
Title: ASP.NET Interview Questions

1.) What is the lifespan for the information stored in a ViewState?

Answer: Exists for the life of the current page

2.) What section of a Web.Config is used to store a list of authorized users?

Answer: Authentication

3.) Which object contains the user name in an ASP.NET form page?

Answer: Page.User.Identity

4.) Which one is first triggered in an ASPX page cycle?

Answer: Init

5.) Literal control always encloses its text value with SPAN tags.

Answer: False

6.) Which one of the following statements is false?

- Array stores the values in an indexed format.
- Array is a primitive data structure.
- ArrayLists are sortable and searchable.
- Arrays can be changed in size at runtime without ReDim. (**Correct Answer**)

7.) ASP.NET still recognizes the global.asa file.

Answer: False. Instead, it uses a file named global.asax for the same functionality.

8.) What is the default Session Timeout?

Answer: 20 Minutes

9.) C# supports multiple inheritance.

Answer: False

10.) What is the top .NET class that everything is derived from?

Answer: System.Object

11.) What does GAC stand for in .NET?

Answer: Global Assembly Cache

12.) Which object contains its items in key/value pairs?

Answer: SortedList and Hashtable

13.) Structures do not support inheritance, while Classes support it.

Answer: True

14.) If AutoGenerateColumns property is set to True and custom column definitions are still provided, GridView will render both.

Answer: True

15.) What is the property name of a GridView (or a DataGrid) that regulates the sorting?

Answer: AllowSorting

16.) ADO.NET is entirely based on XML.

Answer: True

17.) What are the different types of authentications in .NET?

Answer:

- Forms Authentication
- Windows Authentication
- Passport Authentication

18.) What is the extension of a Web User Control?

Answer: ASCX

19.) Which one of the followings can be used to debug a .NET application?

- Systems.Diagnostics classes
- Runtime Debugger
- Visual Studio
- All (**Correct Answer**)

20.) Which one of the followings can be used to manage state in ASP.NET?

- Session objects
- Application objects
- ViewState
- All (**Correct Answer**)

21.) What one of the following statements is false?

- Server.Transfer does not update the browser history list.
- Server.Transfer can transfer the user between two applications. (**Correct Answer**)

- Response.Redirect is used to redirect the browser to another page.
- Response.Redirect updates the browser history list.

22.) `SQLDataSource` can filter the results of a query without re-running the query.

Answer: True

23.) What is the base class that all web forms inherit from?

Answer: `System.Web.UI.Page`

24.) Which format does CLR use for assembly versioning?

Answer: `Major.Minor.Build.Revision`

25.) Which .NET type is mapped by the keyword `Int`?

Answer: `System.Int32`

26.) Which element of a `Repeater` can be used to define a separator between each record?

Answer: `SeparatorTemplate`

27.) How can Garbage Collection be forced in .NET?

Answer: By using `System.GC.Collect()`

28.) What is the property name of a `GridView` (or a `DataGrid`) that regulates the paging?

Answer: `AllowPaging`

29.) Which tool is used to manage the GAC?

Answer: `GacUtil.exe`

30.) What is the purpose of `global.asax` file?

Answer: To implement application and session events. The Global.asax file, also known as the ASP.NET application file, is an optional file that contains code for responding to application-level and session-level events raised by ASP.NET or by HTTP modules. The Global.asax file resides in the root directory of an ASP.NET application.

31.) What should be used to validate complex string patterns?

Answer: Regular Expressions

32.) Which method(s) of Application object ensure(s) that only one process accesses a variable at a time?

Answer: Lock and Unlock

33.) What attribute should be set on a Validator control to have it work?

Answer: ControlToValidate

34.) What is the difference between literal and label?

Answer: Literal simply shows the exact text that you put in without making any changes. Label always encloses the text with SPAN tags, and they have some attributes that you can specify some properties like style related formattings. In other words, literals are kind of light-weight labels.

35.) What is Code Access Security (CAS) in .NET?

Answer: CAS is a part of the .NET Security Model that determines whether or not a piece of code is allowed to run, and what resources it can use when it is running. For instance, it is CAS that will prevent a .NET web application from formatting your hard disk. The CAS security policy revolves around two key concepts - code groups and permissions. Each .NET assembly is a member of a particular code group, and each code group is granted the permissions specified in a named permission set.

36.) What methods are fired during the page load (page processing cycle)?

Answer:

Init() - When the page is about to be initialized with the basic settings

Load() - When the browser request has been processed and the page is loaded into the server memory

PreRender() - It is the brief moment before the page is displayed to the user as HTML

Unload() - When the page is no needed by the server and ready to be discarded

37.) Explain advantages and disadvantages of ViewState encryption.

Answer: ViewState encryption prevents the users from being able to read the values in the hidden ViewState field. A typical scenario is a GridView control that carries an identifier field in the DataKeyNames property. The identifier field is needed to coordinate updates to records. Because you do not want the identifier visible to users, you can encrypt view state.

However, this encryption has a constant performance cost for initialization and an additional cost that depends on the size of ViewState being encrypted. The encryption is set up for each Page_Load, so the same performance effect occurs on every loading.

38.) What is the difference between Convert.ToDouble and Double.Parse?

Answer : Convert.ToDouble underneath calls the System.Double.Parse. The only difference is that Convert.ToDouble returns 0 (or false) when nothing (or null string) is passed, whereas Double.Parse throws an exception (ArgumentNullException).

39.) What is the difference between Server.Transfer and Response.Redirect?

Answer: Server.Transfer is used to post a form to another page. It transfers page processing from one page directly to the next page without making a round-trip back to the client's browser. This provides a faster response with a little less overhead on the server. Server.Transfer does not update the user's browser history list.

Response.Redirect is used to redirect the user's browser to another page or site. This performs a

trip back to the client where the client's browser is redirected to the new page. As a result of this, user's browser history list is updated to reflect the redirected address.

40.) What is event bubbling and how is it utilized?

Answer: The ASP.NET page framework provides a technique called event bubbling that allows a child control to raise events to be handled by the parent control. It is used by the data-bound controls (Repeater, DataList, and GridView) to expose command events raised by child controls (within item templates) as top-level events. While ASP.NET server controls in the .NET Framework use event bubbling for command events (events whose event data class derives from CommandEventArgs), any event defined on a server control can be bubbled.

41.) How would you clear the last exception that was thrown?

Answer: HttpServerUtility.ClearError method can be used to clear the previous exception.

```
Server.ClearError() 'VB.NET
```

```
Server.ClearError(); //C#
```

42.) How can you simulate a 5-seconds pause in C# without Thread.Sleep?

Answer:

```
DateTime dt = DateTime.Now.AddSeconds(5);
```

```
while (DateTime.Now < dt)
```

```
{
```

```
    // Simulation of 5-seconds pause
```

```
}
```

43.) What is the difference between DataSet.Copy and DataSet.Clone?

Answer: **DataSet.Copy** copies both the structure and data for the specified dataset whereas **DataSet.Clone** copies the structure of the dataset (including all schemas, relations and constraints) and does not copy any data.

44.) Can classic ASP and ASP.NET pages be combined?

Answer: No, ASP pages can run in the same site as ASP.NET pages, but you can not mix on a page. ASP and ASP.NET cannot share sessions.

45.) Can .NET user control page (.ascx) be compiled alone?

Answer: User control pages (.ascx) can not be run on its own, but you can drag it onto any web form (.aspx) and then run it via this web page.

46.) Explain the difference between ADO.NET Dataset and ADO Recordset.

Answer:

- DataSet can represent an entire relational database in memory (with tables, relations and views).
- DataSet is designed to work in a connection less mode.
- Data in DataSet is bulk-loaded, rather than being loaded on demand.
- There is no concept of cursor types in a DataSet.
- Edits in a DataSet can be stored, and be written to the original data source in a single operation.

47.) Explain the differences between ASP.NET Web Services and .NET Remoting.

Answer: ASP.NET Web Services and .NET Remoting are two separate paradigms for building distributed applications using internet-friendly protocols and the .NET framework. Each has its advantages and drawbacks, which are important factors in deciding which one to use for your application.

Web Services typically use SOAP for the message format and require that you use IIS for the HTTP message transport. This makes Web Services good for communication over the Internet, and for communication between non-Windows systems. Web Services are a good choice for message-oriented services that must support a wide range of client platforms and a potentially heavy load. Microsoft's MapPoint.NET service is an example of an ASP.NET Web Service.

Remoting can be configured to use either SOAP or Microsoft's proprietary binary protocol for communication. The binary protocol yields higher performance, and is great for .NET to .NET

communication, but cannot be used to communicate with non-Windows platforms. Remoting does not require an IIS Web server, making it a good choice for peer-to-peer development, but this also means that it cannot leverage the scalability and performance of IIS to support a high number of connections or requests per second. Microsoft's Terrarium is an example of a peer-to-peer application built using .NET Remoting.

48.) Explain the ExecuteReader, ExecuteScalar, ExecuteNonQuery methods in SqlCommand class.

Answer:

ExecuteReader: It is used for SQL queries or stored procedures that return one or more rows of data. It returns an SqlDataReader object that can be used to read query results one by one, read-only manner and forward-only way.

ExecuteScalar: It is used for SQL queries or stored procedures that return a single value such as a query that counts the number of employees in the company.

ExecuteNonQuery: It is used to execute stored procedures and SQL queries that insert or update data. The return value will be the number of affected rows.

49.) What debugging tool does Visual Studio use?

Answer: Visual Studio uses the **DbgCLR** (Graphic Debugger).

50.) What is the difference between Debug.Write and Trace.Write?

Answer: **Debug.Write** is for information you want only in debug builds whereas **Trace.Write** is for when you want it in release builds as well.

51.) Explain the differences between web.config and machine.config files.

Answer: **Web.config** file is a configuration file for ASP.NET web application. An application has one web.config file which keeps the configurations settings for the corresponding application. Web.config file is written in XML with specific tags having specific meanings. Multiple Web.config files can reside under different virtual directories under the same site.

Machine.config file is used to configure server-wide configuration settings. That is, configuration done in machine.config file affects all applications that runs on a particular web server.

52.) What is an .ashx file?

Answer: It is a web handler file that produces output to be consumed by an XML client (rather than a browser).

53.) What are the differences between standard and typed DataSet?

Answer: DataSet is either typed or standard. By definition a typed DataSet is any DataSet that is derived from the base (standard) DataSet class that applies the information contained in the XSD to generate a typed class. Information from the schema that contains the tables, columns, and rows is generated and compiled into a new DataSet derived from the XSD and this promotes the DataSet to a first class object in the .NET Framework.

The process of inheriting the typed DataSet from a standard DataSet class means that the typed class assumes all functionality of the DataSet class and can be used with methods that take an instance of the DataSet class as a parameter. This is the opposite of the standard DataSet that has no corresponding schema and is exposed only as a collection.

54.) What is the difference between a.Equals(b) and a == b?

Answer: Both of them are used for comparison and they both return a boolean value (True or False), but use the first one if they have different data types and if you want to compare object type data.

For instance (in C#):

```
int a = 0;
string b = "0";
if (a.Equals(b)) {
    // Some stuff goes here
} // Above code would compile successfully, both zero values would be converted to an object type before comparison
```

```
if (a == b) {  
    // Some stuff goes here  
} // Above code would give a compile error
```

55.) Write a generic function that creates DataSet.

Answer:

```
Public Function CreateDataSet(ByVal cmdText As String) As DataSet  
    Dim conn As New SqlConnection(...)  
    Dim da As New SqlDataAdapter  
    Dim ds As New DataSet  
    conn.Open()  
    Dim cmd As New SqlCommand(cmdText, conn)  
    da.SelectCommand = cmd  
    da.Fill(ds)  
    Return ds  
    conn.Close()  
    conn = Nothing  
End Function
```

56.) Write a generic function that creates IDataReader.

Answer:

```
Public Function CreateDataReader(ByVal cmdText As String) As IDataReader  
    Dim conn As New SqlConnection(...)  
    conn.Open()  
    Dim cmd As New SqlCommand(cmdText, conn)  
    Return cmd.ExecuteReader  
    conn.Close()  
    conn = Nothing  
End Function
```

57.) Write a generic function that uses ExecuteNonQuery.

Answer:

```
Public Function ExecuteCommand(ByVal cmdText As String) As Integer
Dim conn As New SqlConnection(...)
conn.Open()
Dim cmd As New SqlCommand(cmdText, conn)
Return cmd.ExecuteNonQuery()
conn.Close()
conn = Nothing
End Function
```

58.) What is the difference between Array and ArrayList?

Answer:

- Array is a primitive data structure, which stores the values in an indexed format.
- ArrayList is more like a vector or a resizable array. It is a collection and stores value as an object.
- ArrayList grows as new items are added. No need to ReDim to allow additional elements.
- ArrayLists are sortable, searchable, etc..
- Arrays can't be changed in size at runtime without ReDim.

(ReDim will create a new array, copy the old one into a new one and destroy the old one.)

- ArrayList is more dynamic and new items can be added or removed without losing performance.
- If the size is known, using array would be a better practice.

59.) What is the definition of a Jagged Array?

Answer: A jagged array is an array whose elements are arrays. Its elements can be of different dimensions and sizes. This can also be referred as "array of arrays".

60.) How would you locate a control inside templates?

Answer: The FindControl method can be used to access a control whose ID is not available at design time. The method searches **only** the page's immediate, or top-level, container; it does not recursively

search for controls in naming containers on the page. To access controls in a subordinate naming container, call the FindControl method of that container or use Parent.FindControl() (or Page.FindControl()) when applicable.