

Background

Visual Studio is an Integrated Development Environment (IDE) developed by Microsoft to develop GUI (Graphical User Interface), console, Web applications, web apps, mobile apps, cloud, and web services, etc. With the help of this IDE, you can create managed code as well as native code. It uses the various platforms of Microsoft software development software like Windows store, Microsoft Silverlight, and Windows API, etc. It is not a language-specific IDE as you can use this to write code in C#, C++, VB (Visual Basic), Python, JavaScript, and many more languages. It provides support for 36 different programming languages. It is available for Windows as well as for macOS. Evolution of Visual Studio: The first version of VS (Visual Studio) was released in 1997, named as Visual Studio 97 having version number 5.0. The latest version of Visual Studio is 15.0 which was released on March 7, 2017. It is also termed as Visual Studio 2017. The supported .Net Framework Versions in latest Visual Studio is 3.5 to 4.8. Microsoft visual studio 2013 version is 12.0 and .Net Framework version is 4.8.

- A full-featured programming platform for several operating systems, the web, and the cloud, Visual Studio IDE is available. Users can easily browse the UI so they can write their code quickly and precisely.
- To help developers quickly identify potential errors in the code.
- Developers can host their application on the server with confidence because they have eliminated anything that could lead to performance issues.
- No matter what programming language developers are using, users of Visual Studio can get live coding support. For faster development, the Platform offers an autocomplete option. The built-in intelligent system offers descriptions and tips for APIs.
- Through Visual Studio IDE you can easily collar with your teammates in a same project. This IDE helps the developers to share, push and pull their code with their teammates.
- Every user of Visual Studio has the ability to customize it. They have the option to add features based on their needs. For example, they can download add-ons and install extensions in their IDE. Even programmers can submit their own extensions.

Introduction to C# Language.

C# is pronounced "C-Sharp". It is general purpose and an object-oriented programming language created by Microsoft that runs on the .NET Framework. C# has roots from the C family, and the language is close to other popular languages like C++ and Java. The first version was released in year 2002. The latest version, C# 11, was released in November 2022. C# is used for Mobile applications, Desktop applications, Web applications, Web services, Web sites, Games and Database applications.

Why Use C#?

- As C# is close to C, C++ and Java, it makes it easy for programmers to switch to C# or vice versa
- It is one of the most popular programming language in the world
- It is easy to learn and simple to use
- It has a huge community support
- C# is an object oriented language which gives a clear structure to programs and allows code to be reused, lowering development costs

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Install Visual Studio

Visual Studio is free for learning and individual use. First, please make sure to download and install the latest version of Visual Studio. You can save installation time and disk space by selecting just the components needed. You can always incrementally add more components later at any time as needed.

Step 1: Visual Studio 2013 Download.

Step 2: Double Click on Application File.

Step 3: Click on Install.

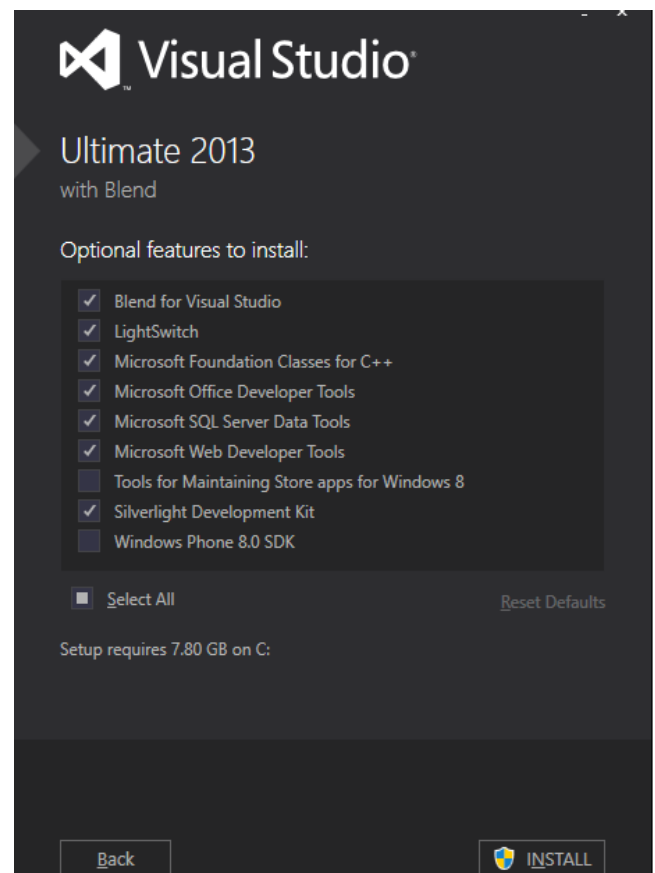
Step 4: Installation Started.

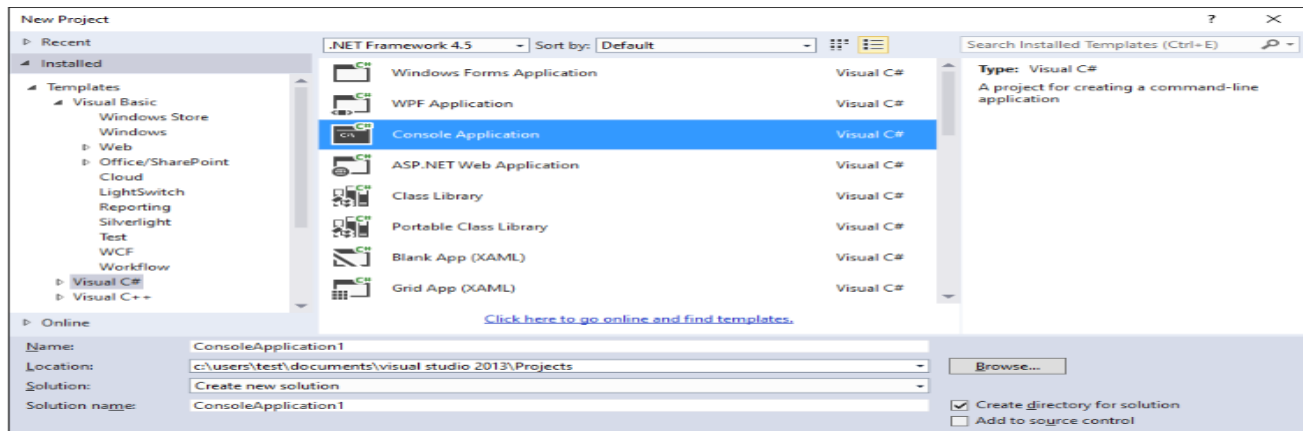
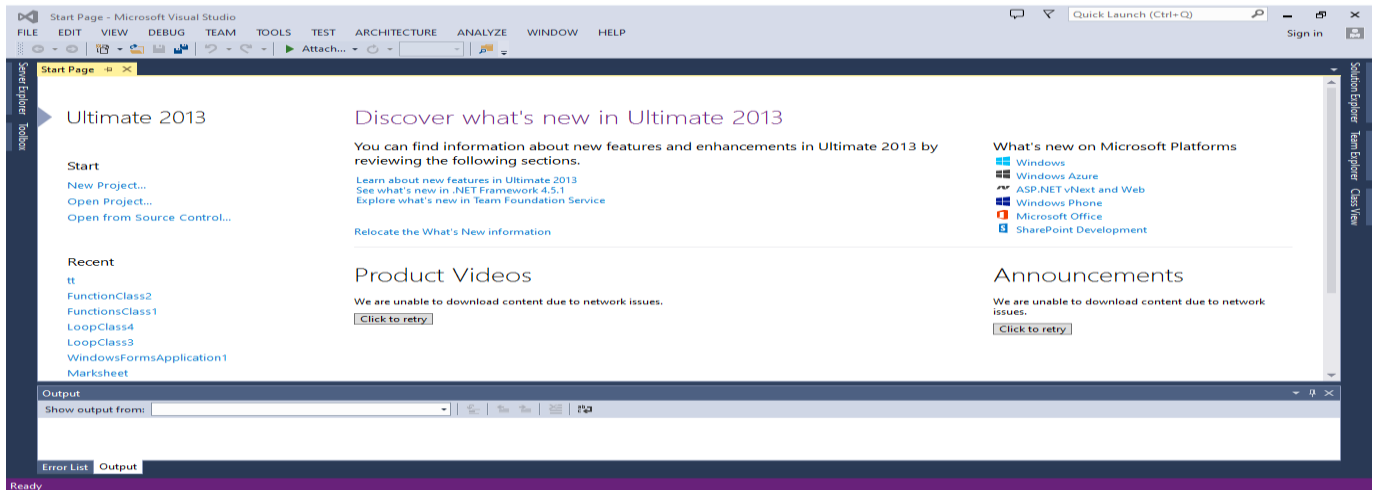
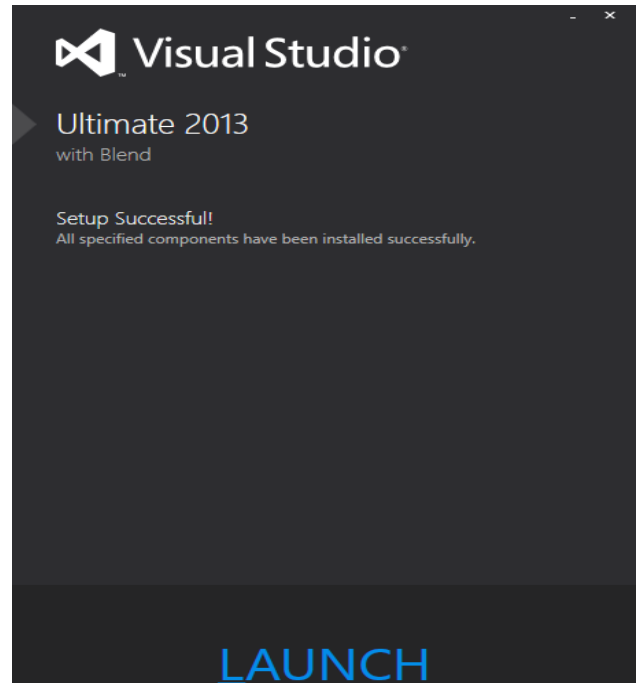
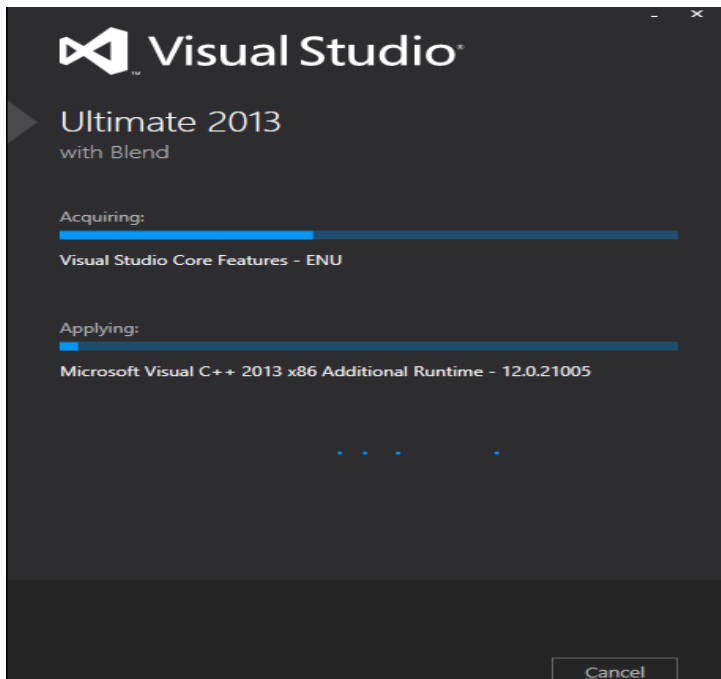
Step 5: Successful Installation.

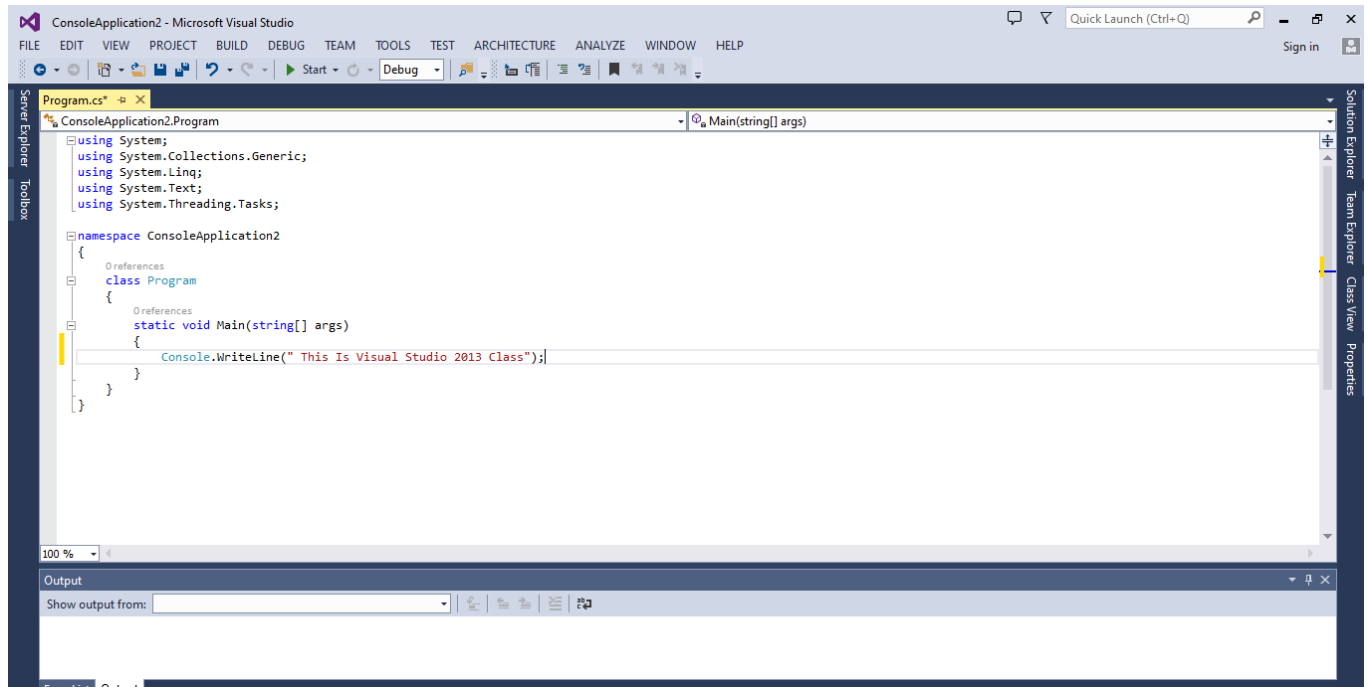
Step 6: Open a New Project.

Step 7: Write Your First Hello World Program.

Step 8: Run Your Program.





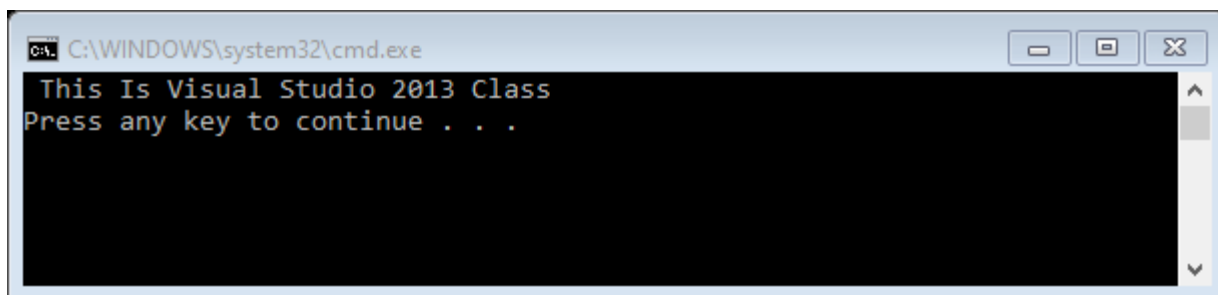


You write this code and run the program (short cut key for run CTR+F5).

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace ConsoleApplication2
{
    class Program
    {
        static void Main(string[] args)
        {
            Console.WriteLine(" This Is Visual Studio 2013 Class");
        }
    }
}
```

Will be output show in this screen (this is console application screen).



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Exercise

Theory Questions.

1. State some features of “C#” Language.
2. What do understand by the term “Frame Work”?
3. What is **Visual Studio .Net**

Practical Questions.

1. Write steps of Visual Studio .Net IDE installation or setup process.
2. Write C# code to display your Roll Number, Course Name and Technology Name on the console screen by using Visual Studio .Net Environment.

Objective and MCQs:

1. What is the default extension of Java source code file?
 - a) .cpp
 - b) .jpp
 - c) .cs
 - d) .java
2. Who is develop by of C# language?
 - a) Denis Retchie
 - b) Rasmus Lerdorf
 - c) John Baker
 - d) Microsoft
3. Microsoft visual studio 2013 version is.
 - a) 1.3
 - b) 12
 - c) 13
 - d) 15
4. .Net Framework version is.
 - a) 1.3
 - b) 4.3
 - c) 3.5
 - d) 4.8
5. First Microsoft Visual Studio Version was released.
 - a) 1995
 - b) 1996
 - c) 1997
 - d) 2000