What is .Net Framework?

A) NET Framework is an important integral component in .NET software. .Net Framework is a runtime environment, which we can use to run .net· applications.

2) What is Visual Studio.Net?

A) Visual Studio .NET is a Microsoft-integrated development environment (IDE) that can be used for developing console applications, Windows Applications, Web Applications, Windows Service, Web service.. And so on...

49) What is abstraction? How can we achieve?

A) Abstraction means HIDING.

Abstractions are 2 types.

1) data abstraction:-

Hiding unwanted data is called as data abstraction

2) Method abstraction:-

Invoking required method and hiding unwanted method is called as method abstraction.

With the help of FUNCTION OVERLOADING we can achieve Method ABSTRACTION.

52) What is Inheritance? Types of Inheritance?

A) Inheriting or deriving members from one class to another class is called as INHERITANCE.

C#.Net will support **5 types of Inheritance**. They are

1. Single Inheritance
2. Multi-level Inheritance
3. Multiple Inheritance
4. Hierarchical Inheritance
5. Hybrid Inheritance.

54) Is C#.Net will support multiple Inheritance?

A) In C#.NET multiple inheritances is not possible by using classes, which is possible with the help of INTERFACES.

68) Difference between abstract class and interface?

A)

ABSTRACT CLASS	INTERFACE
1. It is a collection of abstract members and non-abstract members.	1. It is collection of abstract members, that means by default interface members are abstract.

2. While defining an abstract class, abstract keyword is used.	2. While defining an interface, interface keyword is used.
3. It is partially implemented	3. No implementation
4.we can implement with in a method, property(Normal method or Normal property)	4. We can't implement a property and method.
5.it can contain fields	5.it can't contain fields
6.it can contain constructor	6.it can't contain constructor
7. While implementing abstract class members with in the derived class we have to use override keyword.	7. While implementing interface members with in the derived class we don't required to user override key word.

5. How can you pass values between ASP.NET pages?

A) Different techniques to move data from one web form to another are:

1. Query string
2. Cookies
3. Session state
4. Application state
5. Cross page postback
6. Context.Handler object

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

A) **Response. Redirect():**

1. It is used to navigate the user request between multiple web servers.
2. It will not hide the Destination url address.

Server. Transfer():

1. It is used to navigate the user request within the web server.
2. It will hide the Destination url address.

8. Explain about validation controls in asp.net?

A) There are 6 Validator Controls. They are

1. Requiredfield Control
2. Compare validator
3. Range validator

4. Regular Expression validator
5. Custom validator
6. Validation summary

9. What are the Asp.Net page cycle stages?

A) There are overall 8 stages available for any webpage that will undergo with in server at page life cycle.

1) Page Request
2) Start
3) Page Initialization
4) Load
5) Validation
6) PostBack Event Handling
7) Rendering
8) Unload

14) What are page life cycle events?

A) 1. Page_PreInit
2. Page_Init
3. Page_InitComplete,
4. Page_PreLoad
5. Page_Load
6. Page_LoadComplete
7. Page_PreRender
8. Page_PreRenderComplete,
9. Page_Unload

16) What do u mean by postback?

A)When ever user request for a page for first time it is called First request. When ever user will interact the page by clicking button or selecting radiobutton e.t.c again one more request for the same page that is called postback request.

17) What is Ispostback? When we will use Not Ispostback?

A) **IsPostBack:** It is the property of the Page class which is used to determine whether the page is posted back from the client.

When: Whenever we don't want to execute the code within the load event, when the page load event fires then we will use **(!IsPostBack).**

18) What is AutopostBack? when we will set Autopostback=true?

A) Autopostback is the property of the control. If you want a control to postback automatically when an event is raised, you need to set the AutoPostBackproperty of the control to True.

19) When we will go for master page?

A) Whenever we want to have common header and common footer within multiple pages of a website then we can go for a Master Page.

16) When can we use adRotator control?

A) Whenever we want to display the collection of images in a rotation manner one by one then we will go for Adrotator control.

20) What is State Management? Why?

A) **STATE MANAGEMENT:** It is a process of maintaining the user's information.

WHY: Asp.Net web application is depending on HTTP protocol which is a STATELESS protocol that means it cannot remember previous user information. Solution for this problem is STATE MANAGEMENT.

21) How many types of state management?

A) We can implement STATE MANAGEMENT in 2 ways.
1. Server Side State Management and
2. Client Side State Management.

22) What is client side state management? How many types?

A) Storing the user's information within the WEB BROWSER memory or CLIENT MACHINE is called as Client Side State Management.

23) What is server side state management? How many types?

A) Storing the user's information within the WEB SERVER memory is called as **Server Side State Management.**

24) What is a session? How many types of sessions?

A) Session is a temporary variable which will be used to maintain the user information.

25) When we will go for application state?

A) when ever we want to store the data in web server..which should be common for all users.

For example:

In youtube video number of views

26) What are application events?

A) There are 3 application events.

1. Application Start Event
2. Application End Event
3. Application Error Event.

27) Difference between session state and application state?

A) 1. **Application state:** It will be available to all users of the application.

2. Application state variables are cleared, when the process hosting the application is restarted.

Session state:

1. It will only be available to a specific user of the ASP.net application.
2. Session state variable are cleared, when the user session times out. The default is 20 minutes. This is configurable in Web.Config.

28) What is global.asax file?

A) This is a class file, which is coming with 1 user defined called Global and it has a super class called HTTPApplication. This file will contain all the application session related events.

29) What is a cookie?

A) Cookie is a variable which we can use to store the user data.

It will create within the client machine due to that reason which is called as client side state management.

30) What is the default life of cookie?

A) 30 Minutes.

31) Types of cookies?

Cookies can be broadly classified into 2 types

1. Persistent cookies: Remain on the client computer, even after the browser is closed. You can configure how long the cookies remain using the expires property of the Http Cookie object.

2. Non-Persistent cookies: If you don't set the Expires property, then the cookie is called as a Non-Persistent cookie. Non-Persistent cookies only remain in memory until the browser is closed.

32) What is the Scope of Cookie?

A) Throughout the website.

33) What is the Difference between Cookie and Session? A)

COOKIE	SESSION
1. Cookie is a client side state management technique.	1. Session is a server side state management technique.
2. Cookie is a variable which will create within the client machine.	2. Session is also a variable which will create within the Web server.
3. Default timeout of a cookie is 30 minutes.	3. Default life time of session variable is 20 minutes.

34) What is querystring? What is the draw back?

A) 1.QueryString is a way to forward the data from one web page to another.

2. QueryString is attached to the URL with "?".

Drawbacks: 1. All the attributes and values are visible to the end user. Therefore, they are not secure.

3. There is a limit to URL length of 255 characters.

35) What is Viewstate? What is the scope of view state?

A) 1. Viewstate will maintain the user's data among multiple postbacks requests.
2. View state will store the user's data within client machine due to that reason it is called as CLIENT SIDE STATE MANGEMENT.
3. The scope of the Viewstate is within that web form.

36) Is HTML controls will maintain Viewstate?

A) NO. Because HTML controls are Client side controls.

37) What is Hiddenfield and what is the scope?

A) 1. HiddenField is a Server side control, which can hold the user data but holding the data will not be visible because it is a INVISIBLE CONTROL.
2. To Implement HiddenField we can use Asp.Net server control called HiddenField.

38) What is caching?

A) Caching is a process of storing the frequently used web page (or) frequently used part of the web page (or) frequently used data into some location for future access.

39) How many locations we can implement caching?

A) According to the location caching is classified into 4 types.
1. Client caching
2. Proxy caching
3. Reverse caching
4. Web server caching

40) When we will go for data caching?

A) Whenever we want to store the frequently used data for future access into some location then we will go for DATA CACHING.

41) What is the use of sqldata source control?

A) SqlData Source will make the programmer task easy to communicate SqlServer

Database.

42) When we will go for repeater control?

A) Whenever we want to display the data as it is we can go for Repeater control, that means we don't require to provide any Edit or Delete facilities.
Ex: To display Bank Statements and Examination results.

43) When we will go for datalist control?

A) Whenever we want to display the data in a repeating list format then we will go for Datalist control.

44) When we will go for formview and when we will go for details view?

A) **FORMVIEW:** Whenever we want to display record by record in VERTICAL manner then we can go for Formview.
Details View: Whenever we want to display record by record in HORIZONTAL manner then we can go for Details view.

45) What is the use of data pager control?

A) Data pager control provides paging functionality for data bound controls.

46) which are the 2 properties are on every validation control?

A) 1.ControlToValidate and 2.ErrorMessage.

AJAX

1) Why Ajax?

A) To avoid full page postback,to implement partial page postback
1. Using AJAX we can develops RICH USER INTERFACES web applications
2. If we want to follow ASYNCHRONOUS REQUEST MODEL, while developing the web applications we have to use AJAX.
3. To improve the PERFORMANCE of the web application and to reduce the NETWORK TRAFFIC we can use AJAX.
4. We can avoid SCREEN FLICKER using AJAX.

2) What is partial post back?

A) when ever user will interact the part of the page then sending postback request for only that part of the page

3) What is synchronous request model and what is asynchronous request model?

A) **Synchronous Request Model:** In this model, every client request has to communicate the web server and every request has to process by the web server then only that request, response will be getting by the client.

Asynchronous Request Model: In this model, between client and web server we will have a middleman called AJAX ENGINE.

AJAX ENGINE: It is a part of web browser. The role of AJAX engine is to process the part of the web page or partial web page within the client side.

4) What is client centric and what is server centric?

A) AJAX will support 2 programming models. They are:

1. **Server Centric programming model:** In this model every client request will be processing by the web server that can be first request or postback request.
2. **Client Centric programming model:** In this model, first request will be processing by the web server and postback request will be processing by the client.

1).What is ADO.Net? Why Ado.net?

A) **ADO.NET :** 1. It is an integral component in .NET framework, which was introduced by the Microsoft with .NET Framework 1.0

2. It is a Data Access Object, which allows communication between .NET application and Databases.

WHY: 1. whenever .NET application wants to communicate Databases it has to take the help of Ado.Net.

2. Ado.net acts like a mediator between .Net application and Database.

3).What is the base class library used for ado.net?

A)System.data To communicate Sql server database we have to import a Base Class Library called Using System.Data.SqlClient;

4).What are components required for connected oriented?

A) The components required for Connected oriented architecture are:

1. Connection Object
2. Command Object
3. DataReader Object

5). What are the components required for Disconnected oriented?

A) The components required for Disconnected oriented architecture are:

1. Connection Object
2. Command Object
3. DataAdapter Object
4. Dataset Object

6). Difference between DataReader and DataAdapter?

A)

DATAREADER	DATAADAPTER
1. It is used in Connected Oriented Architecture.	1. It is used in Disconnected Oriented Architecture.
2. DataReader is represents with a pre-defined class called SqlDataReader.	2. DataAdapter is represented with a pre-defined class called SqlDataAdapter.
3. DataReader is used to retrieve a read-only, forward-only stream of data from a database	3. DataAdapter is used to retrieve data from a data source and populate tables within a DataSet.

7).Difference between dataset and data table?

A)

DATASET	DATA TABLE
1. Dataset is a collection of DATA TABLES.	1. Data table represents a single table i.e it is a collection of rows and columns.

8).Difference between data reader and dataset?

A)

DATAREADER	**DATASET**
1. It is used in Connected Oriented Architecture.	1. It is used in Disconnected Oriented Architecture.
2. DataReader is directly accessing the	2. Dataset is a local database which is
central database.	not communicating the central database directly, between the central db and local db there will a mediator called DataAdapter for communication.
3. DataReader is represented at a time single record. DataReader is Read only, Forward only, connected recoed set.	3. Dataset can contain collection of tables because dataset itself is a local database.
4. DataReader we will use only when we want to read the data from Central DataBase.	4. We can use dataset for reading the data, inserting, updating and deleting the data.

9) When we will go for connected oriented architecture and when we will go for disconnected oriented architecture?

A) Connected Oriented Architecture (COA):

Whenever we require a continuous connection with the Database for accessing the data then we will go for COA.

DISconnected Oriented Architecture (DOA):

Whenever we doesn't require a continuous connection with the Database for accessing the data then we will go for DOA.

10) How to bind the data to textbox?

A) Txtbox1.Text=dr[0];

11) How to bind the data to grid view?

A)Gridview1.datasource=dr;

A) Gridview1.databind();

12) How to bind the data to label?

A)label1.Text=dr[0];

13) How to bind the data to dropdownlist?

A)dropdownList1.datasource=dr;
dropdowList1.DataTextField=dr[1];
dropdownList1.DatavalueField=dr[0];
dropdownList1.DataBind();

14) Difference between ExecuteReader, ExecuteNonquery, ExecuteScalar?

A) **ExecuteReader():** It is apre-defined member method of SqlCommand class. This method will read or fetch the data from the central database and will return to DataReader object.

ExecuteNonQuery(): This method will execute the Non-Query command of command object CRUD Operations like INSERT, UPDATE, DELETE, CREATE and so on. Then it will return the no. of records which are affected by the command.

ExecuteScalar(): This method will executes the command object command till the first match. This method will avoid the unnecessary scanning of the table, which improves the performance of the application.

15) How to destroy connection object explicitly?

A) conn.Dispose()

16) What is row command event? When we will go for row command event?

A) Row Command event is one of the events of the Gridview control.

This event will fire when user will click any button within the Gridview control.

17) Can I implement link button click event within gridview?

A) Yes.

18) How to create delete, edit, select buttons with in gridview?

A) By using

PROPERTY	BUTTON
AutoGenerateDeleteButton	For DELETE Button
AutoGenerateEditButton	For EDIT Button
AutoGenerateSelectButton	For SELECT Button

19) What is web service?

A) 1. A unit of code which is providing the services to multiple client applications can be called as WEB SERVICE.

2. An application which is receiving the services can be called as SERVICE RECEIVER or CLIENT APPLICATION.

3. An application which is providing the services can be called as SERVICE PROVIDER or WEB SERVICE.

20) What is Jquery?

A) 1. Jquery is an advanced technology of JavaScript that means jquery is next generation of JavaScript.

2. It is a predefined JavaScript Library.

3. It is a group of JavaScript predefined functions.

4. It is a lightweight and more powerful API adding dynamic behavior for webpage.

5. To implement JavaScript programmer has to write the multiline code. But using Jquery we can implement JavaScript.

21) What is Linq?

A)Linq stands for Language Integrated Query. Linq is an advanced data access object for .net .

22) What is stored procedure?

A) 1. Stored procedure is a pre-compiled Sql statements.

2. That means stored procedure will contain sql statements like SELECT, UPDATE, DELETE and so on which is already compiled.

Syntax:

Create procedure procedurename (<Parameter list>) As
Begin
{

<Sql statements>
}

end

23) What is advantage of stored procedure?

A) By implementing stored procedures we can avoid the multiple time compilation of Sqlcommands.

Use of DataSet object in ADO.NET?

Answer

- It is used in a disconnected architecture.
- Provides lower performance. A DataSet object has read/write access.
- A DataSet object supports multiple tables from various databases.
- A DataSet object is bound to multiple controls.
- A DataSet object has slower access to data.
- A DataSet object is supported by Visual Studio tools.
- We can create relations in a dataset.
- A Dataset supports integration with XML.
- A DataSet communicates with the Data Adapter only.
- A DataSet can modify data.

What is the DataReader in ADO.Net?

Answer

- DataReader holds only one table at a time.
- It only provides read only access mode and cannot write data.
- It is not required local storage to data store.
- Holds one row at a time.
- Uses less memory.
- DataReader do not maintain relation.

Question 16: What is master page in ASP.NET?

Answer: The extension of MasterPage is '**.master**'. MasterPage cannot be directly accessed from the client because it just acts as a template for the other Content Pages. In a MasterPage we can have content either inside ContentPlaceHolder or outside it. Only content inside the **ContentPlaceHolder** can be customized in the Content Page. We can have multiple masters in one web application.A MasterPage can have another MasterPage as Master to it. The MasterPageFile property of a webform can be set dynamically and it should be done either in or before the Page_PreInit event of the WebForm.**Page.MasterPageFile = "MasterPage.master".** The dynamically set Master Page must have the ContentPlaceHolder whose content has been customized in the

WebForm.

A master page is defined using the following code:

<%@ master language="C#" %>

Adding a MasterPage to the Project

1. Add a new MasterPage file (MainMaster.master) to the Web Application.

2. Change the Id of ContentPlaceHolder in <Head> to "**cphHead**" and the Id "**ContentPlaceHolder1**" to "**cphFirst**".
3. Add one more ContentPlaceHolder (cphSecond) to Master page.

To the master page add some header, footer and some default content for both the

```
HYPERLINK "https://E-next.in/" \h1.  <form id="form1"
runat="server"> Header... 2.     <br />
    3.            <asp:ContentPlaceHolder id="cphFirst"
   runat="server"> This i s First Content Place Holder (Default)
   </asp: ContentPlaceHolder
      >
4.   <br />
5.   <asp:ContentPlaceHolder ID="cphSecond" runat="server">
```

content place holders.

What is the difference between HTTP-Post and HTTP-Get?

The GET method creates a query string and appends it to the script's URL on the server that handles the request.
The POST method creates a name/value pairs that are passed in the body of the HTTP request message.

1. What is MVC (Model View Controller)?

Model–view–controller (MVC) is a software architectural pattern for implementing user interfaces. It divides a given software application into three interconnected parts, so as to separate internal representation of information from the way that information is presented to or accepted from the user.

MVC is a framework for building web applications using an MVC (Model View Controller) design:

- The Model represents the application core (for instance a list of database records).
- The View displays the data (the database records).

- The Controller handles the input (to the database records).

Mention what is the difference between Temp data, View, and View Bag?

In ASP.NET MVC there are three ways to pass/store data between the controllers and views.

ViewData

1. ViewData is used to pass data from controller to view.
2. It is derived from ViewDataDictionary class.
3. It is available for the current request only.
4. Requires typecasting for complex data types and checks for null values to avoid an error.
5. If redirection occurs, then its value becomes null.

ViewBag

1. ViewBag is also used to pass data from the controller to the respective view.
2. ViewBag is a dynamic property that takes advantage of the new dynamic features in C# 4.0
3. It is also available for the current request only.
4. If redirection occurs, then its value becomes null.
5. It doesn't require typecasting for the complex data type.

TempData

1. TempData is derived from TempDataDictionary class
2. TempData is used to pass data from the current request to the next request
3. It keeps the information for the time of an HTTP Request. This means only from one page to another. It helps to maintain the data when we move from one controller to another controller or from one action to another action
4. It requires typecasting for complex data types and checks for null values to avoid an error. Generally, it is used to store only one time messages like the error messages and validation messages

xplain what is the difference between View and Partial View?

View

- It contains the layout page.
- Before any view is rendered, viewstart page is rendered.
- A view might have markup tags like body, HTML, head, title, meta etc.
- The view is not lightweight as compare to Partial View.

Partial View

- It does not contain the layout page.
- Partial view does not verify for a viewstart.cshtml.We cannot put common code for a partial view within the viewStart.cshtml.page.
- Partial view is designed specially to render within the view and just because of that it does not consist any mark up.
- We can pass a regular view to the RenderPartial method.

Learn more here - [Partial View in MVC]

12. What are HTML helpers in MVC?

With MVC, HTML helpers are much like traditional ASP.NET Web Form controls.

Just like web form controls in ASP.NET, HTML helpers are used to modify HTML. But HTML helpers are more lightweight. Unlike Web Form controls, an HTML helper does not have an event model and a view state.

In most cases, an HTML helper is just a method that returns a string.

With MVC, you can create your own helpers, or use the built in HTML helpers.

Standard HTML Helpers
HTML Links

The easiest way to render an HTML link in is to use the HTML.ActionLink() helper.With MVC, the Html.ActionLink() does not link to a view. It creates a link to a controller action.

ASP Syntax

```
<%=Html.ActionLink("About this Website", "About")%>
```

HTML Form Elements

There following HTML helpers can be used to render (modify and output) HTML form elements:

- BeginForm()
- EndForm()
- TextArea()
- TextBox()
- CheckBox()
- RadioButton()
- ListBox()
- DropDownList()
- Hidden()
- Password()

What is Razor in MVC?

ASP.NET MVC has always supported the concept of "view engines" - which are the pluggable modules that implement different template syntax options. The "default" view engine for ASP.NET MVC uses the same .aspx/.ascx/. master file templates as ASP.NET Web Forms. Other popular ASP.NET MVC view engines are Spart&Nhaml.

MVC 3 has introduced a new view engine called Razor.

Why is Razor?

1. Compact & Expressive.

2. Razor minimizes the number of characters and keystrokes required in a file, and enables a fast coding workflow. Unlike most template syntaxes, you do not need to interrupt your coding to explicitly denote server blocks within your HTML. The parser is smart enough to infer this from your code. This enables a really compact and expressive syntax which is clean, fast and fun to type.
3. Easy to Learn: Razor is easy to learn and enables you to quickly be productive with a minimum of effort. We can use all your existing language and HTML skills.
4. Works with any Text Editor: Razor doesn't require a specific tool and enables you to be productive in any plain old text editor (notepad works great).
5. Has great Intellisense:
6. Unit Testable: The new view engine implementation will support the ability to unit test views (without requiring a controller or web-server, and can be hosted in any unit test project - no special app-domain required).

What is Database first approach in MVC using Entity Framework?

Database First Approach is an alternative or substitutes to the Code First and Model First approaches to the Entity Data Model. The Entity Data Model creates model codes (classes, properties, DbContext, etc.) from the database in the project and that class behaves as the link between database and controller.

There are the following approaches, which are used to connect the database with the application.

- Database First
- Model First
- Code First

17. What do you mean by MVC Scaffolding?

Scaffolding is a code generation framework for ASP.NET Web applications. Visual Studio includes pre-installed code generators for MVC and Web API projects. You add scaffolding to your project when you want to quickly add the code that interacts with data models. Using scaffolding can reduce the amount of time to develop standard data operations in your project.

It consists of page templates, entity page templates, field page templates, and filter templates. These templates are called Scaffold templates and they allow you to quickly build a functional data-driven Website.

18. Explain the concept of Razor in ASP.NET MVC?

ASP.NET MVC has always supported the concept of "view engines" – which are the pluggable modules that implement different template syntax options. The "default" view engine for ASP.NET MVC uses the same .aspx/.ascx/. master file templates as ASP.NET

WebForms. Other popular ASP.NET MVC view engines are Spart & Nhaml. Razor is the new view-engine introduced by MVC 3.

What is GET and POST Action types?

GET Action Type: GET is used to request data from a specified resource. With all the GET requests, we pass the URL, which is compulsory; however, it can take up the following overloads.

POST Action Type: Tthe POST is used to submit data to be processed to a specified resource. With all the POST requests, we pass the URL, which is essential and the data. However, it can take up the following overloads.

21. How does View Data differ from View Bag in MVC?

View Data	View Bag
ViewData is used to pass data from a controller to view	ViewBag is also used to pass data from the controller to the respective view.
It is available for the current request only.	It is also available for the current request only.
Requires typecasting for complex data type and checks for null values to avoid error	Doesn't require typecasting for the complex data type.
If redirection occurs, then its value becomes null.	If redirection occurs, then its value becomes null.

What are the main Razor Syntax Rules

Following are the rules for main Razor Syntax:

- Razor code blocks are enclosed in @{ … }
- Inline expressions (variables and functions) start with @
- Code statements end with a semicolon
- Variables are declared with the var keyword
- Strings are enclosed with quotation marks
- C# code is case sensitive
- C# files have the extension .cshtml