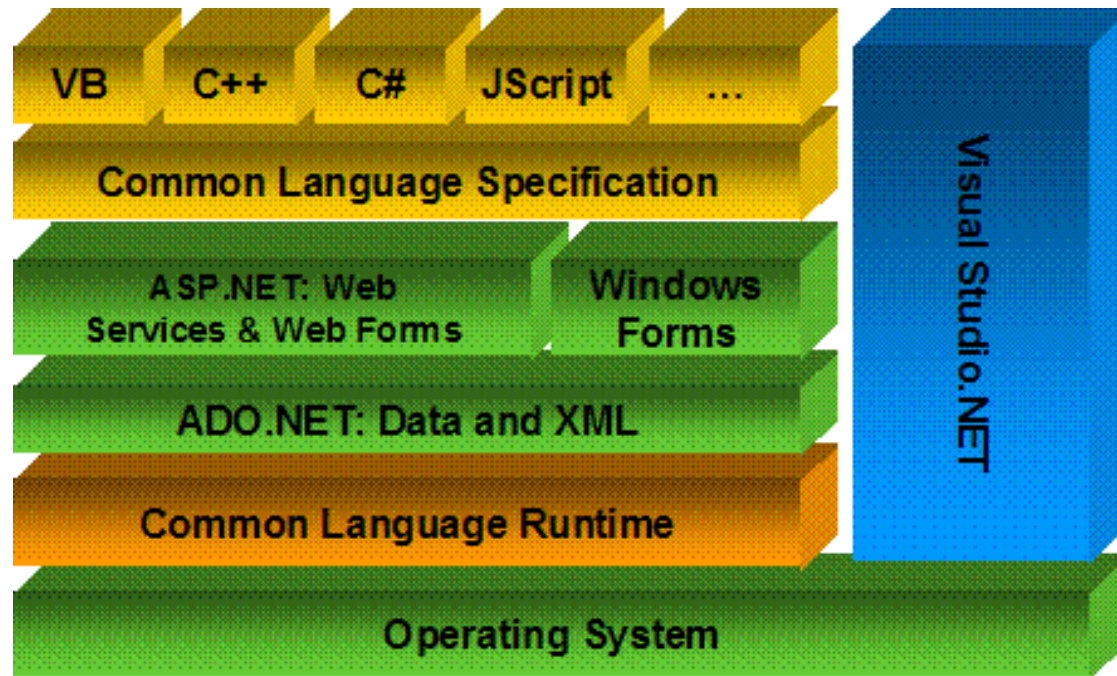
About VB.net

FRAMEWORKS

- A framework (in our case .NET framework from Microsoft) is a kind of immense computer library containing tools that will make the developer's life easier.

- The .NET framework is compatible with Visual Basic and other programming languages such as C#, F#, J#, etc..

About VB.net

FRAMEWORKS

Installation

Getting to know the UI

Start Window

Create a New Project

Create a New Project

Create a New Project

What you should know

- Work Space
  - Create windows, enter lines of code
- Toolbox
  - More useful for graphical part of the course.
- Solution Explorer
  - Tree of the project and DB manager
- Properties
  - Modify object's proprieties

First Step

Hello World
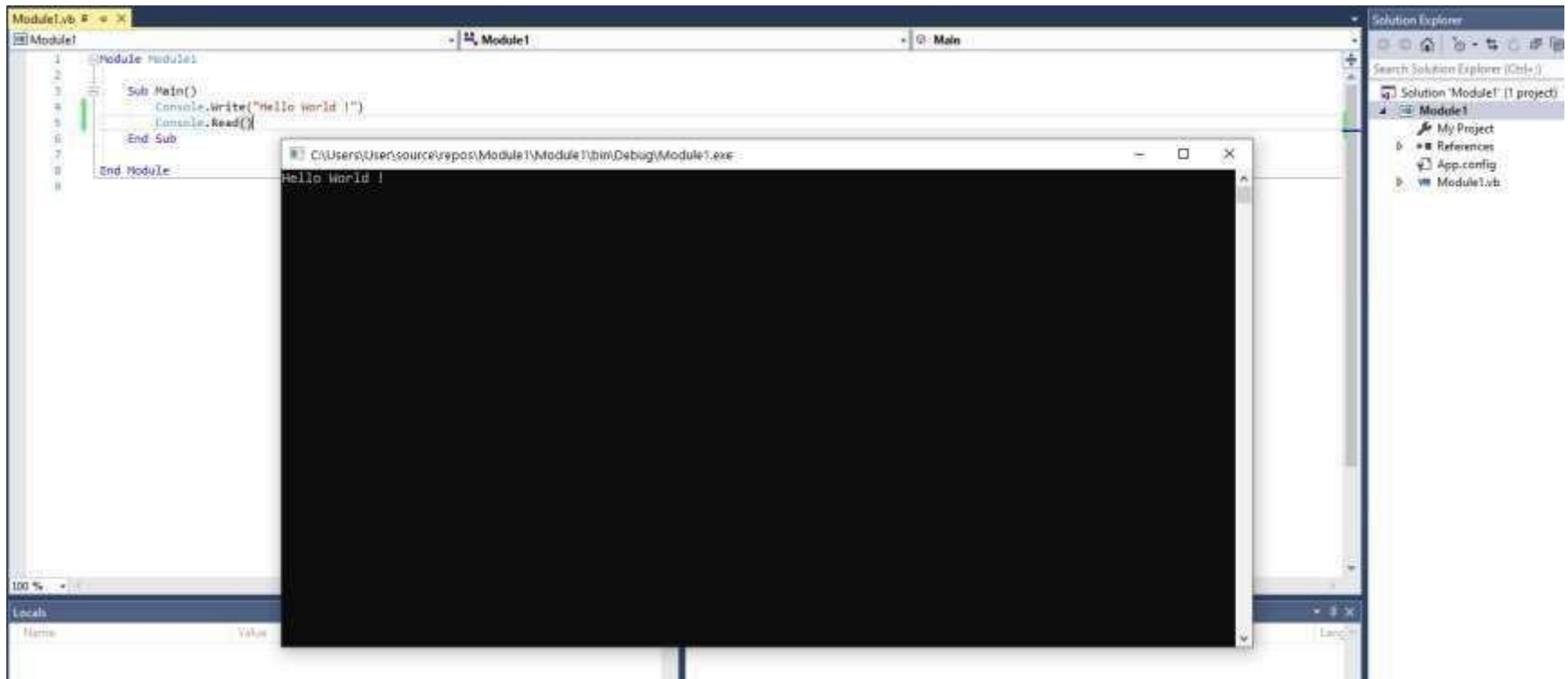
```vb
Module Module1
    Sub  Main()

    End Sub
End Module



Console.Write("Hello World !")
Console.Read()
```

```
Hello World !
```

Hello World

Objects - Functions

```vb
Module Module1

    Sub Main()
        Console.Write("Hello World !")
        Console.
    End Sub

End Module
```

OpenStandardOutput
Out
OutputEncoding
Read
ReadKey
ReadLine
ResetColor
SetBufferSize
SetCursorPosition

Common All
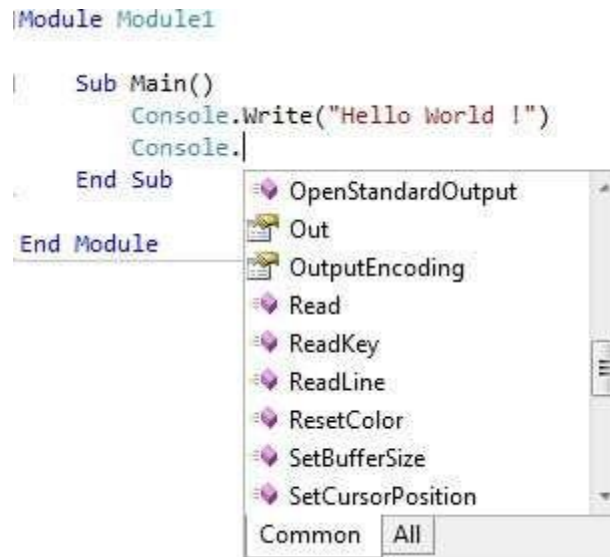
Objects - Functions

OBJECTS
- helps organize our code
- OOP

FUNCTIONS
- A function is a sequence of existing code designed for a definite effect
- Write Once, Use Many Times

Variables

Store virtually anything you want, such as numbers, sentences, tables, etc..

Types:

BOOLEAN

BYTE

CHAR

DATE

DECIMAL

DOUBLE

SINGLE

INTEGER

LONG

OBJECT

Variables

```
Module Module1
  Sub Main()
    Dim variable AS Integer
    variable = 5
    Console.Write(variable)
    Console.Read()
  End Sub
End Module
```

Variables Operations

Operation	Symbole
Add	+
Sub	-
Multiplication	*
Division	/
Integer Division	\
Modulus	Mod
Exponentiation	^

Variables Operations

Try to multiply 9 x 8

Comments

'This is a comment

To do a comment use a single quote.

Line Break

Console.Write("test")

Console.Write("test")

Console.WriteLine("test")

Console.WriteLine("test")

Read input

Console.ReadLine()

Exo

1- Ask the user to provide two input values.

Then, execute various mathematical operations on

these values in both orders, such as

1 + 2 = 3 and 2 + 1 = 3.

Present the results in an organized manner with a clear

descriptions, like:

==

The sum of num1 (value) and num2 (value) is equal to (result).

==

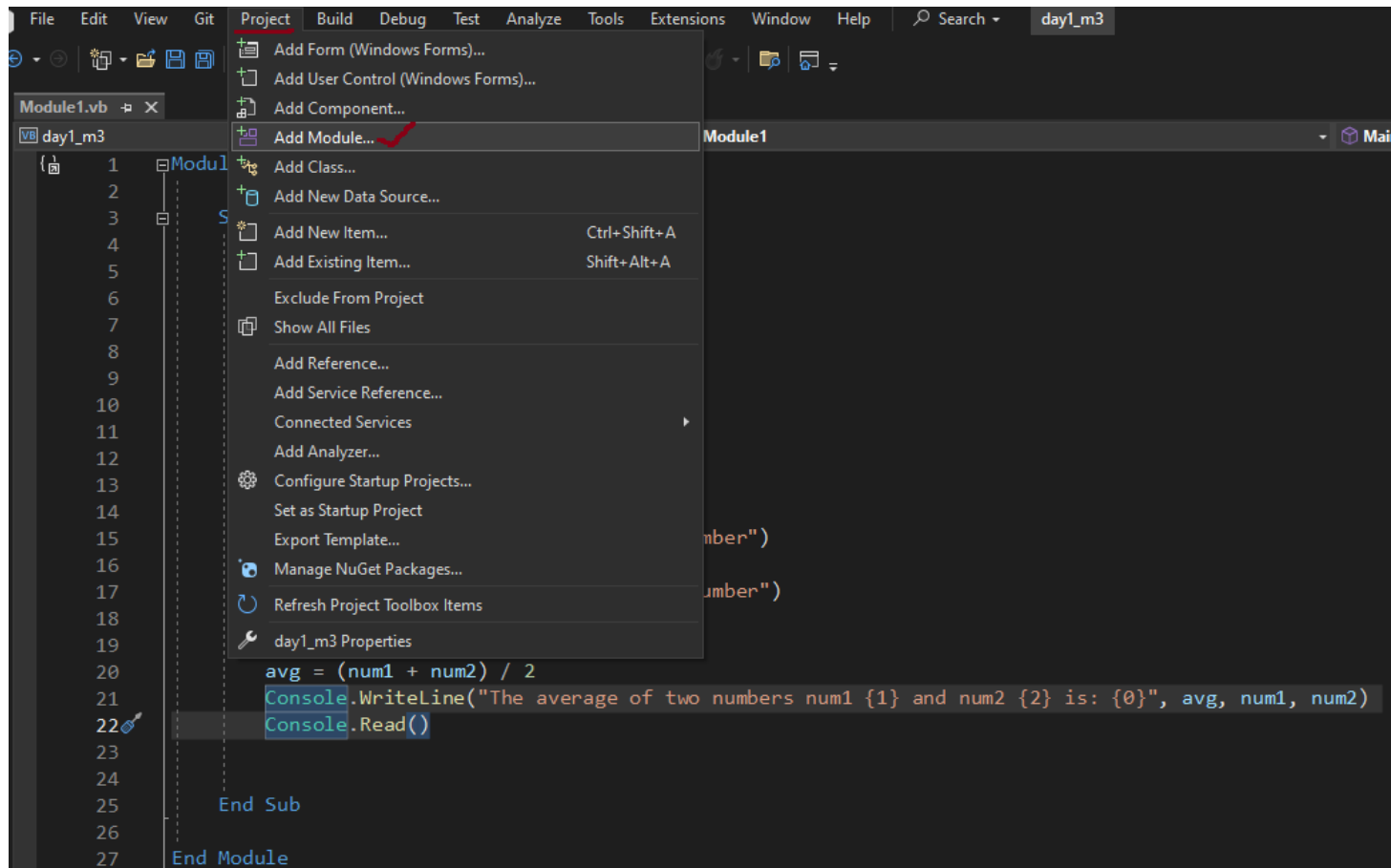Separate each operation's output from the next with a

horizontal line,

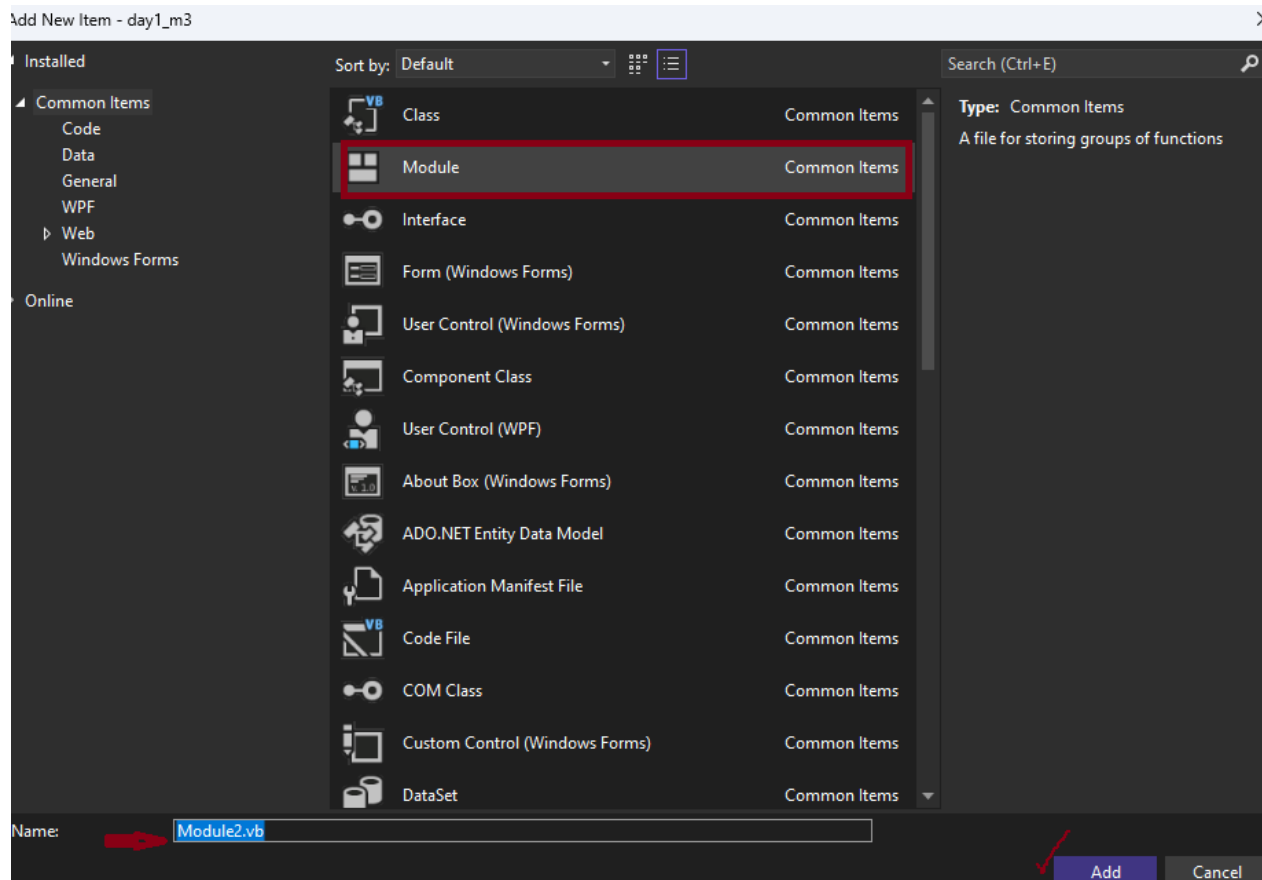and repeat this process for all mathematical operations.

Exo

2- Remember the temperature application back in JavaScript?

Ask the user for a temperature in Fahrenheit and convert it to Celcius and then as another temperature in Celcius and convert it to Fahrenheit
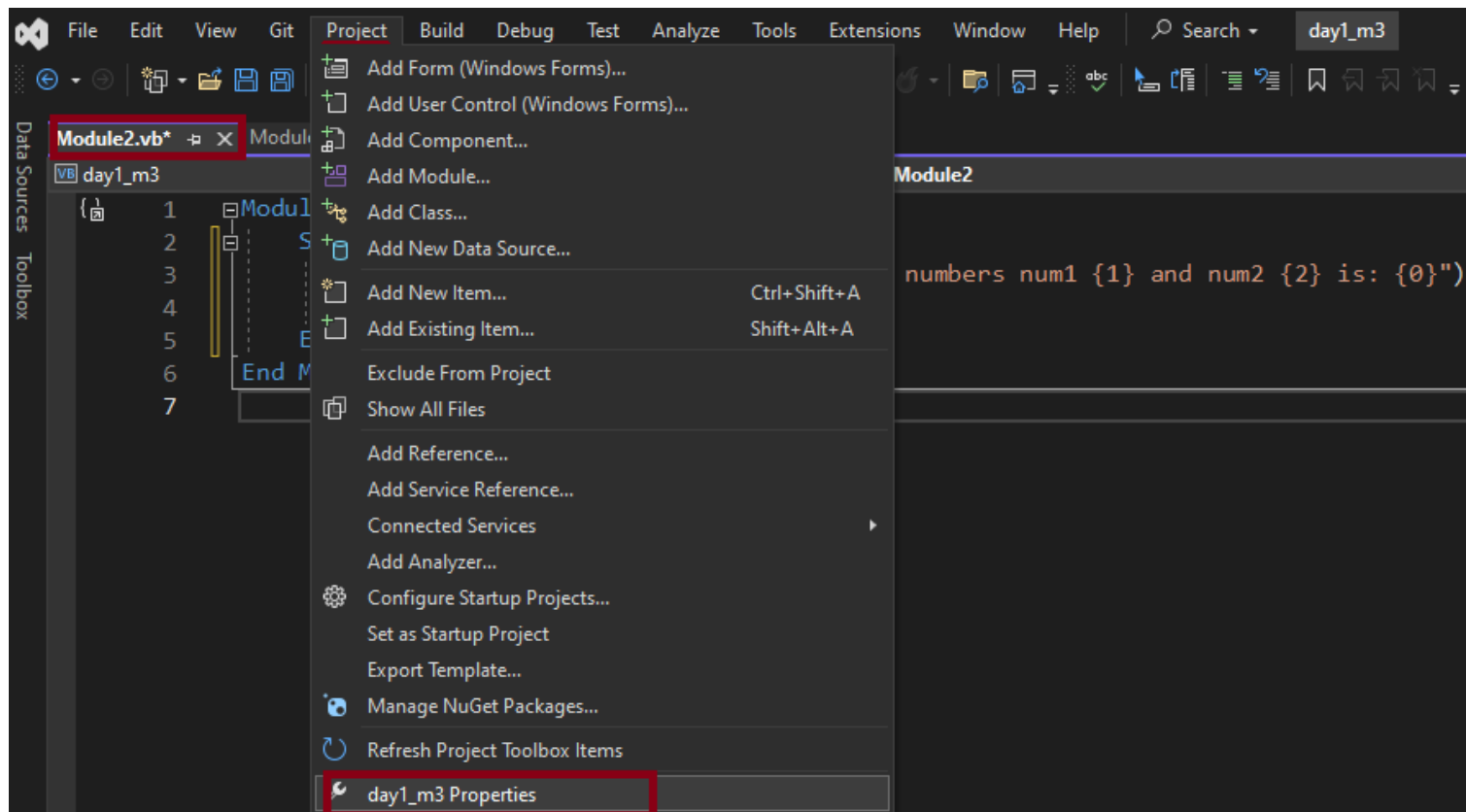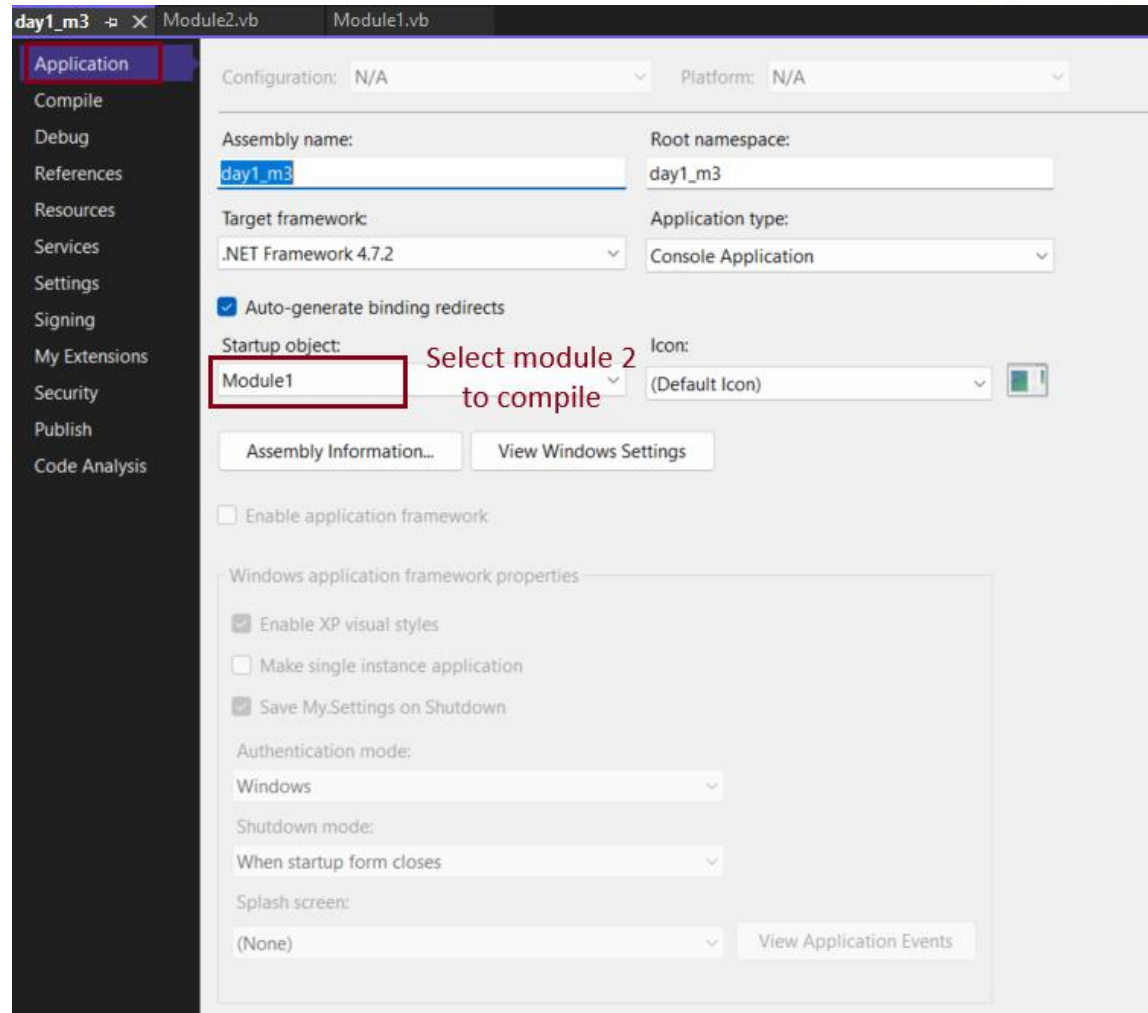
Add Module

Add Module

Compile Module 2

Compile Module 2

THE END