**Describe the following in one sentence or less:**

**ASP.NET –**

**Master page:** Master page defines the look and feel and common behavior of all pages of a website.

**User Controls:** User control is a container where multiple web server control can fit together and treat as a single control for page design.

**Server Controls:** Server controls are html markup controls that are understood by asp.net server.

**Data Source Controls:** Data source controls are those controls which allow to work with different data sources such as database/ data table, xml etc.

**Data Bound Controls:** Data bound web server controls are those controls that can be bound with data source controls to display data easily.

**Design Patters –**

**MVC:** Model View Controller, is a special pattern in which controller is responsible to tie model and view together and make interaction between them.

**Singleton:** Singleton is a pattern which restricts the creation of a class to just on object.

**Provider:** Provider pattern allows the developers to create pluggable components.

**Database:** A database is a collection of data resides in a structured way. So that it can easily be accessed, managed and manipulated.

**Tables:** A table is a set of data elements which has a set of columns and rows. A cell is the unit of a table.

**Views:** A view is a result set of a data in which users can query just like a persistent data table.

**Columns:** A column is a set of similar type of data. A row of a table consists of one more columns.

**Stored Procedure:** A stored procedure is a group of sql statement compiled in a single execution plan. Which returns data or manipulate database?

**Functions:** A function is a single routine which can perform a particular type of task to the database. It may or may not accept any parameter.

**Web Server:** A web server is a program which servers web pages. It uses hypertext transfer protocol between client and server.

**Operating System:** An operating system is a program which loaded initially by a boot process and controls all other programs of the computer.

**Database Server:** A database server is program which provides database related service to other programs or computers.

**GAC:** Global assembly cache is a folder in the windows directory which contains all the .NET assemblies to be shared by all application of the computer.

**Assemblies:** An assembly is a file that is automatically generated by the compiler upon successful compilation of every .NET application.

**Web.Config:** Web.config is the main settings or configuration file for asp.net web applications.

**CMS:** A content management system, or CMS, is a web application designed to make it easy for non-technical users to add, edit and manage a website.

**Portal:** Portal is an Internet site providing access or links to other sites.

**CRM:** Customer relationship management (CRM) is an approach to managing a company's interactions with current and future customers.

**Source control:** Source control is the management of the changes of documents, programming codes and other files.

**Wireframes:** an image or set of images which displays the functional elements of a website or page, typically used for planning a site's structure and functionality.

**Photoshop mocks:** Photoshop mocks are the initial structural design/sketches of a website or other application. It is mainly in PSD format and design of the UI, not the functionality.

**HTML mocks:** HTML mocks are the initial structural design/sketches of a website. It is in html format and design of the UI, not the functionality.

**Theming:** A theme is a collection of HTML templates, stylesheet(s) and other static files. Additionally, it has a configuration file which specifies from which theme to inherit, which highlighting style to use, and what options exist for customizing the theme's look and feel.

**Layouts:** Website have some specific portions such as header, footer, main content body etc. A body may display contents in multiple columns. Specifying a website page with header, footer, body columns called a layout.

**Native App:** A native app is an application program that has been developed for use on a particular platform or device.

**Hybrid App:** A hybrid app is an application than can run on different platform or device.

**Mobile App:** A mobile app is an application program that has been developed for use on a mobile platform or device.

**Difference between ASP.NET and ASP**: ASP.NET uses .NET framework. One can code C#. VB.Net etc. But in ASP one has to code in vb script.

**Describe how MVC is implemented in ASP.NET:**

MVC life cycle of asp.net works as follows: Browser request happens with a specific URL. Let’s assume that the user enters URL like: **somehting.com/home/index**

The specified URL will first get parsed via **application\_start()** method inside **Global.asax** file. From the requested URL, it will parse the Controller and Action. So from the **somehting.com/home/index** url the controller is **home** and action is **index.** MVC engine will only invoke the action method. Invoking actin method may return plain text or html. Then the MVC engine invokes the view method to render view in browser. A call to view will access the particular ASPX or CSHTML page inside the view directory and generate the rendered HTML which will respond back to the browser.

**Hoe can open source and .net be compliant:**

Microsoft has announced that much of .Net will become open source. It has also announced it will support both Linux and Mac OS X. Microsoft’s one of the greatest IDE Visual Studio will also be free. This is a tremendous move. Xamarin which based on mono platform can be developed in Visual Studio. So we can say that .net is now fully compliant with open source.

**Describe the last web application you created regardless of language it was implemented in and describe their function:**

The last web application I created was a BI dashboard web application for a leading pharmaceuticals company of the world. It covers the entire companies KPIs (Key Performance Indicator, in this system we call it metric) so that business people can take any business decision based on this.

It is an IT solution that integrates and harmonizes data from various data sources and provides web based metric dashboards to the end users. The system helps to define, deliver and manage KPIs to address the needs of reporting at different geography levels, whilst simultaneously examining the reporting needs of brand managers, to drive client’s business performance.

It has three parts: Stakeholder view, metric view and details view. In stakeholder view, stakeholders and other top level people of the company can see all the metric at a glance. In metric view, user can see all the metric by changing the parameters such as geo location, product or period. In details view, user can select one of the metric and study it in details by changing more parameters. It’s zoom in view of each metric.

Technology used: ASP.NET MVC 4, Entity Framework 6.0, .NET Runtime Caching, JavaScript, Ajax, AngularJs, Fusionchart, SQL Server 2008.

**List some Frameworks than you know of other than .NET in other languages/platforms:**

Some Frameworks than I know of other than .NET in other languages/platforms are:

* Angularjs
* Bootstrap
* Jquery
* Mongo DB
* MFC (C++)
* Fusionchart
* d3 js

**Name some of the difference between Microsoft Access and SQL Server Express:**

Access is more suited for desktop application. SQL Server is a more robust database management system. It is designed for client server model. MS Access comes with a file based database engine where SQL Server requires a running service to provide access to the database. MS Access uses JET SQL where SQL Server Express uses Transact SQL. Table partitioning is not allowed in MS Access but is allowed in SQL Server Express.

**Why is SQL Server better than MySQL or vice versa:**

Advantages of SQL Server over MySQL:

* Transactions. MySQL doesn't fully support transactions
* SQL Server has better replication support. If one ever need to scale database beyond a single-server, MySQL will be troublesome.
* Sql server has more powerful stored procedures than MySql. One can do amazing programming logic with sql server stored procedures.

**Difference between Apache and IIS:**

|  |  |
| --- | --- |
| **Apache** | **IIS** |
| Apache is free | IIS comes with Windows |
| Apache can run on almost any OS including UNIX, Apple’s OS X, and Linux. | IIS only runs on Windows. |

**Does ASP.NET run on non-Windows operating system? If so, how?**

Yes, ASP.NET application can run on non-Windows operating system. The **Mono** framework provides an Apache module (mod\_mono) for running ASP.NET application on OS other than Windows. But recently Microsoft has officially released **asp.net vnext** and its open source and deployable to both Linux and Mac.

**How do you develop an ASP.NET application locally and deploy it remotely? Describe any scenario.**

I can develop an ASP.NET application locally in Visual Studio. Then after development finished I can deploy it remotely in three ways:

* Web deploy: We can deploy it to the web server directly with server address and credentials and the location of the deployment package folder.
* FTP Deploy: We can deploy the application through ftp server address and credentials as well.
* File System Deploy: We can also make the deployment package in the local file system and copy the files to the server’s folder location where the deployment files actually to be placed.

**How do you run ASP.NET applications in the cloud?**

We can run asp.net applications in the Azure Cloud service. We can do it from Visual Studio:

To migrate and publish a web application to Azure from Visual Studio, have to do the following steps:

* Enable a web application for deployment to Azure
* If we use a database in our application, we must change our connection strings to use an Azure SQL Database connection string
* If we have specific assemblies that we have added to our web application, we must set the properties to copy the assemblies local so that they are also added to the service package
* Then we have to publish the application to Azure cloud service.

**Responsive layout/design:** Responsive web design is a way of creating websites with specific style sheet that is compatible to different resolutions and widths and changes the web component’s width accordingly.