

# Dot Net Interview Questions And Answers Guide.



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## Dot Net Job Interview Preparation Guide.

### Question # 1

How many languages .NET is supporting now?

#### Answer:-

When .NET was introduced it came with several languages.

VB.NET,

C#,

COBOL

and

Perl, etc.

The site DotNetLanguages.Net says 44 languages are supported by .NET

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### Question # 2

How is .NET able to support multiple languages?

#### Answer:-

A language should comply with the Common Language Runtime standard to become a .NET language. In .NET, code is compiled to Microsoft Intermediate Language (MSIL for short). This is called as Managed Code. This Managed code is run in .NET environment. So after compilation to this IL the language is not a barrier. A code can call or use a function written in another language.

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### Question # 3

How ASP .NET different from ASP?

#### Answer:-

Scripting is separated from the HTML, Code is compiled as a DLL, these DLLs can be executed on the server.

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### Question # 4

What is smart navigation in .NET?

#### Answer:-

The cursor position is maintained when the page gets refreshed due to the server side validation and the page gets refreshed.

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### Question # 5

What is view state in .NET?

#### Answer:-

The web is stateless. But in ASP.NET, the state of a page is maintained in the in the page itself automatically. How? The values are encrypted and saved in hidden controls. this is done automatically by the ASP.NET. This can be switched off / on for a single control

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### Question # 6

How do you validate the controls in an ASP .NET page?

#### Answer:-

Using special validation controls that are meant for validation of any controle.

We have Range Validator, Email Validator in .NET to validate any control.

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### Question # 7

Can the validation be done in the server side? Or this can be done only in the Client side?

**Answer:-**

Client side is done by default. Server side validation is also possible in .NET. We can switch off the client side and server side can be done only in .NET

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### Question # 8

How to manage pagination in a page using .NET?

**Answer:-**

Using pagination option in DataGrid control is available in .NET. We have to set the number of records for a page, then it takes care of pagination by itself automatically.

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### Question # 9

What is ADO .NET and what is difference between ADO and ADO.NET?

**Answer:-**

ADO.NET is stateless mechanism. I can treat the ADO.Net as a separate in-memory database where in I can use relationships between the tables and select insert and updates to the database. I can update the actual database as a batch

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### Question # 10

Observations between VB.NET and VC#.NET?

**Answer:-**

Choosing a programming language depends on your language experience and the scope of the application you are building. While small applications are often created using only one language, it is not uncommon to develop large applications using multiple languages.

For example, if you are extending an application with existing XML Web services, you might use a scripting language with little or no programming effort. For client-server applications, you would probably choose the single language you are most comfortable with for the entire application. For new enterprise applications, where large teams of developers create components and services for deployment across multiple remote sites, the best choice might be to use several languages depending on developer skills and long-term maintenance expectations.

The .NET Platform programming languages - including Visual Basic .NET, Visual C#, and Visual C++ with managed extensions, and many other programming languages from various vendors - use .NET Framework services and features through a common set of unified classes. The .NET unified classes provide a consistent method of accessing the platform's functionality. If you learn to use the class library, you will find that all tasks follow the same uniform architecture. You no longer need to learn and master different API architectures to write your applications.

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### Question # 11

Advantages of migrating to VB.NET?

**Answer:-**

Visual Basic .NET has many new and improved language features - such as inheritance, interfaces, and overloading that make it a powerful object-oriented programming language. As a Visual Basic developer, you can now create multithreaded, scalable applications using explicit multithreading. Other new language features in Visual Basic .NET include structured exception handling, custom attributes, and common language specification (CLS) compliance.

The CLS is a set of rules that standardizes such things as data types and how objects are exposed and interoperate. Visual Basic .NET adds several features that take advantage of the CLS. Any CLS-compliant language can use the classes, objects, and components you create in Visual Basic .NET. And you, as a Visual Basic user, can access classes, components, and objects from other CLS-compliant programming languages without worrying about language-specific differences such as data types.

CLS features used by Visual Basic .NET programs include assemblies, namespaces, and attributes.

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### Question # 12

Advantages of VB.NET?

**Answer:-**

1. First of all, VB.NET provides managed code execution that runs under the Common Language Runtime (CLR), resulting in robust, stable and secure applications. All features of the .NET framework are readily available in VB.NET.

2. VB.NET is totally object oriented. This is a major addition that VB6 and other earlier releases didn't have.

3. The .NET framework comes with ADO.NET, which follows the disconnected paradigm, i.e. once the required records are fetched the connection no longer exists. It also retrieves the records that are expected to be accessed in the immediate future. This enhances Scalability of the application to a great extent.

4. VB.NET uses XML to transfer data between the various layers in the DNA Architecture i.e. data are passed as simple text strings.

5. Error handling has changed in VB.NET. A new Try-Catch-Finally block has been introduced to handle errors and exceptions as a unit, allowing appropriate action to be taken at the place the error occurred thus discouraging the use of ON ERROR GOTO statement. This again credits to the maintainability of the code.

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### Question # 13

Using ActiveX Control in .Net?

**Answer:-**

ActiveX control is a special type of COM component that supports a User Interface. Using ActiveX Control in your .Net Project is even easier than using COM component. They are bundled usually in .ocx files. Again a proxy assembly is made by .Net utility AxImp.exe (which we will see shortly) which your application (or client) uses as if it is a .Net control or assembly.



Making Proxy Assembly For ActiveX Control: First, a proxy assembly is made using AxImp.exe (acronym for ActiveX Import) by writing following command on Command Prompt:

```
C:> AxImp C:\MyProjects\MyControl.ocx
```

This command will make two dlls, e.g., in case of above command

MyControl.dll

AxMyControl.dll

The first file MyControl.dll is a .Net assembly proxy, which allows you to reference the ActiveX as if it were non-graphical object.

The second file AxMyControl.dll is the Windows Control, which allows u to use the graphical aspects of activex control and use it in the Windows Form Project.

Adding Reference of ActiveX Proxy Assembly in your Project Settings: To add a reference of ActiveX Proxy Assembly in our Project, do this:

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### Question # 14

What is Machine.config in .NET?

**Answer:-**

Machine configuration file: The machine.config file contains settings that apply to the entire computer. This file is located in the %runtime install path%\Config directory. There is only one machine.config file on a computer. The Machine.Config file found in the "CONFIG" subfolder of your .NET Framework install directory (c:\WINNT\Microsoft.NETFramework\{Version Number}\CONFIG on Windows 2000 installations). The machine.config, which can be found in the directory \$WINDIR\$\Microsoft.NETFramework\1.0.3705\CONFIG, is an XML-formatted configuration file that specifies configuration options for the machine. This file contains, among many other XML elements, a browserCaps element. Inside this element are a number of other elements that specify parse rules for the various User-Agents, and what properties each of these parsings supports.

For example, to determine what platform is used, a filter element is used that specifies how to set the platform property based on what platform name is found in the User-Agent string. Specifically, the machine.config file contains:

```
platform=Win95
platform=Win98
platform=WinNT
...
```

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### Question # 15

What is Web.config in .NET?

**Answer:-**

In classic ASP all Web site related information was stored in the metadata of IIS. This had the disadvantage that remote Web developers couldn't easily make Web-site configuration changes. For example, if you want to add a custom 404 error page, a setting needs to be made through the IIS admin tool, and you're Web host will likely charge you a flat fee to do this for you. With ASP.NET, however, these settings are moved into an XML-formatted text file (Web.config) that resides in the Web site's root directory. Through Web.config you can specify settings like custom 404 error pages, authentication and authorization settings for the Web sitemplation options for the ASP.NET Web pages, if tracing should be enabled, etc. The Web.config file is an XML-formatted file. At the root level is the tag. Inside this tag you can add a number of other tags, the most common and useful one being the system.web tag, where you will specify most of the Web site configuration parameters. However, to specify application-wide settings you use the tag.

For example, if we wanted to add a database connection string parameter we could have a Web.config file like so.

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### Question # 16

What is the difference between ADO and ADO.NET?

**Answer:-**

ADO uses Recordsets and cursors to access and modify data. Because of its inherent design, Recordset can impact performance on the server side by tying up valuable resources. In addition, COM marshalling - an expensive data conversion process - is needed to transmit a Recordset. ADO.NET addresses three important needs that ADO doesn't address:

1. Providing a comprehensive disconnected data-access model, which is crucial to the Web environment
2. Providing tight integration with XML, and
3. Providing seamless integration with the .NET Framework (e.g., compatibility with the base class library's type system). From an ADO.NET implementation perspective, the Recordset object in ADO is eliminated in the .NET architecture. In its place, ADO.NET has several dedicated objects led by the DataSet object and including the DataAdapter, and DataReader objects to perform specific tasks. In addition, ADO.NET DataSets operate in disconnected state whereas the ADO RecordSet objects operated in a fully connected state.

In ADO, the in-memory representation of data is the recordset. In ADO.NET, it is the dataset. A recordset looks like a single table. If a recordset is to contain data from multiple database tables, it must use a JOIN query, which assembles the data from the various database tables into a single result table. In contrast, a dataset is a collection of one or more tables.

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### Question # 17

What is the difference between VB and VB.NET?

**Answer:-**

Now VB.NET is object-oriented language. The following are some of the differences:

Data Type Changes

The .NET Platform provides Common Type System to all the supported languages. This means that all the languages must support the same data types as enforced by common language runtime. This eliminates data type incompatibilities between various languages. For example on the 32-bit Windows platform, the integer data type takes 4 bytes in languages like C++ whereas in VB it takes 2 bytes. Following are the main changes related to data types in VB.NET:

- . Under .NET the integer data type in VB.NET is also 4 bytes in size.
- . VB.NET has no currency data type. Instead it provides decimal as a replacement.
- . VB.NET introduces a new data type called Char. The char data type takes 2 bytes and can store Unicode characters.
- . VB.NET do not have Variant data type. To achieve a result similar to variant type you can use Object data type. (Since every thing in .NET including primitive data types is an object, a variable of object type can point to any data type).
- . In VB.NET there is no concept of fixed length strings.
- . In VB6 we used the Type keyword to declare our user-defined structures. VB.NET introduces the structure keyword for the same purpose.



### Declaring Variables

Consider this simple example in VB6:

```
Dim x,y as integer
```

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### Question # 18

What is a Strong Name in .NET?

#### Answer:-

A strong name consists of the assembly's identity its simple text name, version number, and culture information (if provided) plus a public key and a digital signature. It is generated from an assembly file (the file that contains the assembly manifest, which in turn contains the names and hashes of all the files that make up the assembly), using the corresponding private key. Assemblies with the same strong name are expected to be identical.

Strong names guarantee name uniqueness by relying on unique key pairs. No one can generate the same assembly name that you can, because an assembly generated with one private key has a different name than an assembly generated with another private key.

When you reference a strong-named assembly, you expect to get certain benefits, such as versioning and naming protection. If the strong-named assembly then references an assembly with a simple name, which does not have these benefits, you lose the benefits you would derive from using a strong-named assembly and revert to DLL conflicts. Therefore, strong-named assemblies can only reference other strong-named assemblies.

There are two ways to sign an assembly with a strong name:

1. Using the Assembly Linker (AL.exe) provided by the .NET Framework SDK.

2. Using assembly attributes to insert the strong name information in your code. You can use either the AssemblyKeyFileAttribute or the AssemblyKeyNameAttribute, depending

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### Question # 19

What is a Manifest in .NET?

#### Answer:-

An assembly manifest contains all the metadata needed to specify the assembly's version requirements and security identity, and all metadata needed to define the scope of the assembly and resolve references to resources and classes. The assembly manifest can be stored in either a PE (Portable Executable) file (an .exe or .dll) with Microsoft intermediate language (MSIL) code or in a standalone PE (Portable Executable) file that contains only assembly manifest information. The following table shows the information contained in the assembly manifest. The first four items the assembly name, version number, culture, and strong name information make up the assembly's identity.

Assembly name: A text string specifying the assembly's name.

Version number: A major and minor version number, and a revision and build number. The common language runtime uses these numbers to enforce version policy.

Culture: Information on the culture or language the assembly supports. This information should be used only to designate an assembly as a satellite assembly containing culture- or language-specific information. (An assembly with culture information is automatically assumed to be a satellite assembly.) Strong name information: The public key from the publisher if the assembly has been given a strong name. List of all files in the assembly:

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### Question # 20

Creating a Key Pair in .NET?

#### Answer:-

You can create a key pair using the Strong Name tool (Sn.exe). Key pair files usually have an .snk extension. To create a key pair At the command prompt, type the following command:

```
sn k
```

In this command, file name is the name of the output file containing the key pair. The following example creates a key pair called sgKey.snk.

```
sn -k sgKey.snk
```

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### Question # 21

What is the difference between "using System.Data;" and directly adding the reference from "Add References Dialog Box"?

#### Answer:-

When u compile a program using command line, u add the references using /r switch. When you compile a program using Visual Studio, it adds those references to our assembly, which are added using "Add Reference" dialog box. While "using" statement facilitates us to use classes without using their fully qualified names.

For example: if u have added a reference to "System.Data.SqlClient" using "Add Reference" dialog box then u can use SqlConnection class like this:

```
System.Data.SqlClient.SqlConnection
```

But if u add a "using System.Data.SqlClient" statement at the start of ur code then u can directly use SqlConnection class.

On the other hand if u add a reference using "using System.Data.SqlClient" statement, but don't add it using "Add Reference" dialog box, Visual Studio will give error message while we compile the program.

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### Question # 22

What is GAC in .NET?

#### Answer:-

The global assembly cache stores assemblies specifically designated to be shared by several applications on the computer. You should share assemblies by installing them into the global assembly cache only when you need to. Assemblies deployed in the global assembly cache must have a strong name. When an assembly is added to the global assembly cache, integrity checks are performed on all files that make up the assembly. The cache performs these integrity checks to ensure that an assembly has not been tampered with, for example, when a file has changed but the manifest does not reflect the change. Use a developer tool called the Global Assembly Cache tool (Gacutil.exe), provided by the .NET Framework SDK or Use Windows Explorer to drag assemblies into the cache. To install a strong-named assembly into the global assembly cache At the command prompt, type the following command:

```
gacutil I
```

In this command, assembly name is the name of the assembly to install in the global assembly cache.



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### Question # 23

What is a Metadata in .NET?

#### Answer:-

Metadata is information about a PE. In COM, metadata is communicated through non-standardized type libraries.

In .NET, this data is contained in the header portion of a COFF-compliant PE and follows certain guidelines; it contains information such as the assembly's name, version, language (spoken, not computer.k.a., culture), what external types are referenced, what internal types are exposed, methods, properties, classes, and much more.

The CLR uses metadata for a number of specific purposes. Security is managed through a public key in the PE's header.

Information about classes, modules, and so forth allows the CLR to know in advance what structures are necessary. The class loader component of the CLR uses metadata to locate specific classes within assemblies, either locally or across networks.

Just-in-time (JIT) compilers use the metadata to turn IL into executable code.

Other programs take advantage of metadata as well.

A common example is placing a Microsoft Word document on a Windows 2000 desktop. If the document file has completed comments, author, title, or other Properties metadata, the text is displayed as a tool tip when a user hovers the mouse over the document on the desktop. You can use the Ildasm.exe utility to view the metadata in a PE. Literally, this tool is an IL disassembler.

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### Question # 24

What is managed code and managed data in .NET?

#### Answer:-

Managed code is code that is written to target the services of the Common Language Runtime.

In order to target these services, the code must provide a minimum level of information (metadata) to the runtime.

All C#, Visual Basic .NET, and JScript .NET code is managed by default.

Visual Studio .NET C++ code is not managed by default, but the compiler can produce managed code by specifying a command-line switch (/CLR).

Closely related to managed code is managed data--data that is allocated and de-allocated by the Common Language Runtime's garbage collector. C#, Visual Basic, and JScript .NET data is managed by default.

C# data can, however, be marked as unmanaged through the use of special keywords.

Visual Studio .NET C++ data is unmanaged by default (even when using the /CLR switch), but when using Managed Extensions for C++, a class can be marked as managed using the `__gc` keyword. As the name suggests, this means that the memory for instances of the class is managed by the garbage collector.

In addition, the class becomes a full participating member of the .NET Framework community, with the benefits and restrictions that it brings. An example of a benefit is proper interoperability with classes written in other languages (for example, a managed C++ class can inherit from a Visual Basic class).

An example of a restriction is that a managed class can only inherit from one base class.

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### Question # 25

What is .NET and .NET Framework?

#### Answer:-

It is a Framework in which Windows applications may be developed and run. The Microsoft .NET Framework is a platform for building, deploying, and running Web Services and applications. It provides a highly productive, standards-based, multi-language environment for integrating existing investments with next-generation applications and services as well as the agility to solve the challenges of deployment and operation of Internet-scale applications. The .NET Framework consists of three main parts: the common language runtime, a hierarchical set of unified class libraries, and a componentized version of Active Server Pages called ASP.NET. The .NET Framework provides a new programming model and rich set of classes designed to simplify application development for Windows, the Web, and mobile devices. It provides full support for XML Web services, contains robust security features, and delivers new levels of programming power. The .NET Framework is used by all Microsoft languages including Visual C#, Visual J#, and Visual C++.

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### Question # 26

What is Reflection in .NET?

#### Answer:-

It extends the benefits of metadata by allowing developers to inspect and use it at runtime. For example, dynamically determine all the classes contained in a given assembly and invoke their methods. Reflection provides objects that encapsulate assemblies, modules, and types. You can use reflection to dynamically create an instance of a type, bind the type to an existing object, or get the type from an existing object. You can then invoke the type's methods or access its fields and properties. Namespace: System.Reflection

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### Question # 27

What is "Common Type System" (CTS) in .NET?

#### Answer:-

CTS defines all of the basic types that can be used in the .NET Framework and the operations performed on those type.

All this time we have been talking about language interoperability, and .NET Class Framework. None of this is possible without all the language sharing the same data types. What this means is that an int should mean the same in VB, VC++, C# and all other .NET compliant languages. This is achieved through introduction of Common Type System (CTS).

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### Question # 28

What is "Common Language Specification" (CLS) in .NET?

#### Answer:-



CLS is the collection of the rules and constraints that every language (that seeks to achieve .NET compatibility) must follow. It is a subsection of CTS and it specifies how it shares and extends one another libraries.

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### Question # 29

What is "Common Language Runtime" (CLR) in .NET?

**Answer:-**

CLR is .NET equivalent of Java Virtual Machine (JVM). It is the runtime that converts a MSIL code into the host machine language code, which is then executed appropriately. The CLR is the execution engine for .NET Framework applications. It provides a number of services, including:

- Code management (loading and execution)
- Application memory isolation
- Verification of type safety
- Conversion of IL to native code.
- Access to metadata (enhanced type information)
- Managing memory for managed objects
- Enforcement of code access security
- Exception handling, including cross-language exceptions
- Interoperation between managed code, COM objects, and pre-existing DLL's (unmanaged code and data)
- Automation of object layout
- Support for developer services (profiling, debugging, and so on)

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### Question # 30

What are Attributes in .NET?

**Answer:-**

Attributes are declarative tags in code that insert additional metadata into an assembly. There exist two types of attributes in the .NET Framework: Predefined attributes such as Assembly Version, which already exist and are accessed through the Runtime Classes; and custom attributes, which you write yourself by extending the System.Attribute class.

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### Question # 31

What are the Types of Assemblies in .NET?

**Answer:-**

Assemblies are of two types:

1. Private Assemblies
2. Shared Assemblies

Private Assemblies:

The assembly is intended only for one application. The files of that assembly must be placed in the same folder as the application or in a sub folder. No other application will be able to make a call to this assembly. The advantage of having a private assembly is that, it makes naming the assembly very easy, since the developer need not worry about name clashes with other assemblies. As long as the assembly has a unique name within the concerned application, there won't be any problems.

Shared Assemblies: If the assembly is to be made into a Shared Assembly, then the naming conventions are very strict since it has to be unique across the entire system. The naming conventions should also take care of newer versions of the component being shipped. These are accomplished by giving the assembly a Shared Name. Then the assembly is placed in the global assembly cache, which is a folder in the file system reserved for shared assemblies.

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### Question # 32

What is an Intermediate language?

**Answer:-**

Assemblies are made up of IL code modules and the metadata that describes them. Although programs may be compiled via an IDE or the command line, in fact, they are simply translated into IL, not machine code. The actual machine code is not generated until the function that requires it is called. This is the just-in-time, or JIT, compilation feature of .NET. JIT compilation happens at runtime for a variety of reasons, one of the most ambitious being Microsoft's desire for cross-platform .NET adoption. If a CLR is built for another operating system (UNIX or Mac), the same assemblies will run in addition to the Microsoft platforms. The hope is that .NET assemblies are write-once-run-anywhere applications. This is a .NET feature that works behind-the-scenes, ensuring that developers are not limited to writing applications for one single line of products. No one has demonstrated whether or not this promise will ever truly materialize.

CTS/CLS

The MSIL Instruction Set Specification is included with the .NET SDK, along with the IL Assembly Language Programmers Reference. If a developer wants to write custom .NET programming languages, these are the necessary specifications and syntax. The CTS and CLS define the types and syntax's that every .NET language needs to embrace. An application may not expose these features, but it must consider them when communicating through IL.

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### Question # 33

ASP.NET Authentication Providers and IIS Security?

**Answer:-**

ASP.NET implements authentication using authentication providers, which are code modules that verify credentials and implement other security functionality such as cookie generation. ASP.NET supports the following three authentication providers:

Forms Authentication: Using this provider causes unauthenticated requests to be redirected to a specified HTML form using client side redirection. The user can then supply logon credentials, and post the form back to the server. If the application authenticates the request (using application-specific logic), ASP.NET issues a cookie that contains the credentials or a key for reacquiring the client identity. Subsequent requests are issued with the cookie in the request headers, which means that subsequent authentications are unnecessary.

Passport Authentication: This is a centralized authentication service provided by Microsoft that offers a single logon facility and membership services for



participating sites. ASP.NET, in conjunction with the Microsoft® Passport software development kit (SDK), provides similar functionality as Forms Authentication to Passport users.

Windows Authentication: This provider utilizes the authentication capabilities of IIS. After IIS completes its authentication, ASP.NET uses the authenticated identity's token to authorize access.

To enable a specified authentication provider for an ASP.NET application, you must create an entry in the applicati

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### Question # 34

What is the difference between ASP and ASP.NET?

**Answer:-**

ASP is interpreted. ASP.NET Compiled event base programming.

Control events for text button can be handled at client javascript only. Since we have server controls events can handle at server side.

More error handling.

ASP .NET has better language support, a large set of new controls and XML based components, and better user authentication.

ASP .NET provides increased performance by running compiled code.

ASP .NET code is not fully backward compatible with ASP.

ASP .NET also contains a new set of object oriented input controls, like programmable list boxes, validation controls. A new data grid control supports sorting, data paging, and everything you expect from a dataset control. The first request for an ASP.NET page on the server will compile the ASP .NET code and keep a cached copy in memory. The result of this is greatly increased performance.

ASP .NET is not fully compatible with earlier versions of ASP, so most of the old ASP code will need some changes to run under ASP .NET. To overcome this problem,

ASP .NET uses a new file extension ".aspx". This will make ASP .NET applications able to run side by side with standard ASP applications on the same server.

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### Question # 35

Using COM Component in .Net?

**Answer:-**

As most of you know that .Net does not encourage the development of COM components and provides a different solution to making reusable components through Assemblies. But, there are a lot of COM components present which our .Net application might need to use. Fortunately, .Net provides an extremely simple approach to achieve this. This is achieved by using 'Wrapper Classes' and 'Proxy Components'. .Net wraps the COM component into .Net assembly technically called 'Runtime Callable Wrapper' or RCW. Then u can call and use your COM component just as a .Net (or C#, if u are using C#) Assembly.

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### Question # 36

What is an assembly in .NET?

**Answer:-**

An assembly is the primary building block of a .NET Framework application. It is a collection of functionality that is built, versioned, and deployed as a single implementation unit (as one or more files). All managed types and resources are marked either as accessible only within their implementation unit, or as accessible by code outside that unit. .NET Assembly contains all the metadata about the modules, types, and other elements it contains in the form of a manifest. The CLR loves assemblies because differing programming languages are just perfect for creating certain kinds of applications. For example, COBOL stands for Common Business-Oriented Language because it's tailor-made for creating business apps. However, it's not much good for creating drafting programs. Regardless of what language you used to create your modules, they can all work together within one Portable Executable Assembly. There's a hierarchy to the structure of .NET code. That hierarchy is Assembly -> Module -> Type -> Method." Assemblies can be static or dynamic. Static assemblies can include .NET Framework types (interfaces and classes), as well as resources for the assembly (bitmaps, JPEG files, resource files, and so on). Static assemblies are stored on disk in portable executable (PE) files.

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### Question # 37

What is a Web Service in .NET?

**Answer:-**

A web service is a software component that exposes itself through the open communication channels of the Internet. Applications running on remote machines, on potentially different platforms, can access these components in a language and platform-independent manner. A Web Service is a group of functions, packaged together for use in a common framework throughout a network.

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### Question # 38

Explain webFarm Vs webGardens in .NET?

**Answer:-**

A web farm is a multi-server scenario. So we may have a server in each state of US. If the load on one server is in excess then the other servers step in to bear the brunt.

How they bear it is based on various models.

1. RoundRobin. (All servers share load equally)
2. NLB (economical)
3. HLB (expensive but can scale up to 8192 servers)
4. Hybrid (of 2 and 3).
5. CLB (Component load balancer).

A web garden is a multi-processor setup. i.e., a single server (not like the multi server above).

How to implement webfarms in .Net:

Go to web.config and Here for mode = you have 4 options.

- a) Say mode=inproc (non web farm but fast when you have very few customers).
- b) Say mode = StateServer (for webfarm)



c) Say mode = SqlServer (for webfarm)

Whether to use option b or c depends on situation. StateServer is faster but SqlServer is more reliable and used for mission critical applications.

How to use webgardens in .Net:

Go to web.config and Change the false to true. You have one more attribute that is related to webgarden in the same tag called cpuMask.

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### **Question # 39**

What is the difference between a namespace and assembly name in .NET?

**Answer:-**

A namespace is a logical naming scheme for types in which a simple type name, such as MyType, is preceded with a dot-separated hierarchical name. Such a naming scheme is completely under control of the developer. For example, types MyCompany.FileAccess.A and MyCompany.FileAccess.B might be logically expected to have functionally related to file access. The .NET Framework uses a hierarchical naming scheme for grouping types into logical categories of related functionality, such as the ASP.NET application framework, or remoting functionality. Design tools can make use of namespaces to make it easier for developers to browse and reference types in their code. The concept of a namespace is not related to that of an assembly. A single assembly may contain types whose hierarchical names have different namespace roots, and a logical namespace root may span multiple assemblies. In the .NET Framework, a namespace is a logical design-time naming convenience, whereas an assembly establishes the name scope for types at run time.

[Read More Answers.](#)

### **Question # 40**

What's a Windows process in .NET?

**Answer:-**

Windows process is an application that's running and had been allocated memory in .NET

[Read More Answers.](#)

### **Question # 41**

What's typical about a Windows process in regards to memory allocation in .NET?

**Answer:-**

Each process is allocated its own block of available RAM space, no process can access another process' code or data. If the process crashes, it dies alone without taking the entire OS or a bunch of other applications down.

[Read More Answers.](#)

### **Question # 42**

Explain what relationship is between a Process, Application Domain, and Application?

**Answer:-**

Each process is allocated its own block of available RAM space, no process can access another process' code or data. If the process crashes, it dies alone without taking the entire OS or a bunch of other applications down.

A process is an instance of a running application. An application is an executable on the hard drive or network. There can be numerous processes launched of the same application (5 copies of Word running), but 1 process can run just 1 application.

[Read More Answers.](#)

### **Question # 43**

What are possible implementations of distributed applications in .NET?

**Answer:-**

.NET Remoting and ASP.NET Web Services. If we talk about the Framework Class Library, noteworthy classes are in System.Runtime.Remoting and System.Web.Services.

[Read More Answers.](#)

### **Question # 44**

What are the consideration in deciding to use .NET Remoting or ASP.NET Web Services?

**Answer:-**

Remoting is a more efficient communication exchange when you can control both ends of the application involved in the communication process. Web Services provide an open-protocol-based exchange of information. Web Services are best when you need to communicate with an external organization or another (non-.NET) technology.

[Read More Answers.](#)

### **Question # 45**

What's a proxy of the server object in .NET Remoting?

**Answer:-**

It's a fake copy of the server object that resides on the client side and behaves as if it was the server. It handles the communication between real server object and the client object. This process is also known as marshaling.

[Read More Answers.](#)

### **Question # 46**

What are remotable objects in .NET Remoting?

**Answer:-**

Remotable objects are the objects that can be marshaled across the application domains. You can marshal by value, where a deep copy of the object is created and then passed to the receiver. You can also marshal by reference, where just a reference to an existing object is passed.

[Read More Answers.](#)

**Question # 47**

What are channels in .NET Remoting?

**Answer:-**

Channels represent the objects that transfer the other serialized objects from one application domain to another and from one computer to another, as well as one process to another on the same box. A channel must exist before an object can be transferred.

[Read More Answers.](#)

**Question # 48**

What security measures exist for .NET Remoting in System.Runtime.Remoting?

**Answer:-**

None. Security should be taken care of at the application level. Cryptography and other security techniques can be applied at application or server level.

[Read More Answers.](#)

**Question # 49**

What is a formatter in .NET?

**Answer:-**

A formatter is an object that is responsible for encoding and serializing data into messages on one end, and deserializing and decoding messages into data on the other end.

[Read More Answers.](#)

**Question # 50**

Choosing between HTTP and TCP for protocols and Binary and SOAP for formatters, what are the trade-offs?

**Answer:-**

Binary over TCP is the most efficient, SOAP over HTTP is the most interoperable in .NET.

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**Question # 51**

What's SingleCall activation mode used for in .NET?

**Answer:-**

If the server object is instantiated for responding to just one single request, the request should be made in SingleCall mode in .NET

[Read More Answers.](#)

**Question # 52**

What's Singleton activation mode in .NET?

**Answer:-**

A single object is instantiated regardless of the number of clients accessing it. Lifetime of this object is determined by lifetime lease.

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**Question # 53**

How do you define the lease of the object in .NET?

**Answer:-**

By implementing ILease interface when writing the class code in .NET

[Read More Answers.](#)

**Question # 54**

Can you configure a .NET Remoting object via XML file?

**Answer:-**

Yes, via machine.config and application level .config file (or web.config in ASP.NET). Application-level XML settings take precedence over machine.config.

[Read More Answers.](#)

**Question # 55**

How can you automatically generate interface for the remotable object in .NET with Microsoft tools?

**Answer:-**

Use the SoapSuds tool to generate automatically interface for the remotable object in .NET with Microsoft tools.

[Read More Answers.](#)



### Question # 56

What is Delegation in .NET?

#### Answer:-

A delegate acts like a strongly type function pointer. Delegates can invoke the methods that they reference without making explicit calls to those methods. Delegate is an entity that is entrusted with the task of representation, assign or passing on information. In code sense, it means a Delegate is entrusted with a Method to report information back to it when a certain task (which the Method expects) is accomplished outside the Method's class.

[Read More Answers.](#)

### Question # 57

What is "Microsoft Intermediate Language" (MSIL)?

#### Answer:-

A .NET programming language (C#, VB.NET, J# etc.) does not compile into executable code; instead it compiles into an intermediate code called Microsoft Intermediate Language (MSIL). As a programmer one need not worry about the syntax of MSIL - since our source code is automatically converted to MSIL. The MSIL code is then sent to the CLR (Common Language Runtime) that converts the code to machine language, which is, then run on the host machine. MSIL is similar to Java Byte code. MSIL is the CPU-independent instruction set into which .NET Framework programs are compiled. It contains instructions for loading, storing, initializing, and calling methods on objects. Combined with metadata and the common type system, MSIL allows for true cross- language integration Prior to execution, MSIL is converted to machine code. It is not interpreted.

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### Question # 58

Differences between Datagrid, Datalist and Repeater in .NET?

#### Answer:-

1. Datagrid has paging while Datalist doesn't.
  2. Datalist has a property called repeat. Direction = vertical/horizontal. (This is of great help in designing layouts). This is not there in Datagrid.
  3. A repeater is used when more intimate control over html generation is required.
  4. When only checkboxes/radiobuttons are repeatedly served then a checkboxlist or radiobuttonlist are used as they involve fewer overheads than a Datagrid.
- The Repeater repeats a chunk of HTML you write, it has the least functionality of the three. DataList is the next step up from a Repeater; accept you have very little control over the HTML that the control renders. DataList is the first of the three controls that allow you Repeat-Columns horizontally or vertically. Finally, the DataGrid is the motherload. However, instead of working on a row-by-row basis, you're working on a column-by-column basis. DataGrid caters to sorting and has basic paging for your disposal. Again you have little control, over the HTML. NOTE: DataList and DataGrid both render as HTML tables by default. Out of the 3 controls, I use the Repeater the most due to its flexibility w/ HTML. Creating a Pagination scheme isn't that hard, so I rarely if ever use a DataGrid. Occasionally I like using a DataList because it allows me to easily list out my records in rows of three for instance.

[Read More Answers.](#)

### Question # 59

I am constantly writing the drawing procedures with System.Drawing.Graphics, but having to use the try and dispose blocks is too time-consuming with Graphics objects. Can I automate this?

#### Answer:-

Yes, the code

```
System.Drawing.Graphics canvas = new System.Drawing.Graphics();
try
{
//some code
}
finally
canvas.Dispose();
is functionally equivalent to
using (System.Drawing.Graphics canvas = new System.Drawing.Graphics())
{
//some code
} //canvas.Dispose() gets called automatically
```

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### Question # 60

How do you trigger the Paint event in System.Drawing?

#### Answer:-

Invalidate the current form, the OS will take care of repainting. The Update method forces the repaint.

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### Question # 61

With these events, why wouldn't Microsoft combine Invalidate and Paint, so that you wouldn't have to tell it to repaint, and then to force it to repaint?

#### Answer:-

Painting is the slowest thing the OS does, so usually telling it to repaint, but not forcing it allows for the process to take place in the background.

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### Question # 62

How can you assign an RGB color to a System.Drawing.Color object?

#### Answer:-



Call the static method FromArgb of this class and pass it the RGB values in .NET

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### **Question # 63**

What class does Icon derive from? Isn't it just a Bitmap with a wrapper name around it?

**Answer:-**

No, Icon lives in System.Drawing namespace. It's not a Bitmap by default, and is treated separately by .NET. However, you can use ToBitmap method to get a valid Bitmap object from a valid Icon object.

[Read More Answers.](#)

### **Question # 64**

Before in my VB app I would just load the icons from DLL. How can I load the icons provided by .NET dynamically?

**Answer:-**

By using System.Drawing.SystemIcons class, for example System.Drawing.SystemIcons.Warning produces an Icon with a warning sign in it.

[Read More Answers.](#)

### **Question # 65**

When displaying fonts, what's the difference between pixels, points and ems?

**Answer:-**

A pixel is the lowest-resolution dot the computer monitor supports. Its size depends on user's settings and monitor size. A point is always 1/72 of an inch. An em is the number of pixels that it takes to display the letter M.

[Read More Answers.](#)

### **Question # 66**

What is the difference between VB 6 and VB.NET?

**Answer:-**

VB

- 1, Object-based Language
- 2, Does not support Threading
- 3, Not powerful Exception handling mechanism
- 4, Does not have support for the console based applications
- 5, Cannot use more than one version of COM objects in VB application called DLL error
- 6, Does not support for the Disconnected data source.

VB.Net

- 1, Object-oriented Language
- 2, supports Threading
- 3, powerful Exception handling mechanism
- 4, having support for the console based applications
- 5, More than one version of DLL is supported
- 6, supports the Disconnected data source by using Dataset class

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### **Question # 67**

What are the authentication methods in .NET?

**Answer:-**

There are 4 types of authentications.

1. WINDOWS AUTHENTICATION
2. FORMS AUTHENTICATION
3. PASSPORT AUTHENTICATION
4. NONE/CUSTOM AUTHENTICATION

The authentication option for the ASP.NET application is specified by using the tag in the Web.config file, as shown below:

other authentication options

1. WINDOWS AUTHENTICATION Schemes
  - I. Integrated Windows authentication
  - II. Basic and basic with SSL authentication
  - III. Digest authentication
  - IV. Client Certificate authentication
2. FORMS AUTHENTICATION

You, as a Web application developer, are supposed to develop the Web page and authenticate the user by checking the provided user ID and password against some user database

3. PASSPORT AUTHENTICATION

A centralized service provided by Microsoft, offers a single logon point for clients. Unauthenticated users are redirected to the Passport site

4. NONE/CUSTOM AUTHENTICATION:

If we don't want ASP.NET to perform any authentication, we can set the authentication mode to "None". The reason behind this decision could be: We don't want to authenticate our users, and our Web site is open for all to use. We want to provide our own custom authentication

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### **Question # 68**

What is Serialization in .NET?



### **Answer:-**

The serialization is the process of converting the objects into stream of bytes. they are used for transport the objects(via remoting) and persist objects(via files and databases)

[Read More Answers.](#)

### **Question # 69**

What's the use of System.Diagnostics.Process class in .NET?

### **Answer:-**

By using System.Diagnostics.Process class, we can provide access to the files which are presented in the local and remote system.

Example: System.Diagnostics.Process(@"c:\globalguidelineexample.txt") - local file  
System.Diagnostics.Process(@"http://www.globalguideline.comexample.txt") - remote file

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### **Question # 70**

Difference Abstract class and Interface in .NET?

### **Answer:-**

Abstract class: This class has abstract methods (no body). This class cannot be instantiated. One needs to provide the implementation of the methods by overriding them in the derived class. No Multiple Inheritance.

Interfaces: Interface class contains all abstract methods which are public by default. All of these methods must be implemented in the derived class. One can inherit from more than one interface thus provides for Multiple Inheritance.

[Read More Answers.](#)

### **Question # 71**

Explain re-clarification of object based in .NET?

### **Answer:-**

VB6 DOES support polymorphism and interface inheritance. It also supports the "Implements" keyword. What is not supported in vb6 is implementation inheritance.

Also, from above, vb6 DOES provides access to third-party controls like COM, DCOM That is not anything new in .NET.

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### **Question # 72**

How to achieve Polymorphism in VB.Net?

### **Answer:-**

We can achieve polymorphism in .Net i.e Compile time polymorphism and Runtime polymorphism. Compiletime Polymorphism achieved by method overloading. Runtime polymorphism achieved by Early Binding or Late Binding. Provide the function pointer to the object at compile time called as Early Binding.

provide the function pointer to the object at runtime called as Late Binding

class emp having the method display()

class dept having the method display()

create objects as in the main function

```
// Early binding
```

```
dim obj as new emp
```

```
dim ob as new dept
```

```
obj.display()-to call the display method of emp class
```

```
ob.display()-to call the display method of the dept class
```

```
// Late binding
```

```
create object in the main class as
```

```
object obj
```

```
obj=new emp
```

```
obj.display()-to call the display of emp class
```

```
obj=new dept
```

```
obj.display()-to call the display of dept class
```

[Read More Answers.](#)

### **Question # 73**

Difference between Class And Interface in .NET?

### **Answer:-**

Class is logical representation of object. It is collection of data and related sub procedures with definition.

Interface is also a class containing methods which is not having any definitions.

Class does not support multiple inheritance. But interface can support

[Read More Answers.](#)

### **Question # 74**

What does mean by .NET framework?

### **Answer:-**

The .NET Framework is an environment for building, deploying, and running Web Services and other applications. It consists of three main parts: the Common Language Runtime, the Framework classes, and ASP.NET

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### **Question # 75**

What is assembly in .NET?

#### **Answer:-**

It is a single deploy able unit that contains all the information about the implementation of classes , structures and interfaces

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### **Question # 76**

What is namespaces in .NET?

#### **Answer:-**

It is a logical group of related classes and interfaces and that can be used by any language targeting the .net framework.

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### **Question # 77**

Tell me about Secure Socket Layer? How to make use of the technology?

#### **Answer:-**

Secure Sockets Layer (SSL) and Transport Layer Security (TLS), its successor, are cryptographic protocols which provide secure communications on the Internet. There are slight differences between SSL 3.0 and TLS 1.0, but the protocol remains substantially the same. The term "SSL" as used here applies to both protocols unless clarified by context.

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### **Question # 78**

Can any object be stored in a Viewstate in .NET?

#### **Answer:-**

An object that either is serializable or has a TypeConverter defined for it can be persisted in ViewState

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### **Question # 79**

Explain ADO.NET features? Benefits? Drawbacks?

#### **Answer:-**

1. Data will be retrieved through DataSets
2. Scalability

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### **Question # 80**

ASP.NET interview questions only?

#### **Answer:-**

1. How does ASP page work?
2. How ASP.NET page works?
3. What are the contents of cookie?
4. How do you create a permanent cookie?
5. What is ViewState? What does the "EnableViewState" property do? Why would I want it on or off?
6. Give an example of what might be best suited to place in the Application\_Start and Session\_Start subroutines?
7. Describe the role of global.asax?
8. How can you debug your .NET application?
9. How do you deploy your ASP.NET application?
10. Where do we store our connection string in ASP.NET application?
11. Explain security types in ASP.NET?
12. Where do we store our connection string in ASP.NET application?
13. Explain different Authentication modes in ASP.NET?
14. How .NET has implemented security for web applications?
15. How to do forms authentication in ASP.NET?
16. Explain authentication levels in .NET?
17. Explain authorization levels in .NET?
18. How can you debug an ASP page, without touching the code?
19. How can you handle Exceptions in ASP.NET?
20. How can you handle UnManaged Code Exceptions in ASP.NET?

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### **Question # 81**

How is meant by DLL in .NET?

#### **Answer:-**

A DLL (Dynamic Link Library) in .NET is a file that can be loaded and executed by programs dynamically. Basically it's an external code repository for programs. Since usually several different programs reuse the same DLL instead of having that code in their own file, this dramatically reduces required storage space. A synonym for a DLL would be library in .NET

[Read More Answers.](#)



### Question # 82

How does output caching work in ASP.NET?

#### Answer:-

Output caching is a powerful technique that increases request/response throughput by caching the content generated from dynamic pages. Output caching is enabled by default, but output from any given response is not cached unless explicit action is taken to make the response cacheable.

To make a response eligible for output caching, it must have a valid expiration/validation policy and public cache visibility. This can be done using either the low-level OutputCache API or the high-level @ OutputCache directive. When output caching is enabled, an output cache entry is created on the first GET request to the page. Subsequent GET or HEAD requests are served from the output cache entry until the cached request expires.

The output cache also supports variations of cached GET or POST name/value pairs.

The output cache respects the expiration and validation policies for pages. If a page is in the output cache and has been marked with an expiration policy that indicates that the page expires 60 minutes from the time it is cached, the page is removed from the output cache after 60 minutes. If another request is received after that time, the page code is executed and the page can be cached again. This type of expiration policy is called absolute expiration - a page is valid until a certain time.

[Read More Answers.](#)

### Question # 83

Explain how ViewState is being formed and how it's stored on client in .NET?

#### Answer:-

The type of ViewState is System.Web.UI.StateBag, which is a dictionary that stores name/value pairs. ViewState is persisted to a string variable by the ASP.NET page framework and sent to the client and back as a hidden variable. Upon postback, the page framework parses the input string from the hidden variable and populates the ViewState property of each control. If a control uses ViewState for property data instead of a private field, that property automatically will be persisted across round trips to the client. (If a property is not persisted in ViewState, it is good practice to return its default value on postback.)

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### Question # 84

Explain assemblies in .NET?

#### Answer:-

Assemblies are similar to dll files. Both has the reusable pieces of code in the form of classes/ functions. Dll needs to be registered but assemblies have its own metadata.

[Read More Answers.](#)

### Question # 85

Explain DataSet.AcceptChanges and DataAdapter.Update methods in .NET?

#### Answer:-

DataAdapter.Update method Calls the respective INSERT, UPDATE, or DELETE statements for each inserted, updated, or deleted row in the DataSet. DataSet.AcceptChanges method Commits all the changes made to this row since the last time AcceptChanges was called.

[Read More Answers.](#)

### Question # 86

Explain Difference between Panel and GroupBox classes using .NET?

#### Answer:-

Panel and Group box both can used as container for other controls like radio buttons and check box.

the difference in panel and group box are Panel

- 1) In case of panel captions cannot be displayed
- 2) Can have scroll bars.

Group box

- 1) Captions can be displayed.
- 2) Cannot have a scroll bar

[Read More Answers.](#)

### Question # 87

How many types of exception handlers are there in .NET?

#### Answer:-

From

MSDN>gt: How the Runtime Manages Exceptions

<http://msdn.microsoft.com/library/default.asp?url=/library/en-us/cpguide/html/cpconexceptionsoverview.asp>

The exception information table represents four types of exception handlers for protected blocks:

A finally handler that executes whenever the block exits, whether that occurs by normal control flow or by an unhandled exception.

A fault handler that must execute if an exception occurs, but does not execute on completion of normal control flow.

A type-filtered handler that handles any exception of a specified class or any of its derived classes.

A user-filtered handler that runs user-specified code to determine whether the exception should be handled by the associated handler or should be passed to the next protected block.

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### Question # 88

What are the advantages and drawbacks of using ADO.NET?

#### Answer:-

Pros



====

ADO.NET is rich with plenty of features that are bound to impress even the most skeptical of programmers. If this weren't the case, Microsoft wouldn't even be able to get anyone to use the Beta. What we've done here is come up with a short list of some of the more outstanding benefits to using the ADO.NET architecture and the System.Data namespace.

\* Performance – there is no doubt that ADO.NET is extremely fast. The actual figures vary depending on who performed the test and which benchmark was being used, but ADO.NET performs much, much faster at the same tasks than its predecessor, ADO. Some of the reasons why ADO.NET is faster than ADO are discussed in the ADO versus ADO.NET section later in this chapter.

\* Optimized SQL Provider – in addition to performing well under general circumstances, ADO.NET includes a SQL Server Data Provider that is highly optimized for interaction with SQL Server. It uses SQL Server's own TDS (Tabular Data Stream) format for exchanging information. Without question, your SQL Server 7 and above data access operations will run blazingly fast utilizing this optimized Data Provider.

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### **Question # 89**

What are different methods of session maintenance in ASP.NET?

**Answer:-**

3 types:

In-process storage.

Session State Service.

Microsoft SQL Server.

In-Process Storage

The default location for session state storage is in the ASP.NET process itself.

Session State Service

As an alternative to using in-process storage for session state, ASP.NET provides the ASP.NET State Service. The State Service gives you an out-of-process alternative for storing session state that is not tied quite so closely to ASP.NET's own process.

To use the State Service, you need to edit the sessionState element in your ASP.NET application's web.config file:

You'll also need to start the ASP.NET State Service on the computer that you specified in the stateConnectionString attribute. The .NET Framework installs this service, but by default it's set to manual start up. If you're going to depend on it for storing session state, you'll want to change that to automatic start up by using the Services MMC plug-in in the Administrative Tools group.

If you make these changes, and then repeat the previous set of steps, you'll see slightly different behavior: session state persists even if you recycle the ASP.NET process.

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### **Question # 90**

List of ASP.NET interview questions only?

**Answer:-**

1. What is a static class?
2. What is static member?
3. What is static function?
4. What is static constructor?
5. How can we inherit a static variable?
6. How can we inherit a static member?
7. Can we use a static function with a non-static variable?
8. How can we access static variable?
9. Why main function is static?
10. How will you load dynamic assembly? How will create assemblies at run time?
11. What is Reflection?
12. If I have more than one version of one assemblies, then how will I use old version (how/where to specify version number?) in my application?
13. How do you create threading in .NET? What is the namespace for that?
14. What do you mean by Serialize and MarshalByRef?
15. What is the difference between Array and LinkedList?
16. What is Asynchronous call and how it can be implemented using delegates?
17. How to create events for a control? What is custom events? How to create it?
18. If you want to write your own dot net language, what steps you will you take care?
19. Describe the difference between inline and code behind - which is best in a loosely coupled solution?
20. How dot net compiled code will become platform independent?

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### **Question # 91**

What is an interface and what is an abstract class? Please, expand by examples of using both. Explain why?

**Answer:-**

In a interface class, all methods are abstract without implementation where as in an abstract class some methods we can define concrete. In interface, no accessibility modifiers are allowed. An abstract class may have accessibility modifiers. Interface and abstract class are basically a set of rules which u have to follow in case u r using them(inheriting them).

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### **Question # 92**

What is CLR in .NET?

**Answer:-**

CLR(Common Language Runtime) is the main resource of .Net Framework. it is collection of services like garbage collector, exception handler, jit compilers etc. with the CLR cross language integration is possible.

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### Question # 93

What exactly is being serialized when you perform serialization in .NET?

#### Answer:-

The object's state (values)

[Read More Answers.](#)

### Question # 94

What do you know about ADO.NET's objects and methods?

#### Answer:-

ADO.NET provides consistent access to data sources such as Microsoft SQL Server, as well as data sources exposed through OLE DB and XML. Data-sharing consumer applications can use ADO.NET to connect to these different data sources and retrieve, manipulate, and update data. ADO.NET provides first-class support for the disconnected, n-tier programming environment for which many new applications are written.

[Read More Answers.](#)

### Question # 95

.NET framework overview?

#### Answer:-

1. Has own class libraries. System is the main namespace and all other namespaces are subsets of this.
2. It has CLR(Common language runtime, Common type system, common language specification)
3. All the types are part of CTS and Object is the base class for all the types.
4. If a language said to be .net complaint, it should be compatible with CTS and CLS.
5. All the code compiled into an intermediate language by the .Net language compiler, which is nothing but an assembly.
6. During runtime, JIT of CLR picks the IL code and converts into PE machine code and from there it processes the request.
7. CTS, CLS, CLR
8. Garbage Collection
9. Dispose, finalize, suppress finalize, IDisposable interface
10. Assemblies, Namespace: Assembly is a collection of class/namespaces. An assembly contains Manifest, Metadata, Resource files, IL code
11. Com interoperability, adding references, web references
12. Database connectivity and providers

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### Question # 96

Name some of the languages .NET support?

#### Answer:-

Some of the languages that are supported by .NET

1. Visual Basic.NET
2. Visual C#
3. Visual C++

[Read More Answers.](#)

### Question # 97

Main differences between ASP and ASP.NET?

#### Answer:-

1. ASP: Code is Interpreted  
ASP.NET: Code is Compiled
2. ASP: Business Logic and Presentation Logic are in a single file  
ASP.NET: Business Logic and Presentation Logic are in separate files (.cs or .vb) and (.aspx) respectively.
3. ASP: No Web Server Controls  
ASP.NET: Web Server Controls supported by strong .NET Framework
4. ASP: No RAD in Classic ASP  
ASP.NET: Supports RAD

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### Question # 98

What is the base class of .NET?

#### Answer:-

Base class provides a base set of methods that all derived classes can use

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### Question # 99

What is the base class of Button control in .NET?

#### Answer:-

Listing from visual studio .net > Button Class System.Object  
System.MarshalByRefObject  
System.ComponentModel.Component  
System.Windows.Forms.Control  
System.Windows.Forms.ButtonBase



System.Windows.Forms.Button

[Read More Answers.](#)

### Question # 100

ASP.NET interview questions list only?

**Answer:-**

1. Describe the difference between a Thread and a Process?
2. What is a Windows Service and how does its lifecycle differ from a .standard. EXE?
3. What is the maximum amount of memory any single process on Windows can address? Is this different than the maximum virtual memory for the system? How would this affect a system design?
4. What is the difference between an EXE and a DLL?
5. What is strong-typing versus weak-typing? Which is preferred? Why?
6. What's wrong with a line like this? DateTime.Parse(myString)
7. What are PDBs? Where must they be located for debugging to work?
8. What is cyclomatic complexity and why is it important?
9. Write a standard lock() plus double check to create a critical section around a variable access.
10. What is FullTrust? Do GAC'ed assemblies have FullTrust?
11. What benefit does your code receive if you decorate it with attributes demanding specific Security permissions?
12. What does this do? gacutil /I | find /i about
13. What does this do? sn -t foo.dll
14. What ports must be open for DCOM over a firewall? What is the purpose of Port 135?
15. Contrast OOP and SOA. What are tenets of each
16. How does the XmlSerializer work? What ACL permissions does a process using it require?
17. Why is catch(Exception) almost always a bad idea?
18. What is the difference between Debug.Write and Trace.Write? When should each be used?

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### Question # 101

What is serialization, how it works in .NET?

**Answer:-**

Serialization is when you persist the state of an object to a storage medium so an exact copy can be re-created at a later stage.

Serialization is used to save session state in ASP.NET.

Serialization is to copy objects to the Clipboard in Windows Forms

Serialization is used by remoting to pass objects by value from one application domain to another

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### Question # 102

What is Response object? How is it related to ASP's Response object?

**Answer:-**

Response object allows the server to communicate with the client(browser). It is useful for displaying information to the user (or) redirecting the client.

Eg: Response.Write("Hello World")

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### Question # 103

What is .NET?

**Answer:-**

.NET is essentially a framework for software development. It is similar in nature to any other software development framework (J2EE etc) in that it provides a set of runtime containers/capabilities, and a rich set of pre-built functionality in the form of class libraries and APIs

The .NET Framework is an environment for building, deploying, and running Web Services and other applications. It consists of three main parts: the Common Language Runtime, the Framework classes, and ASP.NET.

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### Question # 104

What is IIS? Have you used it?

**Answer:-**

IIS - Internet Information Server

IIS is used to access the ASP.Net web applications

Yes, I used in ASP.NET web applications.

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### Question # 105

What is Delegate and what is it used for?

**Answer:-**

Delegate is kinda like a pointer to a function in C++ or like an event handler in Java

You can use it to "multicast" which means running multiple functions in different instances of object already created.

This is useful when you want your objects to "register" to an event raised by another object.

The way it works is the object you are registered to listen to receives the delegate of the function it is supposed to run in your object, the delegate is then run from it. (if you switch the word delegate for pointer, this would be much simpler)



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### Question # 106

What is connection pooling and how do you make your application use it?

#### Answer:-

Opening database connection is a time consuming operation. Connection pooling increases the performance of the applications by reusing the active database connections instead of create new connection for every request.

Connection pooling Behavior is controlled by the connection string parameters.

Following the the 4 parameters that control most of the connection pooling behavior.

1. Connect Timeout
2. Max Pool Size
3. Min Pool Size
4. Pooling

Please go through the following link as well

<http://support.microsoft.com/default.aspx?scid=kb;EN-US;q169470>

[Read More Answers.](#)

### Question # 107

Which dll is required to translate XML to SQL in Internet Information Server (IIS)?

#### Answer:-

Microsoft.data.sqlxml.dll used to translate XML to SQL using Internet Information Server IIS

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### Question # 108

what is the difference between user control an custom control? advantages/disadvantages?

#### Answer:-

Web user controls Vs Web custom controls Easier to create Vs Harder to create

Limited support for consumers who use a visual design tool Vs Full visual design tool support for consumers

A separate copy of the control is required in each application Vs Only a single copy of the control is required, in the global assembly cache

Cannot be added to the Toolbox in Visual Studio Vs Can be added to the Toolbox in Visual Studio

Good for static layout Vs Good for dynamic layout

<http://msdn.microsoft.com/library/default.asp?url=/library/en-us/vbcon/html/vbconwebusercontrolsvscustomwebcontrols.asp>

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### Question # 109

When we go for html server controls and when we go for web server controls?

#### Answer:-

Server controls are a part of ASP.net. When a server control is used there will be an extra overhead on the server to create the control at run time and accordingly set the values. HTML controls are static controls and are easy to use. They are supported is ASP.net.

As a rule, if there is a corresponding HTML control available instead of the server control, you should always go for the HTML control as it enhances the server performance and ensures faster response. Server controls should be used when it is found that the available HTML controls are not sufficient to achieve the task.

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### Question # 110

Why The JavaScript Validation Not Run on the Asp.Net Button But Run Successfully On The HTML Button?

#### Answer:-

The Asp.Net Button Is post backed on the server & not yet Submit & when It goes to the server its states is lost So if we r using JavaScript in our application so we always use the Input Button in the asp Button

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### Question # 111

Which DLL translate XML to SQL in Internet Information Server (IIS)?

#### Answer:-

Sqlisapi.dll

DLL used to translate XML to SQL in Internet Information Server (IIS)

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### Question # 112

What is the Difference Between Response.write & response.output.Write?

#### Answer:-

In ASP.NET the Response object is of type HttpResponse and when you say Response.Write you're really saying (basically) HttpContext.Current.Response.Write and calling one of the many overloaded Write methods of HttpResponse. Response.Write then calls .Write() on it's internal TextWriter object:

```
public void Write(object obj){ this._writer.Write(obj); }
```

HttpResponse also has a Property called Output that is of type, yes, TextWriter, so:

```
public TextWriter get_Output(){ return this._writer; }
```

Which means you can to the Response whatever a TextWriter will let you. Now, TextWriters support a Write() method ala String.Format, so you can do this:



```
Response.Output.Write("Scott is {0} at {1:d} ", "cool", DateTime.Now);  
But internally, of course, this is happening:  
public virtual void Write(string format, params object[] arg)  
{  
    this.Write(string.Format(format, arg));  
}
```

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### **Question # 113**

What is the use of ErrorProvider Control in .NET?

#### **Answer:-**

The ErrorProvider control is used to indicate invalid data on a data entry form. Using this control, you can attach error messages that display next to the control when the data is invalid, as seen in the following image. A red circle with an exclamation point blinks, and when the user mouses over the icon, the error message is displayed as a tooltip.

[Read More Answers.](#)

### **Question # 114**

What is Viewstate in .NET?

#### **Answer:-**

A server control's view state is the accumulation of all its property values. In order to preserve these values across HTTP requests, ASP.NET server controls use this property, which is an instance of the StateBag class, to store the property values.

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### **Question # 115**

What should one do to make class serializable?

#### **Answer:-**

To make a class serializable is to mark it with the Serializable attribute as follows.

```
[Serializable]  
public class MyObject {  
    public int n1 = 0;  
    public int n2 = 0;  
    public String str = null;  
}
```

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### **Question # 116**

What should you do to store an object in a Viewstate?

#### **Answer:-**

Do serialization of convert the object to string

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