Problem Base Learning 1

Instructions :

- **Write programs for the following questions in VB.NET.**
- **Copy and paste your program coding and screenshot the output onto a Microsoft Word document.**
- **Save the Microsoft Word document, name the document with your name and PBL1, e.g RasyidahPBL1**
- **Upload the Microsoft Word document onto the class Ms.Teams.**

Questions

1. What is the difference between **Console.Writeline** and **Console.Write?**

= Console.WriteLine starts a new line each time it is run, where as console.write uses the same line as the previous command that was run.

2. What is the difference between **Console.Readline** and **Console.Readkey**?

= Console.ReadKey only reads input of only 1 character however .ReadLine takes in a whole sentence as an input.

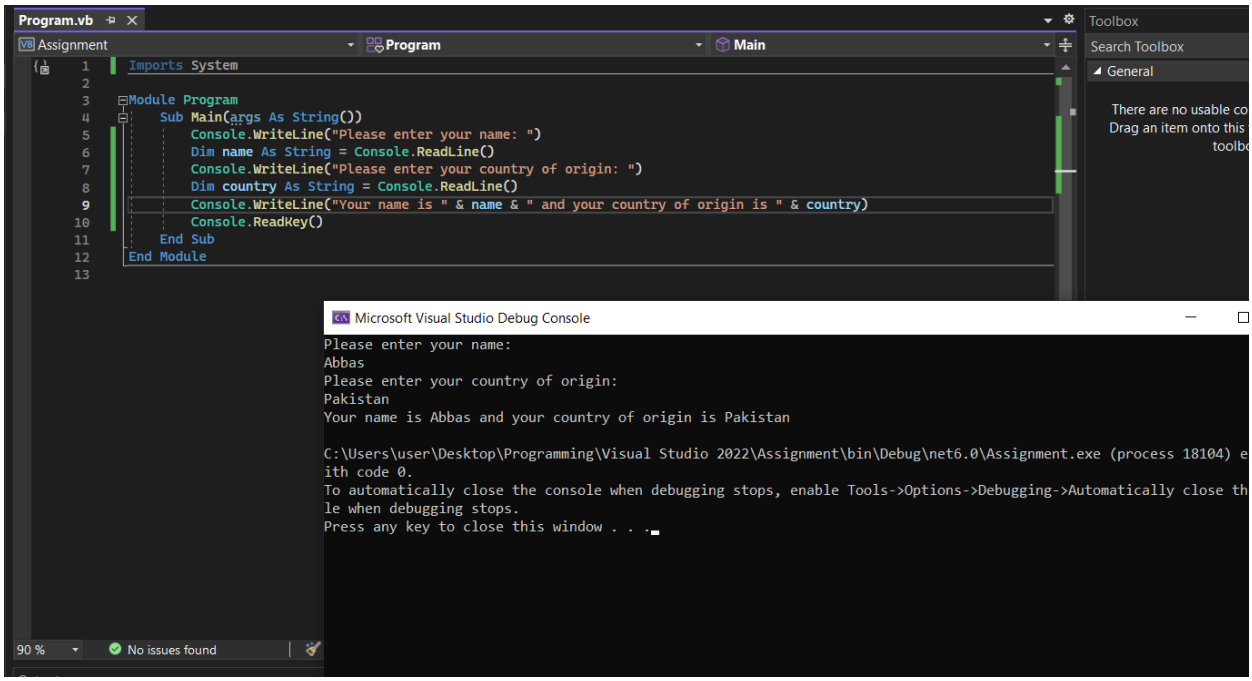
3. What does the word **Dim** stands for and what is it used for when writing a VB program?

= Dimension, used for defining a variable before running the program

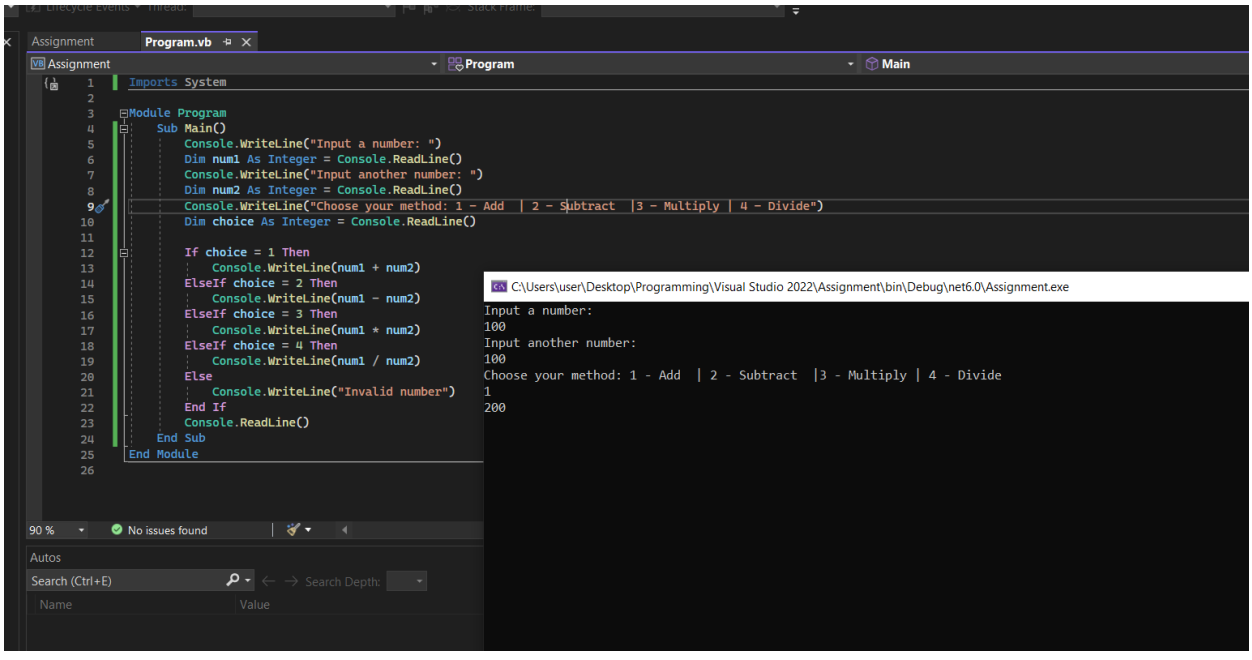
4. What is meant by a **Constant** and a **Variable** in a program?

= A constant is a variable value that cannot be changed, where as a variable is a value that can be changed through the program.

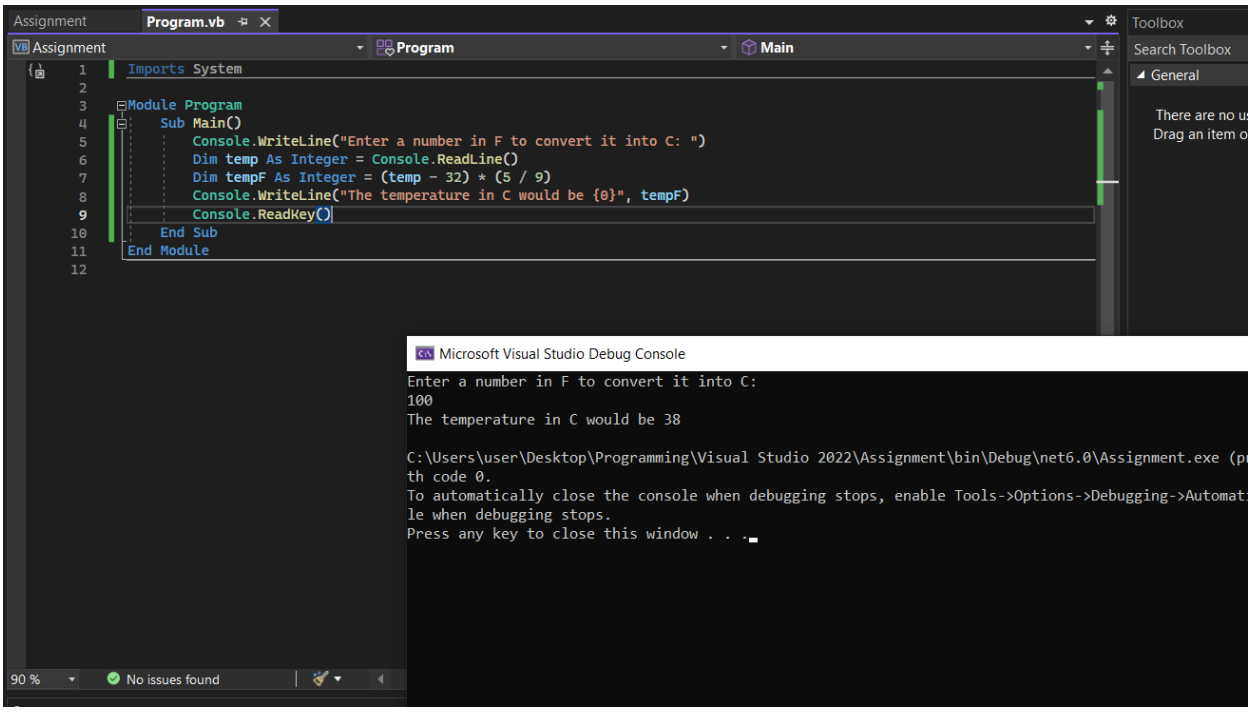
5. Write a program that will ask the user to enter their name and country of origin and display the information.



6. Write a program to allow the user to input two integer values and then the program print the results of adding, subtracting, multiplying, and dividing among the two values.



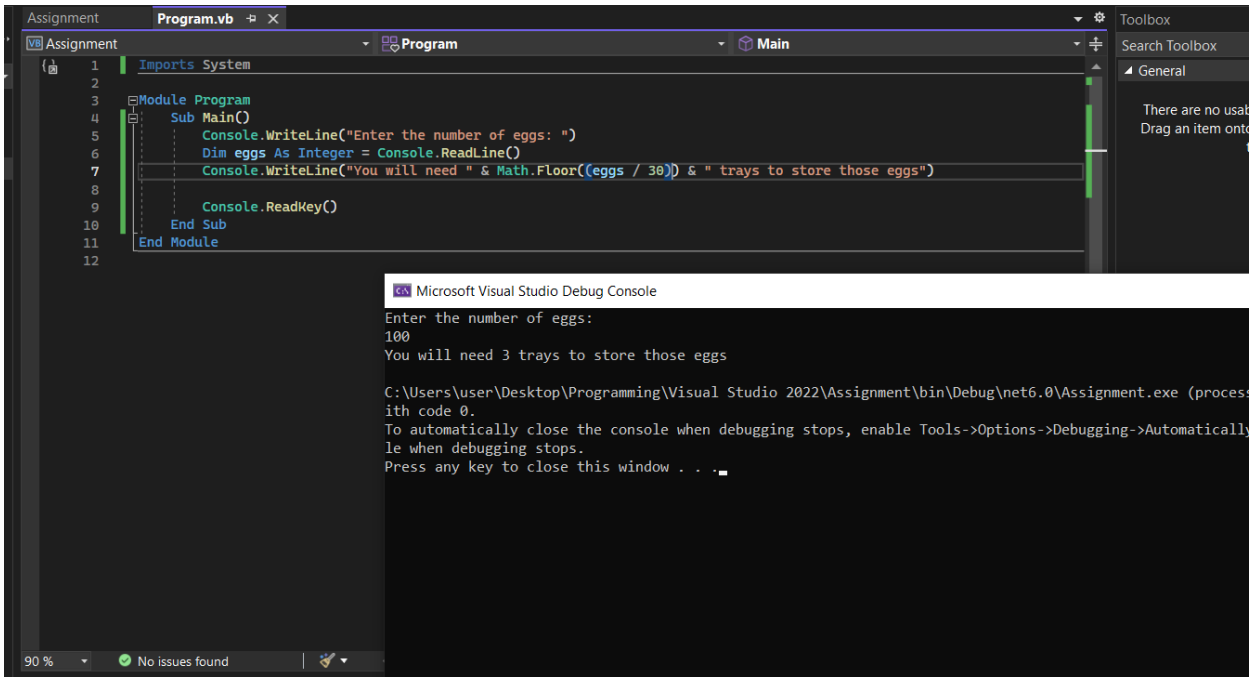
7. Write a program to convert a temperature in degrees Fahrenheit to degrees Celsius.
(Note : Celsius = (5 /9) * (Fahrenheit - 32)



8. A farmer packs eggs into trays of 30 eggs in one tray. Calculate the number trays of eggs for a given input of eggs.

Example if the farmer collects 100 eggs then there will be 3 trays of eggs.

Ask the user to input the number of eggs and the program will output the number of trays of eggs.



9. Write a program to calculate the salary for a worker. The salary is calculated based on the hours worked and the pay rate per hour.

   Example, if the worker worked 40 hours and the rate per hour is RM10, then the salary is RM400 (40 hours X RM10).

   Write a program that will ask the user to input the number of hours worked and the rate per hour. The program will then calculate and output the salary for the worker

```
Imports System

Module Program
    Sub Main()
        Dim rate As Integer
        Dim hours As Integer
        Console.WriteLine("Enter the number of hours you work (per week): ")
        hours = Console.ReadLine()
        Console.WriteLine("Enter the rate of payment per hour: ")
        rate = Console.ReadLine()
        Console.WriteLine("You will earn a salary of " & (rate * hours) & "$ weekly")
        Console.ReadKey()

    End Sub
End Module
```

```
Microsoft Visual Studio Debug Console
Enter the number of hours you work (per week):
50
Enter the rate of payment per hour:
100
You will earn a salary of 5000$ weekly

C:\Users\user\Desktop\Programming\Visual Studio 2022\Assignment\bin\Debug\net6.0
ith code 0.
To automatically close the console when debugging stops, enable Tools->Options->
le when debugging stops.
Press any key to close this window . . .
```

10. A marathon runner records their time for a race in hours, minutes and seconds.
An algorithm is shown below in structured English.

Write a program for the following algorithm.

INPUT race time as hours, minutes and seconds

CALCULATE race time in seconds

STORE race time in seconds

OUTPUT race time in seconds