

**Practical No: 01**

**I. Practical Significance**

Students will be able to analyze the basic requirements of Visual Studio .Net framework software installation. He / She will achieve skill necessary for the installation of software. Also the components of the visual studio .Net framework.

**II. Relevant Program Outcomes (POs)**

**Discipline knowledge:** To apply knowledge of computer engineering field to solve core and applied engineering problems.

**Experiments and practice:** Able to plan and perform experiments and practices with its results to solve computer engineering problems.

**Engineering tools:** Formulate and solve problems related to computer engineering field using appropriate techniques/tools.

**III. Competency and Practical skills**

This practical expects to develop the following skills in the student.

**Develop VB.NET programs to solve computer group related problems.**

1. Identify the basic hardware and software requirements for the installation of Visual Studio .Net

**IV. Relevant Course Outcome(s)**

Use Visual Studio IDE to design application.

**V. Practical Outcome (PrOs)**

Install Set up and Use VB.Net Integrated Development Environment (IDE)

**VI. Relevant Affective domain related Outcome(s)**

1. Follow safety measures.
2. Follow ethical practices

**VIII. Resources required (Additional)**

- If any web reference is required.

**X. Resources required (Actual)**

- 1) [https://www.tutorialspoint.com/vb.net/vb.net\\_environment\\_setup.htm](https://www.tutorialspoint.com/vb.net/vb.net_environment_setup.htm)
- 2) <https://docs.microsoft.com/en-us/visualstudio/get-started/visual-basic/visual-studio-ide?view=vs-2019>

**XI. Practical Related Questions****1. Differentiate between VB.Net & VB.**

VB	VB.Net
Platform dependent	Platform dependent
VB is backward compatible	VB.Net is not backward compatible
Interpreted	Compiler Language
Compiler Language Exception Handling by 'On Error....Goto'	Exception Handling by 'Try....Catch'
Cannot develop multi-threaded applications	Can develop multi thread applications

**2. How many languages are supported by .Net Framework?**

- NET Framework supports more than 60 programming languages in which 11 programming languages are designed and developed by Microsoft. The remaining Non-Microsoft Languages which are supported by . NET Framework

**XII. Exercise****1. Illustrate the use of Just in Time compiler in VB.net**

- Just-In-Time compiler(JIT) is a part of Common Language Runtime (CLR) in . NET which is responsible for managing the execution of . ... The JIT compiler converts the Microsoft Intermediate Language(MSIL) or Common Intermediate Language(CIL) into the machine code. This is done before the MSIL or CIL can be executed.

**2. Define user defined namespaces and write procedures.****User defined namespaces:**

(i) They allow to create a system to organize your code.

(ii) User defined namespaces helps us to control the scope of class and method names in larger programming projects.

(iii) We access a member of namespace by using .(dot operator) also called as period operator.The members of the namespaces are variables,procedures and classes that are defined within a namespace.

(iv) We can define a namespace using the 'Namespace' keyword.

Procedures in vb. net:

(i) Procedure is a piece of code in a larger program.

(ii) It is a unit of code enclosed either between the sub and end sub statements or also Function of sub function statements.

**3. Write the various system requirements for Installation of VB.Net**

- System Requirements Visual Studio 2012 Ultimate, Premium, Professional and Test Professional editions

**Supported operating systems:**

Windows 7 SP1 (x86 and x64)  
Windows 8 (x86 and x64)  
Windows Server 2008 R2 SP1 (x64)  
Windows Server 2012 (x64)

**Supported architectures**

32-bit (x86)  
64-bit (x64)

**Hardware requirements**

1.6 GHz or faster processor  
  
1 GB of RAM (1.5 GB if running on a virtual machine)  
  
10 GB of available hard disk space  
  
600 MB of available hard disk space (language pack)  
  
5400 RPM hard drive  
  
DirectX 9-capable video card running at 1024 x 768 or higher display resolution

**XIII. References / Suggestions for further Reading**

1. <https://docs.microsoft.com/en-us/dotnet/framework/deployment/deploymentguide-for-developers> (20/07/2018)