# Using Visual Studio Code to Create Console, Web, Razor, MVC, WebAPI Apps

## (20 Questions)

1. What command is used to create a new C# project in Visual Studio Code?
   A) dotnet new
   B) new dotnet
   C) create dotnet
   D) project dotnet

2. Which file is essential for .NET Core projects to run?
   A) project.json
   B) program.cs
   C) launch.json
   D) csproj

3. How do you open a terminal in Visual Studio Code?
   A) Ctrl + T
   B) Ctrl + `
   C) Ctrl + Shift + T
   D) Alt + T

4. Which extension is commonly used for C# development in Visual Studio Code?
   A) C# Extension
   B) C# for Visual Studio
   C) OmniSharp
   D) C# Toolkit

5. What command do you use to run a C# console application?
   A) dotnet run
   B) run dotnet
   C) execute dotnet
   D) start dotnet

6. Which type of project can you create with the command 'dotnet new mvc'?
    A) Web API
    B) MVC Application
    C) Console Application
    D) Class Library

7. What does the '.cs' file extension represent?
    A) C# file
    B) C++ file
    C) C# script
    D) C# solution

8. Which command is used to add a NuGet package to your project?
    A) dotnet add package
    B) dotnet install package
    C) add package dotnet
    D) install package dotnet

9. In a Razor page, which file extension is used?
    A) .html
    B) .razor
    C) .cshtml
    D) .aspx

10. What is the purpose of the launch.json file in Visual Studio Code?
    A) For project settings
    B) For debugging configurations
    C) For task configurations
    D) For build settings
11. Which command initializes a new Web API project?
    A) dotnet new webapi
    B) dotnet new api
    C) dotnet create webapi
    D) dotnet start webapi

12. Which C# keyword is used to define a class in a console application?

A) public

B) class

C) static

D) void

13. How can you install extensions in Visual Studio Code?

A) Through the Extensions view

B) Using the command line

C) By editing settings.json

D) By modifying launch.json

14. What is the main method's signature in a C# console application?

A) static void Main()

B) static int Main()

C) void Main()

D) int Main()

15. How do you publish a C# application?

A) dotnet publish

B) publish dotnet

C) dotnet run

D) dotnet build

16. Which command is used to restore dependencies in a .NET project?

A) dotnet build

B) dotnet restore

C) dotnet run

D) dotnet update

17. What template is used for creating a new Razor Pages project?

A) dotnet new razor

B) dotnet new webapp

C) dotnet new mvc

D) dotnet new webapi

18. What does 'using static' allow you to do in C#?
    A) Import static classes
    B) Import static methods directly
    C) Import static variables
    D) Both A and B

19. Which of the following can be used to debug a C# application in Visual Studio Code?
    A) Console
    B) Debugger
    C) Breakpoints
    D) All of the above

20. How do you create a new Git repository in Visual Studio Code?
    A) git init
    B) init git
    C) create git
    D) new git

## Data Types and Variables (20 Questions):

1. Which of the following is a valid C# data type?
   A) int
   B) number
   C) float64
   D) decimal64

2. What keyword is used to declare a variable in C#?
   A) let
   B) var
   C) define
   D) create

3. What data type would you use for a true/false value in C#?
   A) bool
   B) int
   C) char
   D) string

4. Which of the following data types can store decimal values?
   A) int
   B) decimal
   C) string
   D) char

5. What is the default value of an int in C#?
   A) 0
   B) -1
   C) null  D) 1

6. Which keyword allows you to declare an implicitly typed variable?
   A) var
   B) dynamic
   C) implicit
   D) auto

7. What data type is used to store a character in C#?
    A) char
    B) string
    C) text
    D) character

8. Which of the following is not a value type in C#?
    A) int
    B) double
    C) string
    D) bool

9. How do you declare a constant in C#?
    A) const int x = 10;
    B) constant int x = 10;
    C) int x = 10;
    D) var x = 10;

10. What is the size of a float in C#?
    A) 4 bytes
    B) 8 bytes
    C) 2 bytes
    D) 16 bytes

11. Which of the following data types can hold a list of integers?
    A) List<int>
    B) int[]
    C) both A and B
    D) Array<int>

12. How do you define an array in C#?
    A) int[] arr;
    B) arr[] int;
    C) array<int> arr;
    D) int arr[];

13. What type does the keyword 'dynamic' represent in C#?

A) A type that can change at runtime

B) A fixed type

C) A type that cannot be changed

D) None of the above

14. Which of the following is a reference type?

A) int

B) double

C) string

D) char

15. What is the range of an int data type in C#?

A) -2,147,483,648 to 2,147,483,647

B) -1,000 to 1,000

C) 0 to 1,000

D) None of the above

16. How do you convert a string to an integer in C#?

A) Convert.ToInt32(string)

B) int.Parse(string)

C) Both A and B

D) string.ToInt()

17. What is the correct way to declare a nullable int in C#?

A) int? x;

B) int x?;

C) nullable int x;

D) int null x;

18. Which of the following data types is used for monetary values in C#?

A) float

B) decimal

C) int

D) double

19. What does the 'var' keyword in C# do? A) Declares a variable with a dynamic type

B) Declares a variable with a static type

C) Defines a constant variable

D) None of the above

20. Which of the following is a non-primitive data type in C#?

A) int

B) char

C) string

D) bool

## Control Statements (30 Questions):

1. What keyword is used to create a conditional statement in C#?

A) if

B) switch

C) case

D) for

2. Which control statement allows you to execute code based on a value?

A) if

B) switch

C) while

D) for

3. How do you create a loop that executes a specific number of times?

A) for

B) while

C) do while

D) foreach

4. Which statement is used to exit a loop immediately?

A) exit

B) return

C) break

D) continue

5. What keyword allows you to skip the current iteration of a loop?

A) skip

B) continue

C) break

D) pass

6. Which of the following statements can be used for multi-way branching?

A) if-else

B) switch

C) both A and B

D) none of the above

7. What happens when a 'break' statement is executed inside a switch case?

A) Exits the switch

B) Continues to the next case

C) Exits the entire program

D) None of the above

8. Which loop will always execute at least once?

A) for

B) while

C) do while

D) foreach

9. Which of the following can be used to compare multiple values in C#?

A) if

B) switch

C) both A and B

D) none of the above

10. In C#, what does the 'else' keyword do?

A) Ends a block

B) Executes if the condition is false

C) Both A and B

D) None of the above

11. What is the syntax for a foreach loop in C#?

A) foreach(item in collection)

B) foreach(collection as item)

C) for(item in collection)

D) foreach(item of collection)

12. Which control statement is used to repeat a block of code a specific number of times?

A) while

B) do while

C) for

D) if

13. What does a return statement do?

A) Exits the current loop

B) Exits the current method

C) Stops the program

D) None of the above

14. Which statement allows you to create nested conditions?

A) if-else

B) switch

C) for

D) do while

15. How many default cases can a switch statement have?

A) 1

B) 2

C) 3

D) unlimited

16. What is the result of omitting the break statement in a switch case?

A) It executes the next case

B) It stops execution

C) It throws an error

D) None of the above

17. Which of the following keywords is used to create a loop that continues indefinitely?

A) while(true)

B) for(;;)

C) do while(true)

D) All of the above

18. What is the output of a while loop if its condition is initially false?

A) Executes once

B) Executes indefinitely

C) Does not execute

D) Throws an error

19. Which of the following can be used for simple conditional branching?

A) if

B) switch

C) case

D) break

20. What keyword can be used to create a labeled block in C#?

A) label

B) goto

C) break

D) continue

21. What is the difference between while and do-while loops?

A) do-while always executes at least once

B) while executes at least once

C) Both do the same thing

D) None of the above

22. What type of loop is the foreach loop?

A) Counter-controlled

B) Condition-controlled

C) Collection-controlled

D) None of the above

23. What is the syntax for an if-else statement?

A) if(condition) { } else { }

B) if(condition) { } else

C) if { } else { }

D) if(condition) else { }

24. Which of the following statements will not terminate the program?

A) break

B) exit

C) return

D) continue

25. What is the output of the following code: int x = 5; if (x > 3) {
Console.WriteLine('Hello'); }?

A) Hello

B) No output

C) Error

D) None of the above

26. What control statement allows you to execute a block of code if a condition is false?

A) if

B) switch

C) else

D) break

27. In a nested if statement, what will happen if the inner if condition is false?

A) The outer if executes

B) The inner if executes

C) The outer if does not execute

D) None of the above

28. Which keyword is used to create a default case in a switch statement?

A) default

B) else

C) case

D) break

29. What will happen if a break statement is omitted in a loop?

A) It will not execute

B) It will continue indefinitely

C) It will throw an error

D) None of the above

30. Which of the following keywords is used to terminate a method?

A) break

B) exit

C) return

D) continue

## Methods (30 Questions):

1. What keyword is used to declare a method in C#?

   A) function
   B) method
   C) void
   D) public

2. What does the 'void' keyword indicate in a method declaration?
   A) The method returns a value
   B) The method does not return a value
   C) The method is private
   D) The method is static

3. Which of the following is a valid method signature?
   A) void MyMethod()
   B) void MyMethod(int x)
   C) Both A and B
   D) None of the above

4. What is method overloading?
   A) Defining multiple methods with the same name
   B) A method that calls itself
   C) A method that does not return a value
   D) None of the above

5. What is the purpose of the 'return' statement in a method?
   A) To end the method
   B) To send a value back to the caller
   C) To call another method
   D) None of the above

6. How do you call a method in C#?
   A) MethodName()
   B) Call MethodName()
   C) Execute MethodName()
   D) None of the above

7. What keyword is used to define a method as static?
    A) static
    B) void
    C) public
    D) private

8. What does it mean if a method is marked as 'private'?
    A) The method can be accessed from anywhere
    B) The method can only be accessed within its own class
    C) The method can be accessed from other classes
    D) None of the above

9. Which of the following keywords is used to pass arguments by reference?
    A) ref
    B) out
    C) in
    D) both A and B

10. How do you define a method that takes an array as a parameter?
    A) void MyMethod(int[] arr)
    B) void MyMethod(int arr[])
    C) void MyMethod(int arr)
    D) None of the above

11. What will happen if a method does not have a return type specified?
    A) It will throw an error
    B) It will default to void
    C) It will return null
    D) None of the above

12. Which of the following is true about the 'params' keyword?

A) It allows a method to take a variable number of arguments

B) It is used to define an array parameter

C) Both A and B

D) None of the above

13. What does method recursion mean? A) A method that calls another method

B) A method that calls itself

C) A method with multiple overloads

D) None of the above

14. How can you define an extension method?

A) By using the 'this' keyword in the first parameter

B) By using the 'extension' keyword

C) By creating a static class

D) Both A and C

15. What is the return type of a method that does not return any value?

A) null

B) void

C) string

D) None of the above

16. Which of the following statements about method parameters is true?

A) Parameters are optional

B) Parameters must be specified

C) Both A and B

D) None of the above

17. Can you have a method with the same name but different parameter types in C#?

A) Yes, this is method overloading

B) No, this will cause an error

C) Yes, but it must be static

18. What is the syntax for a method that returns an integer?

A) int MyMethod()

B) MyMethod(): int

C) void MyMethod(): int

D) None of the above

19. What will happen if you forget to include a return statement in a non-void method?

A) It will throw an error

B) It will return null

C) It will return 0

D) None of the above

20. What is an anonymous method in C#?

A) A method without a name

B) A method that cannot return a value

C) A method defined inside another method

D) Both A and C

21. Which of the following best describes a method's accessibility?

A) It determines where the method can be called from

B) It determines the method's return type

C) It determines the number of parameters

D) None of the above

22. What does 'out' parameter mean?

A) It allows passing arguments by reference

B) It requires the method to initialize the variable before use

C) Both A and B

D) None of the above

23. Can a method have multiple return statements?

A) Yes

B) No

C) Only if it has parameters

D) None of the above

24. What is the scope of a local variable?

A) The entire program

B) Within the method only

C) Within the class only

D) None of the above

25. Which of the following is true about a method's return type?

A) It can be void

B) It cannot be null

C) It must be specified

D) Both A and C

26. What is the syntax for creating a method that takes two parameters?

A) void MyMethod(int a, int b)

B) void MyMethod(a int, b int)

C) void MyMethod(int a; int b)

D) None of the above

27. How do you handle exceptions within a method?

A) Using try-catch blocks

B) Using if-else statements

C) Using error codes

D) None of the above

28. What is the difference between a method and a function?

A) There is no difference

B) A method belongs to a class, while a function does not

C) A function can only return values, while a method cannot

D) None of the above

29. How do you define a method with optional parameters? A) void MyMethod(int a = 0)

B) void MyMethod(int a)?

C) Both A and B

30. Which of the following statements about parameters is false?

A) They can have default values

B) They must be declared

C) They can be omitted in method calls

D) None of the above

# Classes (30 Questions):

1. What is a class in C#?
   A) A blueprint for creating objects
   B) A type of variable
   C) A method
   D) None of the above

2. How do you create an instance of a class?
   A) new ClassName()
   B) ClassName new()
   C) create ClassName()
   D) None of the above

3. What keyword is used to define a class?
   A) class
   B) object
   C) instance
   D) new

4. What is the purpose of a constructor in a class?
   A) To create an instance of the class
   B) To initialize the object
   C) To define methods
   D) Both A and B

5. Which of the following defines an instance variable?
   A) static int myVar
   B) int myVar
   C) const int myVar
   D) None of the above

6. What is encapsulation?

A) Hiding the internal state of an object

B) The ability of a class to inherit from another class

C) A method that calls itself

D) None of the above

7. How do you access a public variable of a class?

A) Using the class name

B) Using the instance of the class

C) Both A and B

D) None of the above

8. What keyword is used to inherit a class?

A) inherit

B) base C) extends

D) :

9. What is polymorphism in C#? A) The ability to take multiple forms

B) The ability to hide data

C) The ability to create multiple instances of a class

D) None of the above

10. What is an abstract class?

A) A class that cannot be instantiated

B) A class with no methods

C) A class that can be instantiated

11. How do you declare a class that cannot be inherited from?

A) sealed class ClassName

B) static class ClassName

C) final class ClassName

D) None of the above

12. What is an interface in C#?

A) A contract that defines methods without implementation

B) A class that cannot be instantiated

C) A variable type

D) None of the above

13. Which of the following keywords is used to implement an interface?

A) implements

B) interface

C) inherit

D) :

14. What is the main purpose of a destructor?

A) To destroy an instance of a class

B) To clean up resources

C) To create an instance of a class

D) None of the above

15. What is the difference between a class and a struct?

A) Classes are reference types, while structs are value types

B) Structs can have methods, while classes cannot

C) There is no difference

D) None of the above

16. What does the 'new' keyword do when used with a class?

A) It creates a new instance of the class

B) It defines a new class

C) It modifies the class

D) None of the above

17. What is a static class?

A) A class that can only have static members

B) A class that cannot be instantiated

C) Both A and B

D) None of the above

18. How do you call a method from a static class?

A) ClassName.MethodName()

B) MethodName.ClassName()

C) new ClassName.MethodName()

D) None of the above

19. Can you inherit from multiple classes in C#?
    A) Yes
    B) No
    C) Only if the base class is abstract
    D) None of the above

20. Which of the following is true about constructors?
    A) They can have parameters
    B) They can be overloaded
    C) Both A and B
    D) None of the above

21. What is method hiding?
    A) A derived class defines a method with the same name as a method in its base class
    B) A method that cannot be called
    C) A method that does not return a value
    D) None of the above

22. What keyword is used to define an abstract method?
    A) virtual
    B) abstract
    C) override
    D) None of the above

23. What is the purpose of 'base' keyword?
    A) To refer to the base class from a derived class
    B) To create a base class
    C) To define a class
    D) None of the above

24. What does 'sealed' keyword do?
    A) Prevents a class from being inherited
    B) Hides a method

C) Defines an abstract class

D) None of the above

25. Which of the following is true about properties?

A) They are used to access private fields

B) They can have get and set accessors

C) Both A and B

D) None of the above

26. Can you define a constructor in an abstract class?

A) Yes

B) No

C) Only in static classes

D) None of the above

27. What is the difference between public and private access modifiers?

A) Public members can be accessed from anywhere, private members can only be accessed within the class

B) There is no difference

C) Private members can be accessed from anywhere, public members cannot

D) None of the above

28. What does 'override' keyword do? A) Replaces a method in a derived class

B) Defines a method in a base class

C) Hides a property

D) None of the above

29. Can a class be both abstract and sealed?

A) Yes

B) No

C) Only in C++

D) None of the above

30. What is the main benefit of using interfaces?

A) They provide a way to implement multiple inheritance

B) They allow different classes to be treated as the same type

C) They improve performance

D) None of the above

## Advanced Concepts (30 Questions):

1. What is the purpose of the 'using' statement?

A) To include namespaces

B) To manage resources

C) To define classes

D) None of the above

2. What is LINQ?

A) A language for querying databases

B) A framework for building applications

C) A way to manage memory

D) None of the above

3. What does 'async' keyword indicate? A) A method will run asynchronously

B) A method will not return a value

C) A method is private

D) None of the above

4. What is the purpose of the 'await' keyword?

A) To pause the execution until the asynchronous method is completed

B) To define a method as asynchronous

C) To handle exceptions

D) None of the above

5. What is dependency injection?

A) A technique for managing dependencies

B) A way to improve performance

C) A design pattern

D) Both A and C

6. What is the purpose of the 'IEnumerable' interface?

A) To define a collection that can be iterated

B) To manage asynchronous tasks

C) To define an abstract class

D) None of the above

7. What does 'Task<T>' represent in C#?

A) A type of collection

B) An asynchronous operation that returns a value

C) A synchronous operation

D) None of the above

8. Which of the following is used for error handling in asynchronous methods?

A) try-catch

B) using

C) async-await

D) None of the above

9. What is the role of a 'delegate' in C#?

A) A type-safe function pointer

B) A class for managing threads

C) An interface for events

D) None of the above

10. What is an event in C#?

A) A way to trigger a method when something happens

B) A type of delegate

C) A class for managing resources

D) None of the above

11. What does the 'lock' statement do?

A) Prevents a block of code from being executed by multiple threads at the same time

B) Defines a static method

C) Creates a new instance of a class

D) None of the above

12. What is the purpose of attributes in C#? A) To add metadata to code elements

B) To define a new class

C) To manage memory

D) None of the above

13. What is the difference between 'ref' and 'out' parameters?

A) 'ref' requires initialization, 'out' does not

B) 'out' requires initialization, 'ref' does not

C) Both can be used interchangeably

D) None of the above

14. What is the purpose of 'yield' keyword?

A) To create an iterator

B) To pause the execution of a method

C) To return multiple values

D) None of the above

15. What does 'async void' signify?

A) An asynchronous method that does not return a value

B) A method that cannot be awaited

C) Both A and B

D) None of the above

16. What is the main purpose of reflection in C#?

A) To inspect metadata about assemblies, types, and members

B) To improve performance

C) To manage resources

D) None of the above

17. What is a lambda expression?

A) A way to create anonymous methods

B) A type of delegate

C) A syntax for defining interfaces

D) None of the above

18. What is a generic type in C#?

A) A type that can work with any data type

B) A specific type defined in the program

C) A type used for performance

D) None of the above

19. What does 'var' keyword indicate? A) The type is inferred by the compiler

B) A variable can be of any type

C) A type must be specified

D) None of the above

20. What is the difference between a struct and a class in terms of memory allocation?

A) Structs are allocated on the stack, classes on the heap

B) Both are allocated on the heap

C) Both are allocated on the stack

D) None of the above

21. What is a Task in C#?

A) An operation that can run asynchronously

B) A collection of methods

C) A type of class

D) None of the above

22. What is the purpose of 'IAsyncResult'?

A) To represent the status of an asynchronous operation

B) To manage threads

C) To define a synchronous operation

D) None of the above

23. What is 'async-await' pattern used for? A) To simplify asynchronous programming

B) To improve performance

C) To manage threads

D) None of the above

24. What does the 'Dispose' method do? A) Releases unmanaged resources
    B) Manages memory
    C) Creates a new instance of a class
    D) None of the above

25. What is the main advantage of using tuples? A) They can store multiple values of different types
    B) They improve performance
    C) They are immutable
    D) None of the above

26. What is the purpose of the 'Nullable<T>' type?
    A) To allow value types to be null
    B) To improve performance
    C) To manage memory
    D) None of the above

27. What is the purpose of 'async' and 'await' in C#?
    A) To allow methods to run asynchronously
    B) To manage resources
    C) To define a synchronous operation
    D) None of the above

28. What does 'ConfigureAwait(false)' do?
    A) Ignores the current synchronization context
    B) Allows the method to return a value
    C) Resumes on the original context
    D) None of the above

29. What is a 'ValueTask' in C#?
    A) A struct that represents an asynchronous operation that may complete synchronously
    B) A collection of methods

C) A type of class

D) None of the above

30. What is the difference between 'IEnumerable<T>' and 'IQueryable<T>'?

A) 'IQueryable<T>' is optimized for querying data from a database

B) 'IEnumerable<T>' is for in-memory collections

C) Both A and B

D) None of the above

## Collection Framework in C# (without LINQ)

1. What is the primary purpose of the Collection Framework in C#?

A) To manage database connections

B) To provide data structures for storing and manipulating groups of related objects

C) To handle file I/O

D) To create user interfaces

2. Which of the following is NOT a type of collection in C#?

A) List

B) Dictionary

C) Queue

D) Class

3. Which interface does the List<T> class implement?

A) ICollection<T>

B) IEnumerable<T>

C) IList<T>

D) All of the above

4. What type of collection is a HashSet<T>?

A) Ordered collection

B) Collection with unique elements

C) Key-value pair collection

D) None of the above

5. What does the Dictionary<TKey, TValue> class store?
   A) Only unique keys
   B) Key-value pairs
   C) Only values
   D) Ordered elements

6. Which of the following collections is best suited for first-in-first-out (FIFO) operations?
   A) Stack
   B) List
   C) Queue
   D) Dictionary

7. What method would you use to add an item to a List<T>?
   A) AddItem()
   B) Insert()
   C) Add()
   D) Put()

8. Which method would you use to remove an item from a HashSet<T>?
   A) Delete()
   B) Remove()
   C) Drop()
   D) Erase()

9. What is the time complexity of accessing an element in a List<T> by index?
   A) O(1)
   B) O(n)
   C) O(log n)
   D) O(n^2)

10. Which collection allows duplicate elements?
    A) Dictionary
    B) HashSet
    C) List

D) Queue

11. What does the Count property of a collection represent?
    A) The total memory used
    B) The number of elements in the collection
    C) The maximum capacity of the collection
    D) The number of unique elements

12. Which collection type should be used when you need to maintain the order of elements?
    A) HashSet
    B) Dictionary
    C) Stack
    D) List

13. What is the primary difference between List<T> and ArrayList?
    A) List<T> is type-safe
    B) ArrayList can store only objects
    C) List<T> can resize dynamically
    D) All of the above

14. How can you convert an array to a List<T>?
    A) Use Array.Convert()
    B) Use List<T>.FromArray()
    C) Use List<T> constructor
    D) Use LINQ

15. Which collection is ideal for implementing a stack?
    A) Queue
    B) Stack
    C) List
    D) Dictionary

16. What is the default capacity of a List<T> when it is first created?
    A) 0
    B) 4

C) 10

D) 16

17. Which method would you use to clear all elements from a collection?

A) Clear()

B) RemoveAll()

C) Reset()

D) Erase()

18. What type of collection does not allow null elements?

A) List<T>

B) HashSet<T>

C) Dictionary<TKey, TValue>

D) Queue

19. Which method would you use to find the index of an element in a List<T>?

A) FindIndex()

B) IndexOf()

C) SearchIndex()

D) LocateIndex()

20. Which collection allows access to elements in a last-in-first-out (LIFO) manner?

A) Queue

B) Stack

C) List

D) HashSet

21. What type of collection is a SortedList<TKey, TValue>?

A) A collection that maintains the order of insertion

B) A collection that sorts elements by key

C) A collection that only allows unique values

D) A collection that supports FIFO operations

22. What does the TryGetValue method do in a Dictionary<TKey, TValue>?

A) Tries to retrieve a value by key

B) Attempts to add a key-value pair

C) Checks if a key exists

D) Removes a key-value pair

23. How can you initialize a collection with a specified capacity?

A) Using the constructor that accepts an integer

B) By using the Add method

C) Using the Initialize method

D) You cannot set a capacity

24. Which collection is implemented as a dynamic array?

A) List<T>

B) HashSet<T>

C) Queue

D) Dictionary

25. What is the main advantage of using a LinkedList<T>?

A) Faster access to elements

B) Faster insertion and removal at both ends

C) Less memory usage

D) Automatic resizing

26. Which method is used to sort elements in a List<T>?

A) OrderBy()

B) Sort()

C) Arrange()

D) Organize()

27. In which collection type are elements stored in key-value pairs?

A) Stack

B) List

C) Dictionary

D) Queue

28. What is the purpose of the Capacity property in a List<T>?

A) To define the maximum size of the list

B) To store the current number of elements

C) To indicate how many elements can be stored without resizing

D) All of the above

29. Which collection can have a fixed size?

A) List<T>

B) ArrayList

C) Array

D) Dictionary

30. What is the primary function of the Enumerator in collections?

A) To add elements

B) To remove elements

C) To iterate through the collection

D) To search for elements