

SATHYA TECHNOLOGIES

ASP.NET NOTES

By

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ASP.net

web sites [applications]

↓
Static
(Web pages)

↓
HTML
photo shop

dynamic
(Web pages)

client
side

Java
script CSS
scripting
language
style
sheet

server
side
↓
ASP
ASP.net
PHP
JSP etc
[Java server
pages]

→ coding also known as
business logic.

→ ASP.net = HTML + JavaScript + CSS
to perform the .net C# etc.

→ ASP.net - the full form of ASP.net is
activate server page network enable
technology

→ web site:- The web site is collection of
web pages

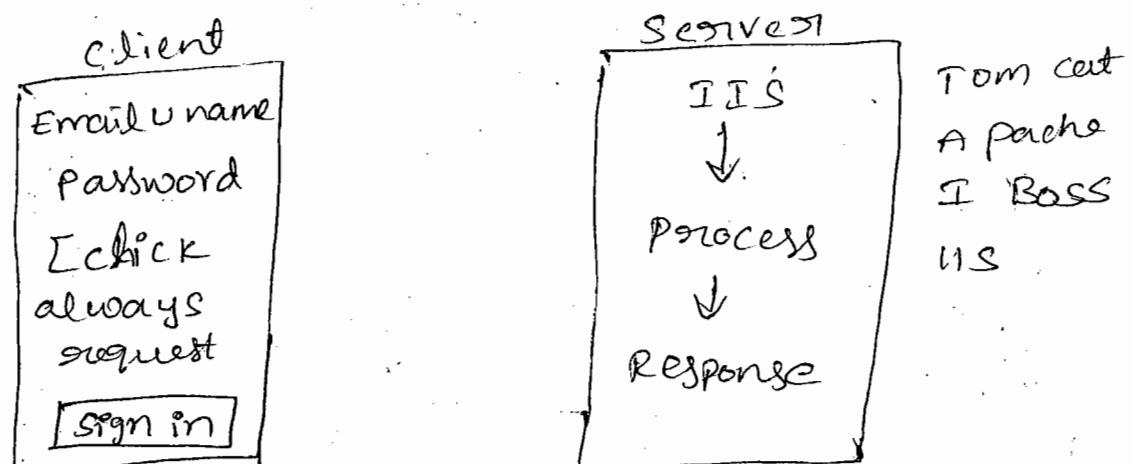
for ex:- gmail, face book , twitter etc

→ web page:-

web page is the collection of
images, icons, advertisements etc.

web browser:- web browser is the client
site software which is installed in
client machine.

for ex:- internet explorer, mozilla firefox etc



web server :-

web server is server site SW which is installed on server machine.

- Ex:- Apache, tom cat, IIS [internet information service]
→ client is a computer which sends request to the server
→ client always sends the request using web browser

Ex:- internet explorer, mozilla firefox.

- for ex request www.gmail.com
→ whenever the client gives the request, the request will get web server using HTTP server.
→ HTTP is a protocol which sends the request to the server and get back the response from the server. But HTTP is a state less protocol.
i.e it doesn't bw maintain the state bw multiple client request & responses.
→ whenever client gives the request, the request will accept by IIS, and process

the request, generate the response & forward back the response to the client system.

- ASP.net work on http protocol, But HTTP protocol is a stateless protocol which doesn't maintain the state of the previous response b/w multiple client request & responses.
- ASP.net is a stateless technology which works on http protocol
- If you want to make stateless nature to stateful we can go for state management

A hand-drawn diagram of a login form. It consists of a large rectangular box containing two input fields: 'User name' and 'Pass word', each with a small rectangular box above it for labels. Below these fields is a single button labeled 'Sign in'.

- If you want to design they above login base we have to learn html.
- If the user is not entering user name & password then displaying error msg which is called as validation.

Validation:-

- It is a process of restricting the ctrl by accepting a proper i/p from the user
- If you want to perform validations we have to learn Java Script.
- If a webpage consist of 10 text boxes and all the text boxes background color must be green font color must be yellow font must be bold then we have to

beam . CSS .

→ when ever user clicks on sign in buffer
then if has to perform an action for that
are we have to write some coding this
coding is also called as business logic.
events :-

→ event are the time periods which
specify that what type of actions it has
to perform.
→ when ever user clicks as a sign in
button

Ex:- click event.

→ To perform the coding on business logic
we have learn atleast ~~a~~ one . net
supportable language like C# . net
(or) VB . net .

ASP . net = HTML + Java script + CSS + XML
(or)

C# . net (or) VB . net

HTML :-

HTML means hyper text markup language
which is used develop static web pages.

→ HTML is case insensitive programming language
→ HTML is space insensitive scripting language
→ HTML is line insensitive programming language
→ HTML is error free language.

→ HTML is a tag oriented programming language

tag :-

— continue next page no. 7 .

IS/IT @

HTML

- HTML is hypertext Markup language, which is used to develop static webpages.
- HTML is Case Insensitive Programming language.
[a=A]
- HTML is Space insensitive Scripting language.
- HTML is Line insensitive programming language.
- HTML is Error free language.
- * HTML is tag oriented programming language.

TAG: Any command that is enclosed with in angular braces is called as tag.

* Every tag will have two elements
(1) starting element (2) ending element.

Ex: <cmd> → S.E

</cmd> → E.S

* The tag which contain both starting element & ending element is called Container tag.

Ex: <html>
</html>

* The tag which contain only starting element but not ending element is called non-Container tag.

Ex:

* Every tag in html is predefined and optional

* Different tags in html are

① BASIC TAGS ② LINK TAGS ③ LIST TAGS ④ TABLE TAGS

⑤ FRAME TAGS ⑥ FORM TAGS ⑦ MULTIMEDIA TAGS ⑧ EMBED TAGS

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* Every HTML program must save with .htm or .html extension.

→ The General Structure of HTML program

Note Every HTML program must be saved in "Notepad" (or) Visual studio editor (or) Edit plus software

→ <HTML>

<HEAD>

</HEAD>

<BODY>

</BODY>

</HTML>

Note: The output of HTML is on web browser (like Internet Explorer, etc.)

(B)

<HTML>

<HEAD>

<script type="text/javascript">

</script>

</HEAD>

<BODY>

H2 welcome TO HTML

</BODY>

</HTML>.

HTML TAG :- This tag is the starting tag to write any HTML program.

HEAD TAG :- If we want to add dynamic nature for HTML than go for Head tag.

If we want to add JavaScript (or) VBScript (or) CSS we have to add in head tag.

Note: JavaScript is used to add dynamic nature for HTML web pages.

BODY TAG: - This tag is used to display the content with in the webpage.

② write a program to change the background colour of the webpage & title of the webpage.

```
<html>
  <head>
    <title> WELCOME TO HTML </title>
  </head>
  <body bgcolor="green">
  </body>
</html>
```

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③ TITLE TAG: - This tag is used to display the title on the menu bar of the webpage.

* bg color = " " :- this property is used to change the background colour of a webpage.

④ write a html prog to change the background image of a webpage

```
<html>
  <head></head>
  <body background = "paste the path of the image">
  </body>
</html>
```

* HTML

```
<HTML>
  <Head>
    <H1 Align = "center"> Growtham <H1>
  </Head> <H2 colour = "blue">
  <Body>
    <p> Sathyaj Technologies </p>
```

Growtham

```
Sathyaj Technologies
<Div Align = "center">
  <p> Data - - -
  <p> Data - - -
  <p> Data - - -
</Div>
```

LINK TAGS: These tags are used to redirect the user request between multiple webpages.

* we can redirect the user request either for a plain text or for a image.

Syntax to create a link "hyperlink reference."

 -- Some text -->

< /a >

④ write a program to redirect the user request between multiple pages.

Step-1:- Create htmlpage.html open

Open notepad & type "WELCOME TO HOMEPAGE" → Save as homepage.html.

(anchor tag)

②

HOME

< /a >

③

Google

< /a >

* Creating a hyperlink for a image

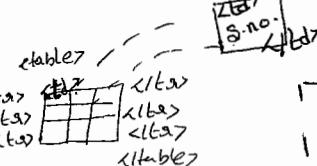
source

⑤ write a program to display the image on the webpage.

• Src is the Source i.e we have to mention the path of the image, open the image in Internet Explorer & Copy the URL & pasted in Src.

⑥ Redirecting the user request for a image.

```
<a href="homepage.html">
  
```

II Table TAGS :-

```
<table border="1">
```

<tr>

<td> SNo <td>

<td> SName <td>

<td> SMarks <td>

</tr>

<td> 101 <td>

<td> Sunil <td>

<td> 87 <td>

</br>

<td> 102 <td>

<td> Anil <td>

<td> 86 <td>

</br>

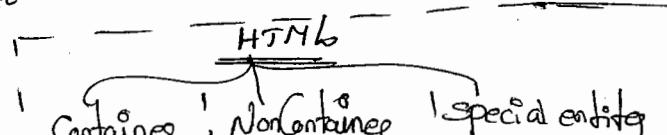
</table>

<table align="value">

Border="value" cellpadding="value"

cellspacing="value" >

</table>



1. <Head> ,

<Head>

<Body>

</Body>

<head>

</head>

<P></P>

2. Attributes:

* <th align="value">

value → left, right, center

value

(0 to 255)

Named Colour # Hexadecimal Code

RGB

Normal
Color

Red
Green
Blue

Digits

FF 0000 → Red

00FF00 → Green

0000FF → Blue

(255,0,0) → R

(0,255,0) → G

(0,0,255) → B

Aqua, black, blue, fuchsia, gray

green, lime, maroon, navy,

olive, purple, red, silver, teal

white

FRAME TAGS

* we can divide the webpage either into horizontal parts or vertical parts.

* Dividing the webpage into horizontal parts can be done with the help of "rows" attribute.

* Dividing the webpage into vertical parts can be done with the help of "cols" attribute

* Each part of the webpage is called as frame

* Each frame should be identified with some name and that name must be Case Sensitive.

* Dividing the webpage into horizontal parts

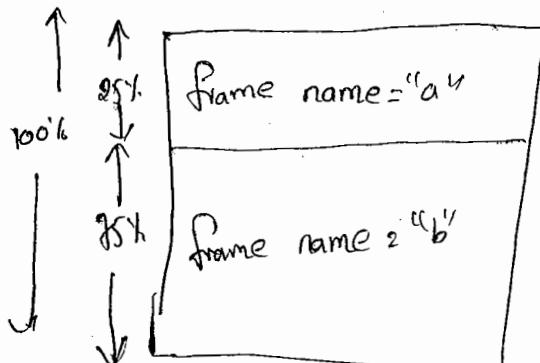
(7)

<frameset rows="25%, 75%">

<frame name="a">

<frame name="b">

</frameset>



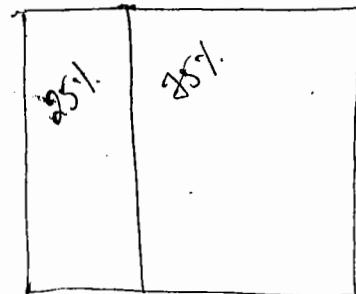
⑧ * Dividing the webpage into Vertical parts

```
<frameset cols="25%, 75%">
```

```
<frame name="a">
```

```
<frame name="b">
```

```
</frameset>
```



⑨ Dividing the webpage into three parts.

```
<frameset rows="25%, 75%">
```

```
<frame name="a">
```

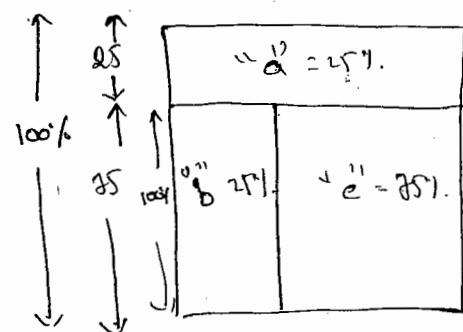
```
<frameset cols="25%, 75%">
```

```
<frame name="b">
```

```
<frame name="c">
```

```
</frameset>
```

```
</frameset>
```



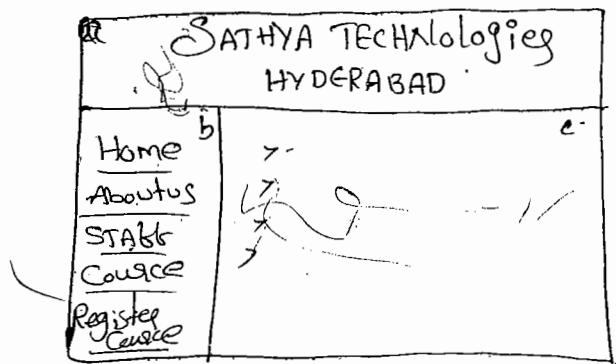
* First we have to divide the webpage into two horizontal parts and the second part must be divided into two vertical parts.

* we cannot directly add the data within the frame tags.

* If we want to add any data within the frame tags we have to write a separate html program & indicate that program to the frame tags.

⑩ • Develop a program with name Home.html Req

- ① Mainframe.html
- ② header.html ✓
- ③ link.htm ✓
- ④ home.html ✓
- ⑤ Aboutus.html
- ⑥ STABL.html
- ⑦ Course.html
- ⑧ RegisterCourse.html



Header Tags:

This tags are used to display the text with different forms. Different types of header tags are

① `<h1> - </h1>`

⋮
⋮

② `<h6> - </h6>`

$h_1 > h_2 > h_3 > h_4 > h_5 > h_6$

(10b)

• program for Header.html

`<center>`

`<h1> SATHYA TECHNOLOGIES </h1>`

`<h2> Hyderabad </h2>`

`</center>`

Note:- `Center tag` is used to display the text on the center of the webpage.

(10c) Program for Link.html

`<html>`

`<head> </head>`

`<body>`

`<H3>`

` HOME

`

` ABOUT US

`

` STAFF

`

` COURSE

`

` REGISTER
`

`</H3>`

`</body>`

`</html>`

TARGET = "C"

10d Home.html

<h1> Welcome To Homepage </h1>

10e Aboutus.html

<h1> Welcome To Aboutus </h1>

10f STaff.html

<h1> Welcome To STaff </h1>

10g Course.html

<h1> Welcome To Course </h1>

10h Register.html

<h1> Welcome To Register </h1>

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10i List Tags :- These tags are used to display the data in some order or proper order.

* List tags are of two types

① ordered list

② unordered list

Ordered List :-

This tags are used to display the items in a proper order like "numbered format", "Roman number format", "Alphabetical format".

10j Course.html

<ol type="1">

 C

 C++

 Java

 .NET

ol - ordered list

li - list item

UnOrdered List :-

* These tags are used to display the data or the list of items in unorder formate.

(Q) staff.html:

circle
square

```
<ul type="circle">  
  <li> NATRAJ </li>  
  <li> MAHESH </li>  
  <li> KANNA </li>  
</ul>
```

* Form TAGS :- These tags are used to design the Controls.

① Text Box :- Text Box is a Dataentry Control which is used to accept the data from the user.

* Text Boxes are of three types.

① Single line textbox

② Password textbox

③ Multi line textbox.

Single line textbox :- It is a dataentry control which is used to accept a single line of text from the user.

* Text Box is an Input Control.

Syntax:-

```
<input type="text" id="txtuname">
```

Password textbox :- It is a data entry Control which is used to accept a single line of text from the user and display the text in hidden formate.

Syntax :-

```
<input type="password" id="txtPwd">
```

Multiline textbox :-

It is used to accept multiple lines of text from the user.

Syntax :-

```
<textarea rows="5" cols="10" id="address">  
</textarea>
```

CheckBox :-

checkbox is used to accept more than one item among multiple items.

Syntax :-

```
<input type="checkbox" name="checkbox" id="mycheckbox">Sometext
```

Radio Button :- It is used to select only one item among multiple items.

Syntax :-

```
* <input type="radio" name="gender">Sometext
```

Note :- While working with radiobutton both the radio buttons names must be same, otherwise radiobutton will act like checkbox.

ComboBox or DropDownList :-

ComboBox is used to select only one item among list of items.

Syntax:-

```
<select id="dd1Country">
    <option> India </option>
    <option> U.S.A </option>
    <option> .... </option>
</select>
```

Submit Button:-

* It is used to Submit the page when ever user clicks on button.

* Submit button is used to perform some action whenever user will Click on it.

Syntax:-

```
<input type="Submit" name="clickme" value="Submit">
```

Register free

```
<html>
```

```
  <head>
```

```
    <title> Registration Page </title>
```

```
  </head>
```

```
  <body>
```

<i><td></i>	<i><td></i> Enter username <i></td></i>	<i><td></i> <input type="text"/> <i></td></i>	<i><td></i>
<i><tr></i>	<i><td></i> Enter password <i></td></i>	<i><td></i> <input type="password"/> <i></td></i>	<i><td></i>
<i><tr></i>	Enter address	<input type="text"/> \$ 1111111111	<i><td></i>
<i><tr></i>	Select Gender <i></td></i>	<i><td></i> <input checked="" type="radio"/> Male <input type="radio"/> Female <i></td></i>	<i><td></i>
<i><tr></i>	Select Course.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<i><td></i>
	Select Country	<input type="text"/> INDIA	
		<input type="button" value="Submit"/>	

</table>

<center>

<h1> Registration PAGE </h1>

<hr>

<form id="f1">

<table>

<tr>

<td> Enter username : </td>

<td>

<input type="text" id="txtusername">

</td>

<tr>

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```
<tr>
    <td>Enter password:</td>
    <td>
        <input type="text" id="passwordtxt">
    </td>
</tr>

<tr>
    <td>Enter Address:</td>
    <td>
        <textarea rows="5" cols="15" id="txtaddress">
        </textarea>
    </td>
</tr>

<tr>
    <td>Select Gender:</td>
    <td>
        <input type="radio" name="xbngender"> MALE
        <input type="radio" name="xbngender"> FEMALE
    </td>
</tr>

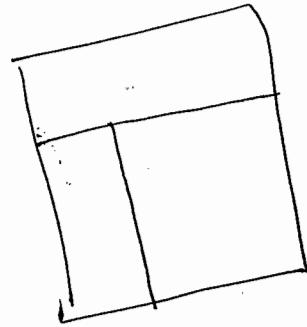
<tr>
    <td>SELECT Course:</td>
    <td>
        <input type="checkbox" name="chkCourse"> C
        <input type="checkbox" name="chkCourse"> C++
        <input type="checkbox" name="chkCourse"> Java
        <input type="checkbox" name="chkCourse"> M.S. NET
    </td>
</tr>
```

```
<tr>
  <td> Select Country : </td>
  <td>
    <select name="ddlCountry">
      <option> INDIA </option>
      <option> U.S.A </option>
      <option> France </option>
    </select>
  </td>
</tr>
<tr>
  <td> </td> <td>
    <input type="Submit" value="click me" >
  </td>
</tr>
</table>
</center>
</form>
</body>
</html>
```

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* Code for Mainfram.htm

```
<frameset rows="25%, 75%">  
    <frame name="a" src="header.htm">  
    <frameset cols="25%, 75%">  
        <frame name="b" src="link.htm" />  
        <frame name="c" />  
</frameset>  
</frame set>
```



19/6

Embed Tags :-

This tags are used to display the video on the webpage. Go to My Documents ^{Right arrow} My Music - Copy the entire path of the Audio file along with the extension of (.wma)

Syntax: <embed src="My music\Sample Music\Beethoven's Symphony No.9 (scherzo).wma" />

</embed>

Java Script

- * Java Script was developed by "netscape Company".
- * Java Script is a Scripting language.
- * Java Script is a tag oriented language.
- * Java Script is Case Sensitive language.
- * Java Script is used to add dynamic nature for html webpages.
- * Java Script program must embed to any html program.
- * The Output of the Java Script program will be on web browser.
- * Java Script is browser independent.
- * Java Script is space sensitive.
- * Java Script is Line Sensitive.

Ex:-

- * To design the above login page we have to learn html.

The diagram shows a simple login interface. It features a large rectangular container. Inside, there are two smaller rectangles side-by-side, each with a horizontal line inside representing a text input field. Above the first input field is the text "Enter username" and above the second is "Enter password". Below these two input fields is a single rectangular button with the text "Signin." centered on it.

- * If the user is not giving user name and password & click on Signin button than it will display error message. which is caused validation.

Validation :- it is a process of restricting the Control by accepting a proper input from the user.

- * JavaScript is used to perform client side validation and animations.

* The general structure of JavaScript program.

<html>

<head>

<script type="text/javascript">

</script>

</head>

<body>

</body>

</html>

→ Save the program with "firstprogram.htm". Go to javascript folder & open the browser a pop up box will be displayed if we close the popup box javascript will not work only html will work. If we right click on the pop up box → allow blocked Content → yes then javascript will work.

* write a javascript program to print a welcome message.

-> <head>

<script type="text/javascript">

document.write("welcome to javascript");

</script>
<head>

→ By default document.write will accept the data in the form of String.

* write a program to integrate HTML tags to java Script.

/*Same as above.

```
document.write("<h1>" + "Welcome to javaScript" + "</h1>");
```

/*Same as above.

* write a program to perform addition in java Script.

→ Java Script Supports global Variable declarations

→ A variable in javaScript can be declared with Var keyword

→ Java Sc Vari i=10

```
Var s="Sathya"
```

* Depending on the value that we are storing on the variable the datatype will be fixed. If we store integer value than vari will conform the datatype as int.

```
<html>
  <head>
    <script type="text/javascript">
      Var i=10;
      Var j=20;
      Var k=i+j;
      document.write("<h1>" + "The Sum is:" + k + "</h1>");
    </script>
  </head>
  <body>
    </body>
  </html>
```

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* write a program to display persons full name by giving first name & last name.

```
<script type="text/javascript">
  Var fname="Sathya";
  Var lname="Technologies";
  Var fullname=fname + lname;
  document.write("<h1>" + "Fullname is:" + fullname + "</h1>");
</script>
```

Dialog Control :-

- ① Alert Box
- ② prompt Box
- ③ Confirm Box

Prompt Box:-

Prompt Box is a DataControl which is used to accept data from the user.

Syntax:

```
{prompt ("Some message")}
```

→ By default prompt Box will accept the data in the form of string.

Ex:-

```
<html>
  <head>
    <script type="Text/javaScript">
      var a=prompt("Enter first name");
      var b=prompt("Enter last name");
      var c=a+b;
      document.write("<h1>" + c + "</h1>");
    </script>
  </head>
  <body>
    </body>
</html>
```

→ write a program to accept two numbers from the prompt Box & perform addition.

Note: By default prompt Box will accept the data in the form of string. If we want to convert string to int use "eval" function.

```
<html>
  <head>
    <script type="text/javascript">
      var a=eval(prompt("enter a value"));
      var b=eval(prompt("enter b value"));
      var a+b;
      document.write("<h1>" + "Sum is:" + "</h1>");
    </script>
  </head>
  <body> </body>
</html>
```

Alert Box :- It is used to display a friendly message to the user with OK button.

```
<html>
  <head>
    <script type="text/javascript">
      alert("Hi I am alert box")
    </script>
  </head>
  <body> </body>
</html>
```

Confirm Box :- It is used to display a message to the user with OK button & Cancel Button.

```
<script type="text/javascript">
  Confirm("Hi I am Confirm box")
</script>
```

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Functions in JavaScript

Function is a reusable piece of code which will get execute when we call it.

Syntax to declare a function

```
function functionname()
{
    -- statements --
}
g
```

Syntax for calling the function

```
functionname();
```

* It is always preferred to declare the function in head part of html & calling of function in body part of html.

```
<html>
  <head>
    <script type="text/javascript">
      function f1()
      {
        var a=10;
        var b=10;
        var c=a+b;
        alert("Sum is "+c);
      }
    </script>
  </head>
```

```
<body>
  <script type="text/javascript">
    f1();
  </script>
</body>
</html>
```

• Write a program & numbers from prompt box & perform addition operation.

```
<html>
  <head>
    <script type="text/javascript">
      function fadd()
      {
        var a=eval(prompt("Enter a value"));
        var b=eval(prompt("Enter b value"));
        var c=a+b;
        alert("Sum is:"+c);
      }
    </script>
  </head>
  <body>
    <script type="text/javascript">
      fadd();
    </script>
  </body>
</html>
```

O/P:- Enter a value : 10 ↵
Enter b value : 20 ↵
Sum is : 30.

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* write a program to pass two values for a function as parameters & perform addition.

```
<html>
  <head>
    <script type="text/javascript">
      function fadd(a, b)
      {
        var a1=a;
        var a2=b;
        var c=a1+a2;
        alert("Sum is:" + c);
      }
    </script>
  </head>
  <body>
    <script type="text/javascript">
      fadd(10, 20)
    </script>
  </body>
</html>
```

* we need
to check diff
var a;
a

* write a program to accept two values from prompt box & pass these values as parameters for a function & perform Add operation.

```
<html>
  <head>
    <script type="text/javascript">
      function fAdd(a1, a2)
      {
        var c=a1+a2;
        alert("Sum is:" + c);
      }
    </script>
  </head>
```

```

<body>
  <script type="text/javascript">
    function
    var a=eval(prompt("enter a value"));
    var b=eval(prompt("enter b value"));
    fadd(a,b);
  </script>
</body>
</html>

```

```

* <html>
  <head>
    <script type="text/javascript">

```

Design

Enter a value
 Enter b value

function fadd()

{

var a=eval(f1.txtavalue.value);

var b=eval(f1.txtbvalue.value);

var c=a+b;

alert("sum is:"+c);

}

function fsub()

{

var a=eval(f1.txtavalue.value);

var b=eval(f1.txtbvalue.value);

var c=a-b;

alert("Sub is:"+c);

}

function fmul()

{

var a=eval(f1.txtavalue.value);

var b=eval(f1.txtbvalue.value);

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```
Voor c=a*b;  
alert("Mul is:"+c);  
}  
  
function FunctionDiv()  
{  
    Voor a=eval(f1.txta.value);  
    Voor b=eval(f1.txtb.value,value);  
    Voor c=a/b;  
    alert("Div is:"+c);  
}  
  
</script>  
</head>  
<body>  
    <center>  
        <form name="f1" id="f1">  
            <table>  
                <tr>  
                    <td>Enter a value </td>  
                    <td> <input type="text" name="txtavalue"> </td>  
                </tr>  
                <tr>  
                    <td>Enter b value </td>  
                    <td> <input type="text" name="txtbvalue"> </td>  
                </tr>  
                <tr>  
                    <td> <input type="submit" value="ADD" onclick="Fadd()"></td>  
                </tr>  
            </table>  
        </form>  
    </center>  
</body>
```

```

<td> <input type="Submit" name="SUB" 
    onclick="fSUB"> </td>
<br>
<td>
    <td> <input type="Submit" name="HUL" 
        onclick="fHUL"> </td>
    <td> <input type="Submit" name="DIV" 
        onclick="functionDIV"> </td>
<br>
</table>
</center>
<form>
<body>
</html>

```

How to get value from the TextBox:

formname.textboxname.value

form → f
TextBox → textBox
value → value.

Ex: f.textBox.value

Events

- * Events are the time periods which specifies that what type of action that has to be performed when user will click the on Submit button.

- * whenever user click on Submit button "onclick" event will fire. telling us that the user has click Submit button.

Validations

Enter username

* User name must not be empty.

→ If the user is not entering any data with in the Text Box & click on Submit button than display error message. else display the value.

Example

① → Start → run → dev.env → ok

* File → new website → select language = visual c# →

* Template = Asp.net website → go to design window (default.aspx) (Default.aspx) →

* Select website on the menu bar → ^{add new item} → ^{select html page}

→ Select name = mypage.html

* Go to design window

View → ToolBox and Design the above page

* Go to Source window & write the following code with in head tag.

<head>

<script type="text/javascript">

function f1()

{
if (document.getElementById("txtname").value.length == 0)

 alert("username must not be empty");
 return true;

}

```

    close
    {
        alert(document.getElementById("Extname").value());
    }

```

<script>

Enter username

Enter password

- ② username & password both must not be same.

- Go to Source code & write the following Code.

```

<head>
<script type="text/javascript">

    function f1()
    {
        if (document.getElementById("Extname").value ==
            document.getElementById("txtpwd").value)
        {
            alert("uname and password must not be same");
            return true;
        }
    }

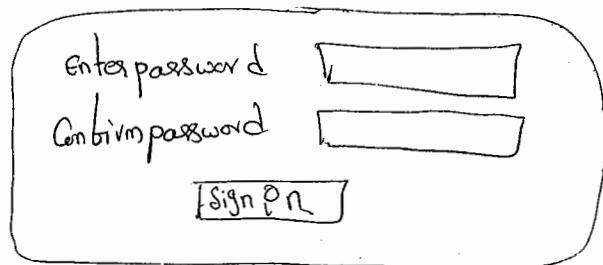
```

</Script>

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3

```
<html>  
<head>
```



```
<script type="text/javascript">  
function f1()  
{  
    if (document.getElementById("txtpwd").value !=  
        document.getElementById("txtpwd").value)  
    {  
        alert ("please enter correct password");  
        return true;  
    }  
</script>
```

4

Enter phoneno

Range :-

0 - 9
48 - 57
a = 97 z = 122
A = 65 Z = 90
Backspace = 8
Spacebar = 32
Enter = 13

On key press Event

* This event will fire when every user press any key ^{with} on the keyboard

* On key press event belongs to textBox Control.

ASCII value of 0 - 9 \Leftrightarrow 48 - 57

X0 - X9 \Leftrightarrow a - z \Leftrightarrow 97 - 122

A - Z \Leftrightarrow 65 - 91

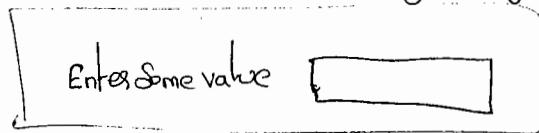
Backspace = 8

Spacebar = 32

Enter = 13

write a program to get the Ascii value of a number or a character or a symbol when ever user press any key.

<head>



```
<script type="text/javascript">
```

```
function f1()
```

```
{
```

```
    alert(event.keyCode);
```

```
}
```

```
</script>
```

```
</head>
```

⇒ <input id="Text1" type="text" OnKeyPress="return f1()" />

* Event.keyCode :-

It will get the Ascii value of the number or character that we have typed within the textBox.

<head>

```
<script type="text/javascript">
```

```
function f1()
```

```
{
```

```
if(event.keyCode >= 48 && event.keyCode <= 57)
```

```
{
```

```
    event.returnValue = true;
```

```
}
```

```
else
```

```
{
```

```
    event.returnValue = false;
```

```
}
```

```
</script>
```

```
</head>
```

Q

Q

Maximum length Validation:

D-① Enter Pwd []
[Submit]

→ The password must accept only 6 characters

<head>

```
<script type="text/javascript">
```

```
function fvalidate( )
```

۸

```
if (document.getElementById("txtpwd").value.length >
```

5

```
alert("password will accept only 6 characters");
```

return true;

4

۲

Characters must not greater than 120.

2

<head>

```
<script type="text/javascript">
```

function validation()

۸

```
if(document.getElementById("txtComm").value.length>120){}
```

```
alert("Max text area for Comment is 120 only");
```

return true;

2

</script>

</head>

Design-2

Enter Comment	(120)	
Check only		

Date Function in JavaScript -

* This function is used to display the Current System Date & time in JavaScript.

```
<script type="text/javascript">  
    var d=new Date();  
    alert(d);  
</script>
```

www.english-test.net

* write a javascript program to display the Current System date.

```
<script type="text/javascript">  
    var d=new Date();  
    var day=d.getDay();  
    var month=d.getMonth();  
    var year=d.getYear();  
    var date=day + "/" + month + "/" + year;  
    alert("date is : " + date);  
</script>
```

* write a prog to display the Current system time.

```
<script type="text/javascript">  
    var d=new Date();  
    var hours=d.getHours();  
    var min=d.getMinutes();  
    var sec=d.getSeconds();  
    var time=hours+ ":" + min+ ":" + sec;  
    alert("time is :" + time);  
</script>
```

Events in javascript:

① onload event: This event will fire whenever the page is loaded

```
<head>
  <script type="text/javascript">
    function f1()
    {
      alert("I am onload event i will load when the
            Page loads")
    }
  </script>
</head>
<body onload="f1()">
</body>
```

② ondblclick event: This event will fire when ever user double click on the button

```
<head>
  <script type="text/javascript">
    function f1()
    {
      alert("i will fire when user double click on the button");
    }
  </script>
<body>
  <input id="Submit" type="Submit" value="Submit"
         ondblclick="f1()"/>
</body>
```

③ onclick: This event will fire when ever user clicks on a button

④ Onkey press event: This event will fire when ever user press any key in the keyboard with in the textBox.

Onkey up:-> This event will fire when ever user releases the key from the KeyBoard.

```
<head>
  <script type="text/javascript">
    function f1()
    {
      alert("when user will release the key from the
            keyboard");
    }
  </script>
</head>
<body>
  <input id="Text1" type="text" Onkey up="f1()" />
```

⑤ Onkey down event: This event will fire when ever user presses the key & not releasing.

```
<head>
  <script type="text/javascript">
    function f1()
    {
      alert("key down");
    }
  </script>
</head>
<body>
  <input id="Text2" type="text" Onkey down="f1()" />
</body>
</html>
```

On mouse up : This event will fire when ever user release the mouse button.

On mouse down : This event will fire when ever user press the mouse button

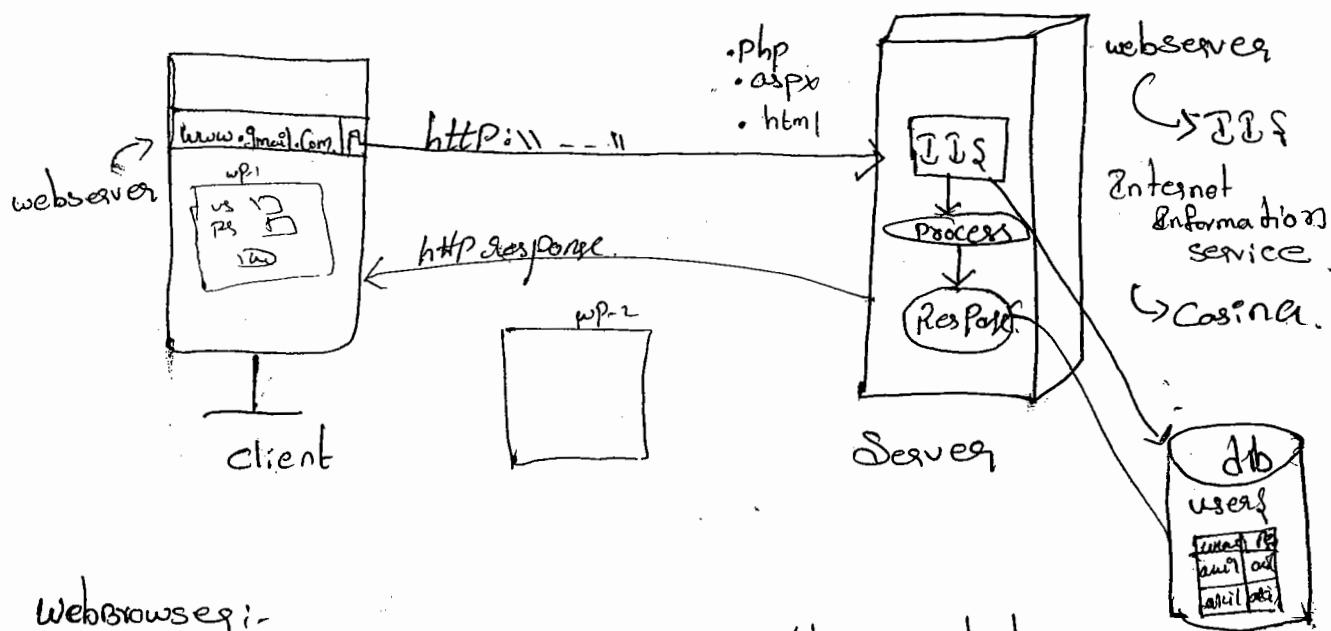
```
<head>
  <script type="text/javascript">
    function f2()
    {
      alert("mousedown");
    }
  </script>
</head>
<body>
  <input id="Text1" type="text" onmousedown="f2()" />
</body>
```

24/6 :-

Asp.net (Active Server page network enable Tech)

* Asp.net is used to develop Server Side dynamic web applications.

Ex:- www.Gmail.Com, Facebook.



WebBrowser:-

* WebBrowser is a client side software which is installed on client machine.

Ex:- Internet Explorer, Google chrome

* Client always gives the request using webBrowser.

Webserver:

* Webserver is a server side software which is installed on Server machine.

Ex:- IIS, Casina webser.

* When ever client gives the request (www.gmail.com) the request was accepted by IIS, IIS will process the request, generate the response and forward the response back to the client and display the output on a separate webpage.

- The communication b/w client and server is due to http protocol, as http protocol is a stateless protocol. Asp.net is called as stateless technology.

Steps to install asp.net softwares

- ① MS SQL Server
- ② MS Visual Studio 2010
- ③ Install IIS.

IIS (Internet Information Service)

* IIS is acting like webserver for all the Asp.net webapplications.

* Steps to Install IIS in windows XP OS

- ① Keep xp sp-2 cd in your cd drive.
- ② Start → settings → Control panel → Add or Remove programs → add/remove windows Components → then one Dialog Box will be open → ^(click) Select Internet Information Services in checkbox → next → next → finish.

* Steps to Install IIS in windows 7

- ① Start → control panel → Programs & Features → Turn windows Features on/off → then one dialog box will be open → click IIS checkbox → next → next → Finish.

→ To check whether IIS was installed (or) not Go to Start → Run → Inetmgr → OK, then one window will be open with Internet Information Services, i.e IIS was installed.

* If error message Comes? Install IIS.

* we can develop Asp.net web applications under two locations.

① AT disc location

② IIS

* Developing Asp.net website under disc location.

① → Create one folder with name mywebsite under D drive.

② Go to start run → devenv → OK

③ File → new → website → select language = visual c# → Template =

Asp.net website → Location = Browse → D:\MyWebsites → OK.

* Registering Asp.net website under IIS

① Virtual Directory: it is a physical location which is used to store asp.net website under IIS.

* Always virtual directory refers to disc location.

* Start → Run → inetmgr → OK

Internet Information Services → Satya → websites →

Default website → Right click on Default website → New → Virtual

directory → Right arrow → next button → Alias name → myaspwebsite

→ Browse = select D drive → Make a new folder →

name = myaspwebsite → next → next → finish.

* check whether virtual directory was created or not.

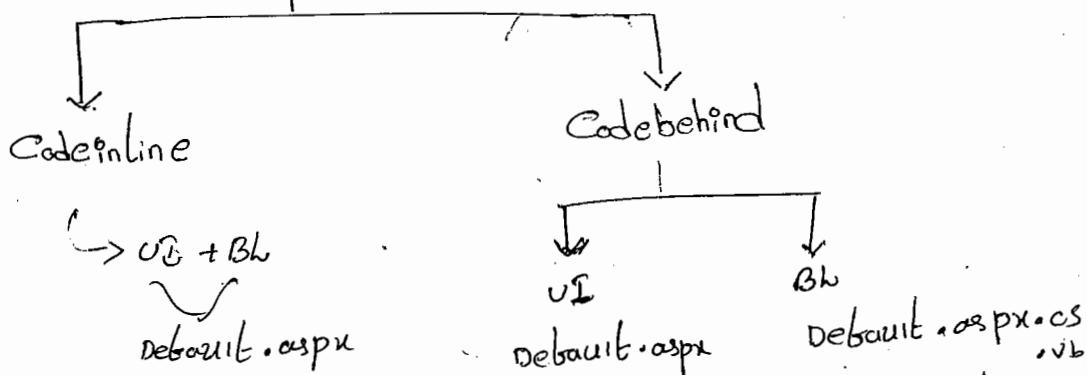
* Goto IIS → Right click on Default website → Refresh → Check my Aspwebsite folder.

Registering Asp.net website to Virtual directory

- * Start → run → devenv → OK → file → new website → Select Lang = visual c# → Temp = Asp.net website → Browse → Local IIS → default website → myaspwebsite.
- * Go to IIS and check in myaspwebsite folder. You can find all files

Coding

Coding Techniques in Asp.net



* Asp.net Supports two types of Coding techniques

- ① code inline modal ② code behind modal

Code inline modal: it is a process of defining user interface and business logic in a single file.

i.e. The designing code & business logic code will be available in .aspx extension.

- Generally the Designing of the webpage will be done by web designer & the Coding will be done by Developers.
- Developers has to wait until the designing is completed. So the developer time will be wasted.

we can not provide security for designing code with business logic code.

- * Asp supports code inline model
- * Asp.net is supporting both code inline model & code behind model
- * It supports code inline model due to backward compatibility of Asp.

Code behind model:-

- * It is a process of defining user interface and business logic separately.
i.e. user interface in Default.aspx & business logic in Default.aspx.cs
- * Using code behind technique we can develop the application in less amount of time because the user interface code & business logic code are working simultaneously.
- * we can provide security by hiding the business logic code from web designer.

Asp.net as Codeinline model

- * Go to → Default.aspx → website → add new item → select webform → name = default2.aspx → uncheck the checkBox [Place code in separate file] → Add
- * Go to default2.aspx design → double click on the design window than u can find the business logic code in default.aspx i.e. the user interface code & business logic code both are available in same file i.e. in .aspx

* by default Asp.net is following code behind technique.

Q516

Control

* Controls are used to display to the user so that the user can interact with the webpage.

* Control is a predefined class

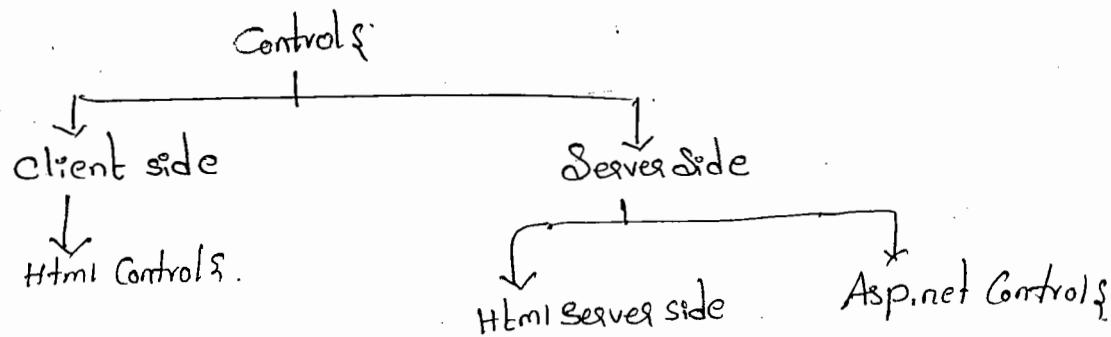
* Every Control will have 3 things in Common.

① properties ② Methods ③ Events.

Properties:- Properties are used to apply the style for a Control. like font, width, height, bgColor, ForeColor etc.

Methods:- These are used to perform some actions.

Events:- Events are the time periods which specifies that what type of action it has to be performed when ever user clicks on a Control.



* client side Controls:

The Controls which will work on client browser are called as Client Side Controls.

Ex: HTML Controls

Server Side Controls: The Controls which will run at Server Side are called as Server Side Controls.

Ex: HTML Server Controls, Asp.net Controls, webserver Controls

- * How can we identify whether a Control is Server Side Control
 - The Control which will have (`runat="server"`) attribute is Called Server Side Control.

Syntax for declaring Server Side Control :-

```
<tagprefix:Controlname id="Someid" runat="Server">
</tagprefix:Controlname>
```

Example:

① `<asp:Label id="lblname" runat="Server">`
`</asp:Label>`

② `<asp:TextBox id="txtname" runat="Server">`
`</asp:TextBox>`

Note:

* If we drag & drop the Controls from the Toolbox automatically the Source code will be available at Source window.

* If you write the Source code in Source window automatically the Control will be designed in Design window.

Standard Controls

① Label:- Label is acting like Caption for some other Control.

```
<asp:Label id="txtname" runat="Server">
</asp:Label>
```

Common properties for all the controls

- ① BackColor → It is used to apply the background color for the Control.
- ② BorderColor → It is used to apply the border color for the Control.
- ③ BorderStyle → Border style
- ④ ForeColor → It is used to apply the text color for the Control.
- ⑤ Font → Bold = True
Italic = True
- ⑥ Size → It is used to increase the font.

Extra property for label

- ① Text property → This property is used to display a message within the label.

Note: we can set the property is either at design time

(or) at run time.

* If we want to apply the properties at design time Select the Control press F4.

* we can apply the properties at runtime

* every control is a predefined class

Ex: Label, TextBox ... etc.

* Label1, Label2 ... etc are objects of Label class

Syntax for applying properties at run time :-

Objectname.propertyName;

Ex: Label1.Text;

- * By default label will accept the data in the form of string.
- * write a program to display a message "Sathyas Technologies".

* Step (i) Go to default.aspx : design , drag & drop a Label Control on the design window .

② Double click on design window & write the following code

protected void page_Load(object sender, EventArgs e)

8

Label1.Text = "Satya Technologies";

۲۹

Text Box Control :-

* TextBox is the data entry control which is used to accept the data from the user.

* Text Boxes are of Three types

- ① Single line textbox
- ② password textbox
- ③ Multiline textbox

Properties :-

* Text property → it is used to display some text within the TextBox Control.

* Text mode property → Text mode = singleLine
password
multiline

* Readonly = true/false

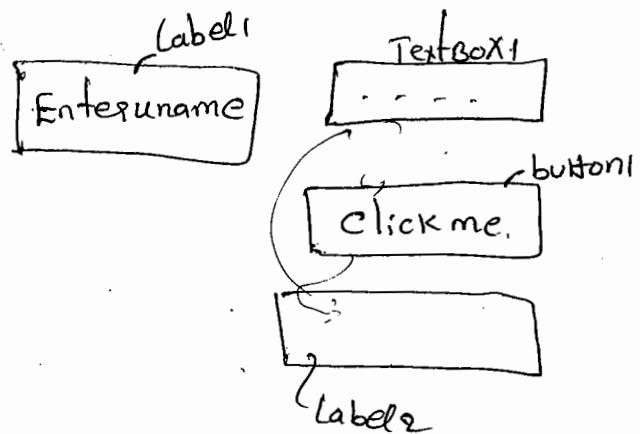
* If `readonly` is true the user cannot enter any data within the `textbox` at runtime.

data if Readonly is false than the user can enter the data within the textbox

maxlength property: This property is used to enter the max number of characters within the textbox.

Draw the design enter your name in one textbox, one button one label.

Requirement: when ever user enters any message within the textbox than display that message within the label with welcome.



* protected void Button1_Click(object sender, EventArgs e)

{
 Label1.Text = "Welcome" + " " + TextBox1.Text;
}

3.

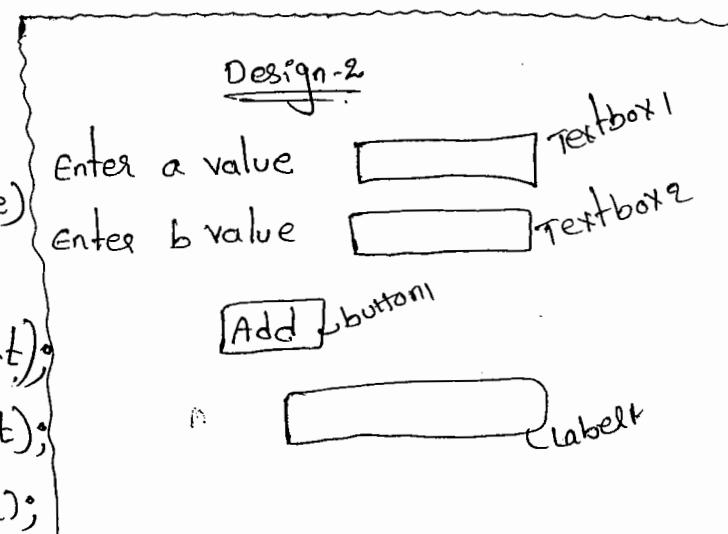
→

protected void Button1_Click
(object sender, EventArgs e)

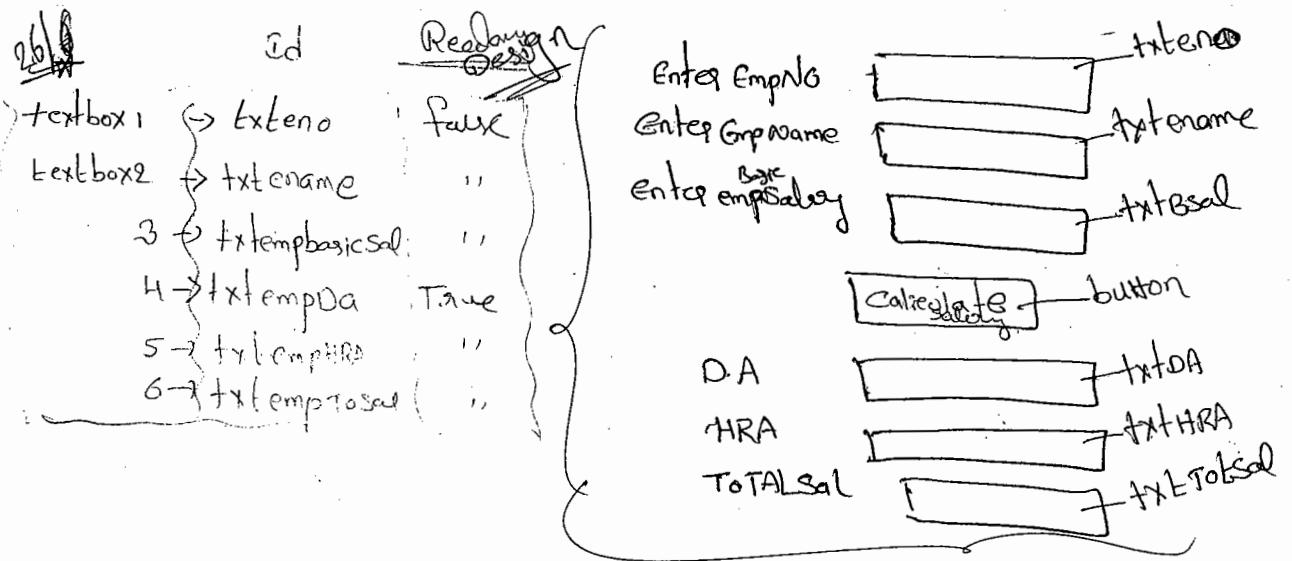
{

 int a = int.Parse(TextBox1.Text);
 int b = int.Parse(TextBox2.Text);
 Label1.Text = (a + b).ToString();

3



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→ Go to design window double click on the button & write the following code.

```
protected void Button1_Click(object sender, EventArgs e)
```

```
{ double empBasicSal = double.Parse(txtBasicsal.Text); }
```

```
double DA = 0.2 * empBasicSal;
```

```
double HRA = 0.4 * empBasicSal;
```

```
double totSal = empBasicSal + DA + HRA;
```

```
txtDA.Text = DA.ToString();
```

```
txtHRA.Text = HRA.ToString();
```

```
txtTotSal.Text = totSal.ToString();
```

```
}
```

checkbox Control

* It is used to select more than one item along multiple items.

* Properties:-

- ① Text :- It is used to display a message with in the checkbox.
- ② checked : True/False

* ~~checked = true~~ :- when ever user select the check box then checked = true.

* when ever user deselect the checkbox then checked = false (default).

* Events :-

checkedchanged Event :- This event will fire when ever user selects the check box.

Code :-

```
protected void Button_Click  
    (object sender, EventArgs e)
```

double

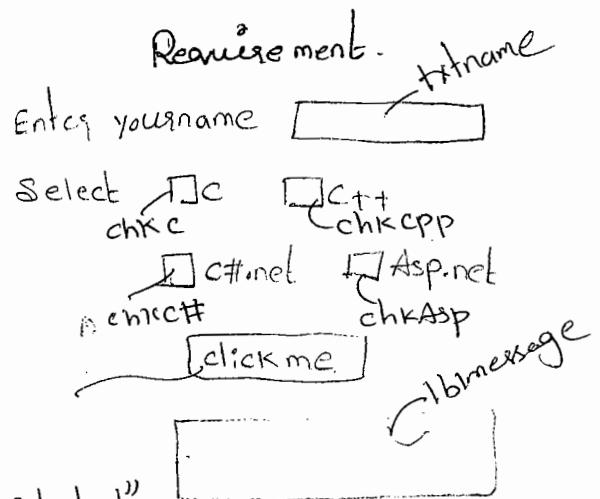
```
String str = txtname.Text + " your selected".  
space
```

```
if(chkc.checked = false && chkasp.checked = false && chksa.checked  
= false && chkcpp.checked = false)
```

{

```
lblmessage.Text = txtname.Text + " please Select one Course";
```

}



```

else
{
    if(chkc.checked == true)
    {
        str = str + chkc.Text;
    }
    if(chkcp.checked == true)
    {
        str = str + chkcp.Text;
    }
    if(chkasp.checked == true)
    {
        str = str + "," + chkasp.Text;
    }
    if(chkshape.checked == true)
    {
        str = str + "," + chkshape.Text;
    }
    lblmessage.Text = str;
}

```

Radio Button

It is used to select only one item among multiple items.

Properties:

① Text: It is used to display the text within the radio button.

② checked: This property will become true when ever user selects the radio button.

Event checked changed event

This event will give when ever user

Selects the radio button.

Groupname: while working with radio buttons all the radio buttons groupnames must be same.

⇒ Properties

radiobutton1 groupname = rbgender

radiobutton2 groupname = rbgender

⇒ protected void button1_Click()

{

String str = TextBox1.Text + " " + "your gender is:";

if (rbnMale.Checked = true)

{

str = str + " " + rbnMale.Text;

y

else

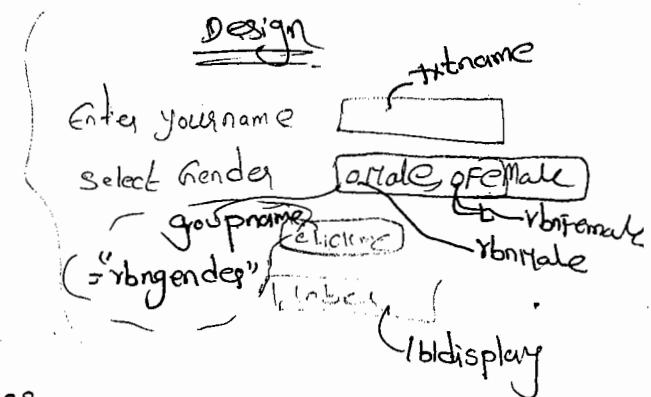
{

str = str + " " + rbnFemale.Text;

}

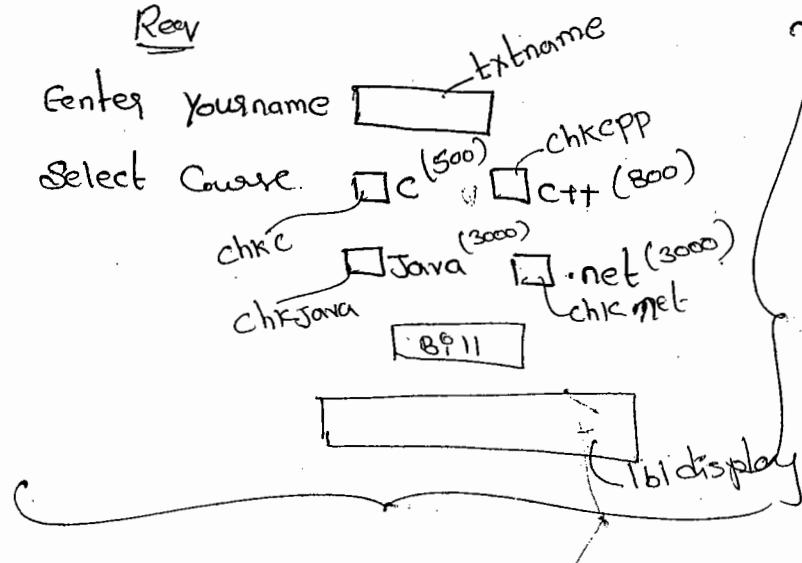
lblDisplay.Text = str;

y



Req

visible.



protected void button1_Click()

{

if (chkc.checked == false && chkCPP.checked == false &&
chkJava.checked == false && chk.net.checked == false)

{

lbldisplay.Text = txtname.Text + " " + "please select
atleast one course";

}

else

{

int bill=0;

if (chkc.checked == true)

{

int lbldisplay

bill = bill + 500;

}

if (chkCPP.checked == true)

{

bill = bill + 800;

}

if (chkJava.checked == true)

{

bill = bill + 3000;

}

```
if(chknet.checked = true)
{
    bill = bill + 3000;
}
lblDisplay.Text = bill.ToString();
```

Part 6
Redirecting the user request between multiple webpages

Redirecting the user request by using two ways

① Designing Controls

- ① Hyperlink
- ② Link Button
- ③ Image

② Coding

- ① Response.Redirect()
- ② Server.Transfer()

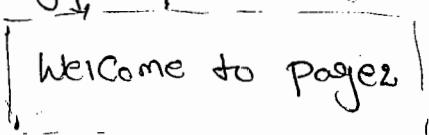
Hyperlink Button :- It is used to redirect the user request between multiple webpages either for a plain text or for a image.

Properties:-

① Text: It is used to display the text within the hyperlink button.

② Navigate URL: It is used to redirect the user request from one page to another page.

Example

- Step-① Go to default.aspx drag & drop hyperlink button
② Go to website → Add new item → Select webForm →
name = page2.aspx → Add


- ③ Go to default.aspx hyperlink button properties

Text = click me

Navigate URL = page2.aspx

- ④ Press F5 & check the output.

- ⑤ whenever user clicks on click me it will redirect to page2.aspx

Redirect the user drag for a image

- Step-① Drag & drop hyperlink button in default.aspx

- ② Go to Solution Explorer → Right click on the path → New folder → name = images → Right click on images folder add existing item. Select Some Images from Desktop →

→ Properties for Hyperlink Button →

Imageurl = select one image from images folder

Navigate URL = page2.aspx

Link Button

* It is used to redirect the user request only for text button not for image.

Ex:-

Step-⑥ Drag & drop Link button on the design window (Default.aspx)

Properties:

* Text = clickme

* PostBackUrl = It is used to redirect the user request b/w multiple webpages with in the URL.

Image Button

* It is used to redirect the user request between multiple webpages. only for image but not for plain text.

Ex:- ① Drag & drop Image Button on the Design window

Properties

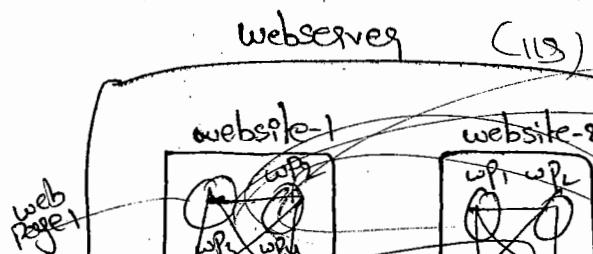
① ImageURL = It is used to display the image with in the image button control.

② PostBackURL = It is used to redirect the user request.

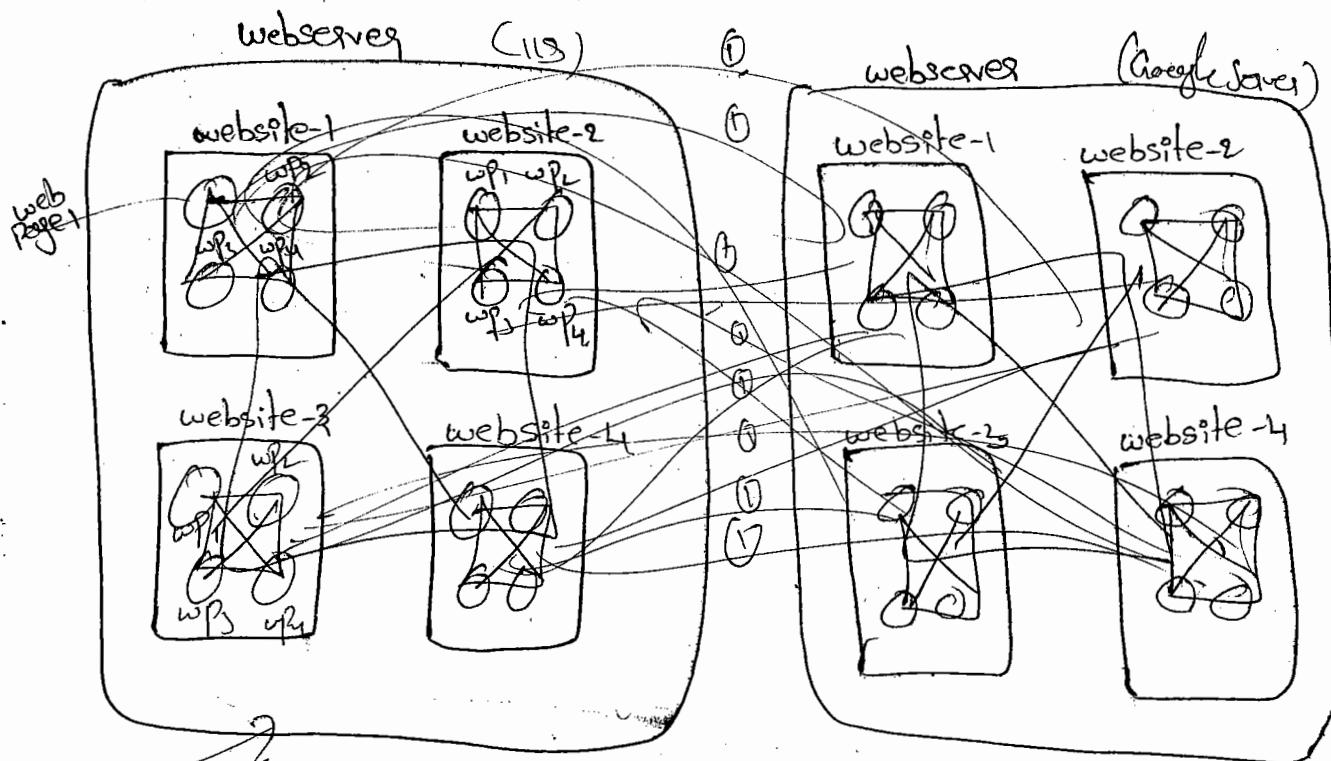
Ex = page2.aspx

~~Redirection~~ Redirecting the user request b/w multiple pages by writing Coding.

① Response.Redirect();



② Server.Transfer();



Response.Redirect :- It is used to redirect the user requests b/w multiple webpages and these webpages must be present with in the same website (a). Different websites and these websites must be present with in the same webserver (b) different webservers.

Example:-

① Go to default.aspx drag & drop Button Control

② double click on the button & write the following code

Protected void Button1_Click()

Response.Redirect ("page2.aspx");

(or)

Response.Redirect("www.google.com");

3

* In the above Case we Can redirect to google^{Home} page
(or) any other websites. using Response.Redirect();

* Here google is using Google webserver in Default.aspx for
using IIS webserver.

* Response.Redirect will not hide the destination

URL address

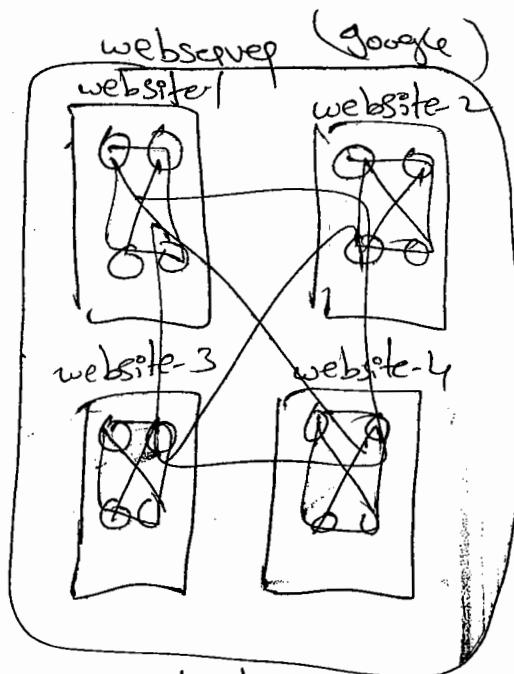
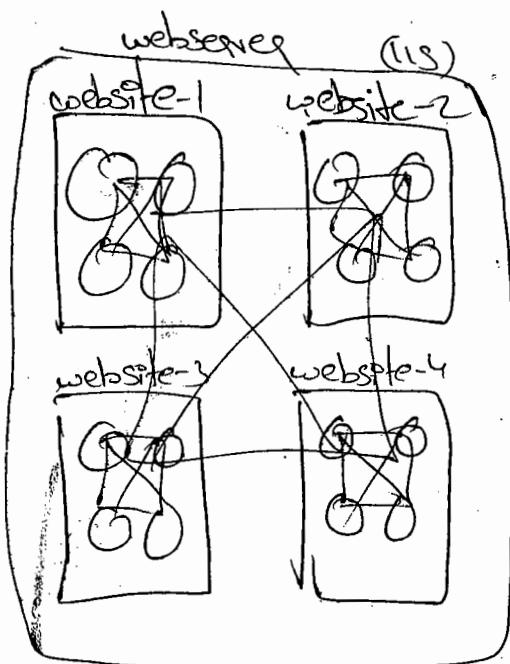
* In the above Example when you click on the button it will navigate to page2.aspx, Copy the URL in page2.aspx & pasted it another browser than open. It will open page2.aspx.

* For example when you login to your gmail account with your user name & password & click on Signing button than Inbox page will be Open. Copy the inbox page URL and pasted it in Separate Browser than login page will open.

* This facility is not available with Response.Redirect.

Server.Transfer :

It is used to redirect the user request between multiple webpages and these webpages may be present with in same ^{website} webserver (or) different websites. And these websites must be present only with in the webserver.



* Server.Transfer is used to hide the destination page URL address.

* By using Server.Transfer we can not redirect the google page.

28/6

Master Page

.net 2.0 → 2005

- * Master page was introduced in Dotnet 2.0
- * Master page is a concept of maintaining some part of the webpage constant through out the website.
- * The extension for masterpage is .master
- * we cannot execute masterpage, if we want to execute masterpage we have to integrate masterpage to any of aspx pages.

Step-(1) Start - Run - devenv → OK

② File new → website → Asp.net website → add

③ Goto default.aspx [Design]

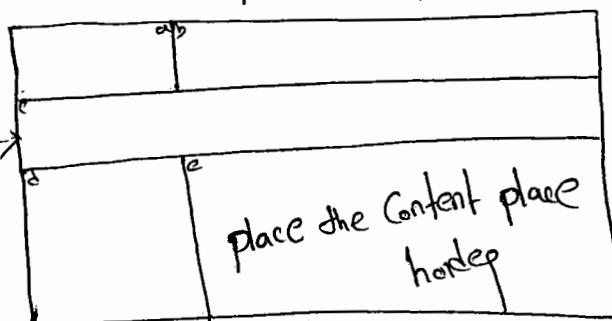
④ Go to → website → Add new item → select masterpage template → Name = "masterpage.master" → Add

⑤ Goto masterpage.master [Design] there we can find Content place holder.

* Content place holder :- whatever the design we are doing with in the Content place holder will vary from one page to another page.

⑥ Goto masterpage.master [Design] → select the Content place holder and cut the Content place holder

Note: Select the entire second row
→ Right click → Node by →
→ Merge cells.



→ place Content place holder in "c" part

(7) Go to Solution Explorer → Right click on the Path (C:_websites)
NewFolder → Rename as images → Right click on images add existing items →
Select two images from Desktop.

Note If we want to Create your own logo login to www.flamingtext.com

(8) Keep the Cursor in a part drag & drop image Control.

(9) Keep the Cursor in b part drag & drop image Control.

(10) Keep the Cursor in c part and drag & drop menu Control.
from Navigation Controls.

(11) Keep the Cursor in d part and drag & drop treeview
Control from Navigation Controls.

(12) Select image Control in a part → properties → Image URL = Some
image

(13) my select image Control in b part → properties → Image URL = Select
Some image.

(14) Menu Control) This Control is used to redirect the user request
between multiple webpages

(15) Select the menuControl(ellipse button) → AutoFormat → select Colorful
→ OK.

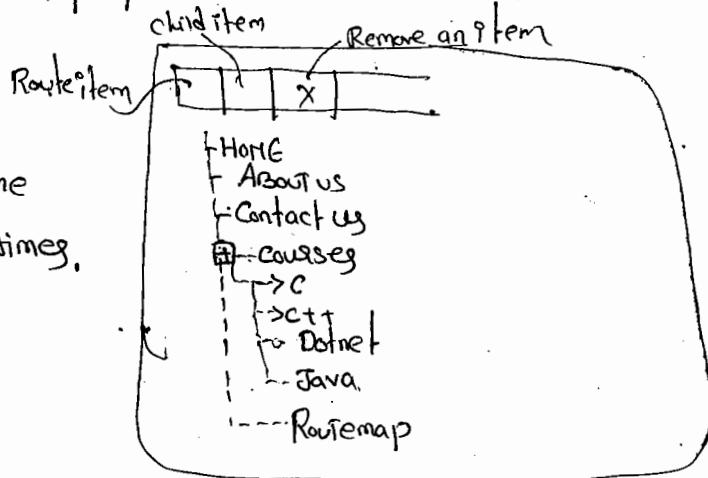
Properties for menu Control

① Orientation = Horizontal

* If orientation is Horizontal than menu Control will display the
items in Horizontal manner. By default orientation is vertical.

② Items = This property is used to add the items
with in the menu Controls (Items).

Select menu Control → properties → Items



Note: we can not view the child items at design time.

* user has to Create different webpages

- ① Home.aspx
- ② Aboutus.aspx
- ③ Contactus.aspx
- ④ C.aspx
- ⑤ C++.aspx
- ⑥ Dotnet.aspx
- ⑦ Java.aspx
- ⑧ Route map.aspx

Home.aspx

website → Add new item → Select webform → Name = Home.aspx

→ select master Page → Add.

by Create Aboutus.aspx, Contactus.aspx, Login.aspx ---

* Go to masterpage.master Select the menu Control → properties

Select home → NavigateURL = home.aspx,

Aboutus → .. = about.aspx --- etc. → ok,

* Go to Masterpage.master Select Treeview Control → properties

→ Nodes = Add route item, Add child item . . .

→ Go to home.aspx → press F5 & check the output

CASCADING STYLE SHEETS

* It is used to apply the style for a Control which is Constant through out the website.

* Different types of style sheets are

- ① Inline style sheet
- ② Embedded style sheet

{
→ TAG As Selector
→ ID As Selector
→ CLASS As Selector

- ③ External style sheet

→ Inline style sheet: It is used to apply the style for a Control or for a Tag.

→ TAG as selector

* It is used to apply the style based on TAG

Name.

Step ① Go to default.aspx (source code)

<head>

 <style type="text/css">

 h1

 background-color: yellow;

 border-style: dotted;

 font-size: x-large;

 border-bottom-color: blue;

 3.

h2
{

background-color: Lime;
border-style: dotted;
font-size: x-large;
border-bottom-color: Red;

}

</style>

</head>

<body>

<form id="form1" runat="Server">

<div>

<h1> SATHYA Technologies </h1>

<h2> SATHYA Technologies </h2>

<h3> SATHYA Technologies </h3>

<h4> SATHYA Technologies </h4>

</div>

</form>

</body>

CLASS AS Selector

* Applying the style for the Tags or Controls with
classname is called as class as selector.

* The class As selector can be applied by using =

* Syntax

.classname
\$

3

Design

Enter username	<input type="text"/>
Enter password	<input type="password"/>
Conform password	<input type="password"/>
ADDRESS	<input type="text"/>

* Go to head Tag & write.

```
<head runat="Server">
    <style type="text/css">
        .txt
        {
            background-color: yellow;
            border-style: dotted;
            font-size: x-large;
            border-bottom-color: Red;
        }
    </style>
</head>

<asp:TextBox ID="TextBox1" runat="Server"
    class="txt">
</asp:TextBox>
```

C id As Selector :-

* It is used to apply the style for the Control based on the Control id.

* id can be represented by #

Syntax:-

```
-----  
| #ControlId  
| {  
|   -----  
|   |  
|   |  
|   |  
|   |  
|   |  
| } -----
```

Rule

Go to default.aspx & Drag & Drop TextBox Control on the design.

```
<head runat="Server">  
  <style type="text/css">  
    #TextBox  
    {  
      background-color : yellow;  
      border-style : dotted;  
      font-size : x-large;  
      border-bottom-color : Red;  
    }  
  </style>  
</head>  
<asp:TextBox ID="TextBox1" runat="Server">  
</asp:TextBox>
```

HTML Style Sheets

* It is used to create a style sheet separately & mention all the styles in a single file & apply the styles on the webpages.

Example: ① Go to default.aspx

② website - add new item → select style sheet → Name = stylesheet.css

```
body  
{  
  
    .lbl  
{  
        background-color: Lime;  
        border-style: double;  
        font-size: x-large;  
        border-bottom-color: Blue  
    }  
}
```

③ Go to default.aspx

* Drag & Drop a label control

④ Go to the Source Code

⑤ Go to Solution explorer drag & drop style sheet.css from Solution Explorer. (to) head part of html.

```
<asp:Label ID="Label1" runat="server" cssclass="lbl">  
</asp:Label>
```

2/7

ADo.NET

Front end Application

* The Application where user will interact is called as Front end App.

→ The front end App can be developed with the help of front end tools.

Ex:- Asp.net, C#.net, VB.net etc., (a) Java (b) PHP

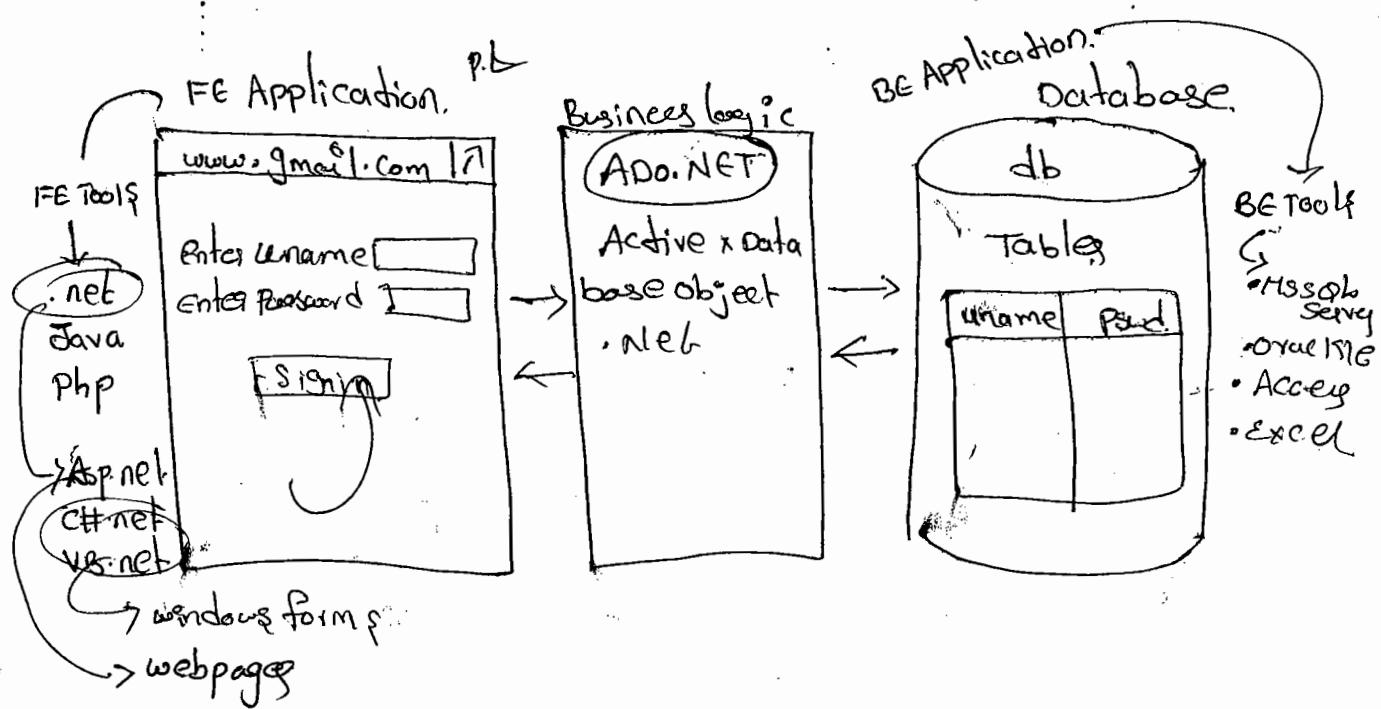
Back End Application

* The Application where user data will be stored is called Back end Application.

Ex:- MS SQL Server, Oracle, Excel, Access etc..

ADo.NET { Active X Database object Model }

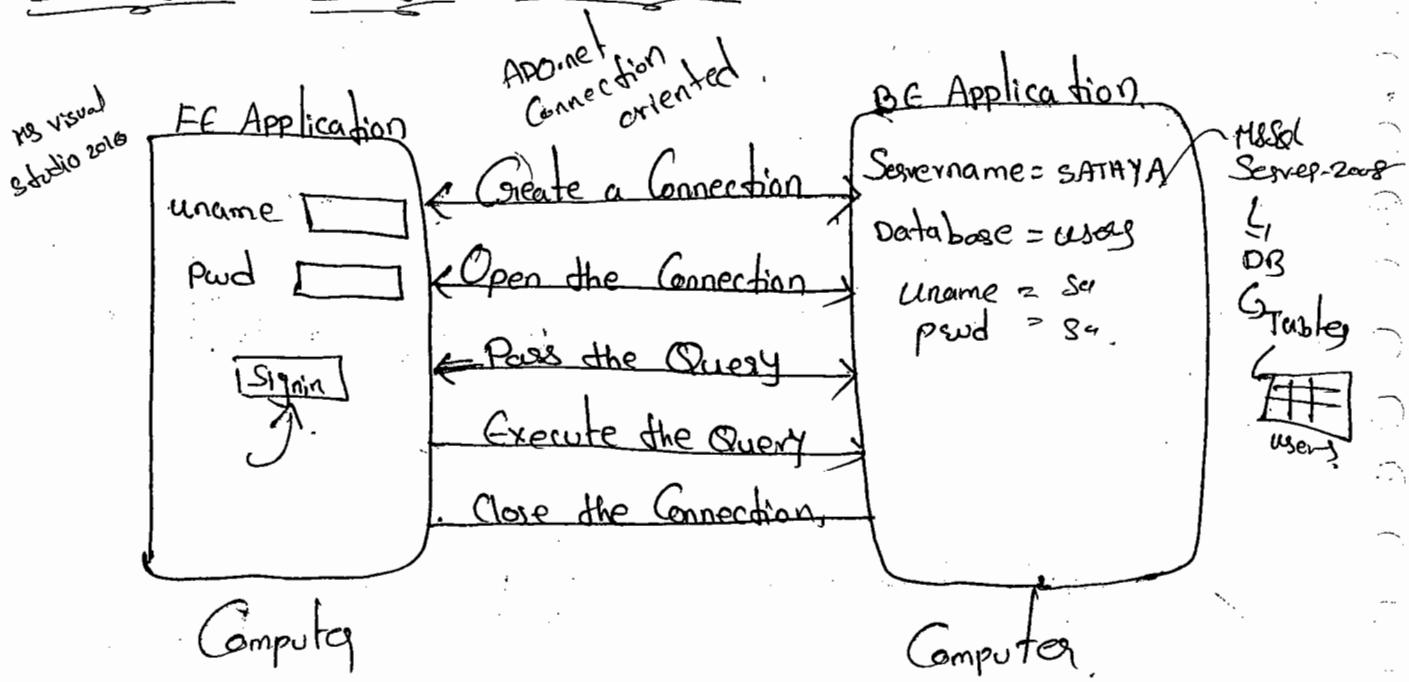
ADo.NET is used to Create the Communication between Front end Application & Back end Application.



* To work with ADO.NET there are two types of Architecture

- ① Connection Oriented Architecture
- ② Disconnection Oriented Architecture

Connection Oriented Architecture

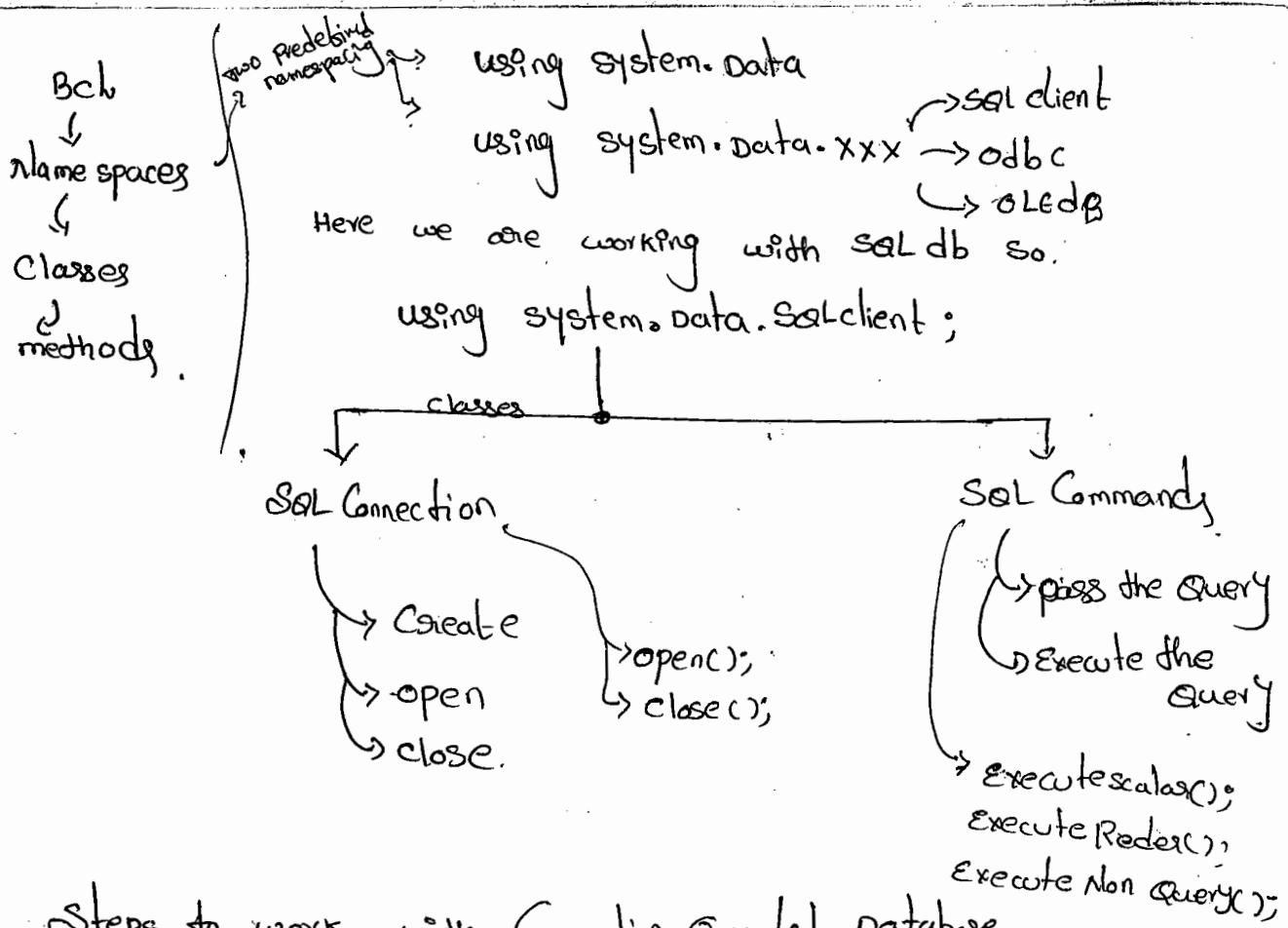


* In Connection Oriented Architecture we need to establish the connection b/w Front end App & Back-end Application.

* we need to open the connection

* we need to pass the query and execute the query

* we need to close the connection



Steps to work with Connection Oriented database

Step -① Declare the Namespace

```

    ①
    using system.data;
    using system.data.xxx;
  
```

* xxx is the provider name If we Connect with SQL Server database than the provider name is SQL client.

* If we Connect with oracle database than the provider name is ODBC or OLEDB

ODBC (open database Connectivity)

OLEDB (object linking Embedded database)

```

    Ex: ②
    using system.data.SqlClient;
  
```

Step-2: Create the Connection:

We Can Create the Connection to the SQL Server Database in two ways

① By using windows Authentication

② SQL Server Authentication.

Connecting to SQL Server database using windows Authentication

* If we use windows Authentication the Connection String we need to pass is

```
Constr = "data source=servername/ipAddress/localhost";  
Database = SomeDatabaseName;  
Integrated Security = yes/true;
```

Connecting to SQL Server database using SQL Server Authentication

* If we Connect with SQL Server Authentication

we need to pass

```
Constr = "data source=servername/ipaddress/localhost;  
database = Some DatabaseName;  
user id = sa;  
password = abc;"
```

Step-2: Create the Connection.

* SqlConnection:- It is used to establish the Connection to the database

* SqlConnection is a predefined class available under using `System.Data.SqlClient` namespace

Syntax:-

```
Classname objectname = new Classname(cons);
```

* Connection to SQL Server db using windows authentication

```
SqlConnection Con = new SqlConnection("data source =  
localhost; database = emp; integrated security = yes");
```

* Connecting to SQL Server db using SQL Server Authentication

```
SqlConnection Con = new SqlConnection("data source = Localhost,"  
"database = emp; user id = sa; password = abc");
```

Step-③ Open the Connection

* SqlConnection class is used to provide a predefined method called Open method which is used to open the connection.

Syntax

```
SqlConnection objname.Methodname();  
Con.Open();
```

Step-4: Pass the Query

Sqlclient namespace provides a predefined class which SqlCommand Class which is used to pass the Query.

Syntax:-

classname objname=new classname("pass the Query", con);

SqlCommand cmd=new SqlCommand("Pass the query", con);

Step-5 Execute the Query

Sql Command class provide 3 predefined method

- ① ExecuteScalar()
 - ② ExecuteReader()
 - ③ ExecuteNonQuery()
- which is used to execute the Query.

Syn:- SqlCommand objname.Methodname();

cmd.ExecuteNonQuery();

Step-6 Close the Connection

Sql Connection provide a predefined method called close() which is used to close the Connection.

Syn:- SqlConnection objname.Methodname();

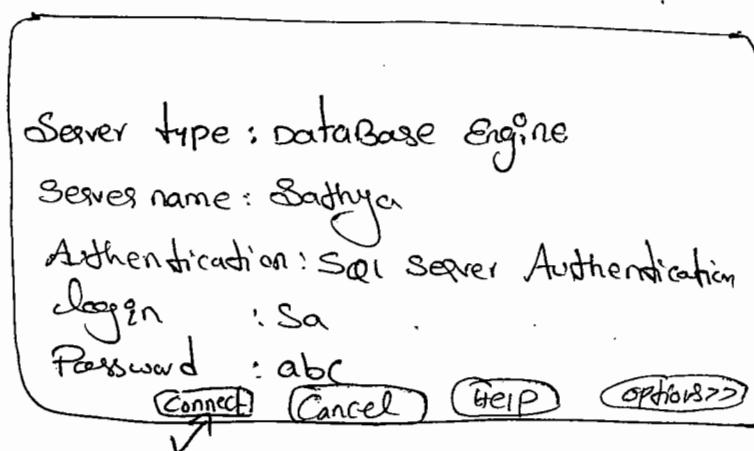
Con.Close();

Basic SQL Commands Query

- ①-- Create database databaseName
- ②-- Use databaseName
- ③-- Create table tableName (columnName1 datatype, columnName2 datatype...)
- ④-- Insert into tableName values (val1, val2, ..., valn)
- ⑤-- Delete from tableName where Condition

Steps To work with Connection Oriented Arch Example

Step 0 Start --> all programs --> Microsoft SQL Server 2008 Management Studio



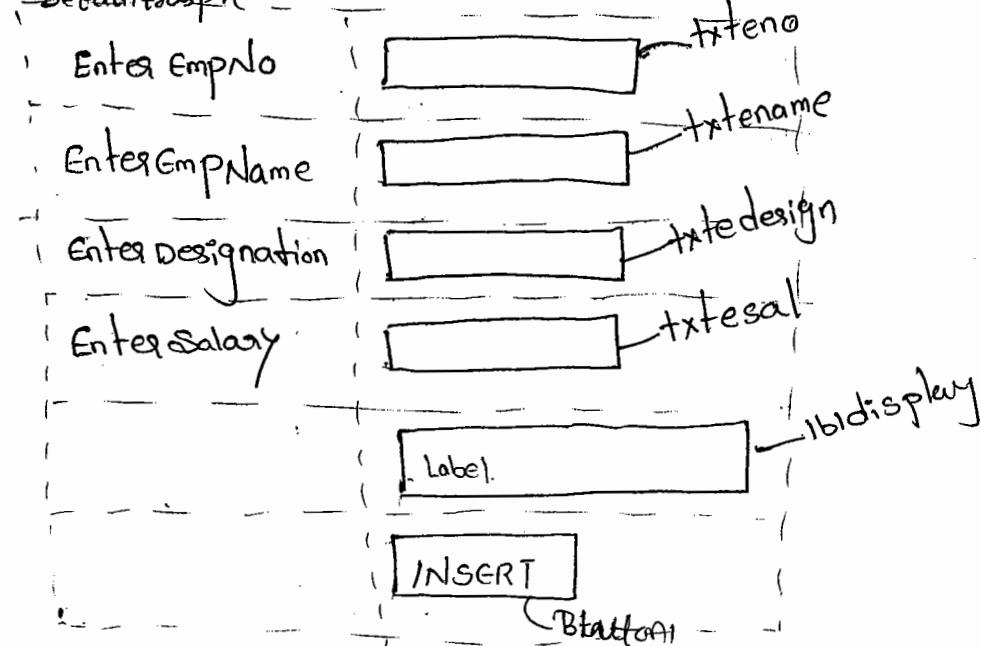
② Go to New Query & Create a database & table

→ Create database employee
→ use employee

-- Create table tablename (col1 datatype, col2 datatype...)

→ Create table employee (eno int, ename varchar(20),
desig varchar(20), esal int)

- ③ Go to file → New website → default.aspx design



Double click on the button & write the following code -

```

using System.Data;
using System.Data.SqlClient;
protected void Button1_Click()
{
    int eno = int.Parse(txteno.Text);
    stringename = txtename.Text;
    string eDesign = txtedesign.Text;
    int esal = int.Parse(txtesal.Text);
    // Step - 1 Create the Connection
    SqlConnection Con = new SqlConnection("user id=sa;
    password=abc; database=employee; data source=localhost");
    // Step - 2 Open the Connection
    Con.Open();
}

```

C //step-3 pass the Query

```
String insertquery = "insert into employee  
values ('"+eno+"', '"+ename+"', '"+desig+"', "+sal+");"
```

```
SQLCommand cmd = new SQLCommand(insertquery, con);
```

//step-4 Execute the Query

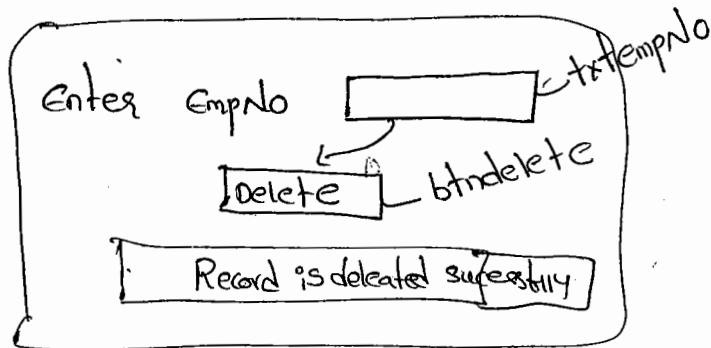
```
cmd.ExecuteNonQuery();
```

```
lblDisplay.Text = "Record is inserted successfully";
```

//step-5 Close the Connection

```
con.Close();
```

How design



Code

```
protected void btndelete_Click()
```

```
{
```

```
//int empno = int.Parse(txtEmpNo.Text);
```

```
SQLConnection objcon = new SQLConnection("user id=satya;  
password=abc; database=employee; data Source=localhost");
```

```
objcon.Open();
```

```
String deletequery = "delete from employee where  
eno = " + txtEmpNo.Text";  
exp execution
```

```
SavCommand objCmd = new SavCommand(deletequery,objcon)
objCmd.ExecuteNonQuery();
lblDelete.Text = txttempNo.Text + "Record is deleted
Successfully";
objcon.Close();
```

Another prog

```
SavCommand cmd = new SavCommand(deletequery, con);
int i = Convert.ToInt32(cmd.ExecuteNonQuery());
if (i == 0)
{
    Label1.Text = "Record does not exist";
}
else
{
    Label1.Text = TextBox1.Text + " " + "Record is deleted";
}
con.Close();
```

*> Design

Enter student No :

Enter student Name :

Select Course : C C++
 Java DotNET

Select Gender : MALE FEMALE

Select Country :

Select DATE :

- Go to database & Create one database & Create one table.
- * Create database student
- * Create table Student (stno int, sname varchar(50),
 Course varchar(50), Gender varchar(50), Country varchar(50)
 date varchar(50))

→ Go to default.aspx design

Control name

TextBox1
 TextBox2
 TextBox3
 Calander1

Properties

id = txtstno;
 id = txtsname
 id = txtdate
 visible = false

Double click on Image button & write the following
 code. Imageclick

```

    //using System.Data
    using System.Data.SqlClient
  
```

ImageButton - click()

{

Calendar1.Visible = true;

}

→ Double click on the Calendar & write the following code.

protected void Calendar1_SelectionChanged()

{

txtdate.Text = Calendar1.SelectedDate.ToString();

Calendar1.Visible = false;

}

→ Double click on the button write the following code.

Button1_Click()

{

int sno = int.Parse(txtsno.Text);

String sname = txtsname.Text;

String Course = " ";

String gender = " ";

String dd1Country = " ";

dd1Country = DropDownList1.SelectedItem.ToString();

If (checkbox1.Checked == true)

{

Course = Course + checkbox1.Text;

}

```
if (checkbox2.checked == true)
{
    Course = Course + "," + CheckBox2.Text;
}
if (checkbox3.checked == true)
{
    Course = Course + "," + CheckBox3.Text;
}
if (checkbox4.checked == true)
{
    Course = Course + "," + CheckBox4.Text;
}
```

```
if (RadioButton1.checked == true)
{
    gender = RadioButton1.Text;
}
else
{
    gender = RadioButton2.Text;
}
```

// create the Connection

```
SqlConnection Con = new SqlConnection("User Id =
sa; Password = abc; Database = Student; Data Source = local
-host");
```

// open the Connection

```
Con.Open();
```

// pass the Query

```

String query = "insert into student values ('"+stno+"',
"+stname+", '"+Course+"', '"+gender+"', '"+ddlcountry+"','"+txtdate.Text+"')";
Sav1Command cmd = new Sav1Command (query, con);
//Execute the Query
cmd.ExecuteNonQuery();
//close the Connection
con.Close();

```

Design

Enter Employee No:

(Button)

Employee Name is:

Designation is:

Salary is:

Table

empno	empname	empdesig	empda1
101	anil	dev	20000
102	Soni	dev	12000
103	Akash	dev	20000
104	Kumar	Srdev	25000
105	Ram	dev	14000

→ Double click on the button & write the following C#.

```
Using System.Data;  
using System.Data.SqlClient;
```

```
Button1_Click()  
{
```

```
    SqlConnection Con = new SqlConnection("Data Source =  
SATHYA; Initial Catalog = Student; user Id = sa;  
password = 'abc'");
```

```
    Con.Open();
```

```
    String myquery = "select * from employee where  
    empno = " + TextBox1.Text;
```

```
    SqlCommand Cmd = new SqlCommand(myquery, Con);
```

```
    SqlDataReader dr = Cmd.ExecuteReader();
```

```
    if (dr.HasRows)
```

```
{
```

```
    while (dr.Read())
```

```
{
```

```
        TextBox2.Text = dr[1].ToString();
```

```
        TextBox3.Text = dr[2].ToString();
```

```
        TextBox4.Text = dr[3].ToString();
```

```
}
```

```
    Con.Close();
```

```
}
```

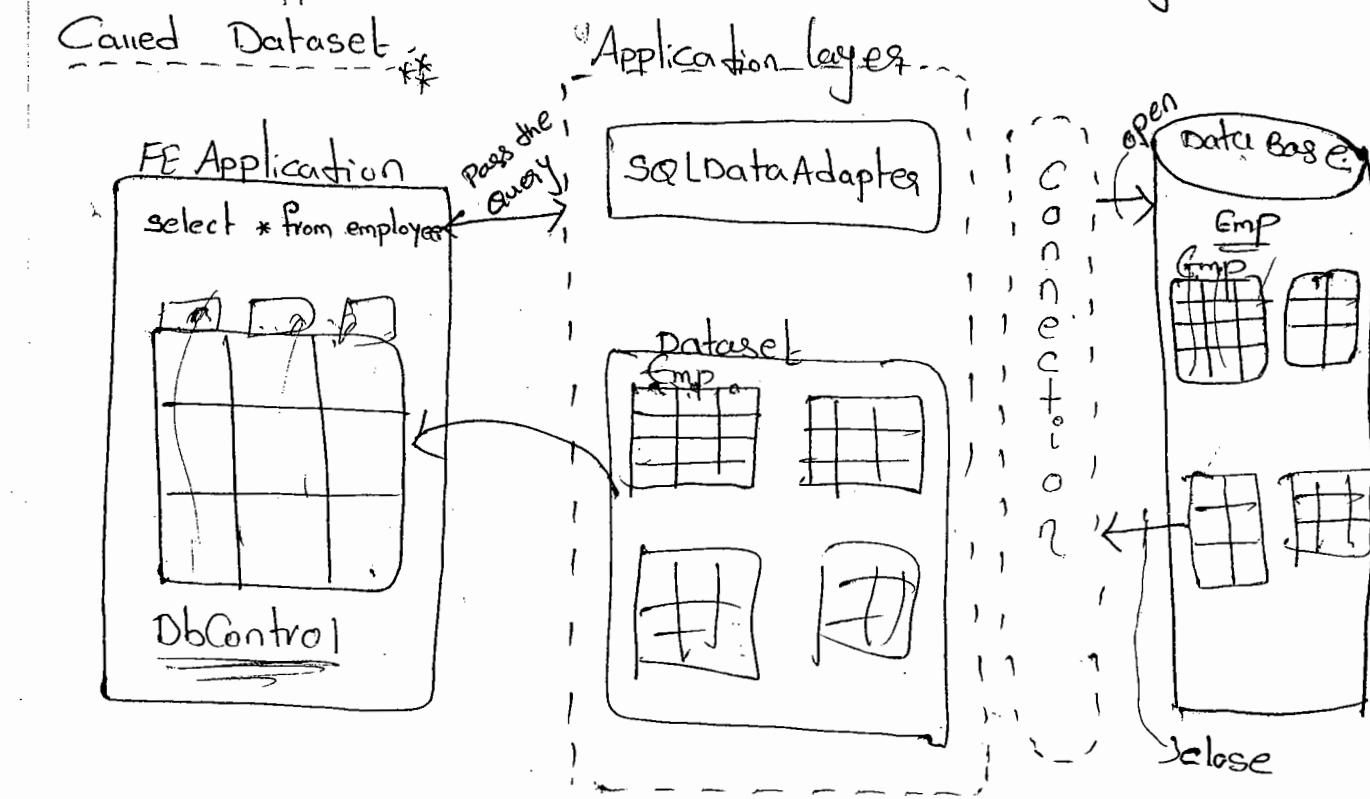
~~Notes~~

Drawbacks in Connection Oriented Architecture

- * In Connection Oriented Architecture we have to Open the Connection and close the Connection.
until unless user closes the Connection the Connection to the database maintained so that the network traffic will be increased & the performance will be decreased.
- * Connection Oriented Architecture we directly hit the Original database i.e whatever the modifications we are doing will reflect to the Original database.

Dis Connection Architecture

- * In DisConnection Architecture it is not required to open the Connection explicitly.
- * DisConnection Architecture will not hit the Original Database, it will store the Data in a temporary location called Dataset.



* In DisConnection Arch when ever user sends the Request (pass the query) than SQL DataAdapter will open the Connection to the database & execute the Query there of self in Database & Bring the resulted information from Database and store the response in a temporary location called Dataset.

* Dataset is a temporary database it will store the data in the form of Data tables.

* From dataset the response will be binded to the Databound Control.

* when the response Came back from Database than SQL data adapter will automatically close the Connection.

Note: * SqlDataAdapter is used to pass the Query Open the Connection, Execute the Query and close the Connection.

Steps to work with DisConnection Architecture

① Design the Databoun Control

② Prepare the Datasource (or) Response

③ Attach the DataSource Data to the databound Control.

* Design the Databound Control

* Databound Control is used to display the dataset Data to the front end Application.

* Different types of databound Controls are

- ① Repeater Control ② DataList Control ③ GridView Control
- ④ FormView Control ⑤ DetailsView Control ⑥ ListView Control
- ⑦ DataPager Control

Templates: These are used to design the databound Control.

* Different templates are

- ① Header Template ② Item Template ③ Separator Template
- ④ Edit Item Template ⑤ Footer Template

Header Template:

Header template			
empno	empname	empdesign	empsal
101	anil	dev	20000
102	Sunil	dev	15000
103	akil	srdev	25000

* Header Template is used to display the heading for the databound Control.

Item template

* Item template is used to bind the DataBase data Column by Column for the databound control.

Separator Template

* Separator template is used to ^{separate} (design) the rows & columns with some lines.

Edit Item Template

* Edit item template is used to perform editing operations with in the DataBound Control.

Footer Template

* Footer template is used to add a new record with in the DataBound Control.

** Prepare the DataSource:

SRI RAGHAVENDRA XEROX
Software Languages Material Available
Beside Bangalore Ayyagar Bakery,
Opp. CDAC, Balkampet Road,
Ameerpet, Hyderabad.

① Declare the namespace

```
using System.Data  
using System.Data.SqlClient;
```

② Create the Connection

```
SqLConnection Con = new SqLConnection(Constr);
```

③ Pass the Query

Syntax: class name objname = new class name ("Pass the Query", Con);

```
SqLDataAdapter da = new SqLDataAdapter("Pass the Query", Con);
```

Note: SqlDataAdapter will pass the Query and open the Connection and execute the Query and close the Connection.

④ Create an object for dataset.

Syntax: Classname objname=new Classname();

Dataset ds=new Dataset();

⑤ ~~store~~ Fill the DataAdapter data in a temporary location called dataset.

da.Fill(ds,"tablename")

Fill():

This method is used to fill the DataAdapter data in a temporary location called Dataset.

* Repeater Control:

* Repeater Control is a data bound Control which is used to display the data that is available in Dataset.

* Repeater is the fastest Databound Control.

* This Control is used to display the data.

Step ① Example for Repeated Database Control

- * Go to database and Create a table with name employee

Eno	ename	desig	esalary
102	akil	dev	15000
103	anil	dev	21000
101	arun	dev	12000
104	Ramu	dev	25000

- * Go to default.aspx source code & write the following code with in div Tag.

```
<div>
    <table Border="1">
        <asp:Repeater ID="repeater1" runat="Server">
            <HeaderTemplate>
                <tr>
                    <th>EmpNo</th>
                    <th>EmpName</th>
                    <th>Emp Desig</th>
                    <th>EmpSalary</th>
                </tr>
            </HeaderTemplate>
            <ItemTemplate>
                <tr>
                    <td><%# DataBinder.Eval(Container.DataItem, "eno")%>
```

```
<td>
<%#DataBinder.Eval(Container.DataItem, "ename")%></td>
<td><%#DataBinder.Eval(Container.DataItem, "desig")%></td>
<td><%#DataBinder.Eval(Container.DataItem, "esalary")%></td>
</tr>
</ItemTemplate>
</asp:Repeater> <table>
<div>
```

Step-(2) Go to designer window Double click on designer window & write the following code.

```
using System.Data;
using System.Data.SqlClient;

protected void Page_Load()
{
    // Step-(i) Create the Connection
    SqlConnection Con = new SqlConnection("Data Source=SATHYA; Initial Catalog=employee; user ID=sa; password=abc");

    // Step-(ii) Pass the Query
    SqlDataAdapter da = new SqlDataAdapter("select * from employee", Con);

    // Step-(iii) Create an object for Dataset
    DataSet ds = new DataSet();
```

// Fill the DataAdapter data in temp location called dataset

```
da.Fill(ds, "employee");
```

// Attach the dataset data to repeater

```
repeater1.DataSource = ds;
```

```
repeater1.DataBind();
```

3

Datalist Control

* DataList Control is used to display the data.

* Data List Control provides good designing facilities

Compare to Repeater

* Data List provides deleting facility.

* Data List provides editing facility.

* Data List provide Add new record facilities.

==

Button Control

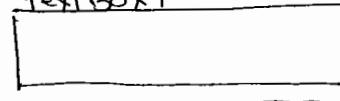
Events:- ① Click event

② Command event

* Click event :- This event will fire whenever user clicks on a button Control.

For Multiple Button Controls multiple events will fire with click event

* Ex: TextBox1



→ whenever user clicks on button1 then
Button1-click event will fire.
→ whenever user clicks on button2 then
Button2-click event will fire.

i.e for multiple button clicks different events will fire with click event.

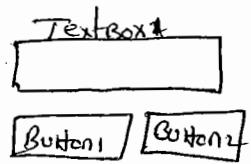
* Double click on button1 & write the following code

```
Button1_Click() {  
    if (textBox1.Text == "I am button1") {
```

```
button2_Click()
{
    textBox.Text = "I am button2";
}
```

* Command Event: This event will fire whenever user clicks on button Control.

* For Multiple button clicks the same function will be called with Command event.



→ select Button1 → Events → Command = myfun

→ Double click on myfun

my button2 → events
my fun ←

Myfun()

```
{ TextBox.Text = "my function was called"; }
```

→ Select Button2 → properties → events → Command = myfun
Double click on myfun.

* Command event will have two arguments

① object sender

② CommandEventArgs e

object sender: Sender is a variable of object type telling us that the type of control we are working with here it is Button

Command Event Args e

* e is an object of CommandEventArgs class.

Command Event Args will have two properties

- ① Command Name property
- ② Command Argument property

13/7

Gridview Control :-

* Gridview Control is a databound Control

* Gridview Control is used to provide good designing facilities, editing facilities, add new record facilities, Paging facilities, Sorting facilities.

*	eno	ename	desig	salary
101	Sunil		dev	20000
102	Akii		dev	25000
103	Ram		dev	25000
104	Rani		dev	25000

→ Go to Default.aspx and drag a drop Grid view Control from Data Controls.

* Go to Solution Explorer, Double click on web.Config file

Note:- Web.Config file is used to maintain the Configuration Settings of your website.

* If we want to declare the Connection String Globally then we have to declare in web.Config file.

* Declare the Connection String in Web.Config file

<Connectionstrings>

```
<add name="constr" ConnectionString="Data Source=SATHYA; Initial Catalog=employee; User ID=saj; Password=abc"/>
```

</Connectionstrings>

L> To declare Connection String Globally.

*> using System.Data

```
using System.Data.
```

Page_Load()

{

```
    SqlConnection Con=new SqlConnection(ConfigurationManager.  
        ConnectionString["constr"].  
        ToString());
```

```
    SqlDataAdapter da=new SqlDataAdapter(  
        "select * from employee", Con);
```

```
    DataSet ds=new DataSet();
```

```
    da.Fill(ds, "employee");
```

```
    GridView1.DataSource=ds;
```

```
    GridView1.DataBind();
```

}

Properties for Gridview

① AutoGenerate Columns = True / False

* If it is true not required to write the code for designing the gridview Control.

* If it is false than we have to write the code for templates.

* If we want to perform any other operations like deleting or editing or paging for gridview control. Then we have to make Autogenerate Columns as false.

② AutoGenerate Delete Button = T / F (Default = False)

→ If it is true than a delete button will display within the Gridview Control. By default it is false.

③ Auto Generate Edit button

If true it is used to display the edit button with in Grid View Control.

SRI RAGHAVENDRA XEROX
Software Languages Material Available
Beside Bangalore Ayyagar Bakery,
Opp. CDAC, Balkampet Road,
Ameerpet, Hyderabad.

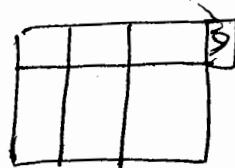
Deleating facilities with Grid view Control

* Drag & drop Gridview Control

* properties → AutoGenerate Columns = False
AutoGenerateDeleteButton = True

* Select the gridview Control → select ellipse button

→ Edit Columns → Add four BoundFields



* select BoundField

		HeaderText	dataField
1	BoundField 1	EmpNo	eno
2		EmpName	ename
3		EmpDesign	edesig
4		EmpSalary	esalary

* HeaderText: This property is used to display heading for the Gridview Control.

* Header text will act like header Template.

Databfield: It is used to generate the code for item template so that we can bind the data column by column from database to the databound control.

* Always the Databfield name must be same as the Column name.

Go to web.Gnbig

using system
⇒ Go to web.Gnbig

<ConnectionStrings>

```
<add name="Constr" ConnectionString="Data Source=SATHYA; Initial Catalog=employee; user ID=sa; password=abc" />
```

</ConnectionStrings>

⇒ Go to page load & write the following Code

```
using System.Data;  
using System.Data.SqlClient;  
using System.Configuration;
```

Page_Load()

```
{  
    if (!IsPostBack)  
    {  
        FillData();  
    }  
}
```

Private void FillData()

```
{  
    SqlConnection Con = new SqlConnection(ConfigurationManager.  
        Connectionstrings["constr"].ConnectionString);  
}
```

```
SqldataAdapter da=new SqldataAdapter(" select  
* from employee", con);  
Dataset ds=new Dataset();  
da.Fill(ds, "Employee");  
Gridview1.DataSource = ds;  
Gridview1.DataBind();
```

y

IsPostBack :-

* whenever user execute the program than pageload event will fire & the code that was not written within pageload will get executed, whenever user clicks on DeleteButton within the Gridview Control then Pageload event will get executed & then Row deleting event will get executed.

i.e Every time the pageload event will get executed and the code that was written within the pageload will get executed.

* But we want the pageload code only for once when user clicks on delete Button then we want to execute the code that was written in Row deleting event.

* By default IsPostBack property = false.

* whenever if IsPostBack is false then the code that was written within in pageload will get executed.

* By default IsPostBack property is false

* whenever user clicks on delete button then IsPostBack will become true then the code that was written within pageload will not execute and the code that was written on RowDeleting event will get executed.

Row Deleting event:-

* This event will fire whenever user clicks on delete button within the Gridview Control.

* Select the Gridview Control properties → events → Double click on RowDeletingevent and write the following code

```
Protected void Gridview1_RowDeleting()
```

```
{
```

```
    int eno = Convert.ToInt32(Gridview1.DataKeys[e.RowIndex].  
                           Value);
```

```
    SqlConnection Con = new SqlConnection(Configuration.  
                                         Manager.ConnectionStrings["Constr"].ToString());
```

```
    Con.Open();
```

```
    String deleteQuery = "Delete from Employee where eno=" + eno;
```

```
    SqlCommand cmd = new SqlCommand(deleteQuery, Con);
```

```
    cmd.ExecuteNonQuery();
```

```
    FillData();
```

```
    Con.Close();
```

```
}
```

Note: select Gridview Control \rightarrow properties \rightarrow

Datakey Names = emp.

\Rightarrow * Datakey Names:- This property is used to set the Columnname based on which we want to perform deleting Operations.

* Gridview1.Datakey[e.RowIndex].Value :-

* When ever user clicks on delete button,

i) We have to Count the no.of Rows that are available in the Gridview Control

ii) We have to identify the index value of the Row when user clicks on delete button.

iii) Catch the value that is available within the Row based on Datakey Names property.

iv) Delete the Record.

* Datakeys will Count the no.of Rows in the Grid View Control.

* e.RowIndex will Catch the Index value of the Row where user clicks on delete button,

* Value:- It is the property which is used to Catch the value based on Datakey Names.

SqlDataReader :-

* Data Reader will comes under Connection Oriented Architecture

* Data Reader will read the data from database in forward only direction (Top to Bottom)

* Data reader is an abstract class.

~~But~~ * Data reader will have a predefined property called HasRows.

* This property is used to Count whether there are any rows ^{that are} existing with in the table.

~~But~~ * Data Reader will have a predefined method Called Read(). This method is used to read the data from the table. It will always read the data in forward Only direction, i.e (from Top to Bottom)

Design

Enter username	<input type="text"/>
Enter password	<input type="password"/>
Button	

* Go to Database & Create a table with name users.

username	Pwd
Kanna	Kanna
anil	anil
Sunil	Sunil

* Go to web.Config file and declare the Connection

<Connectionstrings>

```
<add name="constr" connectionstring="data  
Source=SATHYA; Initial Catalog=employee;  
User ID=sag password=abc" />
```

</Connectionstrings>

* Double click on the button & write the following code.

```
using system.data;  
using system.data.sqlclient;  
using system.Configuration;
```

→ protected void Button1_Click()
{

```
    SqlConnection Con = new SqlConnection(  
        ConfigurationManager.ConnectionStrings["constr"].  
        ToString());  
  
    Con.Open();
```

```
    String Query = "select * from users where  
        username = '" + TextBox1.Text + "' and  
        pwd = '" + TextBox2.Text + "'";
```

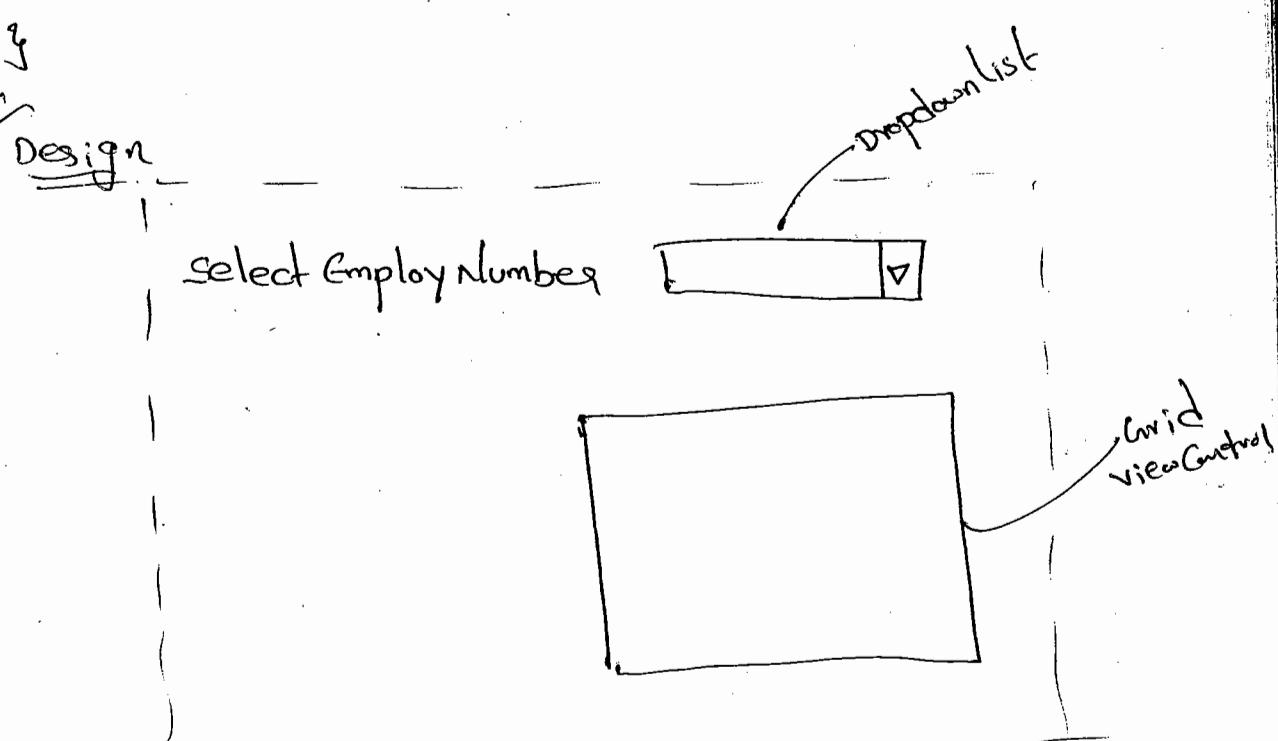
ection

```
SqlCommand cmd = new SqlCommand (Query, con);  
SqlDataReader dr = cmd.ExecuteReader();  
if (dr.HasRows)  
{  
    while (dr.Read())  
    {  
        Response.Redirect ("success.aspx");  
    }  
}  
else  
{  
    Response.Write ("Invalid user");  
}  
con.Close();
```

Nowing

"]

re



* Go to DB & Create Table with name employee

eno	ename	edesig	esalary
101	Akash	dev	20000
102	Aswin	dev	15000
103	Sunil	dev	25000
104	Sumit	dev	30000

* Go to Web.Config file & Create the Connection

→ same as above

* Go to page load event & write the following code

Page_Load()

{

 IF (!IsPostBack)

{

 SqlConnection con = new SqlConnection (

 ConfigurationManager.ConnectionStrings["Constr"].ToString());

 con.Open();

 SqlCommand cmd = new

 SqlCommand ("select * from employee", con);

 SqlDataReader dr = cmd.ExecuteReader();

 IF (dr.HasRows)

{

 while (dr.Read())

{

 DropDownList1.Items.Add (dr[0].ToString());

}

Con.Close();

g

g

* Double click on DropDownList & write the following code.

DropDownList1_SelectedIndexChanged()

{

 SQLConnection Con = new
 SQLConnection(ConfigurationManager.ConnectionStrings.
String s["constr"].ToString());

 SqlDataAdapter da = new SqlDataAdapter("

 Select * from employee where

 eno = " + DropDownList1.SelectedItem.ToString(), Con);

 Dataset ds = new Dataset();

 da.Fill(ds, "employee");

 Gridview1.DataSource = ds;

 Gridview1.DataBind();

) ;

};

g

ing();

Validation Controls in ADO.NET

Validation: It is the process of restricting the value by accepting proper input from the user.

* Validations are of two types

- ① Client side validations ② Server side validations

Client side validations

* It is a process of validating the webpage before submitting the request to the server is called as client side validation.

* Client side validations can be performed by using JavaScript.

Server side Validations

* It is a process of validating the webpage after submitting the request to the server is called as server side validation.

* Server side validations can be performed using Asp.net validation controls.

* Microsoft has given 6 types of validation controls to perform serverside validations.

① Required field validator

② Compare validator

③ Range validator

④ Regular expression validator

⑤ Custom validator

⑥ Validation Summary

Required Field Validator :-

* It is used to check the emptyness of the Control

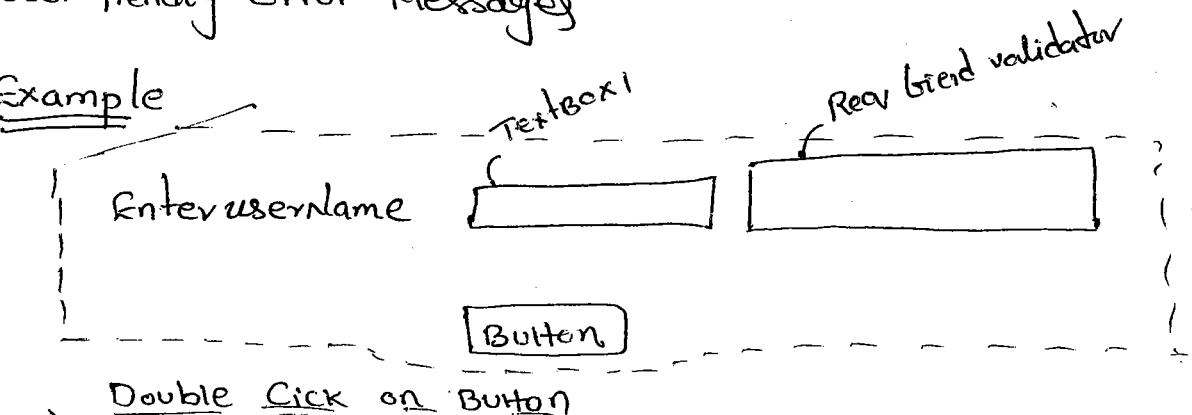
i.e if the Control is empty it will not allow the user to redirect the destination Page

Properties for Required Field

① ControlToValidate: It is used to set the Control id for which you want to perform the validation

② Error Message: This property is used to display the user friendly Error messages

Example



→ Double Click on Button.

Button_Click

{

Response.Redirect ("Page2.aspx");

}

→ Select the properties of Required field validator

ControlToValidate = TextBox1

ErrorMessage = User name must not be empty.

Compare Validator :-

It is used to Compare the value of one Control with the value of another Control.

Properties:

① Control to validate:

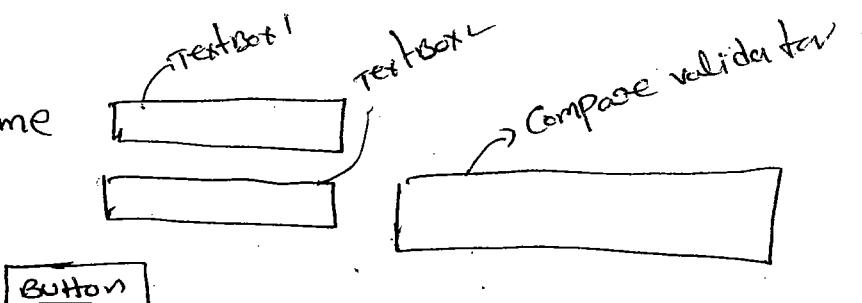
② Error message:

③ Control To Compare: It is used to Compare the value of one Control with the value of another Control.

④ Operator: Operator = Equal / Not Equal / Greater than / Less than / ---

Example: ①

Enter username
Enter pwd



Properties

* Control to validate = TextBox2

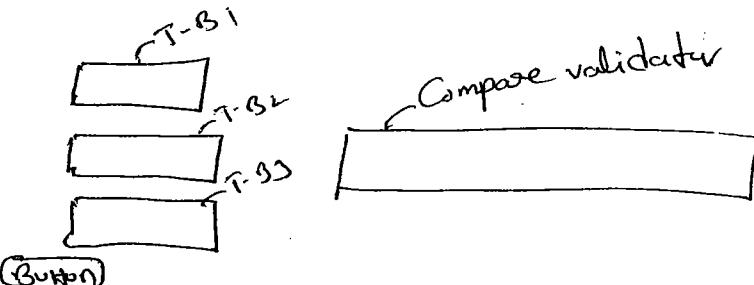
* Error Message = username & password must not be same.

* Control to Compare = TextBox1

* Operator = not equal

Ex-②

Enter uname
Enter pwd
Conform pwd



Prop

* Control to validate = TextBox3

* Error message = password miss match

Control to Compare = TextBox
Operator = Equal

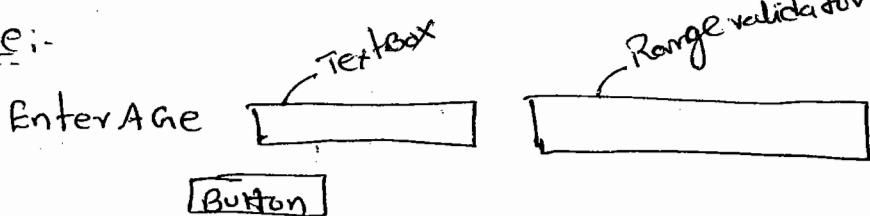
Range Validator:

- * It is used to check the values between the range are not.

Properties

- ① Control to validate
- ② Error message
- ③ Maximum value :- It is used to set the max value
- ④ Minimum value :- " " " " min "
- ⑤ Type :- It is used to set the datatype.

Example:-



Properties:

Control to validate = TextBox

Error message = Age must be between 18 & 25

Max value = 25

Min value = 18

Type = int

Regular Expression Validator

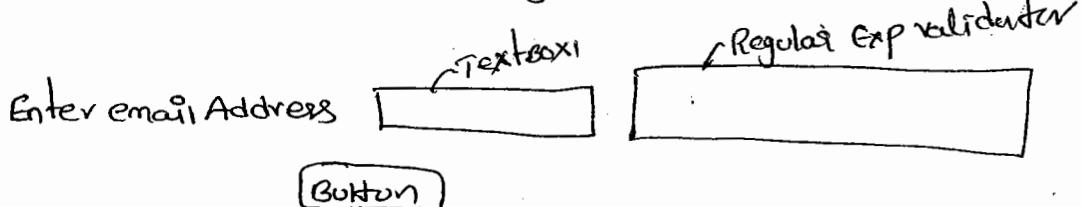
* It is used to perform validation for email id, or Zipcode, or pincode, etc.

* Email id must not start with special characters
Email id must not end with special characters.

property:

- ① Control to validate
- ② Error message
- ③ Validation Expression : This property is used to set the type of the validation you want to perform

Ex:



Prop

Control to validate = TextBox1

Error Message = Invalid email ID

Validation Expression = Internet Email Address

Validation Summary

* It is used to display all the validation
Controls Error messages.

* Drag & Drop validation Summary Control press F5

Editing with Gridview Control

Gridview Control will display the data in two modes

the

① Static mode

② Editable Mode

* when Gridview Control is in static mode than

EDITINDEX = -1

* when Gridview Control is in static mode than the code that is written with in item template will get executed and the data will be displayed in label Controls.

* until unless user clicks on edit button

Gridview Control will be in static mode

* To display the edit button with in the Grid view Control we have to set AutoGenerate

EDITButton = True

* when ever user clicks on edit button with in the Grid view Control than edit button will be divided into two more buttons.

① update ② Cancel.

* when Gridview is in editable mode than the code that was written with in edit item mode will get executed and the data will be displayed within textBox.

- * when ever gridview is in editable mode than edit index must be greater than ± 1
- * when ever user clicks on edit button than Row editing event will fire
- * when ever user clicks on updating button than Row updating event will fire
- * when ever user clicks on Cancel button than Row Canceling event will fire.

Static

Autogenerate EDITbutton=True

Item Template

	eno	ename	edesig	esal
EDIT	101	TONY	dev	20000
EDIT	102	Killer	dev	25000
EDIT	103	Somu	dev	30000
EDIT	104	John	dev	250000

EDIT index = -1

TextBox txt = TextBox

TextBox txt = (TextBox)Value;

Editable mode

EditItemTemplate,

	eno	ename	edes	esal
Update Cancel	101	Tony	dev	20000
Update Cancel	102	David	IT	25000
Update Edit	103	Somy	IT	30000
EDIT	104	John		23000

→ Go to web.Config and Create type Connection

<Connectionstrings>

```

<add name="Constr" ConnectionString="Data
Source=SATHYA; Initial Catalog=employee;
User ID=sa; Password=abc;" />

```

</Connectionstring>

```

using System.Data;
using System.Data.SqlClient;
using System.Configuration;

```

Page_Load()

{

 If(!IsPostBack)

{

 FillGrid();

}

```
private void FillGrid()
```

```
    SqlConnection con = ConfigurationManager.ConnectionStrings["  
        constr"].ConnectionString;
```

```
[{"Constr"].ToString());
```

```
SqlDataAdapter da = new SqlDataAdapter("select * from Employee", con);
```

```
DataSet ds = new DataSet();
```

```
da.Fill(ds, "Employee");
```

```
GridView1.DataSource = ds;
```

```
GridView1.DataBind();
```

3

→ Autogenerate Columns = False

→ Add boundfield Convert to template fields

→ See the above example deleting with gridview

Control

Select → Gridview → properties → events

Rowediting event → double click on Rowediting
event & write the following code,

void Gridview1 - Rowediting()

{

Gridview1. EditIndex = e.NewEditIndex;
FillGrid();

}

elect

Double click on Row Canceling^{edit} event →

Gridview1 - RowCancelingEdit()

{

Gridview1. EditIndex = -1;
FillGrid();

}

Double click on Row updating

Gridview - RowUpdating()

{

int empno = Convert.ToInt32(Gridview1.
Datakeys[e.RowIndex].Value);

Gridview Row row = Gridview1.Rows[e.RowIndex];

TextBox txt = (TextBox)row.FindControl("
txtename");

String newempname = txt.Text;

new

—

ng

```
txt = (TextBox) row.FindControl("txtdesig");
String newempname = txt.Text;
```

```
txt = (TextBox) row.FindControl("txtesal");
String newempsal = txt.Text;
```

```
SqlConnection Con = new SqlConnection(Configuration
    .Manager.ConnectionStrings["Gnstr"].ToString());
Con.Open();
```

```
String updatequery = "update employee set
    cname = '" + newempname + "' , cdesig = '" + new
    empdesig + "' , salary = '" + newempsal + "' where
   eno = '" + empno + "' ;
```

```
SqlCommand cmd = new SqlCommand(updatequery,
    Con);
```

```
cmd.ExecuteNonQuery();
```

```
Gridview1.EditIndex = -1;
```

```
FillGrid();
```

```
Con.Close();
```

~~Standard process~~

// Till we saw Delete & EDIT Operations, now we seen how one more row added in Gridview Control by using Footer Template.



FindControl() :- It is used to find the ~~standard~~ Standard Control i.e Available with in the grid view. (like TextBox or Label)

Adding a new Record with in the Grid view Control



eno	ename	edesig	esal

Step ① Enable the FooterRow

- ② Add TextBoxes with in the footer Row.
- ③ Catch the TextBoxes when user clicks on button Control.
- ④ Insert the records in the DataBase.

// Go to web.Config file & Create the Connection

<Connectionstrings>

```
    <add name="constr" ConnectionString="Data  
Source=SATHYA; Initial Catalog=employee;  
User ID=sa; password=abc" />
```

</connectionstring>

// Go to page load event & write the following code

Page_Load()

```
{  
    if (!IsPostBack)  
    {  
        FillData();  
    }  
}
```

Private void FillData()

```
{  
    SqlConnection Con = new SqlConnection(Configuration  
Manager.ConnectionStrings["constr"].ToString());  
}
```

Con.Open();

```
    SqlDataAdapter da = new SqlDataAdapter("Select * from employee", Con);
```

```
    DataSet ds = new DataSet();
```

```
    da.Fill(ds, "employee");
```

Gridview1.DataSource = ds;

Gridview1.DataBind();

da
prop box

* Autogenerate Columns = False

* Select Gridview Control → properties → select ellipse
Button → edit Column

→ Add four Bound fields

	HeaderText	Datafields
boundfield1	Empno	eno
boundfield2	EmpName	ename
boundfield3	EmpDesig	edesig
boundfield4	EmpSal	esalary

Note: * Always the Datafield name must be the Columnname

* select Boundfield1 → Click on Convert this field into Temp field.

OK

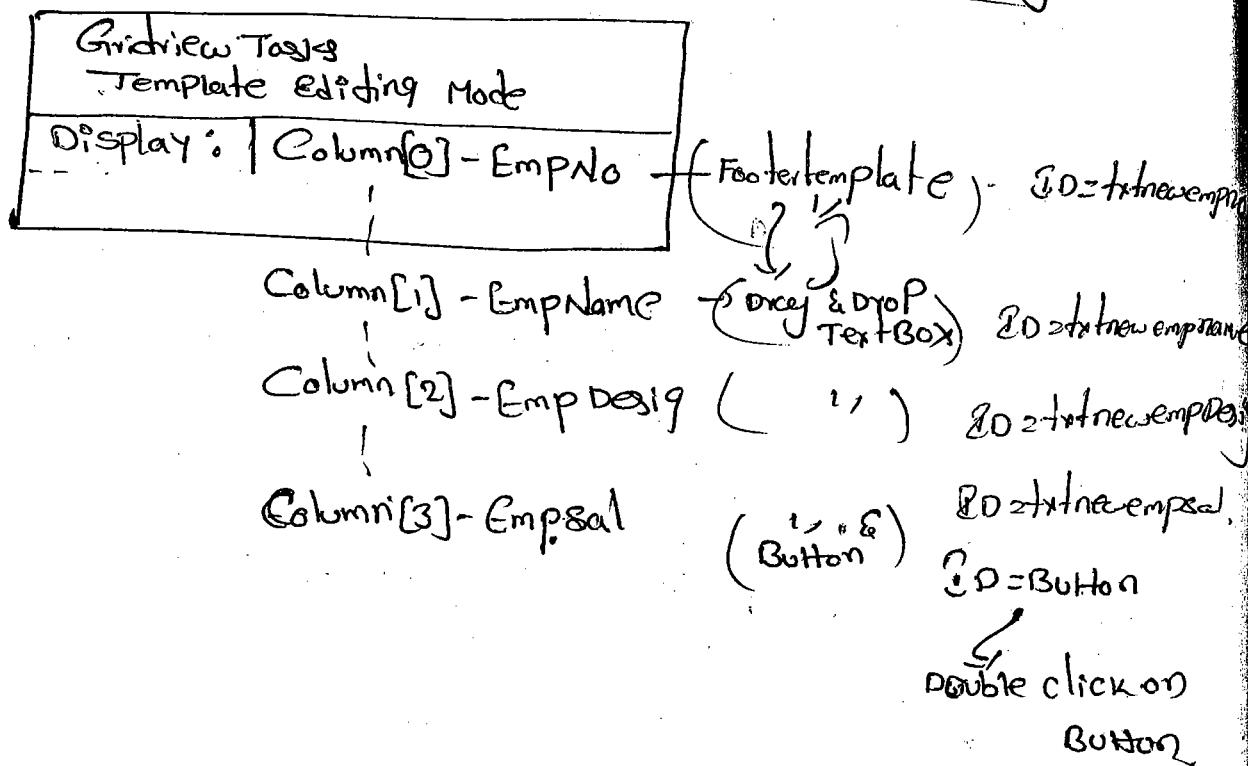
* Properties for Gridview Control

ShowFooter = True

* If ShowFooter = True than FooterTemplate will be enabled with in the Gridview Control.

* Select the gridview → select ellipse

Button → Edit Templates → See Template editing mode



* Select the ellipse button & click on end Template editing.

→ Grid Button + click()

{

```
GridviewRow row = (GridviewRow) gridview1.FooterRow;
TextBox txt = (TextBox) row.FindControl("txttempno");
String neweno = txt.Text;
txt = (TextBox) row.FindControl("txtnewemname");
String newename = txt.Text;
txt = (TextBox) row.FindControl("txtnewdesig");
String newedesign = txt.Text;
```

txt = (TextBox) row.FindControl("txtnewsal");
String newsal = txt.Text;

SqlConnection Con = new SqlConnection(ConfigurationManager.ConnectionStrings["Constr"].ToString());
Con.Open();
String insertQuery = "Insert into employeevalues (" +
 "neweno", ", " + newename, ", " + newdesig,
 "(" + newsal + ")";

SqlCommand cmd = new SqlCommand(insertQuery, Con);
cmd.ExecuteNonQuery();
F1("Data");
Con.Close();

FooterP
);

e");

;

Providing Paging with in the Gridview Control

* When ever user is displaying the data from the database, it is very difficult to display huge amount of data within the gridview control because the burden on the page increases.

↳ Allow paging

↳ Page size

event

PageIndexChanging

* By using paging we can reduce the burden on the Server & display the data in different pages.

Properties: ① Allow paging = True.

* This property is used to enable paging within the gridview control.

② Page Size : (some number)

This property is used to set the no. of records that has to be displayed in each page.

* Events:

PageIndexChanging Event:

This event will give when ever user selects the page number

* Select the Grid view Control properties
Events → Double click on page index changing

event & write the following Code.

Gridview1 - PageIndexChanging()

{

 Gridview1PageIndex = e.NewPageIndex;

 FillData();

}

18/7

providing Sorting facilities with Gridview

Control)

Step 6 Drag & Drop Gridview Control in default.aspx
Properties

① AllowSorting = True

* This property is used to perform
Sorting operations within the gridview Control.

Event:

Gridview1 - Sorting :-

This event will fire when user
clicks on the Column name.

Step

② Go to web.config file & declare the

ConnectionString

```
<connectionstrings>
```

```
  <add name="Constr" ConnectionString="Data  
Source=csathya; Initial Catalog=employee;
```

```
</connectionstring>
```

```
-----  
PageLoad()
```

```
{
```

```
  If (!IsPostBack)
```

```
{
```

```
    FillData("end");
```

```
}
```

```
g
```

```
-----  
Private void FillData(string ename)
```

```
{
```

```
  SqlConnection Con = new SqlConnection(ConfigurationManager  
Manager.ConnectionStrings["Constr"].ConnectionString);
```

```
  SqlDataAdapter da = new SqlDataAdapter(""  
Select * from employee Order by " + ename  
+ " str, Con);
```

```
  DataSet ds = new DataSet();
```

```
  da.Fill(ds, "employee");
```

```
  Gridview1.DataSource = ds;
```

```
  Gridview1.DataBind();
```

```
g
```

→ select gridview Control → properties → events
Double click on Sorting event and write
the following code.

Gridview1_Sorting()
{

 FillData (e.SortExpression);
}

e.SortExpression

SortExpression is a property that is available with in the gridview Control which will catch the Column name, when ever user selects any Column with in the gridview Control.

* Performing Deleting Operations with Checkbox

① → Drag & drop Gridview Control within Declarative checkbox

eno	ename	edesig	esal
1	A	1	1
2	B	1	1
3	C	1	1

Page_Load()

```
{  
    If (!IsPostBack)  
    {  
        FillData();  
    }  
}
```

Private void FillData()

```
{  
    SqlConnection Con = new SqlConnection("...");  
    SqlDataAdapter da = new SqlDataAdapter("Select * from employee", Con);
```

```
    DataSet ds = new DataSet();  
    da.Fill(ds, "employee");
```

Gridview1.DataSource = ds;

Gridview1.DataBind();

g

→ Select Gridview properties

→ Autogenerate Columns = False

→ Select gridview → select ellipse but →

edit Column →

header text databind

checkboxfield	empno	eno
boundfield	empname	ename
	empdesig	edesig

BoundField 4

empid

esalary

* select checkbox Field, Boundfield1, BoundField2, BoundFields, BoundField4 & click on Convert File

Field to template field → ok

* Double click on button Control and write
the following code.

Button_Click()

SQLConnection Con = new SQLConnection("----");

for (int i = 0; i < GridView1.Rows.Count; i++)

{

CheckBox chk = (CheckBox) GridView1.Rows[i].

FindControl("checkbox1");

If (chk.Checked = true)

{

Label lbleno = (Label) GridView1.Rows[i].

FindControl("lbleno");

int eno = Convert.ToInt32(lbleno.Text);

Con.Open();

SqlCommand cmd = new SqlCommand("Delete
from emp where eno = " + eno, Con);

cmd.ExecuteNonQuery();

Con.Close();

3

g

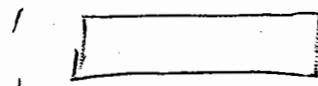
FillData();

g

How to upload a file & Download a

file

fileupload



Browser

upload

w/images

Tell

It will get the
entire path.

Database Table

name	size	path

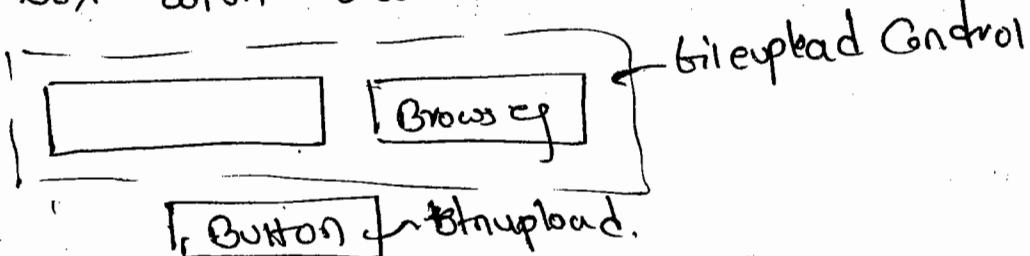
Gridview Control

Size	Download	Path

Hyperlink
buttonfield
imagebutton

→ File upload Control

* This Control is used to display
TextBox with Browse Button.



A diagram of a database table structure. The table has four columns: "Size", "Download", "Image", and "Path". There are four rows of data. The first row contains the text "DataBound". The second row contains the text "Download". The third row contains the text "Download". The fourth row contains the text "B0".

Size	Download	Image	Path
DataBound			
	Download		B0

* Go to database & Create a table with
name Downloads

A diagram of a database table structure. The table has three columns: "name", "size", and "Path". There are four rows of data. The first row contains the text "name". The second row contains the text "size". The third row contains the text "Path". The fourth row contains the text "Path".

name	size	Path
name		
	size	
		Path
		Path

* Requirement

* whenever user selects the upload
button than select One file from Desktop &
upload the file into Solution explorer under

Images folder and insert the file name, size, and file path in downloads table.

* Double click on update button write the following

Button1_Click()

{

String fname = " ";

String filesize = " ";

String filepath = " ";

fname = Fileupload1.FileName;

filesize = Fileupload1.PostedFile.ContentLength.

ToString();

filepath = " ~ /images / " + fname;

Fileupload1.SaveAs (Server.MapPath (" ~ /images / " +
fname));

Con.Open();

String Query = "insert into downloads values (" +
"+ fname + ", " + filesize + ", " + filepath + ")";

SqlCommand cmd = new SqlCommand (Query, Con);

cmd.ExecuteNonQuery();

Con.Close();

FillData();

* Go to Solution Explorer and Create a new folder with name images.

* Go to Design window select Gridview Control than click on Ellipse Button → edit Columns → Add one Boundfield, Hyperlinkfield, Imagefield.

(1) Boundfield.

Properties → HeaderText = size.

DataField, Size (columnname)

(2) Hyperlinkfield

→ HeaderText = Download

→ Text = Download

→ NavigateUrl = ...

(3) Imagefield

→ HeaderText = Image.

* Select Bound field, Hyperlink field, Image field. And Convert this fields to Template fields → OK.

* Check the design of your Gridview Control

* Go to Source Code & mode by the

Code for Hyperlink button.

<asp:Hyperlink>

</ItemTemplate>

<asp:Hyperlink ID="HyperLink1" runat="server">

Navigateurl = '<%# Bind("Path")%>'

Text = "Download" >

<asp:Hyperlink>

</ItemTemplate>

→ It's made by the Source Code of Image

<asp:Image ID="Image1" runat="Server">

Imageurl = '<%# Bind("Path")%>' />

→ Goto page load & write the following code.

PageLoad()

{

if (!IsPostBack)

{

FillData();

y.

z

Private void FindData()

```
    {
        SqlDataAdapter da=new SqlDataAdapter
        ("Select * from downloads", Con);
        Dataset ds=new Dataset();
        da.Fill(ds, "downloads");
        Gridview1.DataSource=ds;
        Gridview1.DataBind();
    }
```

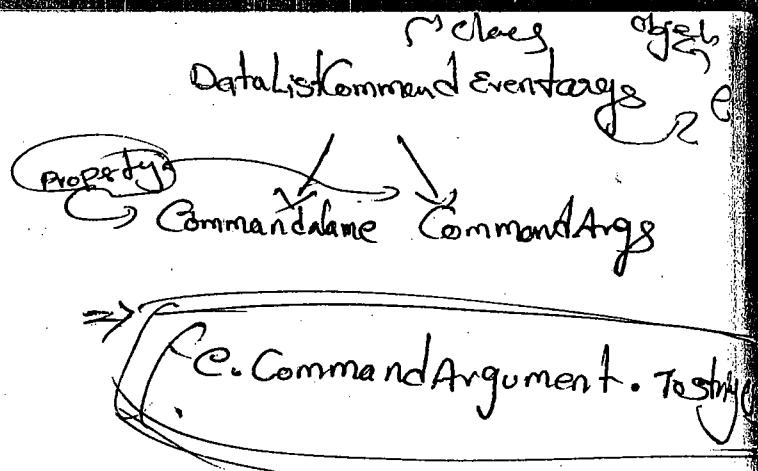
~~+ Data~~

Data List

* DataList Control is used to display
the Data, Delete the data, Edit the Data @
update the data.

	eno	ename	edesig	esal
<input type="button" value="Delete"/>				
<input type="button" value="Delete"/>				
<input type="button" value="Delete"/>				

{ whenever
user clickson
delete button
OnCommand



* performing deleting Operations with DataList Control

Step-6: Go to Source code & write the following code

<div>

<asp:DataList ID="d1" runat="Server" >

<HeaderTemplate>

Delete Eno Ename Edesig Esal

<ItemTemplate>

<asp:Button ID="btndelete" runat="server"

Text="Delete" CommandArgument = "<%# DataBinder.

Eval(Container.DataItem, "eno")%>

?/ >

* <%# DataBinder.Eval(Container.DataItem, "eno")%>

<%# DataBinder.Eval(Container.DataItem, "ename")%>

<%# DataBinder.Eval(Container.DataItem, "edesign")%>

<%# DataBinder.Eval(Container.DataItem, "esal")%>

</ItemTemplate>

</asp:DataList>

<div>

* Go to web.Config Configuration file & declare
the Connection string.

<Connectionstrings>

<add name="Constr" ConnectionString="Data
Source=SATHY A; Initial Catalog=employee; user ID=sq;
password=abc" />

</Connectionstring>

* Go to page load event & write the following code

using system.data.SqlClient;
using system.Configuration;

Page_Load()

{ if (!IsPostBack)

{ FillData();
}

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Opp. CDAC, Balkampet Road,
Ameerpet, Hyderabad.

```
private void FillData()
```

```
{  
    SqlConnection con = new SqlConnection(Configuration  
Manager.ConnectionStrings["Constr"].ToString());
```

```
    SqlDataAdapter da = new SqlDataAdapter  
("Select * from employee", con);
```

```
    DataSet ds = new DataSet();
```

```
    da.Fill(ds, "employee");
```

```
    dli.DataSource = ds;
```

g

----- Datalist -----

**

Delete	eno	ename	edesig
(Delete)	101		
(Delete)	102		
(Delete)	103		
(Delete)	104		

When ever user clicks on delete button than
Item Command event will fire

ItemCommandEventArgs: This event will fire when
ever user clicks on any button with in the
Datalist Control.

```
<div>
    <asp:Repeater ID="rpt" runat="server">
        <HeaderTemplate>
            EDIT eno ename edesig esal
        </HeaderTemplate>
        <ItemTemplate>
            <asp:Button ID="btnEdit" runat="server"
                Text="EDIT" CommandName="cmdedit" />
            <%# DataBinder.Eval(Container.DataItem,
                "eno") %>
            <%# DataBinder.Eval(Container.DataItem, "ename") %>
            <%# DataBinder.Eval(Container.DataItem, "edesig") %>
            <%# DataBinder.Eval(Container.DataItem, "esalary") %>
        </ItemTemplate>
        <EditItemTemplate>
            <asp:Button ID="btnUpdate" runat="server"
                Text="update" CommandName="cmdupdate" />
            <asp:Button ID="btnCancel" runat="server"
                Text="Cancel" CommandName="cmdCancel" />
            <asp:Label ID="lbltempno" runat="server"
                Text="<%# DataBinder.DataItem("cno") %>" />
        </EditItemTemplate>
    </Repeater>

```

```
</asp:Label>
    <asp:TextBox ID="txtename" runat="server"
        Text = "<% databinder.Eval(Container.DataItem, "ename")%>
            <asp:TextBox>
                <asp:TextBox ID="txtdesig" runat="server"
                    Text = "<% databinder.Eval(Container.DataItem, "desig")%>
                        </asp:TextBox>
                <asp:TextBox ID="txtsal" runat="server"
                    Text = "<% databinder.Eval(Container.DataItem, "esalary")
                        %>">
            </asp:TextBox>
        </EditItemTemplate>
```

```
</asp:Datalist>
```

```
</div>
```

* Datalist Control ~~is~~ Editing

Datalist Control will display the data in 2 modes one is static mode & another one is editable mode

* when Datalist Control is displaying in Static mode then the code that we have written

* Inside item template will get executed.

* When D.L is in static mode then EDIT ItemIndex = -1

* When user clicks on edit button within the Datalist Control then Datalist Control will display in editable mode.

* When user clicks on Edit button, the Item Command Event will fire, whenever user clicks on EDIT button must be in static mode, then the edit button must be divided into 2 more buttons i.e update & edit.

* When Datalist is in editable mode than the code that we have written inside edititemtemplate will get executed.

Datalist in Static Mode

EDIT	eno	ename	edesign
EDIT	101	anil	dev
EDIT	102	Sunil	dev
EDIT	103	Akash	dev

Datalist in editable mode

	eno	ename	edesign
(Update) (Cancel)	101	Anil	Dev
EDIT	102	Sunil	Dev
EDIT	103	Akash	Dev

→ Go to Source Code & write - ~~Code~~

→ Go to page load & write the following code

== == using System.Configuration;

void Page_Load()

{

if (!IsPostBack)

{

FillData();

}

}

private void FillData()

{

SqlConnection Con = new SqlConnection("...");

SqldataAdapter da = new SqldataAdapter("Select * from employee", Con);

Dataset ds = new Dataset();

da.Fill(ds, "employee");

dl1.datasource = ds;

dl1.databind();

g

Select DataList Control → properties → events →
Double click on ItemCommand event & write the
following code.

```
protected void dl1.ItemCommand ( )  
{  
    if (e.CommandName == "cmdedit")  
    {  
        dl1.EditItemIndex = e.Item.ItemIndex;  
        FillData();  
    }  
    else if (e.CommandName == "cmdupdate")  
    {  
        Label lbleno = (Label) e.Item.FindControl  
            ("txtempno");  
        String eno = lbleno.Text;  
        TextBox txt = (TextBox) e.Item.FindControl  
            ("txtename");  
        String ername = txt.Text;  
        txt = (TextBox) e.Item.FindControl ("txtedesig");  
        String edesig = txt.Text;  
        txt = (TextBox) e.Item.FindControl ("txtsal");  
        String esal = txt.Text;
```

SqlConnection Con = new SqlConnection(" - -);

Con.Open();

String updateQuery = "update employee set

ename = " + ename + ", " + edesig = " + edesig + " ,

esalary = " + esal + ", where eno = " + eno ,

SqlCommand cmd = new SqlCommand(updateQuery, Con);

cmd.ExecuteNonQuery();

dll.EditItemIndex = -1;

FillData();

Con.Close();

3

elseif (e.CommandName == "cmdCancel")

{ dll.EditItemIndex = -1;

FillData();

3

3

* Performing Add new Record Template with
In the Datalist Control.

Step 1 * Go to Source Code write the Code
for header Template & Item template

<FooterTemplate>

<asp: TextBox ID="txtneweno"

runat="server" > </asp: TextBox>

<asp: TextBox ID="txtnewename"

runat="server" > </asp: TextBox>

<asp: TextBox ID="txtnewedsgig"

runat="server" > </asp: TextBox>

<asp: TextBox ID="txtnewesal"

runat="server" > </asp: TextBox>

<asp: Button ID="btnsubmit" runat="server"

Text = "Insert" /> </asp: Button>

</FooterTemplate>

Go to website → addnewitem → select database
→ Add

Go to Server explorer → employee
database → drag & drop employee table
in DatabaseList1.aspx

Go to Default.aspx & write the following code

→ Using DataSetTableAdapters;

Public partial class Default:

System.Web.UI.Page

{

Dataset1TableAdapters.employeeTableAdapter Obj

Obj = new employeeTableAdapter();

Page_Load()

{

if (!IsPostBack)

{

d11.DataSource = obj.GetData();

d11.DataBind();

}

3

void d11_SelectedIndexChanged()

{

TextBox txt = (TextBox)e.Item.FindControl
("txtneweno");

int neweno = int.Parse(txt.Text);

le
txt = (TextBox)e.Item.FindControl("txtnewename");

String newename = txt.Text;

txt = (TextBox)e.Item.FindControl("txtnewedesign");

String newedesign = txt.Text;

txt = (TextBox)e.Item.FindControl("txtnewesal");

int newesal = int.Parse(txt.Text);

obj.Insert(neweno, newename, newedesign,
newesal);

dl1.DataSource = obj.GetData();

dl1.DataBind();

3

3

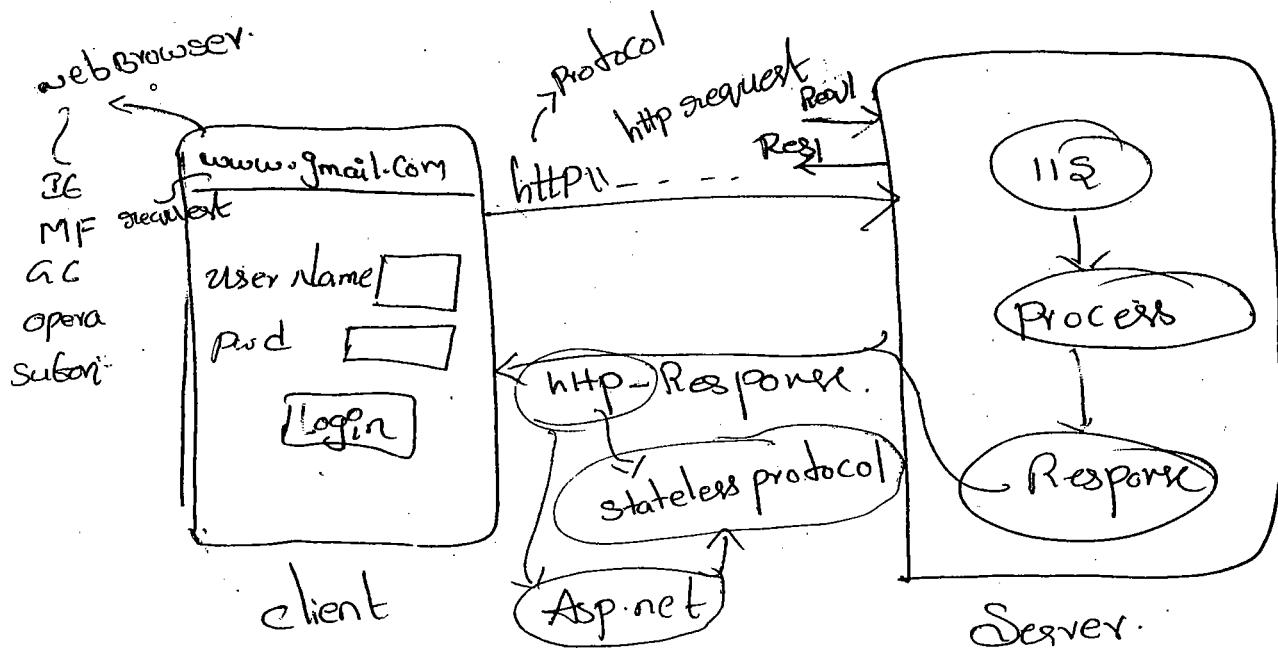
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intro/

Se

STATE MANAGEMENT Techniques

23/07/2012

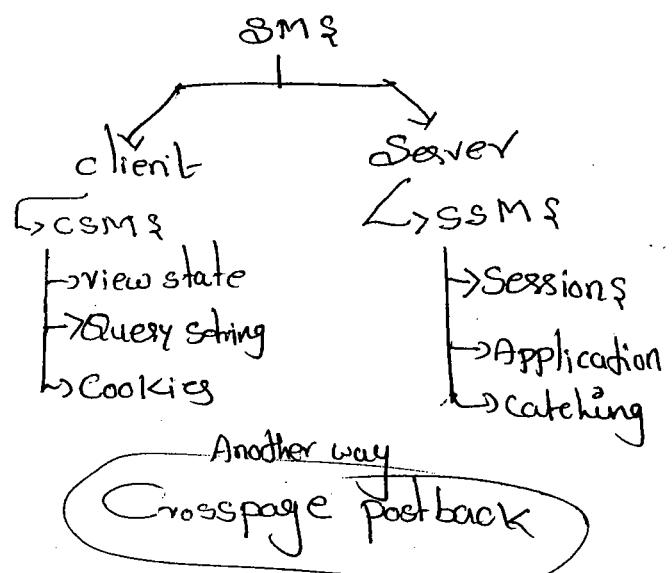


Asp.net → Technology → http → Stateless

Big Bagaz

→ Stateless Technology

$$\begin{array}{l} \rightarrow 1) 5000 \\ 2) 4000 \\ 3) 2000 \\ 4) 1000 \\ 5) 100 \end{array} \xrightarrow{\text{stateless}} \frac{9000}{13010} = 10$$



State Management Technique in Asp.net

- * client is a Computer which will give request to the Server
- * client always gives the request using web browser

WebBrowser:

WebBrowser is the client side Software which is installed on client machine

Ex: ① Internet Explorer ② FireFox ③ Google chrome.

Example for Request

www.gmail.com ①)

www.google.com. ②)

* when ever client gives the request the request will go to Server using http protocol.

* Webserver will accept the request & process the request & generate the response & follow the response back to the client system.

Webserver:

Webserver is the Serverside Software which is installed on Server machine.

Ex: ① IIS * tomcat

② Glassfish

* The Communication between client and Server is due to http protocol i.e. http is acting like a Communication media which is used to establish the Communication between client and Server.

so the request is Called as http request and the response is Called as http response.

1. IS

* http protocol is a stateless protocol

* Stateless means for multiple client request & responses the state of the response is not maintained either on the client system or on the Server System because of http stateless nature.

2. Asp.Net is a Server side technology which works on http protocol, as http is a stateless protocol

Asp.Net is Called as stateless Technology.

i.e., we Cannot maintain the state of the previous response in Asp.Net Between multiple client request & responses.

* If we want to maintain the state of the previous response, either on the client machine or on the Server Machine than we have to learn state management Techniques.

STATE MANAGEMENT Techniques

* we can maintain the state of the response either on the client machine or on the Server machine using state management techniques.

* Maintaining the state on client machine can be done with the help of client side state management technique.

- ① viewstate
- ② QueryString
- ③ Cookies.

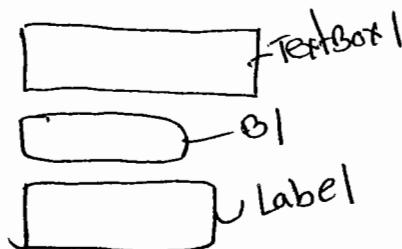
* Maintaining the state on Server machine can be done with the help of Server Side state management technique.

- ① Sessions
- ② Application
- ③ Caching

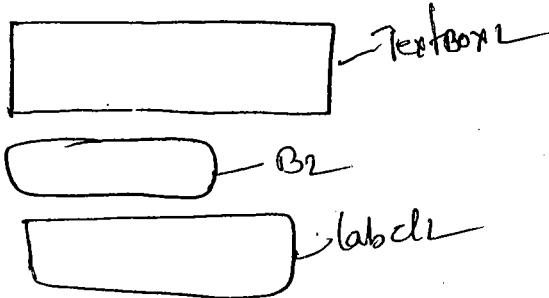
Viewstate:

* Viewstate is a client side state management technique which is used to maintain the state of previous response on client machine.

Ex:-



Enable viewstate T/F



- 1C
- * Whenever user clicks on Button1 Display TextBox1.Text in label1.
 - * whenever user clicks on Button2 Display TextBox2.Text in label2.

```

    Button1_Click()
{
    label1.Text = TextBox1.Text;
}

    Button2_Click()
{
    label2.Text = TextBox2.Text;
}

```

Observation :-

- T/F
- nent
- * If user enter "satya" in textBox-1 & Technologies in TextBox-2
 - * when user clicks on button-1 than satya will displayed in label1 & when users clicks on button-2 Technologies will be displayed in label2 & satya will be maintained in label1

i.e. In the above example the state of the previous response is maintained.

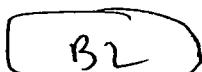
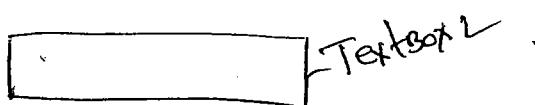
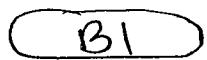
i.e. When user clicks on Button-2 satya must not be maintained in label1.

* But in the above example it will maintain the previous state by using view state.

* Every Control will have a property Called "Enableviewstate". By default Enableviewstate is equal to "True".

* If Enableviewstate is true than View state will work internally in Asp.net and it will maintain the previous state.

* Asp.net as a stateless Technology



→ Go to Source Code & write the following code

* <%@ page language="C#" EnableViewState="False" AutoEventWireup="true" %>

* B1_Click()

{

 label1.Text = TextBox1.Text;

}

ain
B2_Click()

{

 Label2.Text = TextBox2.Text;

}

Observation: When user clicks on button1 Satya will be displayed in label1 & when user clicks on Button2 Technologies will be displayed in label2 & Satya will not be maintained vice versa.

* Because of Asp.net stateless nature.

If enable view state = false than viewstate will not work for the entire page.

24/07/12

* View state will maintain the state of the Control.
* By default every Control will have a property named EnableViewState = True

Syntax for Creating View state

[Viewstate["variableName"] = Some value;]

* Viewstate will maintain the data in Hexadecimal format, Viewstate will maintain the data in base 64 format.

i.e an encrypted format.
Unreadable ↗

Example

Button1 → Store the value

Button2 → Display the Value

Label1

Double click on button1 & write the following code.

Button1-click()

{

Viewstate["myvalue"] = "satya";

Label1.Text = "value is stored";

}

Button2-click()

{

Label1.Text = Viewstate["myvalue"].ToString();

}

Note:- The value of the View state will be maintained on the browser.

→ Go to Browser → click on store the value & display the value. → Right click on Browser → View Source

<div>

<input type="hidden" name="__viewstate"

id="__viewstate" value="/WEPD_____ = " />

</div>

V.V.B.R.J
X Can we store Object in a Viewstate

V.V.B.R.J
Lecture

We can store the object in view state

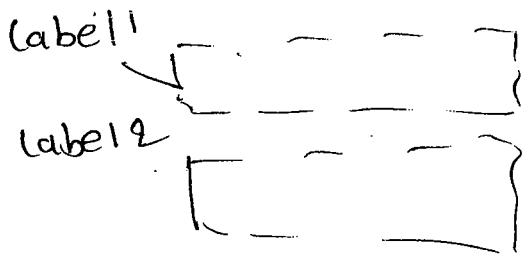
by using [Serializable] attribute

Design

Store the value

de.

Display the value



* when ever user clicks on button1 store the object in viewstate.

* when ever user clicks on button2 than display the values from View state

-step-① Go to website → Add new item → select class → Name = class1.cs → Add button → write the following code.

[Serializable]

public class Employee

{

//variables

private int -eno;

private String -empname;

// constructor

```
public Employee( int eno, string ename )  
{  
    -empNo = eno;  
    -empName = ename;  
}
```

// properties

```
public int EmpNo
```

```
{
```

```
    get { return -empNo; }  
}
```

```
public string EmpName
```

```
{
```

```
    get { return -empName; }  
}
```

* Double click on the button-1 & write the following code.

```
Button1-click()
```

```
{ Employee e1=new Employee(101, "John");
```

```
Viewstate["myvalue"] = e1;
```

```
Label1.Text = "Object is stored in Viewstate";  
}
```

Button2_Click()

{

Label1.Text = ViewState["myvalue"].ToString();

Employee e1 = (Employee)ViewState["myvalue"];

Label1.Text = "EmpNo is :" + e1.EMPNO;

Label2.Text = "EmpName is :" + e1.EmpNAME;

}

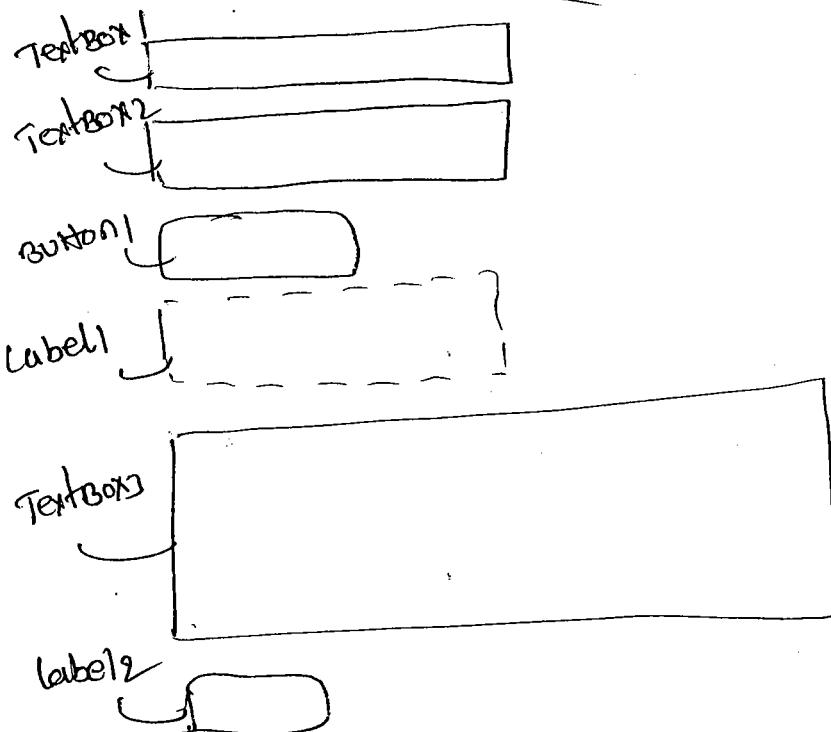
Note

[Serializable] → By using this we can convert the

obj type value as string value.

* Converting the Encrypted value in View state

in plain Text format



* when user clicks on button1 than

Concatenate TextBox1.Text & TextBox2.Text &
Displaying on Label1.Text.

```
Button1_Click()  
{
```

```
    Label1.Text = TextBox1.Text + " " + TextBox2.Text;
```

y

~~Button~~ when user clicks on button2 Convert the hexa decimal value into plane Text formate.

* Go to View Source (or) press F5 enter Satya in TextBox1 & Technologies in TextBox2 → click on the Button. Then Satya Technologies will be displayed in Label1.

R.click on Browser → View Source →

```
<input type="hidden" name="__VIEWSTATE"  
id="__viewstate" value="<div style="display: none;">1234567890</div>"/>
```

copy the value i.e. available with in the Double Quotes & posted in TextBox3

* when ever user clicks on Button-2 Convert the Encrypted Value into plane Text formate.

* Double click on B2 & write the following code

```
Button2_Click()  
{
```

```
    byte[] decode = Convert.FromBase64String(TextBox3.  
    Text);
```

```
TextBox3.Text = System.Text.Encoding.ASCII.GetString(  
    decode);
```

the

Drawbacks :-

- ① We can maintain the state within the page only
- ② It can store max 4KB
- ③ * The scope of the viewstate is only within the state we can not maintain the state b/w multiple webPages using viewstate.
- ④ * Viewstate will maintain the data on client browser.
* The max capacity of the browser is 4KB so we cannot store more than 4KB of information using viewstate.
- ⑤ View state will maintain the data in encrypted formate so that any hacker can convert the encrypted value into plain text formate. So we cannot store sensitive informations like password using viewstate.

he

Box 3 :-

Query String

- * It is used to maintain the state b/w multiple webpages.
- * Querystring will maintain the data in the form of Key and value format.
- * Query String will prepare a Collection Table called Query String Collection Table

Key	Value
0	
1	

Syntax for storing a value in a Query String

Response.Redirect("page2.aspx?a=10");

URL

Query string name value

Page1.aspx

Page2.aspx

Button

Label

* When ever user clicks on button Even store a value in a Querystring variable and send that value to page2.aspx

* The value and url must be Separated with ?

* To store two values in a Querystring then the Syntax is

Response.Redirect("page2.aspx?a=10&b=20");

* We can store multiple values in a Query String the value and value must be separate with "&". The value and URL must be separated with "?".

* Whenever we are storing, Query string Create a Collection table

key	value
a	10
b	20

Syntax for Retrieve the value for Querystring

Ex Request.QueryString["a"].ToString();

(Ex) Request.QueryString["key"].ToString();

(Ex) Request.QueryString[Index].ToString();

Ex

Request.QueryString[0].ToString();

Note: We can retrieve the value from the Query string either by using key (or) Index

Ex → Goto page1.aspx Drag & drop a button Control

→ Goto page2.aspx Drag & drop a label Control.

→ Goto page1.aspx double click on the button and write the following code.

Button1_Click()

{

Response.Redirect("Page2.aspx?a=10");

}

→ Go to page2.aspx & write the following code

Page_Load()

{

Label1.Text = Request.QueryString["a"].ToString()

}

→ Go to Page1.aspx and press F5

* when you click on the Button the value will
be displayed in Page2.aspx.



Create a login page

The diagram shows a rectangular login form. Inside, there is a text input field labeled "Enter user Name" with a placeholder box next to it. Below it is another text input field labeled "Enter password". At the bottom center is a rounded rectangular button labeled "Sign in".

* go to Success.aspx and drag & drop a label
Control.

* Go to database Create a table with name
users & Column names are username & password

uname	Pwd
anilgoyalca	en1

* Goto web.Config file & Create the Connection string.

<connectionstring>

<add name="constr" ConnectionString="data
Source=localhost; Initial Catalog=users; userid=sa;
password=abc" />

</connectionstring>

* Goto login.aspx double click on the button

=> using System.Data;
using System.Data.SqlClient;
using System.Configuration;

button1_Click()

{

 SqlConnection Con = new SqlConnection

(ConfigurationManager.ConnectionStrings["constr"].
ToString());

 Con.Open();

 String query = "select * from login where
 uname = '" + TextBox1.Text + "' and pwd = ' " +
 TextBox2.Text + " '";

 SqlCommand cmd = new SqlCommand(query, con);

 SqlDataReader dr = cmd.ExecuteReader();

 if (dr.HasRows)

 {
 while (dr.Read())

```
2
Response.Redirect("success.aspx?uname='"+TextBox1.Text+"");
3
else
{
    Response.write("invalid user");
}
4
```

* Go to success.aspx.cs and write the following code

```
Page_Load()
{
    if(Request.QueryString["uname"]!=null)
    {
        Label1.Text = "welcome" + " " + Request.QueryString["uname"].ToString();
    }
    else
    {
        Response.Redirect("login.aspx");
    }
}
```

Page1.aspx

A hand-drawn diagram of a dropdown menu. It consists of a rectangular box containing the text "select EmpNo" followed by a smaller rectangular box with a downward-pointing arrow icon.

Page_Load()

```
{  
    SqlConnection Con = new SqlConnection("...");
```

```
    Con.Open();
```

```
    String query = "select * from employee";
```

String query

SQLCommand cmd = new SQLCommand(query, con);

SqlDataReader dr = cmd.ExecuteReader();

if (dr.HasRows)

{

while (dr.Read())

{

~~if dr[0]~~

DropDownList1.Items.Add(dr[0].ToString());

}

}

con.Close();

3.

DropDownList1_SelectedIndexChanged()

{

Response.Redirect("Page2.aspx?expno=" +

DropDownList1.SelectedItem.ToString() +");

3



N.W

26/7

DrawBacks with Query String

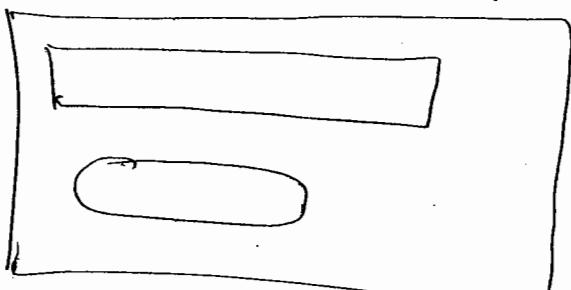
- ① *Query string will maintain the data b/w multiple webpages.
- ② *when we try to pass the values using Query String, It will maintain the value in the Browser URL Address. So it is not secured why because any user can give the value that ~~you are~~ store in Query String in the browser URL address, so we cannot provide security for the data using Query String.
- ③ *By using Server.Transfer we can hide the destination page URL address.
- ④ The maximum capacity of the Browser is 4KB So we cannot store more than 4KB of the information using Query string.

Crosspage postBack :-

(it is not state management technique)

*It is a technique which is used to help maintain the state of the previous response between multiple Webpages.

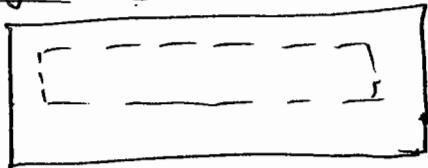
* Go to Page1.aspx & Design



* O-

9

Page2.aspx



* Go to page1.aspx.cs & write the following code.

```
Public partial class Default : System.Web.UI.Page
```

```
{
```

```
    String uname;
```

```
    public string uname
```

```
{
```

```
    set
```

```
{
```

```
        uname = value;
```

```
}
```

```
    get
```

```
{
```

```
        return value;
```

```
}
```

```
    }
```

```
    Protected void Page_Load()
```

```
{
```

```
        uname = TextBox1.Text;
```

```
}
```

* Select button → Properties → postbackurl = page2.aspx

* Go to page2.aspx Source Code write the following Code

In Second Line

```
<%@ previouspagetype virtualpath = "~/page1.aspx" %>
```

* Go to page2.aspx & write the following code
in Page_Load event.

Page_Load()

{

Label.Text = PreviousPage.UserName;

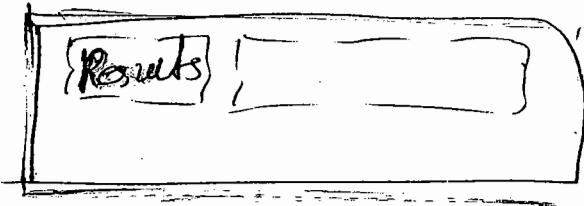
}

~~Ex(2)~~

* Go to page1.aspx & Design

The diagram illustrates a user interface design for a web page. It features two input fields: one labeled "Enter a value" and another labeled "Enter b value". Below these fields is a button labeled "Calculate". The entire form is enclosed in a rectangular border.

* Go to Page2.aspx



* Go to page1.aspx → select Button → postback url = Page2.aspx

* Go to page2.aspx Source Code & following code in
Second line.

<%@ previousPageType VirtualPath = "n/Page1.aspx" %>

* Go to PageLoad & write the following code

e

* Page_Load()

{

 TextBox txt = (TextBox)previouspage.FindControl
 ("TextBox1");
 int a = int.parse (txt.Text);

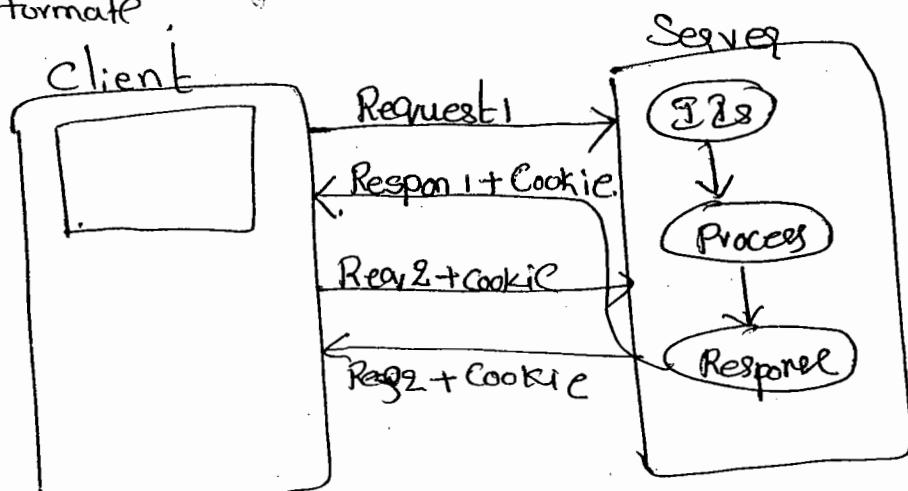
 TextBox txt1 = (TextBox) previouspage.FindControl
 ("TextBox2");
 int b = int.parse (txt1.Text);
 int c = a + b;

 Label2.Text = "Sum is" + c.ToString();

}

* Cookies

Cookie is a small information which is stored on client machine in the form of plain text format.



* whenever client give the request a cookie is stored at the server along with

in the response the cookie will be transferred to the client machine.

* when ever client gives the second request along with Request 2 the cookie will be transferred To the Server machine, along with Resp-2 the cookie will again transfer to client machine

* i.e. for multiple client requests & responses the cookies travel b/w client & server and finally the cookie will be stored on client machine in a plain text format.

Note: Cookies Created on the Server machine & Cookies stored on client machine.

* Cookies are of two types

① InMemory Cookie.

② persistence Cookie.

* InMemory Cookie:

* InMemory cookie will be stored on the client process memory.

* InMemory cookie does not have expire date & time until unless InMemory will be maintained until the user closes the Browser.

i.e In Mememory Cookie will be stored Temporarly

Persistance Cookie:

* The Cookie which will be stored on clients harddisk permanently is called as persistance Cookie or OutMemory cookie.

* persistance Cookie will have default expire Date & Time.

* we can set the expire date & time manually for persistance cookie.

Steps to work with Cookies

① Create a cookie

To create a cookie a predefine class "HttpCookie".

Httpcookie obj=new HttpCookie("Cookiename");

② Store the value in the cookie object

(Predefined Property)

Obj.Value = "Some value";

③ Add the cookie object to the Cookies Collection Table.

key	value

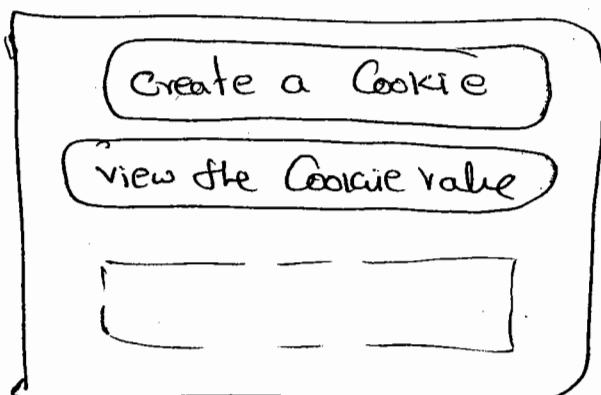
Response.Cookies.Add(Cookieobjname);

④ Retrieve the value from the cookie object

Request.Cookies["Cookiename"].Value;

* Cookie will internally prepare a Table called Cookies Collection Table. It will maintain the data in the form of Key & value type format, key is the cookie name & value is the cookie value.

* Go to Page.aspx



Double click on btn1

Button1_Click()

{

```
HttpCookie obj = new HttpCookie("myCookie");
obj.Value = "Hello";
```

Cookie name

```
Response.Cookies.Add(obj);
```

```
Label1.Text = "Cookie is Created";
```

}

Button2_Click()

{

```
Label2.Text = Request.Cookies["myCookie"].Value
.ToString();
```

}

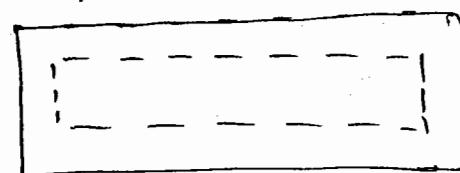
g

Ex(2)

Go to Default.aspx

The diagram shows a rectangular form with three components: a top-left text box labeled "Enter username.", a top-right text box labeled "Enter password", and a bottom center button labeled "Login".

Go to Default2.aspx drag & drop label Control



* Go to database & Create a tuple with name login

uname	Pwd

* Go to web.Config file and Create the Connection

<Connectionstring>

```

<add name="Constr" ConnectionString = "Data
Source = SATHYA ; Initial Catalog = users ; user Id = sa ;
password = abc" />

```

</Connectionstring>

* Go to Default.aspx.cs & write the following code

```

using system.data;
using system.Data.SqlClient;
using system.Configuration;

```

button1_Click()

{

SqlConnection Con = new SqlConnection(Configuration-

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Ameerpet, Hyderabad.

```
-> connectionManager.ConnectionStrings["constr"].ToString() );  
con.open();  
SaiCommand cmd = new SaiCommand("select *  
from login where uname ='" + textBox1.Text + "' and pwd ='" +  
+ textBox2.Text + "' ", con);  
SaiDataReader dr = cmd.ExecuteReader();  
if (dr.HasRows)  
{  
    while (dr.Read())  
    {  
        HttpCookie obj = new HttpCookie("uname");  
        obj.value = dr[0].ToString();  
        Response.Cookies.Add(obj);  
        Response.Redirect("default2.aspx");  
    }  
}  
else  
{  
    Page.RegisterStartupScript("aaa", "<script>  
    alert('invalid user') </script>");  
}
```

Go to Default.aspx & write the following code

* Go to Default.aspx

Page_Load()

{

if (Request.Cookies["uname"] != null)

{

Label2.Text = "Welcome" + Request.Cookies["uname"].
value.ToString(); ~~value~~

}

else

{

Response.Redirect("Default.aspx");

}

→

Online Application

Go to Page1.aspx

Q1 What is CLR

- Q1
O Common Language Runtime
O Common Runtime

Next

Go to Page2.aspx

Q2 what is CTS

- Q2
O Common Type System
O Common System

Next

Go to Page3.aspx

Q3 what is GAC?

① Global Access Cache

② Global Accessible

Next -

Go to Result.aspx Drag & Drop one (label Control)



* GoTo Page1.aspx.cs

button1_Click()

{

HttpCookie obj = new HttpCookie("Q1");

If (RadioButton1.Checked == true)

 obj.value = "Y";

else

 obj.value = "N";

Response.Cookies.Add(obj);

Server.Transfer("Page2.aspx");

}

Go to Page2.aspx.cs

button2_Click()

{

HttpCookie obj = new HttpCookie("Q2");

If (RadioButton1.Checked == true)

 obj.value = "Y";

else

obj.value = "N";

Response.Cookies.Add(obj);

Server.Transfer("Page3.aspx");

y

z

*

* Go to Page3.aspx.cs

*> button3_Click()

{

HttpCookie obj = new HttpCookie("Q3");

if(RadioButton1.Checked == true)

obj.value = "Y";

else

obj.value = "N";

Response.Cookies.Add(obj);

Server.Transfer("Result.aspx");

z

* Go to Result.aspx.cs

Page_Load()

{

HttpCookie obj;

int total = 0;

String s = " -";

for (byte i=0; i<Request.Cookies.Count; i++)

{

obj = Request.Cookies[i];

s = s + "Q" + (i+1) + ":" + obj.value + "
;

if (obj.value == "Y")

{

total = total + 1;

y

if (total < 2)

{

Label1.Text = "Resultsheet is
" + s + "
Correct answer" + total + "You Failed";

y

else

{

Label1.Text = "Result sheet is
" + s + "
Correct answer" + total + "You Passed";

y

y

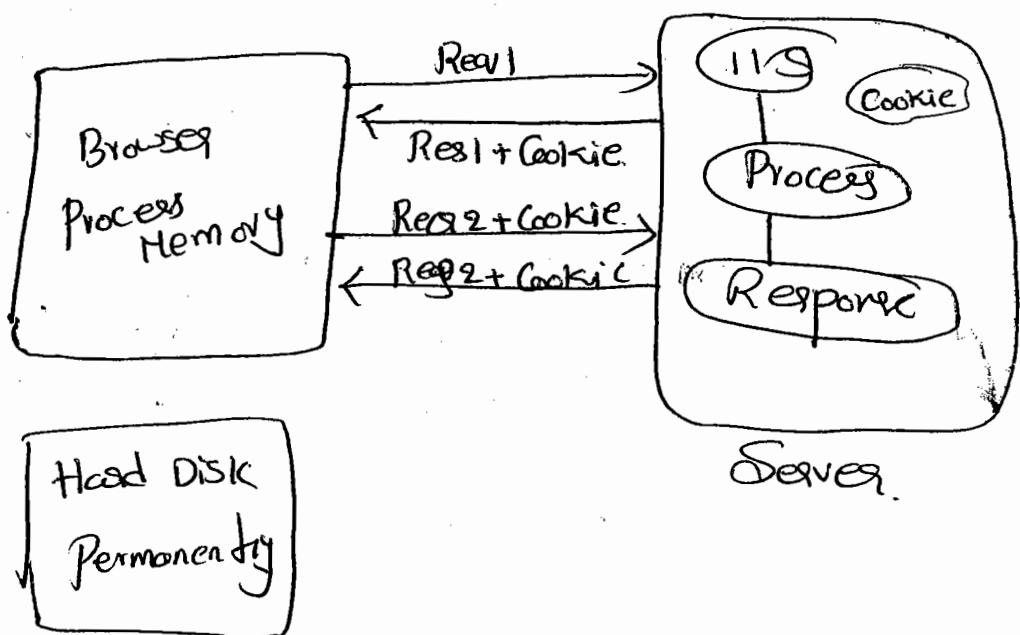
* Go to page1.aspx Source Code & write the following
java Script code.

```
<head runat="Server">  
    <script type="text/javascript">  
        function f1()  
        {  
            window.history.forward();  
        }  
    </script>  
</head>  
<body onload="f1()">
```

||| write the same code in Page2.aspx,
Page3.aspx and result.aspx

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Persistence Cookie i. (a) outmemory Cookie



* whenever client gives the request a
Cookie is Created on the Server and along
with the response the Cookie will be transferred
to the client machine and the Cookie will be
stored on browser process memory Temporarily
and on clients harddisk Permanenty.

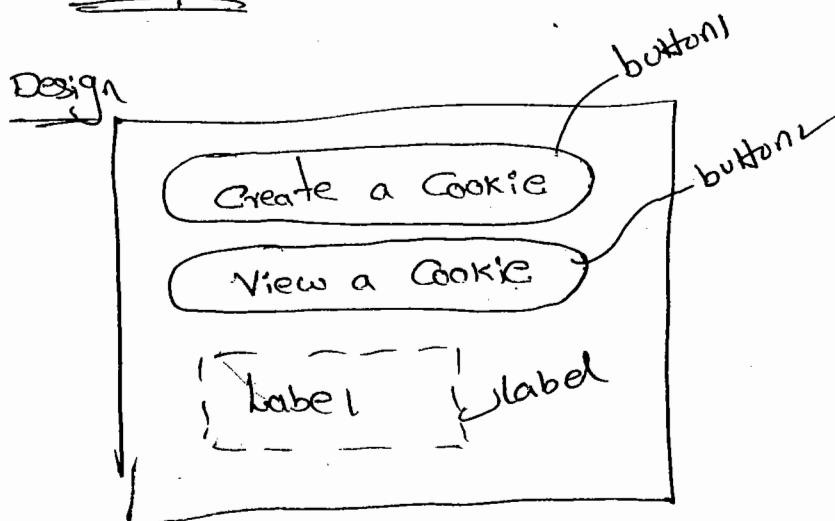
* whenever client gives the Second request
the Cookie that is available on the browser
process Memory will send back to Server i.e.
for multiple clients request & responses the
Cookies travelled between client & server. and
finally the Cookie will be stored on
clients harddisk.

the Cookie that is maintained under Browser process memory will be deleted when the user closes the Browser.

* we can set the Expire date & time for Persistence Cookie.

* The persistence Cookie will be deleted after the expire date Operating System will automatically delete the persistence Cookie after the expire time.

Example:



* Double click on button1 & write the following code

→ Button1_Click()

```
HttpCookie obj = new HttpCookie("a");
obj.value = "Hello";
obj.Expires = System.DateTime.Now.AddMinutes(30);
```

```
Response.Cookies.Add(obj);
```

label1.Text = "Cookie is Created";

g

Button2_Click()

{

Label1.Text = Request.Cookies["a"].Value.ToString();

y

Observation

* In the above example when we click on button1 then the Cookie is Created & click on button2 the Cookie value will be displayed.

* Close the browser and again execute the program now click on button2 then the Cookie value will be maintained because for the persistence Cookie we can set the default expire date & time.

Drawbacks with Cookies

* Cookie is a small information which is stored on client machine so that any user can delete the cookie.

* The maximum number of Cookies we can write for all the websites is nearly 300.

* Cookie is a client side storage management technique where the information will be maintained on clients browser & the maximum capacity of the browser is 4KB, so that we can maintain more than 4KB of information using Cookies.

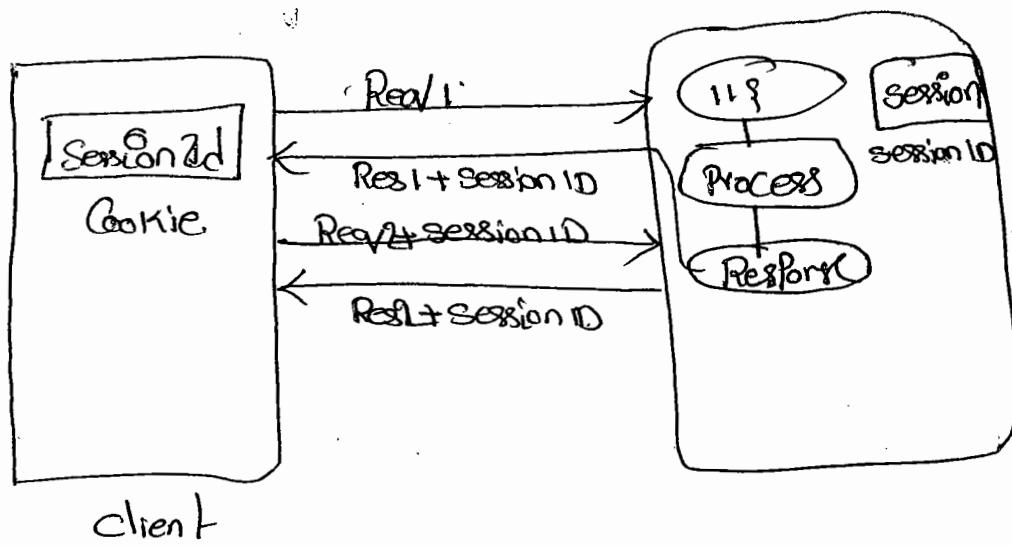
* Server Side State Management Techniques:-

* It is a process of maintaining the state of previous response on the Server machine.

* Different types of Server side state management techniques are

- ① Sessions
- ② Application
- ③ Caching

Sessions:-



* When ever client gives the request a session is created on the server & the session is assigned with some id called session id. Along with the response the session id will transfer to the client machine.

* When ever client gives the second request the Session Id will transfer to the Server machine along with response 2 to session id will again come back to client machine i.e. for multiple client request & responses the Session ID will be transferred b/w clients & Server & finally the session id will be

stored on client machine in the form of cookie.

* The Session value will be maintained on Server machine and session ID will be maintained on client machine.

* The default expire time of session is 20 minutes.

* Syntax:

{ Session["variablename"] = value; }

Example

Step 1 Goto database & Create a Table with name login.

Uname	Pwd

⇒ * Goto login.aspx & drag & drop login control from toolbox.

* Go to Page2.aspx ^{success} drag & drop a label control.

The diagram shows a rectangular window titled "User Login". Inside the window, there are two text input fields. The first field is labeled "Enter user Name" and the second is labeled "Enter password". Below these fields is a single button labeled "Button".

To get the value from the TextBox - the property is login.username.

* To get the values from TextBox The property is

login1.password,

* Login control will automatically performed validations.

* When ever user clicks on login button than login-authenticate event will fire.

* Goto web.Config file and create the Connection String

<Connectionstring>

<add name="Constr" ConnectionString="Data
Source=SATHY A; Initial Catalog=users; user ID=sa;
password=abc" />

</Connectionstring>

* Goto login.aspx Double click on login Control & write the following code

using system.data
 { .. .sqclient }

using system.Configuration,

 login.Authentication()

{
 SqlConnection Con=new SqlConnection("...");
 Con.open();

 SqlCommand cmd=new SqlCommand("Select *
 from login where uname='"+login1.username+"' and

```
Pwd = " " + login1.password", Con);  
SaiDataReader dr = cmd.ExecuteReader();
```

```
if (dr.HasRows)
```

```
{
```

```
    while (dr.Read())
```

```
{
```

```
Session["uname"] = login1.username;
```

```
Response.Redirect("Success.aspx");
```

```
y y
```

```
else.
```

```
{
```

```
    login1.FailureText = "invalid user";
```

```
y
```

Go to Success.aspx & write the following code.

```
* Page_Load()
```

```
{
```

```
if (session["uname"] != null)
```

```
{
```

```
    Label1.Text = "Welcome" + " " +  
    Session["uname"].ToString();
```

```
y
```

```
else  
{  
    Response.Redirect("login.aspx");  
}
```

Goto web.Config → and write the following code

In system.web Tag

```
<system.web>  
    <sessionstate mode="InProc"  
        timeout="2" />  
</system.web>
```

Observation

* Execute login.aspx, enter username & password and click on login button than Success.aspx page will Open, Minimise Success.aspx & don't disturb the page for 2 to 3 min after 3 minutes Refresh the Success.aspx page than it will redirect to login.aspx ie In session state mode we mentioned the timeout property as two minutes, so after two minutes the session value will get expired so that it is redirecting to login page when we refresh Success.aspx,

*
Real Time Example How Data update & Insert in
Dataset & Finally how update the Database
From Dataset

Dataset

* Dataset is a temporary database which is
used to store the data.

* Dataset is a collection of DataTables

Steps to Create a DataTable in dataset &
Store the values in DataTable

Step-① Create a Dataset

② Create a DataTable

③ Assigning the name for the DataTable

④ Create the Columns in the DataTable

⑤ Catch the first Column name & apply primary
key

⑥ Create a DataRow in the DataTable,

⑦ Insert the records in DataRow

⑧ Add the DataRow Collection to the DataTable

⑨ Merge the DataTable to the Dataset

* Create a Table in database with name Job

Sno	int
Company	Varchar(50)
Qualification	..
area	..
Salary	int
location	Varchar(50)

* Go to Default.aspx Design

Enter sno	<input type="text"/>
Enter Company Name	<input type="text"/>
Enter Qualification	<input type="text"/>
Functional Area	<input type="text"/>
Salary	<input type="text"/>
Location	<input type="text"/>
<input type="button" value="Insert"/>	<input type="button" value="Save permanently"/>

col 0	col 1

* whenever user clicks on Insert button

Insert the records in Dataset

* whenever user clicks on update button
then update the records from Dataset to Database

```
using system.data;
using system.data.sqlclient;
public partial class Default : system.web.ui.
    Page
```

```
{  
    Dataset ds = new Dataset();  
    protected void Page_Load()  
    {  
        if (!IsPostBack)  
        {  
            session["tempds"] = ds;  
        }  
    }  
}
```

```
private void Bind()  
{  
    Gridview1.DataSource = ds;  
    Gridview1.DataBind();  
}
```

```
Button1_Click()  
{  
    ds = (Dataset) session["tempds"];  
    DataTable dt = new DataTable();  
    dt.TableName = "table1";  
    dt.Columns.Add("sno");  
}
```

b.
e
dt.Columns.Add("Company");
dt.Columns.Add("Qualification");
dt.Columns.Add("area");
dt.Columns.Add("Salary");
dt.Columns.Add("location");

DataTable[] dc = { dt.Columns[0] };
dt.PrimaryKey = dc;

DataRow dr = dt.NewRow();

dr[0] = TextBox1.Text();

dr[1] = TextBox2.Text();

dr[2] = TextBox3.Text();

dr[3] = TextBox4.Text();

dr[4] = TextBox5.Text();

dr[5] = TextBox6.Text();

dt.Rows.Add(dr);

ds.Merge(dt);

Bind();

g

SqlCommandBuilder :-

* SqlCommandBuilder is a predefined class available under using `System.Data.SqlClient` namespace.

* CommandBuilder is used to automatically Create Insert, update, Delete statements.

* when ever we Create an object for SqlCommand class it will automatically generate the Sql statements.

* Double click on Button2

Button2 - click()

{

Dataset ds1 = (Dataset) session["tempds"];

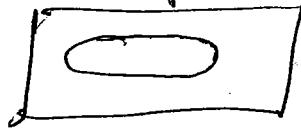
Sql Connection Con = new SqlConnection ("-----");

SqlDataAdapter da = new SqlDataAdapter ("select * from job", Con);

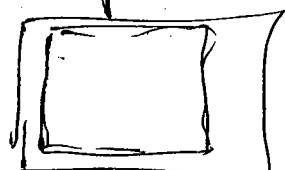
SqlCommandBuilder obj = new SqlCommandBuilder(da);
da.update(ds1, "Table1");

}

Gx Go to Default.aspx & Drag & Drop a Button Control.



* Go to page2.aspx & Drag & Drop a listBox Control



* Go to Default.aspx Double click on the Button & write the following code.

Button_Click()

{

```
ArrayList ar=new ArrayList();
ar.Add("C");
ar.Add("C++");
ar.Add("C#");
ar.Add("VB");
ar.Add("Asp");
```

Session["books"] = ar;

Response.Redirect("page2.aspx");

Go to Page2.aspx

using System.Collections;

Page_Load()

{

```
ArrayList ar=(ArrayList) Session["books"];
listBox1.DataSource = ar;
listBox1.DataBind();
```

}

31/7/2012

notes available at
new book bank

1/8/2012

Session states modes

- * ① Inproc
- ② off
- ③ state server
- ④ sqiserver

Inproc: Inproc mode will store the session state on the webserver.

* This is the default session state mode
* Inproc mode is used for small websites
When no. of users increase the performance
will decrease.

```
{ <sessionState mode="inproc" timeout="1">  
</sessionState>
```

* We can not provide security with Inproc mode like Sqiserver mode.

OFF Mode :-

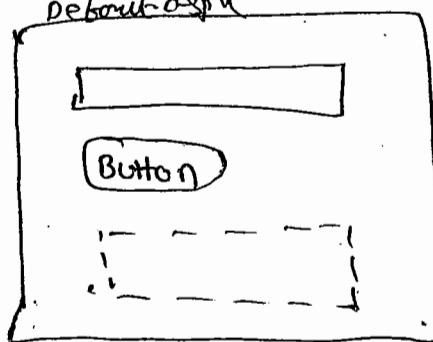
* If the session state mode = off than we can disable the session.

* We can disable the session in two ways

- ① At page Level ② Website Level.

~~Ex:-~~ Disable the session at page level.

Step. ①



Double click on button & write the following code.

{

```
Session["uname"] = TextBox1.Text;
```

```
Label1.Text = session["uname"].ToString();
```

}

⇒ Goto Source Code and write the following code

```
<%@ Page Language="C#" AutoEventWireup="true"
```

```
Autofocus EnableSessionState="False" %>
```



* Disable the Session at website level

* If we want to disable the session through out the website we have to write the code in web.config file.

→ Go to web.config file & write

```
<system.web>
```

```
  <sessionState mode="Off">
```

```
    </sessionState>
```

* Sql Server:

```
<sessionState mode="SqlServer">
```

* It is used to store the session state in SqlServer database.

```
* sessionState mode="SqlServer" &
```

* Whenever we are creating a session in Asp.net than all the session details i.e.

SessionID, SessionCreationTime, SessionExpireTime, TimeOut, etc. this details maintained in Sql Server database.

* If we want to store the information of session in Sql Server database we have to create a table in Sql Server.

* Microsoft has given a tool with name aspnet-regsql

* With the help of this tools we can import all the tables that are related for sessions, Applications, Membership provider, caching Membership provider.

* To view the information about the parameters

* If we want to import the tables related for sessions or applications than we have to give the Connection string in Visual studio Command prompt.

→ Go to start → program → MS visual studio 2010 → visual studio tools → visual studio Command prompt -->

* Then visual studio Command prompt will be open here we have to mention the connection with some parameters.

* If we want to know the description of this parameters than we have to type

aspnet-regsql /?

After typing the command some general options will come.

-? → It will display the help text.

-W → It is a wizard mode

-- SQL Connection Options --

- ① -S → It is used to mention the server name when we are giving the Connection string.
- U → It is used to mention the username when Connected to SQL Server database.
- P → It is used to mention the password when Connect to SQL Server database.
- E → It is used to Connect to SQL Server database using Windows Authentication.
- C → It is used to mention the Connection string name instead of specifying the username & password name & server name.

-- Sessionstate Options --

- ssadd → It is used to add Support for SQL Server state mode session state.
- sstype → E/P/C → It is used to add the type of session state support.
* We can add the Tables & stored procedures in SQL Server database in three ways

① E → If sstype is E → then the session state data stored in tempdb database.

P → persisted : If sstype is P than the session state data & stored procedure for managing sessions are stored in a separate

Database with name Aspstate database.

c → Custom (user defined database)
→ If ss type is c than
both sessions state data & stored procedures
are stored in Custom database and we have
to mention the database name.

-d → If ss type is c than we have to mention
the database name.

→ Go to Visual studio Command prompt & type.

```
aspnet-regsql -u sa -p abc -s sathyap  
-ssadd -ss type p ↵
```

Start adding session state.

* Go to sa1 server database

↳ sathyapdatabases

↳ Aspstate → Tables

↳ AspstateTempSessions

AspstateTemp sessions table was available
in Aspstate database

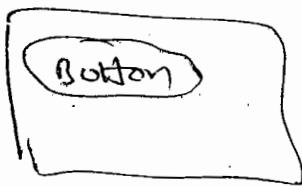
* whenever we Create a Session in Asp.net
than All the Session details will be
Stored in Aspstate Temp sessions table

→ Go to Default.aspx drag & drop a button Control.

* Button1_Click()

{

g



Session["name"] = "sathyu";

→ Go to web.Config file & write the following code.

```
<system.web>
    <sessionstate mode="sqlserver"
        SQLConnectionString="data source=SATHYA;
        InitialCatalog = AspState ; user ID =sa ;
        password=abc" allowCustomSQLDatabase="true">
    </sessionstate>
```

* press F5 & check the output, when we execute the program the session details will be stored in sqlserver database

Go and check in Aspstate Database



State Server :- Here user sessions are maintained on a separate machine.

→ Goto webConfig file.

<sessionstate mode="stateserver" sqlconnectionz

"IP address of the server" >

</sessionstate>

Advantages of sessions using Cookies :-

* cookie will store the data in a plaintext format

Application

- * Whenever the website is hosted on the Server than webserver will allocate a Common block of memory on the Server system. This memory is Global through out the website. All the clients can access this application memory.
- * The default expire time of session is 20min. But Application memory does not have timeout. It will be maintained through out the website is maintain.
- * Application is a Global storage Mechanism i.e Accessible from all the pages in the web Application.
- * Application state is stored in the form of key & value pair format.
- * Application is used to Create Global Variables.
- * An application will started at Server whenever the first user for first time sends request to the website.
- * Data stored in Application object is not permanent & the data may lost any time when the application is restarted.

* Application["Variable name"] = value;

To declare the global variables in application memory we have to write the code in Global.asax (Active server application extension) that can be activated on x-machine or x-operating system.

- * A single website or webapplication can have only one Global.asax file.
- * In DotNet 4.0 Global.asax was available in Solution Explorer by default.
- * In DotNet 3.5 we have to add global.asax from Global Application Class Template.
- * In Global.asax different events are available

* Application_start()

* This event function will fire whenever the first user for the first time sends the request to the Server.

Session_start()

* This event function will fire for every fresh visit and when a new session is started.

Application_Error()

* This event function will fire when ever error handling mechanism was not handled.

Session_End()

* This event function will fire when a session is destroyed at webserver.

* The session_end event function will work only if the sessionstate mode is InProc in web.config file.

* The session_end event will not work if the sessionstate mode is off / stateServer / sqlServer.

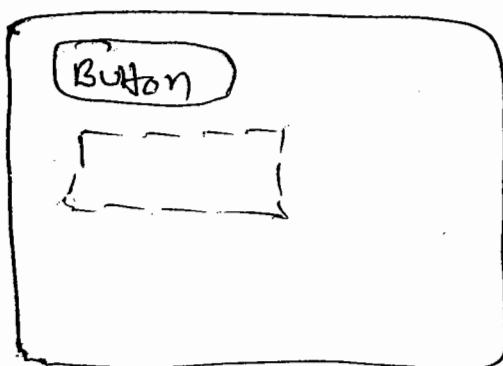
Application_EndEvent :-

* This event will fire when ever application terminates at Server.

Example:-

Example to Count the no.of visitors that are visiting the website.

Step ⑥ Go to default.aspx



* Go to website → Right Arrow → Add new item →

select Global Application class \rightarrow Name = Global.asax \rightarrow

Add .

* Application_start()

{

Application["SVC"] = 0;

y

Session_start()

{

Application["SVC"] = Application["SVC"] + 1

Application["SVC"] = Convert.ToInt32(Application["SVC"]) + 1

y

Application_Error()

{

Response.Redirect("Errorpage.htm");

y

\Rightarrow Go to page load & write the following code.

* Page_Load()

{

Label1.Text = "No of visitors Count is : " +
Application["SVC"].ToString();

y

Button1_Click()

{

Response.Redirect("Page2.aspx");

y



* Go to website add new item select html →
Name = Errorpage.htm

Note: If u Refresh the Browser the no. of visitors
Count will not change



Caching :-

* It is a server side state management technique which is used to maintain information on Server machine.

* Caching is used to hold the Output for a certain period of time.

* Caching is similar to Cache memory.

* Caching are of three types

① Output caching

② Partial page (or) fragment

③ Data caching.

Output cache:

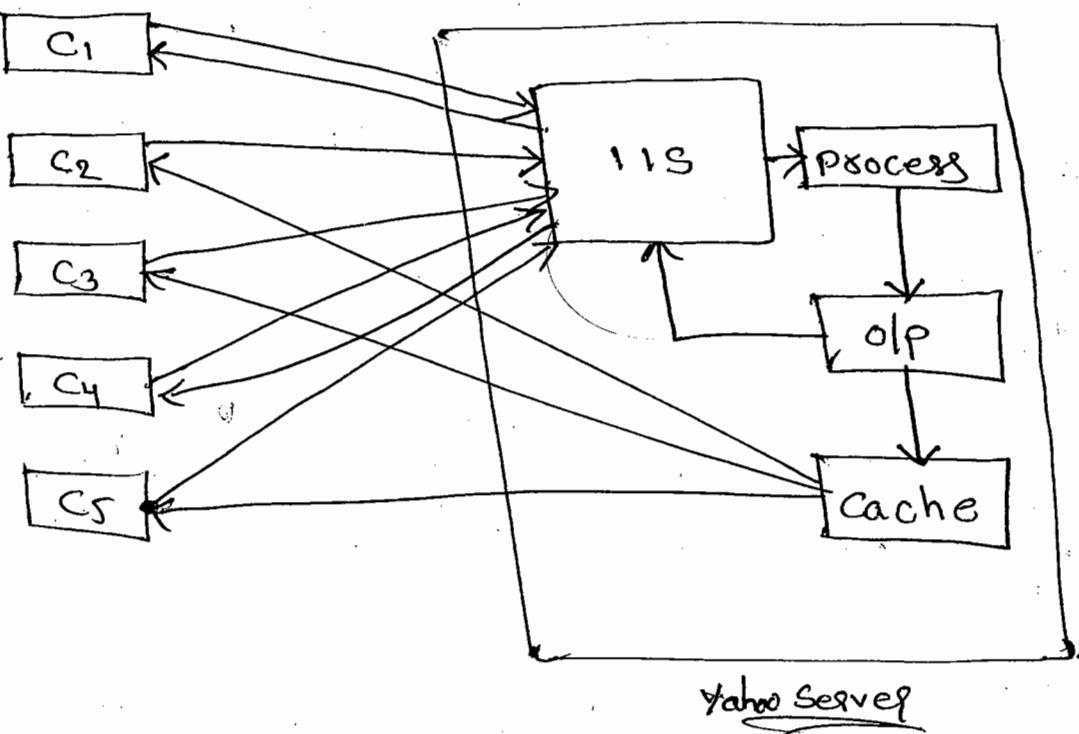
It is a process of maintaining the complete page output on fast accessing temporary memory is called as output cache.

>

for

name
machine

or



* In the above diagram when 5 users are giving the request for a homepage developed in Asp.net than five times the request will be accepted by IIS & process the request Generate the response & forward the response back to IIS & IIS will response & send back to Client machine.

At the same time the respond will not be maintain either at client or at server.

* In the above Case each & every time the request is going to the Server so the burden on the Server will be increased & the performance will be decreased.

Solution for the above problem

When ever client-1 gives the request →
It will accept the request & process the req &
Generate the response & also maintain a copy on
Cache memory.

So that the other clients are giving the request
the response is given Cache memory. Due to this
the processing time is reduced. The performance
of the application increases. This operation
can be done by using o/p Cache.

⇒ Goto Default.aspx Drag & Drop one Label Control

Page_Load()

{

 Label.Text = system.datetime.now.ToString();

Press F5 & check the output.

* when you refresh the page than
the time will change.

i.e. when ever you press F5 (or) refresh the
page the request will go to the Server &
Page Load event will get executed & displaying

the Current system time.

Requirement: when you refresh the page half the output for 10 seconds, than after 10 seconds display the Output by adding the ^{value with} previous response.

* Go to Source Code & write file following code.

```
<%@ outputcache Duration = "10"
```

```
    varybyparam = "None" %>
```

* press F5 & check output

* when you press F5 the response will be displayed from Cache memory & that cached response is send back to the client.

Varybyparam = "None"

It process the step for the first time & maintain the response in a cache memory till the specified time interval, the same cached page is send back to the client.

Fragment Catching (or) Partial Page Catching

- * It is used to Catch Only Some part of the Webpage.
- * partial page catching Can be Done with the help of webuser Controls.

Webuser Controls

- * This are presented in the form of aspx
- * It is not Compiled code i.e we Cannot Place webuser Control in ToolBox
- * These are used for only locked website
- * These doesn't support strach level Control Creation.
- * working with this Control following 2 steps
 - ↳ ① Creating Control
 - ② Registering Control.
- * Creating a webuser Control & Registering Control in pagel.aspx.
- * Goto pagel.aspx → website → add new item
→ Select webuser Control → name = webuser Control.aspx
- Drag & Drop Two images in webuserControl.aspx → Goto pagel.aspx → goto Solution Explorer

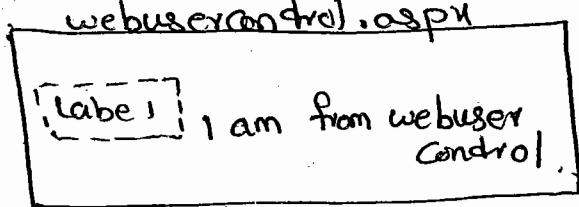
Drag & drop webuserControl.ascx in Page1.aspx

Now we can use webuserControl.ascx in any of the other webpages

* By using webuser Control we can provide fragment Catching (or) Partial page catching.

* Applying Partial Page Caching:

→ Go to webuserControl → drag & drop label & message like below.



* write the following code in PageLoad event.

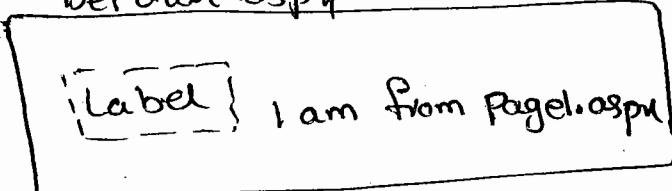
Page Load()

{
 label.Text = system.Date.Now.ToString();

}

* Go to Default.aspx drag & drop a label & message like below

Default.aspx



→ Go to PageLoad & write the following code.

Page_Load()

{

 label1.Text = system.datetime.Now.ToString();

}

* Goto webuser Control.ascx Source Code and write the following code.

```
<%@ OutputCache Duration="10" VaryByParam=
    "None" %>
```

* Goto Page1.aspx Drag & Drop webuser Control from Solution Explorer. press F5 & check the output.

Observation :-

* when you refresh the webpage, the Label that is available in Page1.aspx will vary and the label that is available within webuser Control which will be catched for 10seconds.

* Here only some part of the webpage is catched so it is called as partial page Caching or fragment caching.

* Develop a web user Control with name webuserControl.

→ Drag & Drop Gridview Control in webuser Control.ascx

```
using system.Data;
using system.Data.SqlClient;
```

```
System.web.ui.userControl1
```

§

```
String query;
```

Public string Query

{
set
{

Query = values;

y

get
{

return query;

y

Page_Load()

{

sqlconnection con = new sqlconnection("data
source = Sathya; initial catalog = employee;
user id = sa; password = abc");

sqldataadapter da = new sqldataadapter
(query, con);

dataset ds = new dataset();
da.Fill(ds, "Employee");

Gridview1.DataSource = ds;

Gridview1.DataBind();

}

z

* Goto default.aspx & drop webuser Control, ascx into design window.

* select the grid view Control in default, aspx → properties.

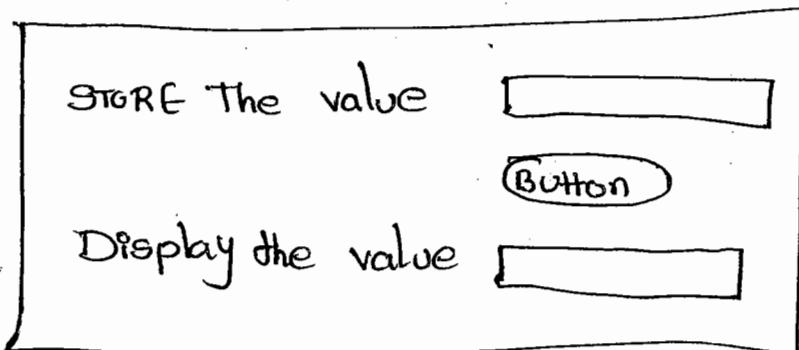
MyQuery = select * from employee.

we can use the gridview Control in any webpage through out the website, just by changing the property.

Data Catching

* It is a Concept of Catching the Variables like arrays (a) Textboxes, dataset etc.

Ex:



Button1-click()

2

```
cache["uname"] = TextBox1.Text;
```

```
TextBox2.Text = Cache["uname"].ToString();
```

3

Custom Errors :-

* This errors are used to redirect to any of the other aspx pages. Instead of displaying the error messages.

* Goto Default.aspx drag & drop a button Control.

* Double click on the button & write the following code:

```
Button1_Click()  
{
```

```
    Response.Redirect("Page2.aspx");  
}
```

→ Goto Home.aspx drag & drop Image Control.

* Goto web.Config & write the following code under <system.web>

```
<system.web>
```

```
  <customErrors mode="on">
```

```
    <error statusCode="404" redirect="home.aspx"/>
```

```
  </customErrors>
```

29C:

Page Level Events in Asp.NET

Page-preinit:- This event will fire if we want to load masterpage dynamically. (a) Themes & Skins dynamically (b) If we want to Create any Dynamic Controls than write the code in preinit event.

Page-init:- This event will fire after each Control has been initialised. we can use this event to change the initialization values for Controls.

Page-initComplete:- This event will fire once all the initializations of the page & its Controls has been completed.

Page-preload:- This event will fire before view state has been loaded for the page.

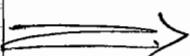
Page-load:- This event will fire after preload event. Page Load event will check the Post Back execution.

PageLoad Complete:- At this event all the Controls will be loaded.

Page-preRender:- This event will fire after all regular postback events have taken place.

This event will fire before saving the viewstate

Page.RenderComplete :- At this event the response will be generated for the page. & the output will be transferred to the client machine



Page_Preinit()

{

Response.write("I am preinit" + "
");

}

Page_Init()

{

Response.write("I am init" + "
");

}

Page_InitComplete()

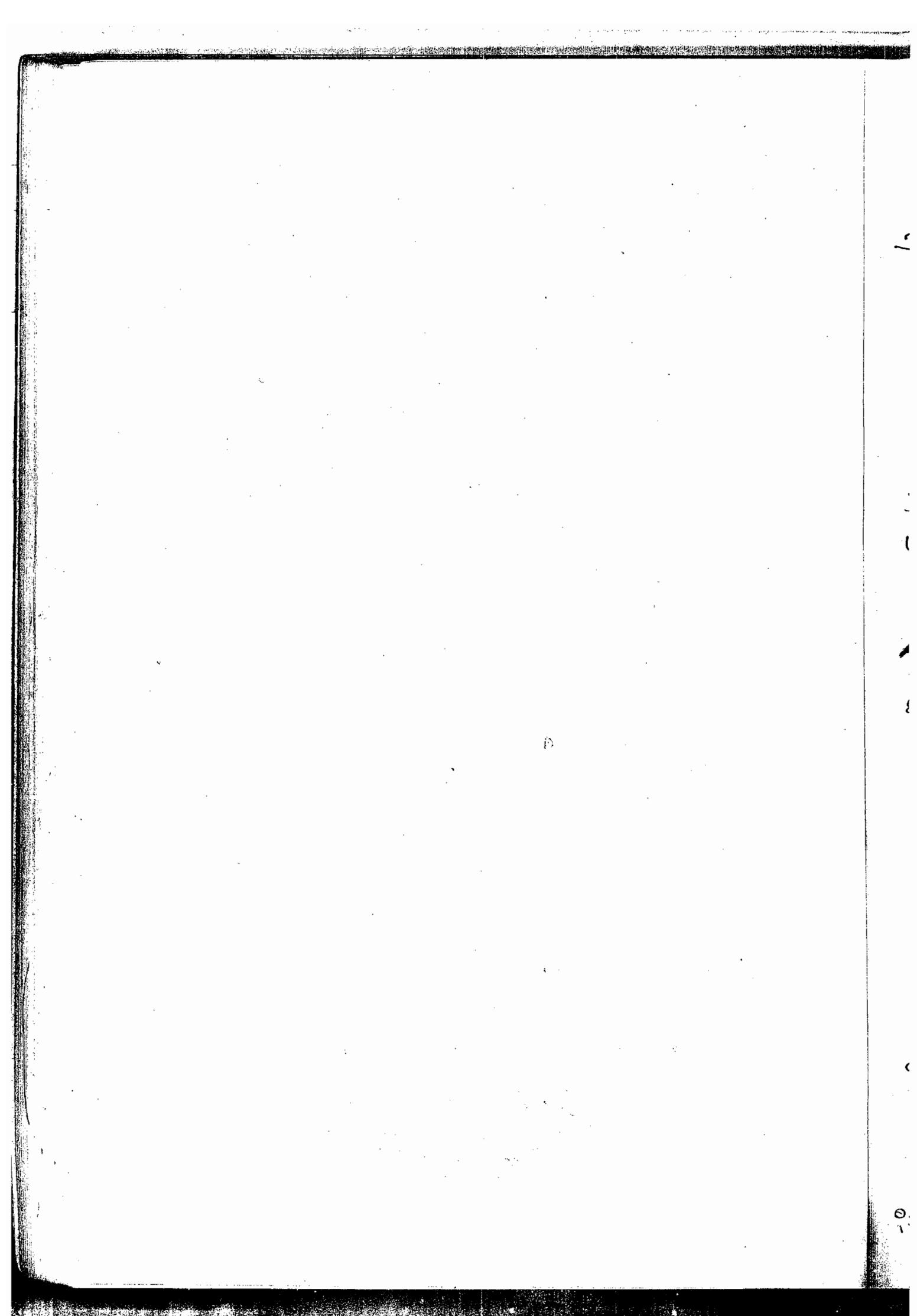
{

Response.write("I am initComplete" + "
");

}

Page -

SRI RAGHAVENDRA XEROX
Software Languages Material Available
Beside Bangalore Ayyagar Bakery,
Opp. CDAC, Balkampet Road,
Ameerpet, Hyderabad.



Security

* In dotnet we can provide security in 3 ways

- (1) Windows Authentication
- (2) passport Authentication
- (3) Forms Authentication

Authentication: it is a process of checking the user credentials,

* user Credentials means username & password.

Authorization: It is a process of Assigning roles & responsibilities for the authenticated user.

* Let us consider a website which consists of the following pages

* They are three modules in our website.

- (1) Admin
- (2) Employee
- (3) Customer

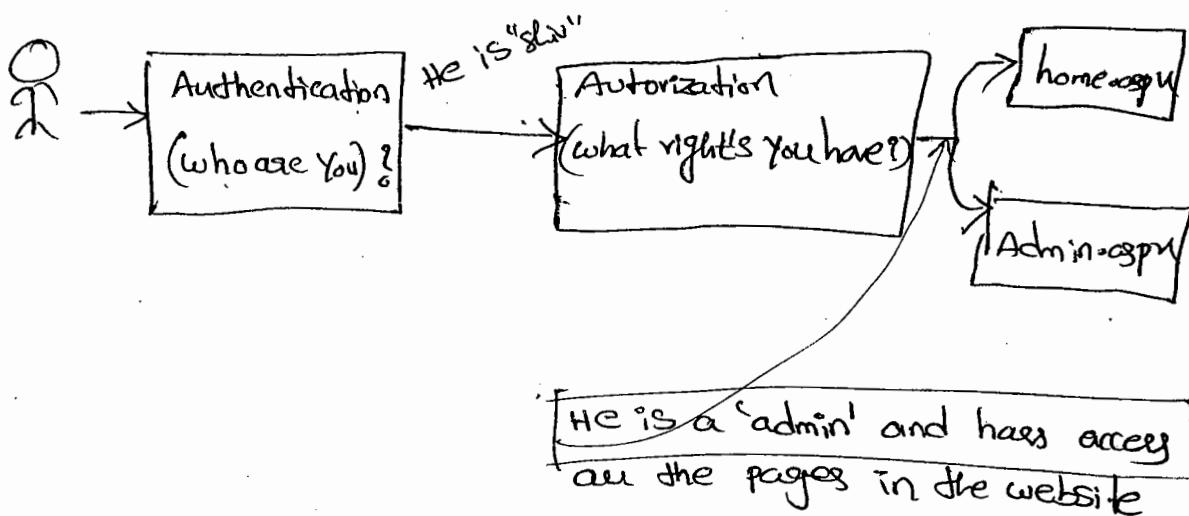
* Every user must be assigned with some user name & password than those users must called as Authenticated users.

* If we want to assign some roles & responsibilities for those Authenticated users, is called as Authorization

	Admin	Employee	Customer
Home.aspx	✓	✓	✓
AboutUs.aspx	✓	✓	✓
Contactus.aspx	✓	✓	✓
Sitemap.aspx	✓	✓	✓
AddemployeeDetails.aspx	✓	✗	✗
Deleteempdetails.aspx	✓	✗	✗
updateempdetails.aspx	✓	✓	✗
Viewempdetails.aspx	✓	✓	✗
Add customer details.aspx	✓	✓	✗
Deletecustomerdetails.aspx	✓	✓	✗
ViewCustomerdetails.aspx	✓	✓	✓
Viewemployeedetails ^{salary} .aspx	✓	✓	✗
View products.aspx	✓	✓	✓
Add products.aspx	✓	✓	✗
Buy products.aspx	✓	✓	✓

- * In the webpages all the users can access Home page, About us, Contact us pages, sitemap.xml.
- * Admin Can access all the pages for the website
- * Employee Can access only Some pages by Customer also access some pages only.

i.e. For every website there are so many webpages if we want to provide security for all the website webpages in a website, we have to assign some roles & responsibilities for all the users



- * whenever client gives the request it will ask for username & password, if the username & password is valid then it will check whether the user is authorized or not.

* if the user is authorized it will allow the user to access the restricted page if the user is unauthorized it will display a message saying that you are unauthorized user.

* Write a program to check the userName and check whether he is Authenticated or not & what is his Role.

* Right click on my Computer → Manage → Computer Management Tool will be Opened → Local users and Groups → users → Right click → New user

UserName	Sree
Full Name	Sree
Description	
Password	abc
Confirm pwd	abc
<input type="button" value="Create"/> <input type="button" value="Close"/>	

* A new user with name Sree was Created press (Windows + L) than we can find that a new user was created Now there are two users who can access to your Computer.

① Administrator

② Sree (Guest)

and

* Login with administrator Account → Goto Default.aspx & write the following code.

Page_Load()

{

Response.write("" + "username is" + "
" +
user.Identity.Name + "
");

Response.write("" + "is Authenticated or
not" + "
" + user.Identity.IsAuthenticated +
"
");

Response.write("" + "who are you" + "
" +
user.ISRole("Administrator"));

}

O/P

username is: SATHYA\administrator

is Authenticated or not : true

who are you? true

Observation: In the above example we have loged in with Admin Account & checking the username ServerName\username. (Ex: SATHYA\Administrator).

* we are checking whether admin is Authenticated or not i-e Admin is having user name & password or not.

* If Authenticated than display true.

* We are checking the Authorization or the role of login user whether he is Admin or Guest, If he is Admin display true else false.

* Press (Windows+L) Now login with Sathya
Open default.aspx

* Page_Load()

§

```
Response.Write("<b>" + "username is" + "</b>" +  
    user.Identity.Name + "<br>");
```

```
Response.Write("<b>" + "is Authenticated or not" +  
    "</b>" + user.Identity.IsAuthenticated + "<br>");
```

```
Response.Write("<b>" + "who are you" + "</b>" +  
    user.IsInRole("Administrator"));
```

g

o/p

* Username is SATHYA\Boree

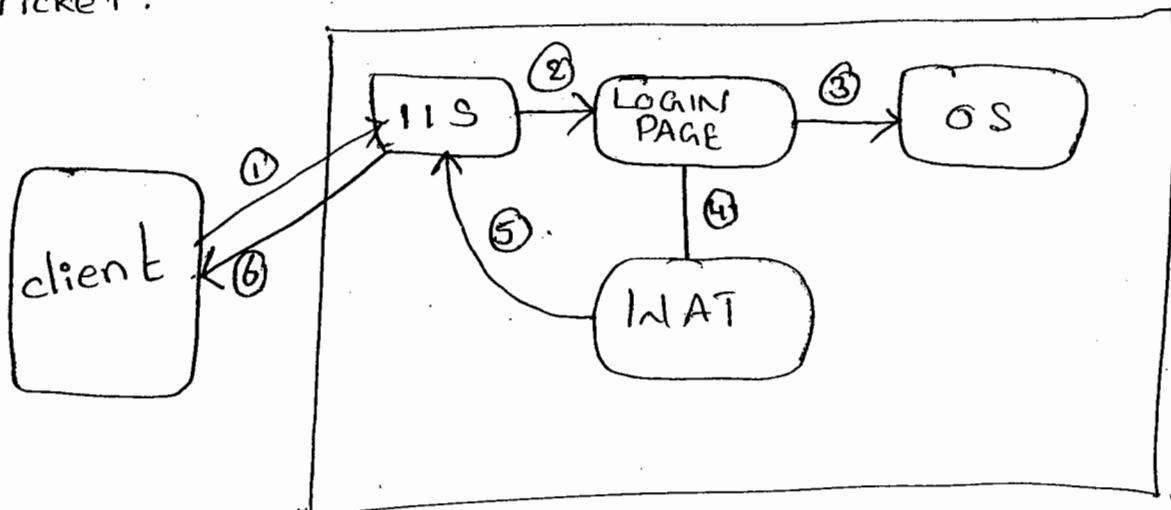
is Authenticated or not : True

(what's his role is)
who are you : False

Windows Authentication

* In this methodology the Asp.net webpage will use local windows users & Groups to Authenticate & Authorized the resources.

* In any Authentication mode by default every user will have Anonymous Authentication Ticket.



* Step ① when ever client gives the request IIS will accept the request, it will forward the request for login page.

* It will check whether the login user is Authenticated or not by Comparing local window users and Groups.

* If he is Authenticated that it will generate windows Authenticated Ticket and forward that ticket to IIS.

* IIS will finally forward the response to client machine.

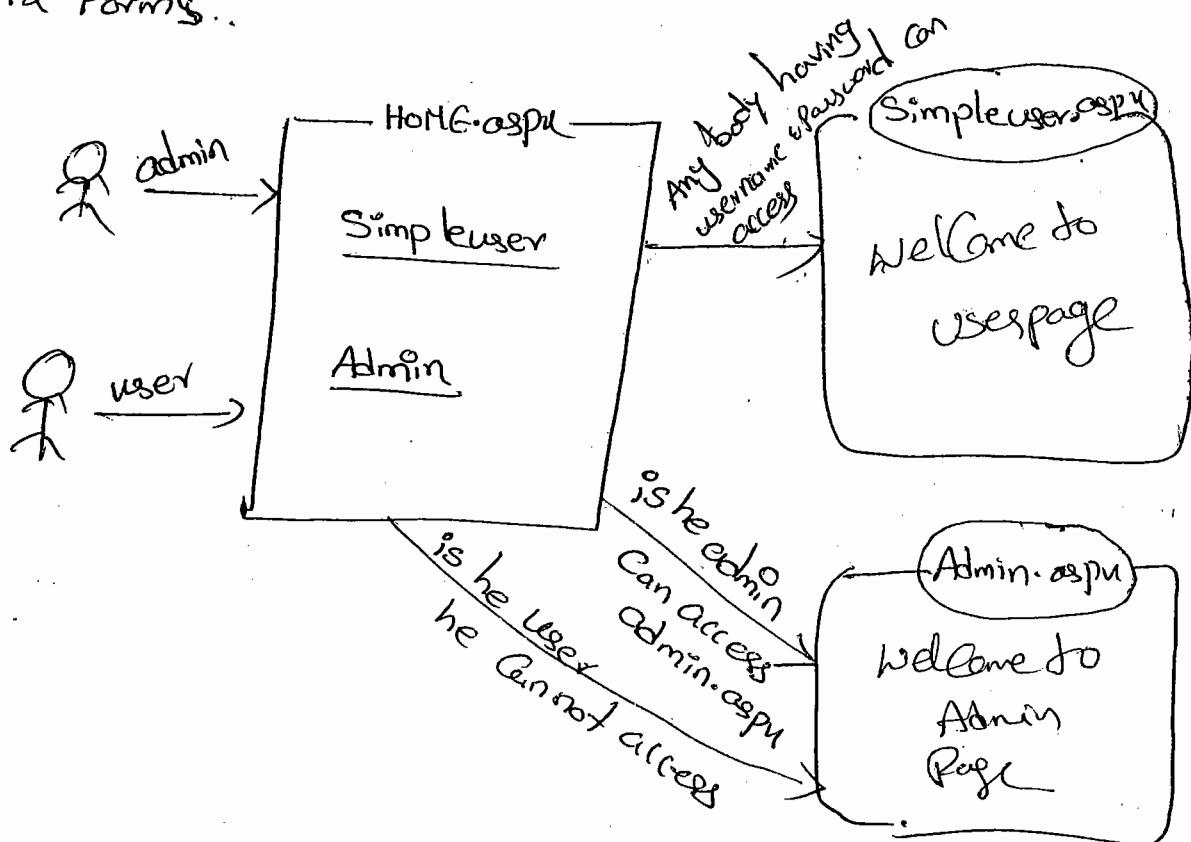
To set the window Authentication mode go
to web.Config file

G
Gu

<Authentication mode="Windows" />

Note: In dotnet 3.5 the default Authentication mode
is windows,

*In dotnet 4.0 the default Authentication mode
is Forms..

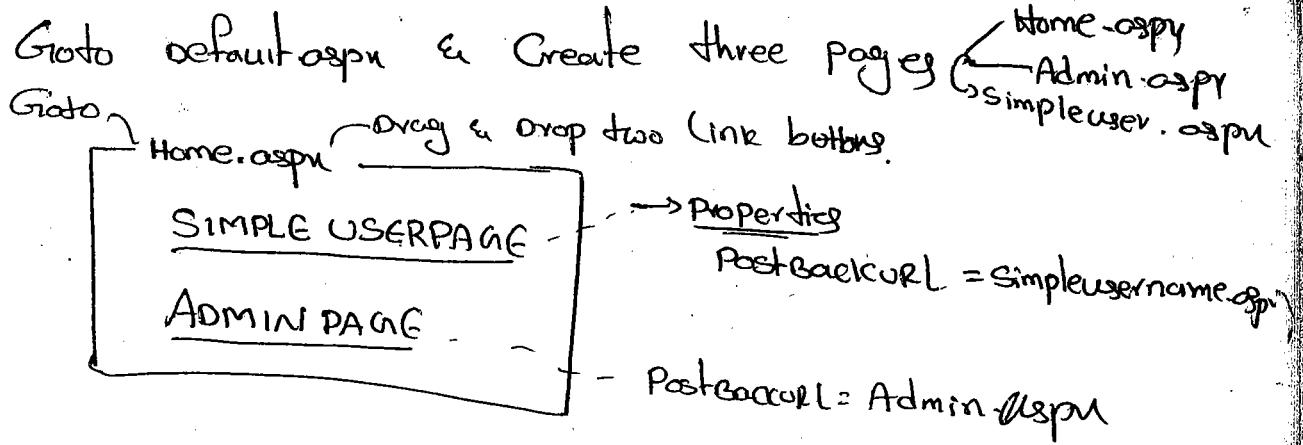


*In the above example when user loged in with
Admin Account that of has to access both user.aspx
in Admin.aspx pages.

*In the above example if the user loged in
with guest Account than he can access only Simple
User.aspx but he can not access Admin.aspx.

L

go



mode

role

px

* Goto Simple user.aspx & write

div

Welcome to user

* Goto Admin.aspx & write

Welcome Admin.

* In the above Example if the user is login with guest Account he must not access Admin.aspx Page.

* Goto web.Config file & write the following code.

<authentication mode = "Windows" >

</authentication>

<authorization >

<deny users = "?" />

</authorization>

After closing of system.web tag write

the following code

ple

```
</system.web>  
<location path="Admin.aspx">  
  <system.web>  
    <authorization>  
      <allow roles="Administrator"/>  
      <deny users="*"/>  
    <authorization>  
      </system.web>  
    </location>
```

press F5 & check the Output.

- * If you login with Admin Account then we can access both Admin.aspx & user.aspx page.
- * When you loged in with user Account then we can access only user.aspx page because we provided security for Admin.aspx page under Location Tag.

Authorization: It is used to Assign the roles for the Authenticated users.

- * In the above program we have returned Allow roles=Administrator. The meaning of this TAG is only Administrator can access Admin.aspx

deny users = "*"

* If any other user who is logging apart from Admin deny them

	*	?
Allow users	Allow Everyone i.e. Every body can access any page	—
Deny users	Deny them Nobody can access Restricted page	Only Authentication user can access those who are having usernames & password

Forms Authentication:-

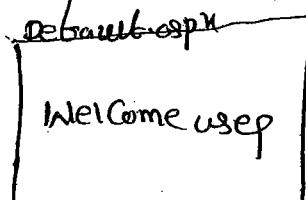
* It is a Cookie based Authentication where User's Name & Password are stored in Client machine in the form of Cookies.

* Forms Authentication is used to provide Security for any of the Asp.net websites.



→ Goto login.aspx & drag & drop Login Control

→ Goto default.aspx &



→ Goto web.Config file & write the following code

```
<authentication mode="Forms" >
```

```
  <forms defaultUrl="Default.aspx" loginUrl="Login.aspx" >
```

```
<credentials passwordFormat="clear">  
  <user name="kanna" password="kanna"/>  
  <user name="anil" password="anil"/>  
</credentials>  
<forms>  
</authentication>  
<authorization>  
  <deny users="?" />  
</authorization>
```

====> LoginURL :-

* LoginURL = login.aspx This property is used to execute the login page. i.e by default the login.aspx will get executed.

* If the login is successful than it will redirect to default.aspx.

* In the above program we created two users with names & Passwords are Kanna & anil under Forms tag. * These two users are called as Authenticated users.

* If we want to Assign the Roles & Responsibility for this two users than we have to mention Authorization Tag.

deny users = "*" → Nobody will access along
with kanna & anil

deny users = "?" → only kanna & anil can access

allow users = "*" → any body who is having uname
& password can access

⇒ Go to Login.aspx Double click on login Control & write
the following code.

Login1_Authenticate()

{

 if (FormsAuthentication.Authenticate(Login1.
 username, Login1.password))

{

 FormsAuthentication.RedirectFromLoginPage(
 Login1.username, true);

}

 else

{

 Login1.FailureText = "Invalid user";

}

g

Press F5 &

(The main draw back is we need to)

Check the output.

Any Authentication user can access the destination page → change the Roles & check the output.

* In the above program we created two users in the web.config file & we are assigning the Roles.

* If we want to Create more users in Web.Config file manually it is very difficult for the user to maintain the user account details manually in webConfig To Overcome this problem Microsoft has introduced a Concept of SQLServer membership provider which is used to store the usernames & Passwords in SQLServer Database.

~~SQL Server~~ Providing SQLServer membership provider

Step 1 Goto → login.aspx Drag & Drop

Login Control on the Design window.

The diagram illustrates a 'Login' control interface. It features a title bar labeled 'Login'. Below the title bar, there are two input fields: 'Username:' followed by an empty rectangular box, and 'Password:' followed by another empty rectangular box. Underneath these fields is a checkbox labeled 'Remember me next time'. At the bottom right of the control is a button labeled 'Login'.

Go to web.config file <Authentication mode = "Forms" >

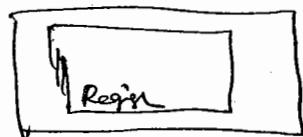
↳ <authentication mode = "Forms" >

<forms defaulturl = "Default.aspx" loginurl = "login.aspx" >

</forms>

</authentication>

⇒ Go to login.aspx Source code



<asp:Login ID = "Login1" CreateUserText = "Register" CreateUserUrl = "Register.aspx" >

* CreateUserText : This property is used to display a text message within the login control.

* CreateUserUrl : This property is used to redirect the user request to register.aspx when user clicks on register button within the login control.

⇒ Go to Register.aspx Drag & Drop a one ~~register~~

CreateUserWizard Control. In register.aspx

A diagram of a CreateUserWizard control window titled "Sign up for your New Account". It contains two text input fields: "username" and "password", each marked with a red asterisk (*) indicating they are required fields.

* Go to Register.aspx Source Code

<asp:CreateUserWizard - Continuedestinationpage

url = " ~ / login.aspx" CompleteSuccessText = " Registered
SuccessFully " -- />

* Continuedestinationpageurl :-

This property is used to redirect to login page after SuccessFully registration is completed.

* CompleteSuccessText :-

This property is used to display the Success message, saying that registration is SuccessFully after SuccessFully registered.

Note :- Every time it is very difficult for the user to assign the roles & responsibilities in web.config So if we want to store huge amount of user details we have to go for SQL Server membership provider which is used to store the users details in SQL Server Database.

* AspNet-RegSQL is a Tool that was given by Microsoft to store the user details in SQL Server Database.

→ Start → All Programs → MSVS2010 → MSVS2010 → Visual Studio Tools → Visual Studio Command Prompt - 2010

Mention the Connection String in Visual Studio Command Prompt.

aspnet-RegSQL -s SATHYA -u sa -P abc -A m

-s : is the servername of SQLServer database

-u : is the username

-P : is the password

-A : It is used to add Support for all Features like membership , Rolemanager , Profiles etc.

all : All features

m : Membership

r : Role Manager

p : profiles

c : personalization

w : SQL web event provider

C:\Program Files\Microsoft visual studio 10.0\VC>

* Start adding the following Features:

Membership

- - -

Finished.

aspnet_regsql → click on next button →
next button.

Server : SAHYA

O

⑥ SQL Authentication

username

sa

password

123abc

Database:

employee

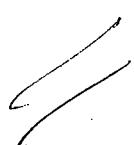
Next Finish

* Goto SQL Server Management Studio &
Check in Employee Database there we
Can find the table Called

dbo.aspnet-Membership

* Goto web.Config file & write the following
Code Above Authentication Tag.

```
<roleManager enabled="true" defaultProvider="RoleProvider">
  <providers>
    <add name="RoleProvider" type="System.Web.Security.SqlRoleProvider"
      connectionStringName="Constr" />
  </providers>
</roleManager>
<membership defaultProvider="MI">
  <providers>
    <add name="MI" type="System.Web.Security.SqlMembershipProvider"
      connectionStringName="Constr" />
  </providers>
</membership>
<authentication mode="Forms" />
```



Passport Authentication

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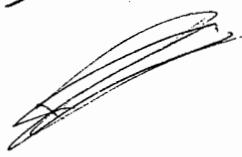
Dad

Dat

Date

```
* <authentication mode="passport">  
  <passport loginurl="http://passport.com">  
  </authentication>
```

* where



* Different Architectures that are Available in Asp.net. (1, 2, 3, N-Tiers)

When ever we are developing any web Application (or) Windows Application.

Every Application have 3 layers

① Presentation layer

② Business logic layer

③ Data Access layer

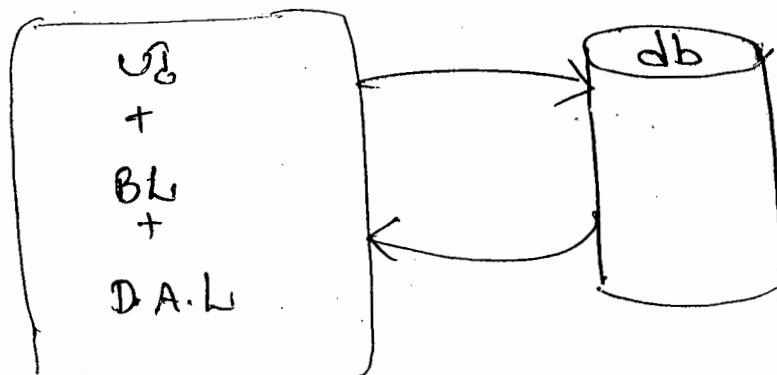
Presentation layer : This layer is used to Design the webpage (or) windows forms by placing some labels, TextBoxes, checkboxes etc.

This layer is used to perform the validation code.

Business logic layer : This layer is related to business logic of the application that is being developed. like deleting the records (or) Adding (or) performing any calculations etc.

Data Access layer : This layer is used to Create the Database Connections, Getting the data from the Database and update ^{the data} back to the database. etc

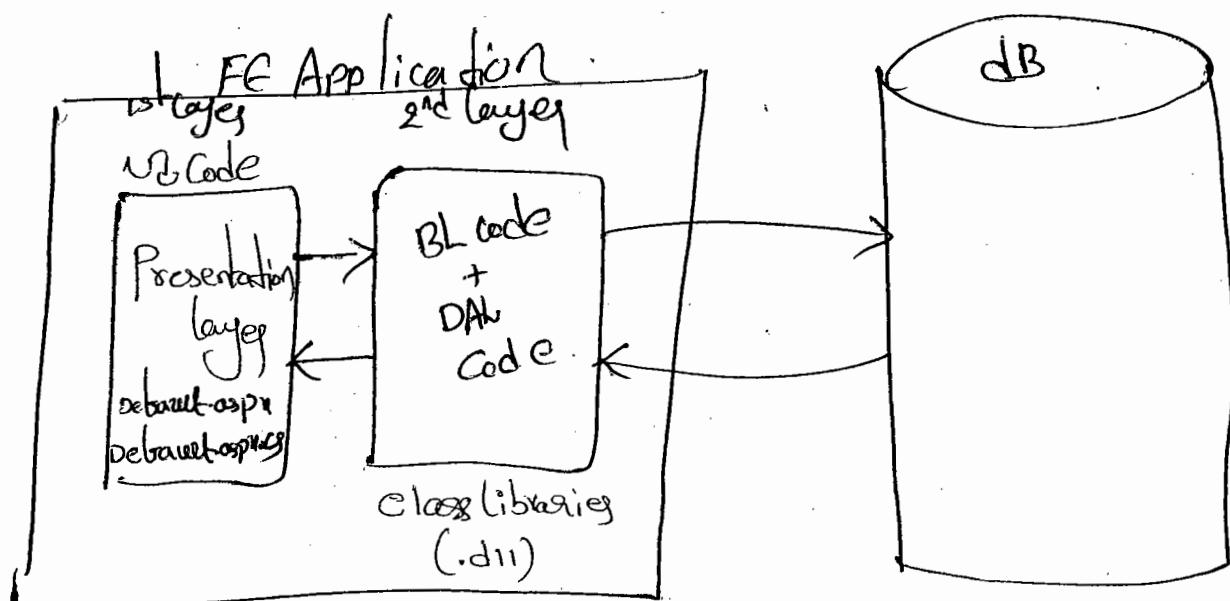
1-Tier Architecture



Single Application → Console App/Window App/Web App

* In One tier Architecture the Complete Front end Application is available in a Single file.

2-Tier Architecture



- * In this method the Complete Front end Application code is divided into two parts ,
- * First part Consist of the UI code & Validation Code .
 - * Second part code is of Bl code & Data Access Code

→ The Second part code can be developed by using dotnet Components like class libraries which are in the form of DLL.

In this ~~by~~ method always the first layer (UI) will interact with 2nd layer & Second layer will interact with Database .

First layer will never interact with Database .

→ Developing Inserting & Deleting Operations using 2-Tier Architecture .

- * Go to Database & Create a Table with name

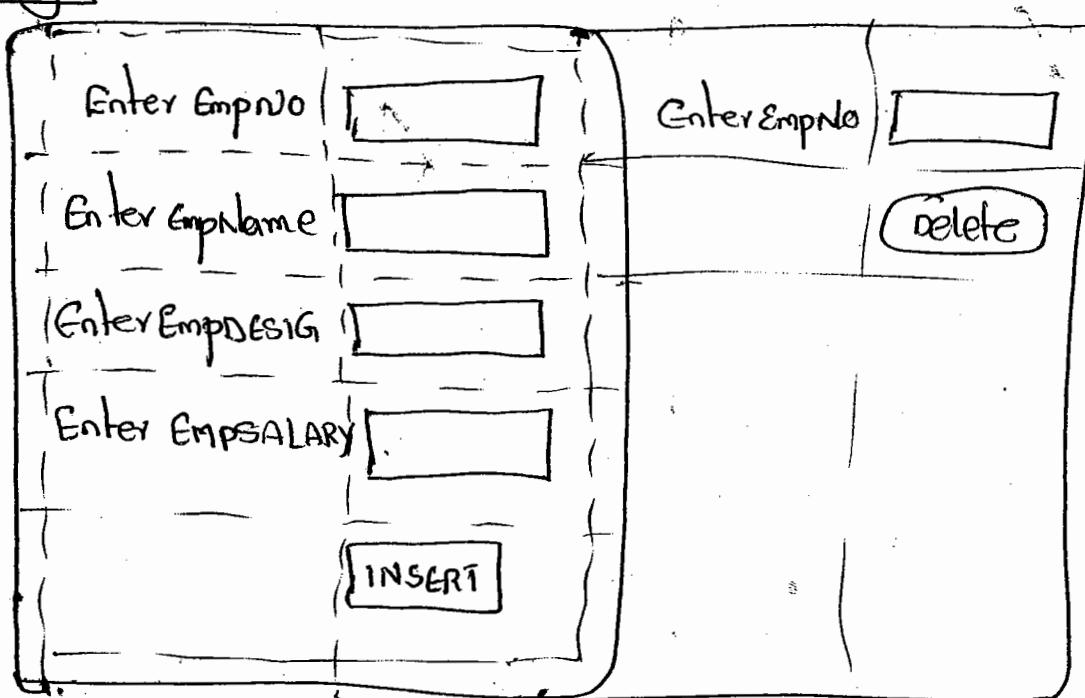
emp

empno	empname	empdesig	empsalary

Create a new folder in D-drive with name 2-tier.

→ File → new → website → select location =
D:\2-tier → OK

Design :-



* Developing the second layer for Biz Code
& Data Access Code

→ File - new project → select Template = class
library → Location = D:\2-tier → Name = MYDLL
→ OK.

```
using system.Data;
```

```
Using system.Data.SqlClient;  
Public Class MYDLL
```

```
{  
    SqlConnection Con;
```

```
    Public SqlConnection getConnection()  
{
```

```
        Con = new SqlConnection("Data Source =  
Sathyajith; Initial Catalog = emp; User Id = sa;  
Password = abc");
```

```
        return Con;
```

```
}
```

```
    Public void insertRecord(int -eno, string  
-ename, string -desig, int -esalayy)  
{
```

```
        getconnection();
```

```
        Con.open();
```

```
        String query = "insert into emp values ("  
        (" + -eno + ", " + -ename + ", " + -desig + ",  
        " + -esal + ")";
```

```
        SqlCommand cmd = new SqlCommand(query, Con);
```

```
        cmd.ExecuteNonQuery();
```

```
        Con.Close();
```

```
g
```

```
Public void DeleteRecord()
```

```
{
```

```
    getConneetion();
```

```
    Con.open();
```

```
    String delQuery = "delete from emp
```

```
    where empno = " + _eno;
```

```
    SQLCommand cmd = new SQLCommand (delQuery,  
                                    Con);
```

```
    Cmd.ExecuteNonQuery();
```

```
    Con.Close();
```

```
}
```

g (\rightarrow Build Debug \rightarrow)

\Rightarrow Goto Default.aspx Solution Explorer \rightarrow

Right click on the path \rightarrow Directories \rightarrow Add

References \rightarrow select Browse \rightarrow select \rightarrow BAL and DAL.

\rightarrow OK

\Rightarrow Double click on the ^{insert} * Button & write
the following code

Using BALandDAL;

```
Public Partial class Default : System.Web.UI.Page
```

```
{
```

BAL and DAL, MYDLL obj=new MyDLL();

- - -
Button1_Click()

{

getconnection();

obj.InsertRecord(int.Parse(textBox1.Text),
textBox2.Text, textBox3.Text, int.Parse(textBox4.Text));

3

⇒ Double click on Delete Button & write the
following code

Button2_Click()

{

obj.getconnection();

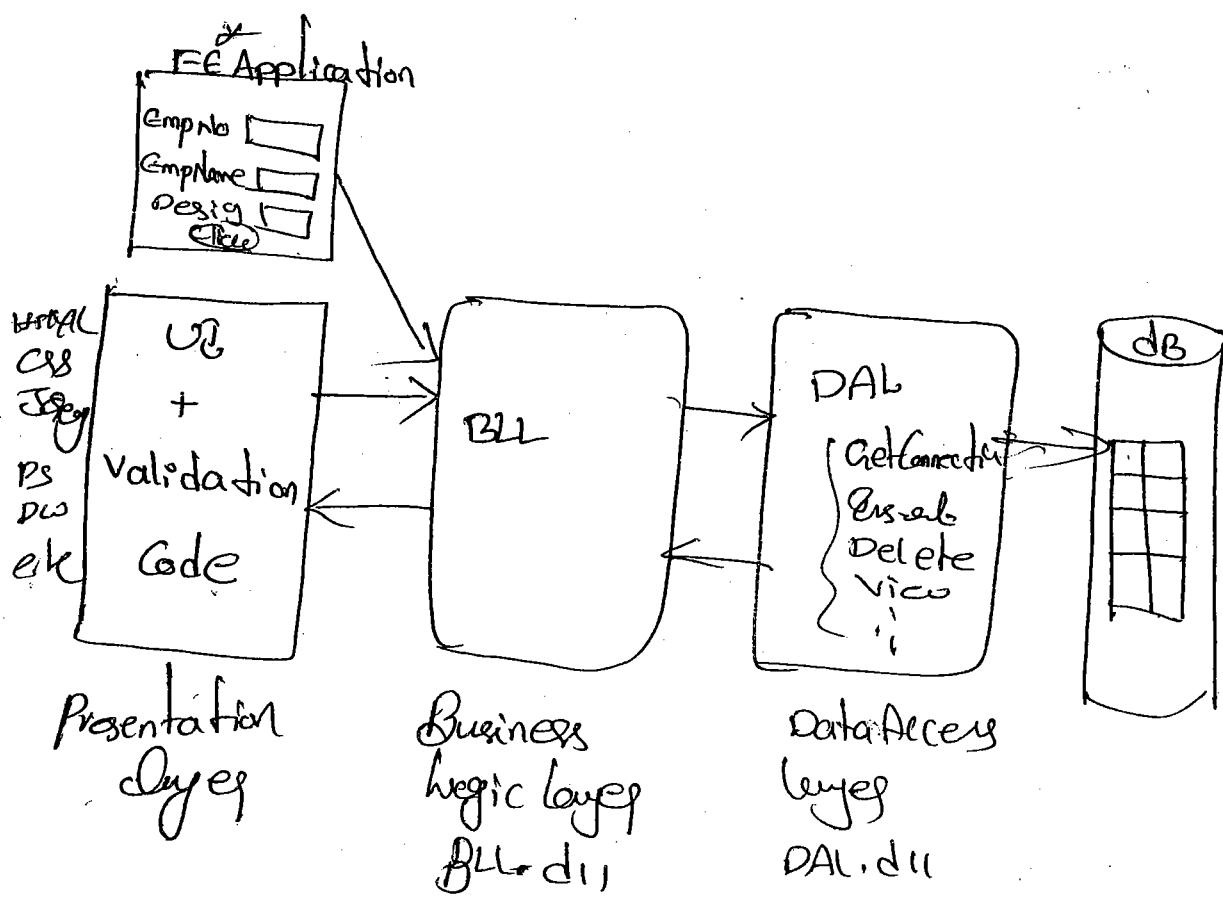
obj.DeleteRecord(int.Parse(textBox5.Text));

4

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Page

* 3-Tier Architecture :



Example

FE App

uname
Pwd
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Toolbox

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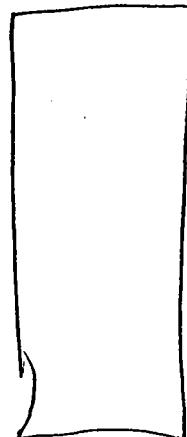
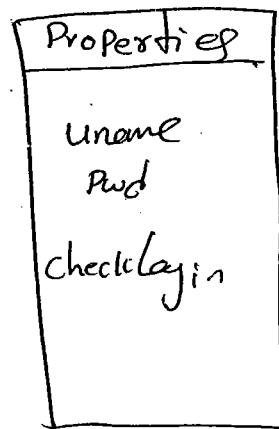
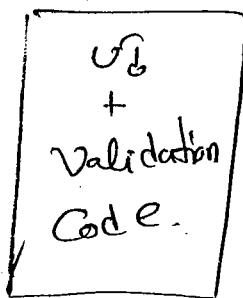
* Gro

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- * It is a process of separating the user interface code & validation code in a single file called P.L & the Business logic layer in a separate file w/ DAL also in a separate file.
- * Here the presentation layer will communicate with BLL and BLL will communicate with Data Access layer and Data Access layer will communicate with database.

Example



* Goto login.aspx & drag & drop login Control from Toolbox.

Properties: → CreateuserText = Register

CreateuserURL = Register.aspx

* Go File → new → project → select class library

Template Name = BAL

Namespace BAL

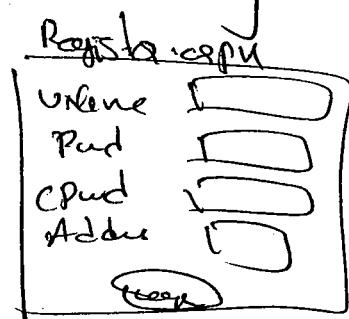
{

Public class class1

{

String uname;

String Pwd, cPwd, Address;



Public string ^{uname}
 {
 Get { return uname; }
 Set { uname = value; }
 }

Public string Pwd
 {
 Get { return Pwd; }
 Set { Pwd = value; }
 }

Public string Cpwd
 {
 Get { return Cpwd; }
 Set { Cpwd = value; }
 }

Public String Address
 {
 Get { return address; }
 Set { address = value; }
 }

* Go to website → add one more class
* library → Name = DAh

```
using system.Data;  
using system.Data.SqlClient;
```

```
Public Class DataAccessLayer  
{
```

// Global variables

```
Public SqlConnection Con;
```

```
Public SqlCommand Cmd;
```

```
Public SqlDataReader dr;
```

// Constructors

```
Public DataAccessLayer()  
{
```

```
Con = new SqlConnection("Data Source=SATHYA-  
Initial Catalog=users; User ID=sa; Password=abc");  
}
```

```
Public void checkLogin(string uname, string login)  
{
```

```
Con.Open();
```

```
String Query = "select * from login where  
uname = '" + uname + "' and pwd = '" + pwd + "'";
```

```
Cmd = new SqlCommand(Query, Con);
```

```
dr.ExecuteReader();
```

if(dr.HasRows)

{

while (dr.Read())

{

}

}

Con.Close();

g

Public void InsertRecord(string uname,

String pwd, string cpwd, string address)

{

Con.Open();

String insertQuery = "Insert into myregister
Values ('" + uname + "', '" + pwd + "', '" + cpwd + "'
" + address + ")";

Cmd = new SqlCommand(insertQuery, Con);

Cmd.ExecuteNonQuery();

Con.Close();

g



* Goto login.aspx.cs & write the following code

⇒ Add DLL's in Add reference

using BAL;

using DAL;

login.Authentication()
{

BAL.Class1 obj = new Class1();

obj.uname = login.username;

obj.pwd = login.password;

DAL.DataAccessLayer obj1 = new DataAccessLayer();

obj1.CheckLogin(obj.uname, obj.pwd);

Session["uname"] = login.UserName;

Response.Redirect("Success.aspx");

}

⇒ Go to Register.aspx.cs

⇒ ~~using DAL, BAL;~~
⇒ ~~Button1_Click()~~

{

DAL.DataAccessLayer obj1 =
new DataAccessLayer();

BAL-class1, obj = new class1();

obj.uname = TextBox1.Text;

obj.pwd = TextBox2.Text;

obj.cpwd = TextBox3.Text;

obj.Address = TextBox4.Text;

obj1.InsertRecord(obj.uname, obj.pwd, obj.cpwd,
obj.Address);

3

9/8/2012

See the NewBook Block ==>

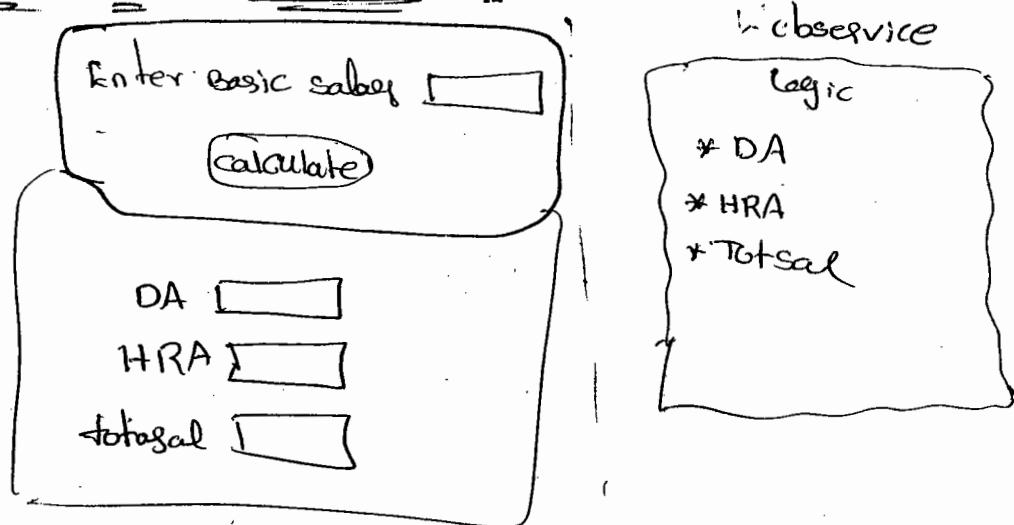
==>

**

Web service

* 10/8/2012

* Example for Web service, EmpService



3

Go to Visual studio → File → new website → select
Asp.net web service → OK.

Public class Service : System.Web.Services.WebService

{
 Double Da, HRa, Totsal;
 [WebMethod]

 Public Calculate

 Public Double CalDa (int BasicSal)

{
 Da = 0.2 * BasicSal;
 Return Da;

 [WebMethod]

 Public Double CalHRa (int BasicSal)

{
 HRa = 0.4 * BasicSal;
 Return HRa;

 [WebMethod]

 Public Double CalTotsal (int BasicSal)

{
 CalDa (BasicSal); CalHRa (BasicSal);
 Totsal = BasicSal + Da + HRa;

 Return Totsal;

}

g

* Accessing the empService in Web Application

using

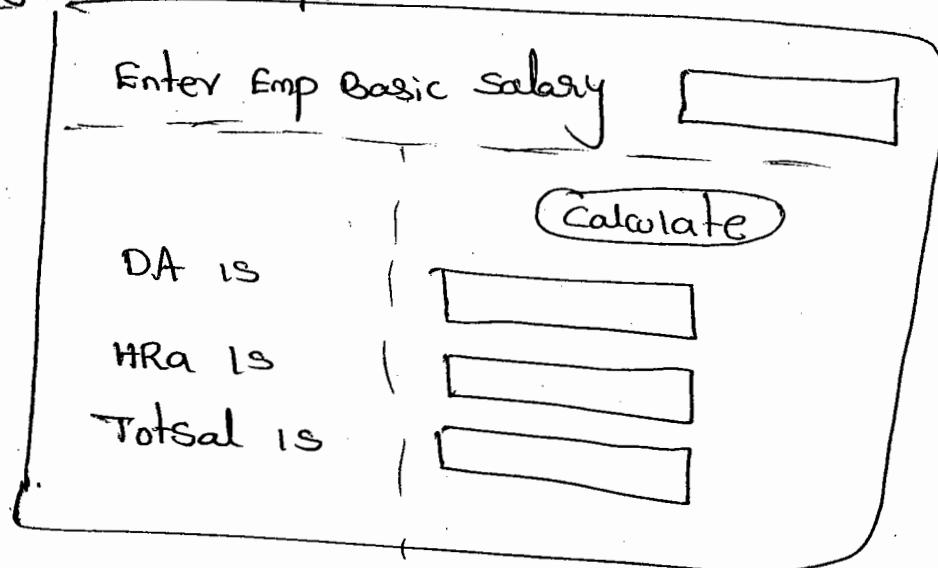
But

§

Start → run → devenv → vs2010 → OK

File → new website → select Asp.net website → OK

Design: Default.aspx



→ Go to Solution Explorer → Right-click on project → Add web reference → past the URL of the webservice in Addwebreference window like

http://localhost:1033/websites/service.asmx

* Webreference name = EmpService $\xrightarrow{\text{click on}}$ Addreference

⇒ Double click on Calculate button & write the following code

using EmpService;

Button1_Click()

{

EmpService.Service obj = new EmpService();

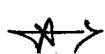
int basicsal = int.Parse(textBox1.Text);

textBox2.Text = obj.CalDA(Basicsal).ToString();

textBox3.Text = obj.CalHRA(Basicsal).ToString();

textBox4.Text = obj.CalTotal(Basicsal).ToString();

}



* Write a program to Calculate the Simple Interest.

$$SI = \frac{P \times T \times R}{100}$$



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Ex-5) Code for Webservice

Example with Dataset

```
using system.data;  
using system.data.sqlclient;
```

[WebMethod]

```
Public dataset mydataset()  
{
```

```
    SqlConnection Con=new SqlConnection("...");
```

```
    SqlDataAdapter da=new SqlDataAdapter("select  
        * from emp", con);
```

```
    Dataset ds=new Dataset();
```

```
    da.Fill(ds, "emp");
```

```
    return ds;
```

* Ex

Nic

y

* Design in default.aspx

→ Drag & drop one gridview Control goto Solution

Explorers → RC → Add webreference → paste the

url → Webreference name=myds → Add Reference

→ Goto page Load & write the following Code

```
using myds;
```

```
Page_Load()  
{
```

⇒

myds.Gridview

myds.Service obj = new Service();

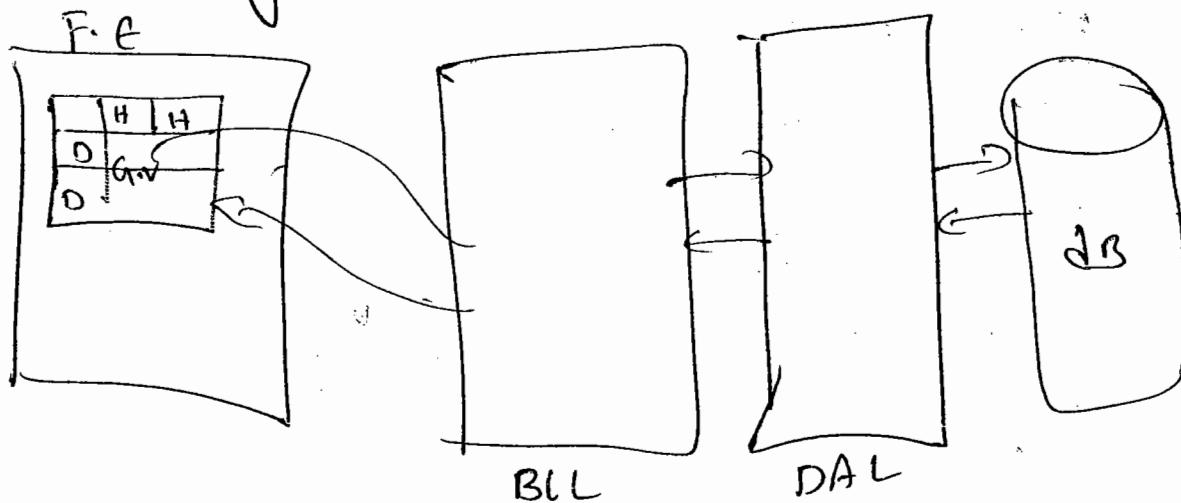
Gridview1.DataSource = obj.mydataset();

Gridview1.DataBind();

3

* Example

Write a program to delete with Grid
View using 3-tier Architecture //



=>

* Goto web.Config
Goto web.Config

P₀

<Connectionstring>

P₁

<add name="Const" Connectionstring="Data_
-----/>

P₂

</Connectionstring>

S₁

→ Goto → devenv → select Asp web server.
write the following code.

3

```
using System.Data;  
using System.Data.SqlClient;  
using System.Configuration;  
namespace DAL  
Public class DALDelete  
{  
}
```

F

 Public DALDelete()

S₂

```
    {  
        SaiConnection Con=new SaiConnection(  
            ConfigurationManager.ConnectionStrings["Const"].  
            ToString());  
    }
```

S₃

F₁

C

E

G₁

```
Public SqlConnection con;
```

```
Public SqlDataAdapter da;
```

```
Public dataset ds;
```

```
Public void FillData()
```

```
{
```

Getdata

```
da = new SqlDataAdapter ("select * from  
Employee", con);  
ds = New dataset();  
da.Fill(ds, "Employee");
```

return ds;

```
Public void RowDelete()
```

```
{
```

int eno =

con.open()

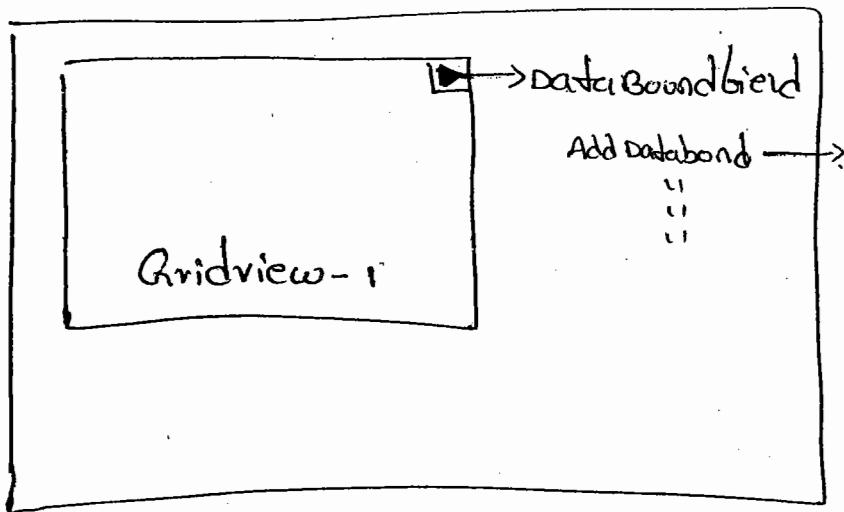
```
SqlCommand cmd = new SqlCommand ("Delete  
from Employee where eno = " + eno, con);
```

```
cmd.ExecuteNonQuery();
```

```
FillData();
```

```
con.Close();
```

Frontend



BL

Us;
Us;;

P;

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O)

Namespace DALexample

Protected void Gridview1_RowDeleting()

{

int Eno = Convert.ToInt32(Gridview1.DataKeys[
e.RowIndex].Value);

Session["EmpNo"] = Eno;

g

Pvt

{

Page_Load()

{

DA DALDelete obj = new DALDelete();

obj.FillData();

Gridview1.DataSource =

Gridview1.DataBind();

y

BLL

using DALexample
using DALDelete

public class BLLDelete

{

DAL.DALDelete obj=new DALDelete();
obj.FillData();

}

keys

~~DALExample obj=new DALExample();~~

DAL

public class BLLRowDelete.

{

DALDelete obj=new DALDelete();
obj.RowDelete()

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① TextBox Watermark Extender :-

- * This Control is used to display a message with in the TextBox.
- * When user Selects the TextBox then the Text will be disappeared.

Dyna
→

Ex:

```
<asp:TextBox ID="TextBox1" runat="server">  
</asp:TextBox> <br/>
```

```
<asp:ScriptManager ID="ScriptManager1" runat="server">  
</asp:ScriptManager>
```

```
<cc1:TextBoxWatermarkExtender ID="TextBoxWatermarkExtender1" runat="server" TargetControlID="TextBox1" watermarkText="Enter name">
```

F
KP1
KP1
IN1
IN
IND

* G

Code

*

≈≈≈

* Generating the Radio Buttons
Dynamically.

* Create a Table with name AirLine

FlightNo	AirlineName	FROM	TO
KF1001	Kingfisher	HyD	Chennai
KF1002	"	che	HyD
IN1001	Indigo	HyD	Ch
IN1002	"	-	-
Ind1001	Indian Airlines	-	-

* Go to Default.aspx & write the following code

```
* using System.Data;
using System.Data.SqlClient;
using System.Collections;
Public partial class Default : ...
{
```

```
RadioButton[] &br;
SqlConnection Con;
SqlCommand cmd;
SqlCommand cmd1;
```

```
SqlDataReader dr;
ArrayList ar=new ArrayList();
int no;
Page_Load()
{
    CreateRadioButtons();
}
Private void CreateRadioButtons()
{
    Con=new SqlConnection(" - ");
    Con.open();
    cmd=new SqlCommand("select Count(fno)
                        from airline", con);
    no=(int)cmd.ExecuteScalar();
    arr=new RadioButton[no];
    cmd1=new SqlCommand("select * from
                        airline", con);
    dr=cmd1.ExecuteReader();
    for(int i=0; i<no; i++)
    {
        if(dr.HasRows)
        {
            while(dr.Read())
            {

```

```
    rbn[i] = new RadioButton();
    rbn[i].GroupName = "rbn";
    rbn[i].Text = dr[0].ToString();
    rbn[i].AutoPostBack = true;
    Session["values"] = ar.Add(rbn[i].Text);
    Form.Controls.Add(rbn[i]);
    rbn[i].CheckedChanged += new EventHandler(
        rbn_CheckedChanged);
}
```

```
2)
1:
    void rbn_CheckedChanged(object sender,
                           EventArgs e)
    {
        RadioButton rbn = (RadioButton) sender;
        String a = rbn.Text.ToString();
        Response.Write(a);
    }

```

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