### Assemblies in C#

1. \*\*What is an Assembly in C#?\*\*

- A. A compiled code library used for deployment, versioning, and security

- B. A collection of files

- C. A method

- D. A namespace

\*\*Answer:\*\* A

2. \*\*Which of the following is NOT a type of assembly?\*\*

- A. Private Assembly

- B. Public Assembly

- C. Shared Assembly

- D. Satellite Assembly

\*\*Answer:\*\* B

3. \*\*Which of these files stores metadata about the assembly?\*\*

- A. Manifest

- B. Metadata.xml

- C. Assembly.cs

- D. Resource file

\*\*Answer:\*\* A

4. \*\*Where is the version number of an assembly stored?\*\*

- A. In the GAC

- B. In the Manifest

- C. In the Main method

- D. In the Namespace

\*\*Answer:\*\* B

5. \*\*What is the default file extension of an assembly?\*\*

- A. .dll

- B. .exe

- C. .asm

- D. Both .dll and .exe

\*\*Answer:\*\* D

6. \*\*What does CLR stand for?\*\*

- A. Common Language Repository

- B. Common Language Runtime

- C. Common Language Register

- D. Common Load Resource

\*\*Answer:\*\* B

7. \*\*Which tool is used to create an assembly in C#?\*\*

- A. GACUtil

- B. csc (C# Compiler)

- C. ngen.exe

- D. ildasm

\*\*Answer:\*\* B

8. \*\*What is a strong-named assembly?\*\*

- A. An assembly with a unique version number

- B. An assembly with encrypted content

- C. An assembly with a unique identity defined by name, version, culture, and public key

- D. An assembly that is only used privately

\*\*Answer:\*\* C

9. \*\*What does the term 'Satellite Assembly' refer to?\*\*

- A. An assembly with resources for a specific culture

- B. A backup of the main assembly

- C. An assembly stored in a satellite server

- D. A third-party assembly

\*\*Answer:\*\* A

10. \*\*Which assembly can be shared by multiple applications?\*\*

- A. Private Assembly

- B. Shared Assembly

- C. Satellite Assembly

- D. Anonymous Assembly

\*\*Answer:\*\* B

11. \*\*What tool is used to generate a strong name for an assembly?\*\*

- A. sn.exe

- B. gacutil.exe

- C. ngen.exe

- D. csc.exe

\*\*Answer:\*\* A

12. \*\*What is the purpose of the Assembly manifest?\*\*

- A. It contains the IL code

- B. It contains metadata, versioning, and dependency information

- C. It contains the main method

- D. It contains a backup of the assembly

\*\*Answer:\*\* B

13. \*\*Which of the following statements about assemblies is true?\*\*

- A. Assemblies cannot have more than one version.

- B. An assembly can contain other assemblies.

- C. Assemblies can be both executables (.exe) and libraries (.dll).

- D. An assembly can only be private.

\*\*Answer:\*\* C

14. \*\*What is the minimum metadata required for an assembly?\*\*

- A. Namespace and Culture

- B. Name, Version, and Culture

- C. Name and Resources

- D. Resources and Namespace

\*\*Answer:\*\* B

15. \*\*What command is used to inspect the contents of an assembly?\*\*

- A. sn.exe

- B. gacutil.exe

- C. ildasm.exe

- D. csc.exe

\*\*Answer:\*\* C

16. \*\*Where is a private assembly usually stored?\*\*

- A. In the GAC

- B. In the application directory

- C. In the System folder

- D. In the Windows directory

\*\*Answer:\*\* B

17. \*\*Which file type represents a compiled .NET assembly?\*\*

- A. .obj

- B. .exe or .dll

- C. .resx

- D. .xml

\*\*Answer:\*\* B

18. \*\*Which part of the assembly contains type metadata?\*\*

- A. Manifest

- B. IL Code

- C. Metadata

- D. Resources

\*\*Answer:\*\* C

19. \*\*Which attribute specifies the version of an assembly?\*\*

- A. AssemblyVersion

- B. AssemblyFileVersion

- C. AssemblyCulture

- D. AssemblyTitle

\*\*Answer:\*\* A

20. \*\*Which attribute sets the culture of an assembly?\*\*

- A. AssemblyCulture

- B. AssemblyVersion

- C. AssemblyFileVersion

- D. AssemblyTitle

\*\*Answer:\*\* A

### Global Assembly Cache (GAC)

21. \*\*What is the GAC used for?\*\*

- A. Storing private assemblies

- B. Storing shared assemblies

- C. Storing temporary files

- D. Storing configuration files

\*\*Answer:\*\* B

22. \*\*Where is the GAC located?\*\*

- A. In the application's bin folder

- B. In the Windows system directory

- C. In a special folder maintained by the CLR

- D. In the Program Files directory

\*\*Answer:\*\* C

23. \*\*What is the tool used to add an assembly to the GAC?\*\*

- A. gacutil.exe

- B. sn.exe

- C. ildasm.exe

- D. ngen.exe

\*\*Answer:\*\* A

24. \*\*What is required for an assembly to be placed in the GAC?\*\*

- A. It must be private

- B. It must have a strong name

- C. It must have no dependencies

- D. It must be an executable

\*\*Answer:\*\* B

25. \*\*Which of the following commands installs an assembly into the GAC?\*\*

- A. gacutil /i myAssembly.dll

- B. sn -i myAssembly.dll

- C. ildasm -i myAssembly.dll

- D. gacutil /g myAssembly.dll

\*\*Answer:\*\* A

26. \*\*What is the full form of GAC?\*\*

- A. Global Assembly Code

- B. General Assembly Collection

- C. Global Assembly Cache

- D. General Assembly Control

\*\*Answer:\*\* C

27. \*\*What happens if two assemblies with the same name but different versions are added to the GAC?\*\*

- A. The second assembly overwrites the first

- B. Both assemblies can coexist

- C. The first assembly is removed

- D. It causes a conflict

\*\*Answer:\*\* B

28. \*\*Which statement is true about GAC?\*\*

- A. Assemblies in the GAC cannot be versioned.

- B. Only strong-named assemblies can be stored in the GAC.

- C. GAC is used only for private assemblies.

- D. GAC doesn't allow versioning.

\*\*Answer:\*\* B

29. \*\*How are assemblies identified in the GAC?\*\*

- A. By their file size

- B. By their fully qualified name (name, version, culture, public key token)

- C. By their file path

- D. By their namespace

\*\*Answer:\*\* B

30. \*\*Can an assembly be removed from the GAC?\*\*

- A. No

- B. Yes, using gacutil /u

- C. Yes, using ildasm.exe

- D. Yes, by deleting the file

\*\*Answer:\*\* B

31. \*\*Which tool is used to view the contents of the GAC?\*\*

- A. gacutil /l

- B. sn.exe /v

- C. ildasm.exe

- D. gacutil /listall

\*\*Answer:\*\* A

32. \*\*Which type of assemblies are usually stored in the GAC?\*\*

- A. Private Assemblies

- B. Satellite Assemblies

- C. Strong-Named Assemblies

- D. Debug Assemblies

\*\*Answer:\*\* C

33. \*\*Which method can be used to programmatically install an assembly into the GAC?\*\*

- A. Assembly.Load

- B. System.EnterpriseServices.Internal.Publish.GacInstall

- C. File.Copy

- D. Registry.Write

\*\*Answer:\*\* B

34. \*\*Why should you use the GAC for shared assemblies?\*\*

- A. To reduce memory consumption

- B. To ensure assemblies are versioned and avoid conflicts

- C. To store private assemblies

- D. To improve execution speed

\*\*Answer:\*\* B

35. \*\*Which of the following statements is FALSE about GAC?\*\*

- A. It supports side-by-side execution of different versions.

- B. Assemblies must be strong-named to be added

to GAC.

- C. GAC is used for private assemblies.

- D. It enables versioning control of assemblies.

\*\*Answer:\*\* C

36. \*\*How can assemblies be uninstalled from the GAC?\*\*

- A. Using sn.exe

- B. Using gacutil.exe

- C. Using csc.exe

- D. Using ildasm.exe

\*\*Answer:\*\* B

37. \*\*Which assembly can have side-by-side versions in the GAC?\*\*

- A. Private Assembly

- B. Shared Assembly

- C. Satellite Assembly

- D. Anonymous Assembly

\*\*Answer:\*\* B

38. \*\*What is the significance of the Public Key Token in the GAC?\*\*

- A. It is a random string generated for the assembly.

- B. It uniquely identifies the assembly's public key.

- C. It represents the file path.

- D. It is the assembly version number.

\*\*Answer:\*\* B

39. \*\*What happens if a required assembly is not found in the GAC?\*\*

- A. The application will crash.

- B. The application will search in the application's local directory.

- C. The CLR throws a FileNotFoundException.

- D. It will load a default assembly.

\*\*Answer:\*\* C

40. \*\*What does side-by-side execution mean in the context of GAC?\*\*

- A. Two applications running simultaneously

- B. Multiple versions of the same assembly can be used simultaneously

- C. Two assemblies can be combined into one

- D. Executing assemblies from two different directories

\*\*Answer:\*\* B

41. \*\*In what scenario is it ideal to store an assembly in the GAC?\*\*

- A. When it is private and used by only one application

- B. When it is used by multiple applications

- C. When it contains only metadata

- D. When it doesn't need versioning

\*\*Answer:\*\* B

42. \*\*How does the GAC improve security?\*\*

- A. It encrypts assemblies

- B. It restricts access to private assemblies

- C. It requires assemblies to be strong-named, ensuring their integrity

- D. It doesn't improve security

\*\*Answer:\*\* C

43. \*\*Which assemblies should NOT be stored in the GAC?\*\*

- A. Shared Assemblies

- B. Strong-Named Assemblies

- C. Private Assemblies

- D. Local Assemblies

\*\*Answer:\*\* C

44. \*\*Which part of the assembly is critical for installing it into the GAC?\*\*

- A. The manifest

- B. The IL code

- C. The strong name

- D. The namespace

\*\*Answer:\*\* C

45. \*\*Can a strongly-named assembly have different versions in the GAC?\*\*

- A. No, only one version is allowed

- B. Yes, multiple versions can coexist

- C. Yes, but only in a different directory

- D. No, it must be versionless

\*\*Answer:\*\* B

46. \*\*Which of the following is NOT a characteristic of an assembly in GAC?\*\*

- A. It is versioned.

- B. It is strong-named.

- C. It is private.

- D. It can be used by multiple applications.

\*\*Answer:\*\* C

47. \*\*How is versioning handled in the GAC?\*\*

- A. The GAC allows multiple versions of the same assembly to coexist.

- B. The GAC overwrites older versions of assemblies.

- C. Only the latest version is stored in the GAC.

- D. The GAC doesn’t support versioning.

\*\*Answer:\*\* A

48. \*\*Which attribute can be used to load an assembly from the GAC?\*\*

- A. Assembly.LoadFrom

- B. Assembly.Load

- C. File.Load

- D. GAC.Load

\*\*Answer:\*\* B

49. \*\*What is the significance of the version number in a GAC assembly?\*\*

- A. It ensures that the latest version is always used.

- B. It allows applications to target specific versions.

- C. It helps in encrypting the assembly.

- D. It is used for error logging.

\*\*Answer:\*\* B

50. \*\*What command can you use to check if an assembly is installed in the GAC?\*\*

- A. gacutil /l <assembly\_name>

- B. sn -v <assembly\_name>

- C. gacutil /install <assembly\_name>

- D. ildasm /l <assembly\_name>

\*\*Answer:\*\* A