**Part 1**

The .NET Framework is an integral Windows component that supports building and running the next generation of applications and XML Web services. The .NET Framework is designed to fulfill the following objectives:

* To provide a consistent object-oriented programming environment whether object code is stored and executed locally, executed locally but Internet-distributed, or executed remotely.
* To provide a code-execution environment that minimizes software deployment and versioning conflicts.
* To provide a code-execution environment that promotes safe execution of code, including code created by an unknown or semi-trusted third party.
* To provide a code-execution environment that eliminates the performance problems of scripted or interpreted environments.
* To make the developer experience consistent across widely varying types of applications, such as Windows-based applications and Web-based applications.
* To build all communication on industry standards to ensure that code based on the .NET Framework can integrate with any other code.

The .NET Framework is a software framework developed by Microsoft that runs primarily on Microsoft Windows. Programmers produce software by combining their own source code with the .NET Framework and other libraries.

who use it

For user

For developer

How to use

1. Install .net framework
2. Select type of application: console, windows form, WPF, WCF,
3. Select language
4. IDE

So sanh

1. Dinh nghia

2. owner: MS 1990 , sun 1999

3. kien truc:

|  |  |
| --- | --- |
| .net | Java |
| 30 ngon ngu | 1 ngon ngu |
| Bien dich source code thanh ngon ngu trung gian | Bien dich source code thanh byte code(ko phai ngon ngu) |
| CLR thuc hien thuat toan lien tuc | LVM thuc hien thuat toan ko lien tuc |
| Compile source code twice during process of coverting to native code, compiling work faser than interpreting | Compile and inpterpret source code onece during process of converting it to native code |
| He dieu hanh windows | Hdh… |

Part 2

.net co 2 phan: CLR, FCL

Step executing

1. Compile source code🡪 managed module (IL)
2. Compile IL and resource file 🡪 assemblies
3. Compiling (JIT) assemblies +FCL to native machine code

Scalability

Avai

Secure

Usabi

Perform

Porta

Builda

Interope

Extensi

Source:

<http://msdn.microsoft.com/en-us/library/zw4w595w(v=vs.71).aspx>

<http://en.wikipedia.org/wiki/.NET_Framework>

bối cảnh ra đời, trong hoàn cảnh Java cũng đang phát triển JVM

sử dụng ntn ( các bước cài đặt)

cấu trúc: gồm CLR nằm trên win, và FCL