

- What is .NET Framework. ✓ pre-compiled library files.
- why .NET. ✓
- standard .NET vs .NET Core ✓
- FCL, BCL, CLR, CLS, CTS, GC
- MSIL, Assembly,ildasm
- .exe and .dll → diff. ✓

Core fx

• Framework class library files [FCL]

.net f/w

• Base class library files [BCL]

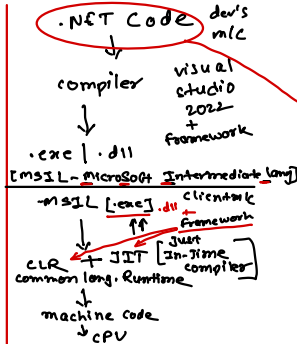
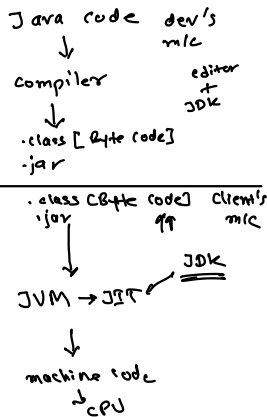
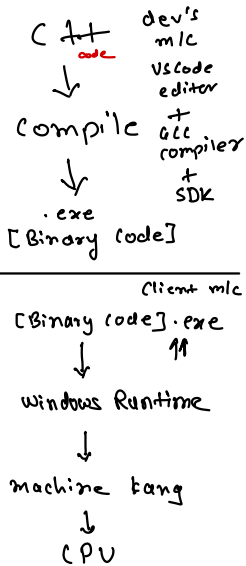
System.dll

System.Collection.dll

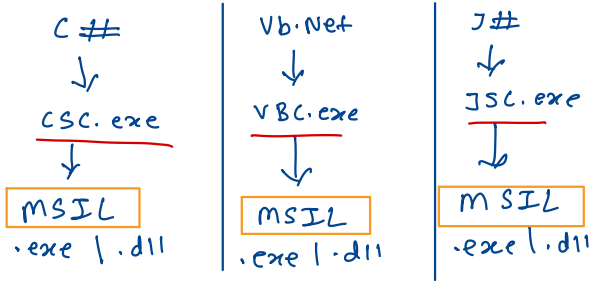
Normal .NET

mscorlib.dll

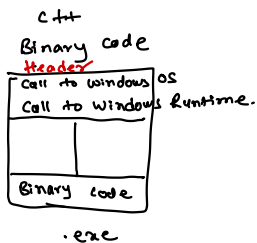
↳ CLR



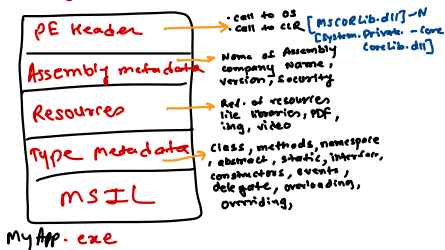
off: 32-bit lang  
 unoff: 85+  
 C++, VB.Net, F#,  
 J#, SmallTalk ...



C++ → C# ✓ Visual Basic → Vb.Net Java → J#  
 int i; Dim i as Integer int i;  
 System.Int32 ← Integer ← MSIL  
 string str Dim str as string  
 System.String ← string → MSIL  
 System.Double  
 System.Int64 ← long | System.Int16  
 → short



## Assembly structure



## Common Language Specifications [CLS]

1. lang should be OOP based.
2. 'new' keyword usage is compulsory.
3. lang should support Garbage Collector.
4. It should go with other Fw dll files.

# Common Type System [CTS]

C# int i  $\longrightarrow$  System.Int32

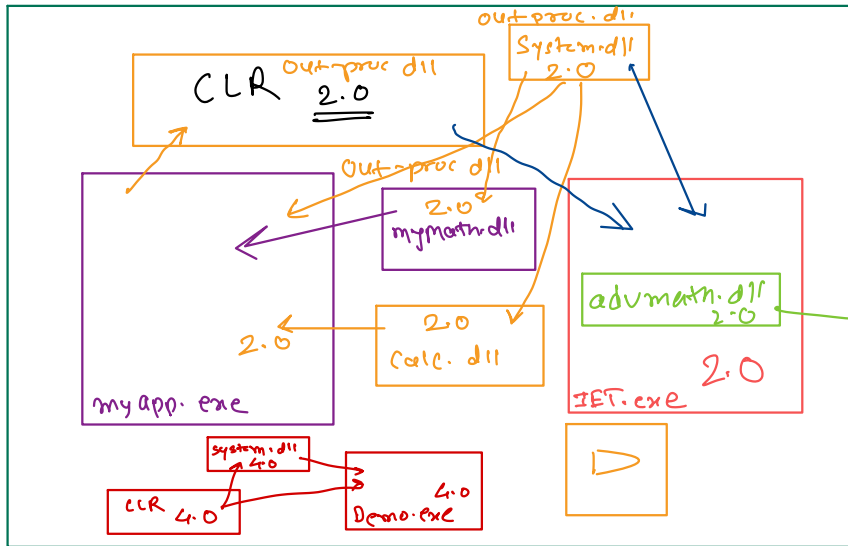
Vb.net Dim i as integer  $\longrightarrow$  System.Int32.

code	msIL
short	System.Int16
int	System.Int32
boolean	System.Boolean
string	System.String

# Shared Assemblies.

GAC

1.0 → major version  
1.1 - minor Finitely Infinite



FW 1.0 - CLR 1.0

2.0	—	2.0
3.0	—	3.0
3.5	—	3.0
4.0	—	4.0

↓

4.0

Private assemblies  
↓  
net registry  
Global Assembly Cache [GAC]

test.sln [Solution file] Template

