1. **What are page directives?**

The first line of an ASP.NET page is the page directive; you will find it on all ASP.NET pages. These directives are instructions for the page. It begins with the @Page directive and continues with the various attributes available to this directive.

It’s unreasonable to expect a candidate to know all of these attributes, but a few popular ones include the following.

* **AutoEventWireup:** Indicates whether page events are autowired.
* **CodeBehind:**The name of the compiled class associated with the page.
* **Debug:** Indicates whether the page is compiled in debug mode (includes debug symbols).
* **EnableTheming:** Indicates whether themes are used on the page.
* **EnableViewState:** Indicates whether view state is maintained across pages.
* **ErrorPage:** Specifies a target URL to be used when unhandled exceptions occur.
* **Language:** Indicates the language used when compiling inline code on the page.
* **Trace:** Signals whether tracing is enabled on the page.

1. **Where the viewstate is stored after the page postback?**

ViewState is stored in a hidden field on the page at client side.  ViewState is transported to the client and back to the server, and is not stored on the server or any other external source.

1. **How long the items in ViewState exists?**

They exist for the life of the current page.

1. **What are the different Session state management options available in ASP.NET?**
   1. In-Process
   2. Out-of-Process.
   3. **In-Process** stores the session in memory on the web server.
   4. **Out-of-Process** Session state management stores data in an external server.  The external server may be either a SQL Server or a State Server.  All objects stored in session are required to be serializable for Out-of-Process state management.
2. **Write code to send e-mail from an ASP.NET application?**

[csharp]  
MailMessage mailMess = new MailMessage ();  
mailMess.From = “abc@gmail.com”;  
mailMess.To = “xyz@gmail.com”;  
mailMess.Subject = “Test email”;  
mailMess.Body = “Hi This is a test mail.”;  
SmtpMail.SmtpServer = “localhost”;  
SmtpMail.Send (mailMess);

[/csharp]

1. **How can we prevent browser from caching an ASPX page?**

We can SetNoStore on HttpCachePolicy object exposed by the Response object’s Cache property:

[csharp]  
Response.Cache.SetNoStore ();  
Response.Write (DateTime.Now.ToLongTimeString ());  
[/csharp]

1. **What are the event handlers that we can have in Global.asax file?**
   1. **Application Events:** Application\_Start , Application\_End, Application\_AcquireRequestState, Application\_AuthenticateRequest, Application\_AuthorizeRequest, Application\_BeginRequest, Application\_Disposed,  Application\_EndRequest, Application\_Error, Application\_PostRequestHandlerExecute, Application\_PreRequestHandlerExecute,  
      Application\_PreSendRequestContent, Application\_PreSendRequestHeaders, Application\_ReleaseRequestState, Application\_ResolveRequestCache, Application\_UpdateRequestCache
   2. **Session Events:** Session\_Start,Session\_End
2. **Explain the working of passport authentication.**

First of all it checks passport authentication cookie. If the cookie is not available then the application redirects the user to Passport Sign on page. Passport service authenticates the user details on sign on page and if valid then stores the authenticated cookie on client machine and then redirect the user to requested page

1. **What are the advantages of Passport authentication?**

All the websites can be accessed using single login credentials. So no need to remember login credentials for each web site.

Users can maintain his/ her information in a single location.

1. **How do you register JavaScript for webcontrols ?**

We can register javascript for controls using <CONTROL -name>Attribtues.Add(scriptname,scripttext) method.

1. **Differentiate strong typing and weak typing**

In strong typing, the data types of variable are checked at compile time. On the other hand, in case of weak typing the variable data types are checked at runtime. In case of strong typing, there is no chance of compilation error. Scripts use weak typing and hence issues arises at runtime.

1. **What is the appSettings Section in the web.config file?**

The appSettings block in web config file sets the user-defined values for the whole application.

For example, in the following code snippet, the specified ConnectionString section is used throughout the project for database connection:

[csharp]  
<em><configuration>  
<appSettings>  
<add key=”ConnectionString” value=”server=local; pwd=password; database=default” />  
</appSettings></em>

[/csharp]

1. **What are the different types of cookies in ASP.NET?**
   1. **Session Cookie** – Resides on the client machine for a single session until the user does not log out.
   2. **Persistent Cookie** – Resides on a user’s machine for a period specified for its expiry, such as 10 days, one month, and never.
2. **What are the components of ADO.NET?**

The components of ADO.Net are Dataset, Data Reader, Data Adaptor, Command, connection.

1. **What is the difference between ExecuteScalar and ExecuteNonQuery?**

ExecuteScalar returns output value where as ExecuteNonQuery does not return any value but the number of rows affected by the query. ExecuteScalar used for fetching a single value and ExecuteNonQuery used to execute Insert and Update statements.

### What is event bubbling?

Server controls like Data grid, Data List, and Repeater can have other child controls inside them. Example Data Grid can have combo box inside data grid. These child control do not raise there events by themselves, rather they pass the event to the container parent (which can be a data grid, data list, repeater), which passed to the page as “ItemCommand” event. As the child control send events to parent it is termed as event bubbling.

1. **How can we create custom controls in ASP.NET?**

User controls are created using .ASCX in ASP.NET. After .ASCX file is created you need to two things in order that the ASCX can be used in project:.

• Register the ASCX control in page using the <percentage@ Register directive.Example

<%@ Register tag prefix="Accounting" Tag name="footer" Src="Footer.ascx" %>

• Now to use the above accounting footer in page you can use the below directive.

<Accounting: footer runat="server" />

### If cookies are not enabled at browser end does form Authentication work?

No, it does not work.

## How would you create a permanent cookie?

## Permanent cookies are stored on the hard disk and are available until a specified expiration date is reached.  - To create a cookie that never expires set its Expires property equal to DateTime.maxValue.

## Explain Culture and UICulture values.

Culture value determines the functions like Date and Currency used to format data and numbers in a Web page.   
- UICulture value determines the resources like strings or images loaded in a Web application for a Web page.

## Early binding and late binding.

## Early binding means calling a non-virtual method that is decided at a compile time while Late binding refers to calling a virtual method that is decided at a runtime.

## Explain the steps to be followed to use Passport authentication.

* 1. Install the Passport SDK.   
     2. Set the application’s authentication mode to Passport in Web.config.   
     3. Set authorization to deny unauthenticated users.  
     3. Use the PassportAuthentication\_OnAuthenticate event to access the user’s Passport profile to identify and authorize the user.  
     4. Implement a sign-out procedure to remove Passport cookies from the user’s machine.

## What is an Assembly? Explain its parts

An assembly exists as a .DLL or .EXE that contains MSIL code that is executed by CLR. An assembly contains interface and classes, it can also contain other resources like bitmaps, files etc. It carries version details which are used by the CLR during execution. Two assemblies of the same name but with different versions can run side-by-side enabling applications that depend on a specific version to use assembly of that version. An assembly is the unit on which permissions are granted. It can be private or global. A private assembly is used only by the application to which it belongs, but the global assembly can be used by any application in the system.  
The four parts of an assembly are:  
Assembly Manifest - It contains name, version, culture, and information about referenced assemblies.  
Type metadata - It contains information about types defined in the assembly.  
MSIL - MSIL code.  
Resources - Files such as BMP or JPG file or any other files required by application.

## Define Common Type System

.Net allows developers to write program logic in at least 25 languages. The classes written in one language can be used by other languages in .Net. This service of .Net is possible through CTS which ensure the rules related to data types that all language must follow. It provides set of types that are used by all .NET languages and ensures .NET language type compatibility.

1. **Possible Uses for ISAPI Filters**

ISAPI filter DLLs cannot be requested explicitly, like ISAPI extensions can.

ISAPI filters can be registered with IIS to modify the behavior of a server. For example, filters can perform the following tasks:

* 1. Change request data (URLs or headers) sent by the client
  2. Control which physical file gets mapped to the URL
  3. Control the user name and password used with anonymous or basic authentication
  4. Modify or analyze a request after authentication is complete
  5. Modify a response going back to the client
  6. Run custom processing on "access denied" responses
  7. Run processing when a request is complete
  8. Run processing when a connection with the client is closed
  9. Perform special logging or traffic analysis.
  10. Perform custom authentication.
  11. Handle encryption and compression.

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