

Yesterday:

1. Why .NET.
2. What is .NET F/W.
3. Diff. standard .NET vs .NET Core.
4. FCL, BCL, CoreFx, CLR, JIT, msil, Assembly
5. JIT - 1) Standard JIT compiler
2) Pre-JIT compiler ✓
6. Diff. .exe and .dll → ilcasm
7. Private assembly - default } .dll
Shared assembly - e.g f/w }
8. F/W versions & CLR versions
9. .sln files and .csproj files
10. Visual Studio 2022 templates

11. CTS, GAC, CLS → use "new" keyword
to create new objects

12. CLR features :→

1. load the .NET assemblies
2. allocate memory to managed code.
3. Execute managed code
4. JIT compilation.
5. Security.
6. Exception Handling.
7. Execution of assembly → feed the m/c code to CPU
8. Garbage Collector - GC

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GC:

100 units

10 units

30

30

10

20

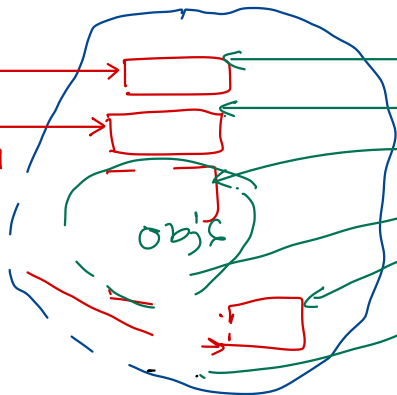
10

✓ GC Queue

Finalize
queue



obj 1	Gen 2
obj 2	Gen 2
obj 6	Gen 1
obj 7	Gen 0



obj 1
obj 2
obj 3 = null
obj 4 = null
obj 5 = null
obj 6

Gen 0
Gen 1
Gen 2
Gen 3
Gen 4
Gen 5
Gen 6
Gen 7
Gen 8
Gen 9
Gen 10

Managed heap.

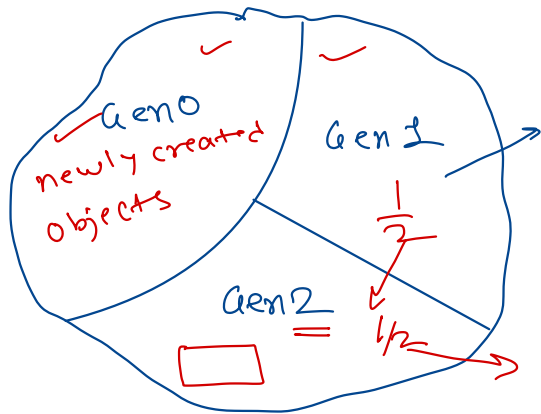
GC. collect() ✓

↓
2

① Gen 0 - Gen 1

② ↓ → Gen 1 → Gen 2

managed heap



Survived objects after GC happens.

Survived obj.

obj \rightarrow 85,000 A
Gen2.

Using System; declaration of namespace.
 Using System.IO;

~~System~~. Console.WriteLine(); → o/p
Console.ReadLine(); → i/p

↓
 ↑
 Static

✓ System.Console.ReadLine();

✓ System.IO. File.GetDir();
 namespace ↪ class method

→ logical Grouping of Types

e.g.:-
 class,
 interface,
 delegate,
 abstract
 Static

1. Features of CLR ✓
2. GC ✓
3. namespace, using keyword. ✓
4. Datatypes ✓
5. i/n o/p ✓
6. OOP → inheritance, overloading, virtual, overriding, new, this, sealed classes, sealed methods, base, :, constructor overloading, mapping, class, methods,
7. Debugging.
8. Boxing, unboxing, type casting
9. Exception class
10. loops