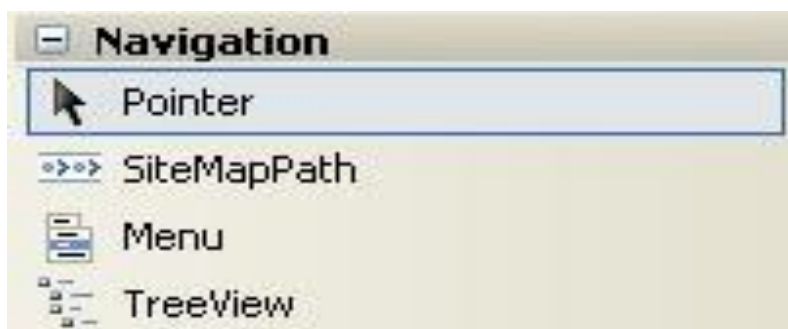## UNIT – V   ASP.NET WEBSITE NAVIGATION

INTRODUCTION –

- As we know web applications developed usually have **MULTIPLE** Web pages and they are usually interconnected via some mechanism such as using hyperlinks OR user controls. They are pretty handy but not so much when the pages are moved around or their names change.

- So in order to overcome this drawback, ASP.Net 2.0 introduces the new **Site Navigation System**.

- Site navigation uses the layered/hierarchical architecture of Multiple WEB PAGES which is called as **SITEMAP**.

- In ASP.NET the **SITEMAP** can be stored in a file to make it easier to maintain.

- This file is normally called **web.sitemap**, and is stored in the root directory of the web.

- In addition, ASP.NET has three new navigation controls:

1) **The TreeView Control**:- **The TreeView control in ASP.NET is useful to display hierarchical data in a tree structure.**
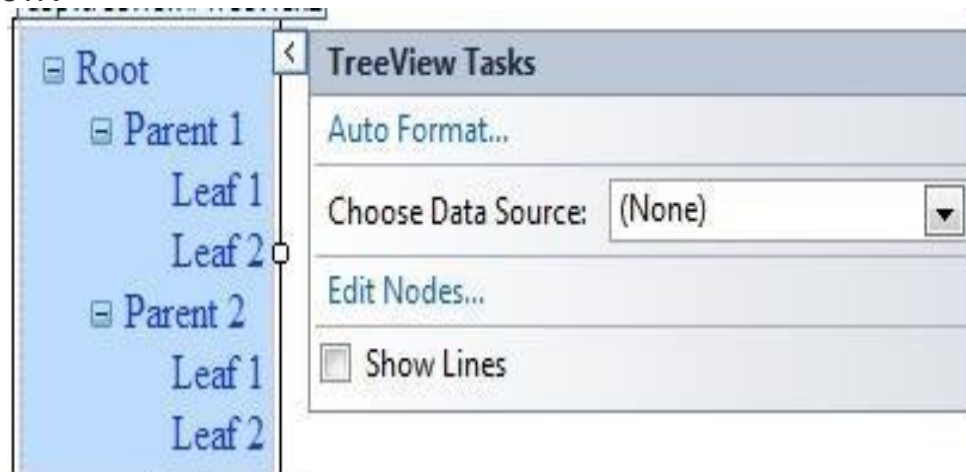
   A TreeView is a collection of TreeNode objects.

   It offers great flexibility by allowing you to populate it with data from various sources such as XML files, site-map files, strings, or databases.

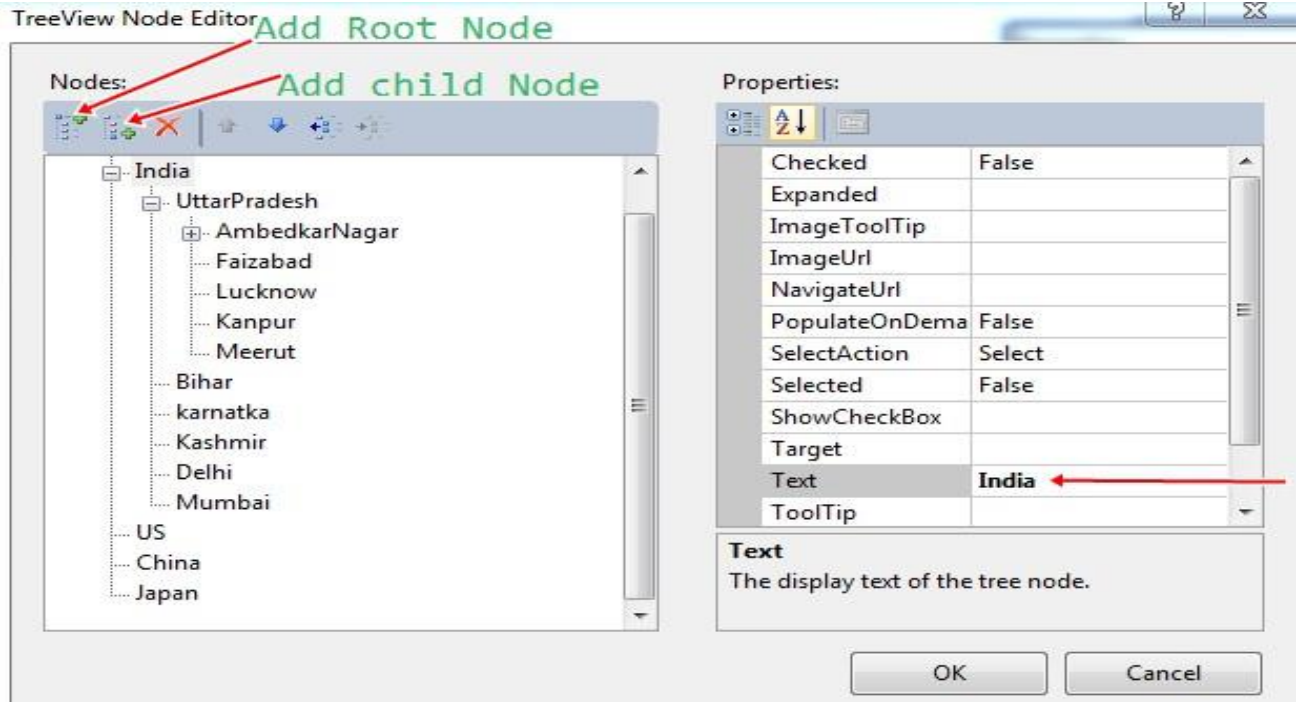   **We Can Create Navigation to Webpages using TreeView Control using Following Ways,**

   ### a)   TreeView Node Editor Dialog Box:-

There are some steps to generate the Tree structure on the page,which are given below:

Step 1: First open your visual studio-->File-->New-->Website-->Select ASP.NET Empty Website -->OK-->open solution explorer-->Add New Web Form-->Drag and Drop TreeView control from Toolbox as sown below:

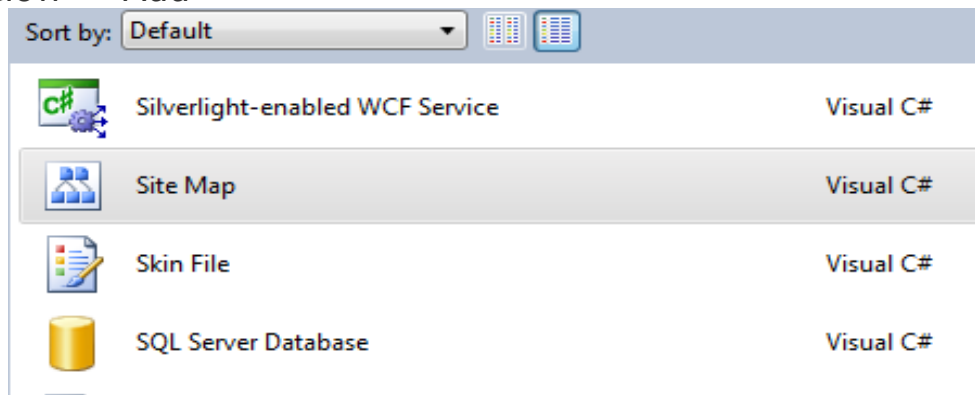**Step 2**: Now go **properties** of TreeView control-->Click **Nodes**-->Add Root and child Node as shown below:

Step 3: Now Run the Program(press F5).
output:

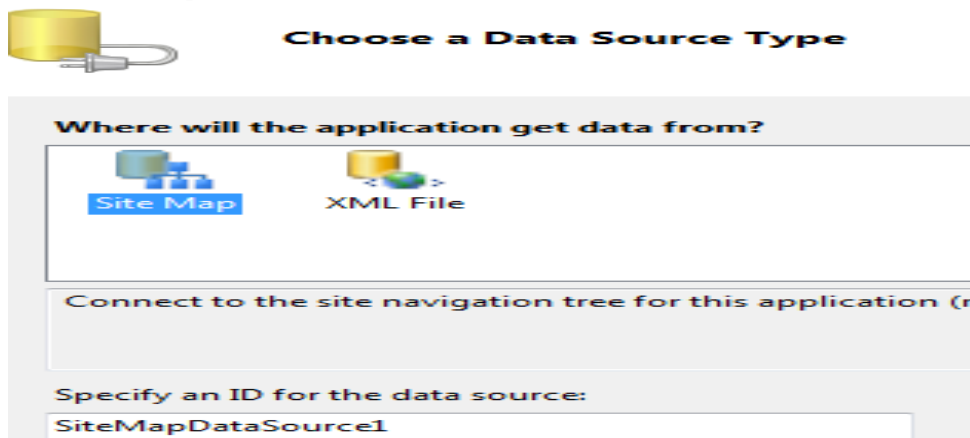## b) Generate TreeView Based On Sitemap Data:-

Step 1: First Add a Web Form and a SiteMap in Solution Explorer as shown below-->Add

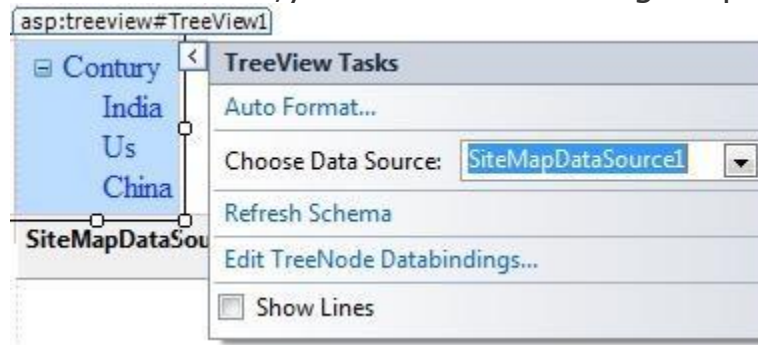**Step 2**: Open **web.sitemap** file and write the following codes.which are given below-->**Save**

```xml
<?xml version="1.0" encoding="utf-8" ?>
<siteMap xmlns="http://schemas.microsoft.com/AspNet/SiteMap-File-1.0" >
   <siteMapNode url="default.aspx" title="Contury"  description="">
     <siteMapNode url="treeview1.aspx" title="India"  description="" />
      <siteMapNode url="menu.aspx" title="Us"  description="" />
    <siteMapNode url="menu1.aspx" title="China"  description="" />
   </siteMapNode>
</siteMap>
```

Step 3: Now drag and drop TreeView control on the Form-->Now **choose Data Source**-->select **New data source**-->Select **SiteMap** as sown below:
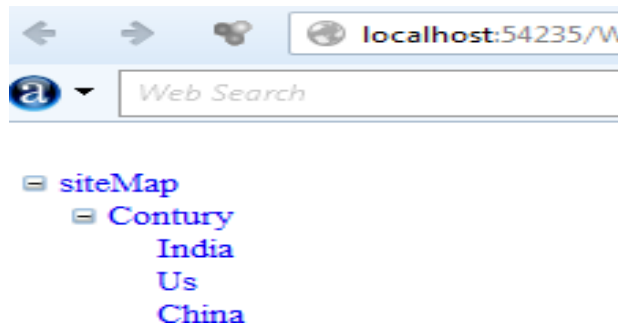
Step 4:Now click OK Button ,you will see following output.

Step 5: Now Run the program(press F5).
OUTPUT:

2.) The Menu Control:-

The Menu control is used to create a menu of hierarchical data that can be used to navigate through the web pages.

This can be used to display the site data structure vertically and horizontally.
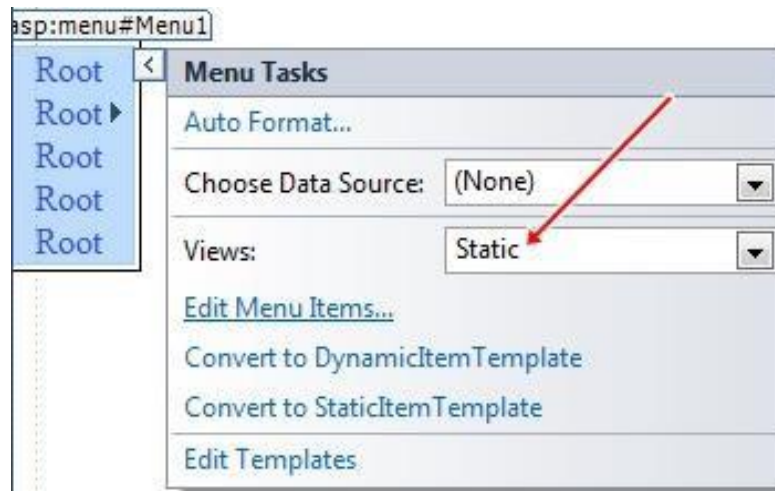
It can be used a binding control as TreeView control, Means we can easily bind the XML and SiteMap data in menu control.
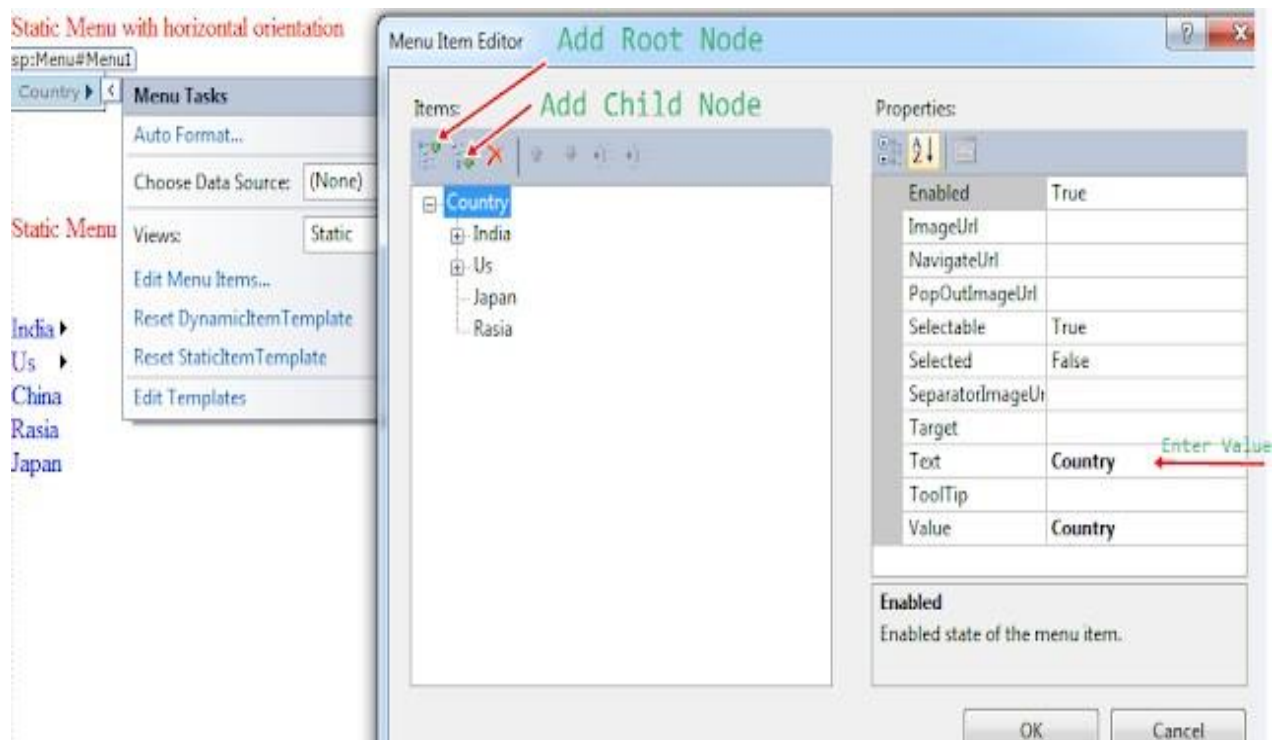
The menu control can be used as two types.
- **Static menu:-** It is used to display the parent menu items and their sub menu items on the page, Means it is used to display the entire structure of the static menu.

- **Dynamic menu**:- It is used to display the static menu as well as dynamic menu on the site.it Means when user passes the mouse over the **menu** then it will appear on the site.

2.1) Static Menu:-

We can display site structure vertically as well as horizontally through static menu control on the site.There are some steps to implement the static menu control on the Web Form.Which are given below:**Step 1**: First Add a New Web Form in solution Explorer -->drag and drop **menu** control on the Form-->now select **Views = static** as shown below**:**

Step 2: Now click **Edit Menu Items...**-->Add **parent** and **child** nodes as shown below:

Step 3: Now Run the program(press F5).
Output:-

Note:- **You can implement the vertical orientation as horizontal orientation using Property Orientation.**
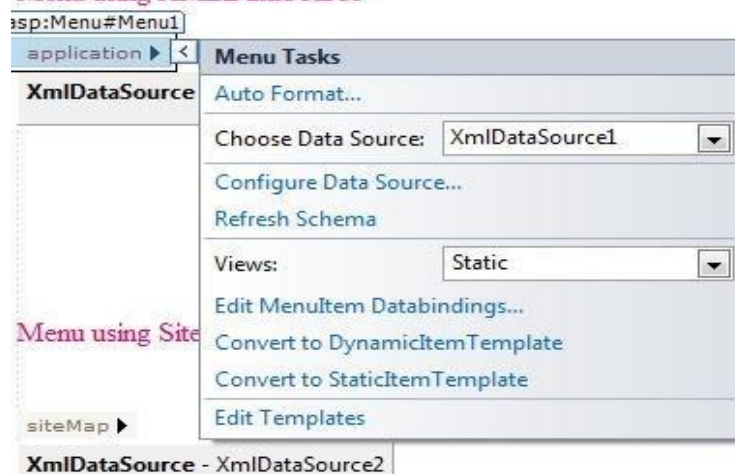
2.2) Dynamic Menu:-

When user passes the mouse over the control, the data will automatically appear on the site. We can generate dynamic menu control in two ways:
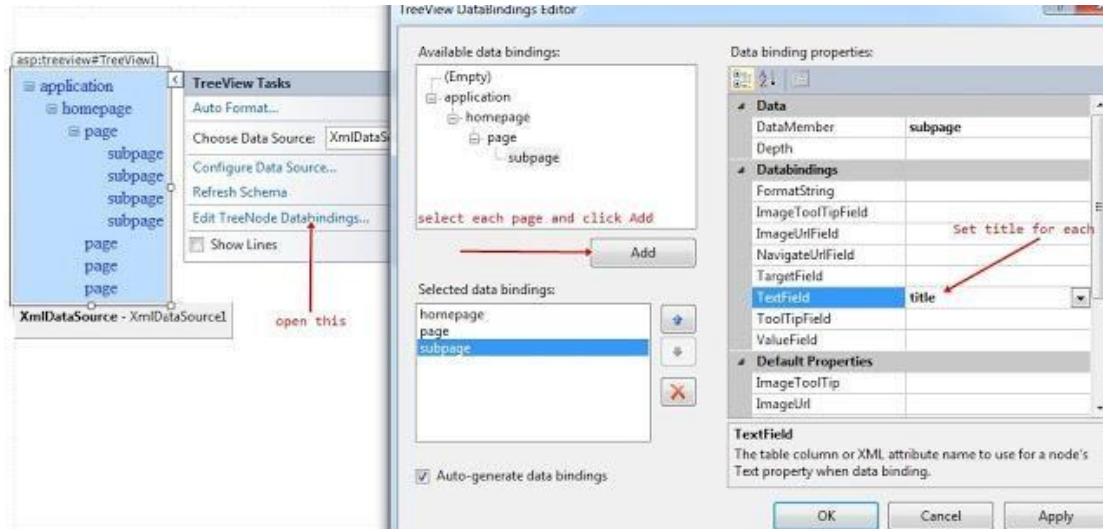
- Generate menu control using Xml Data source
- Generate menu control using SiteMap Data source
  There are some steps to implement this concepts on the site. which are given below:-

Step 1: First Add a **Web Form** in the solution Explorer-->Drag and drop menu control on the Form -->**choose Data Source** -->Select **XML File**-->OK-->**Browse** XML File-->OK.
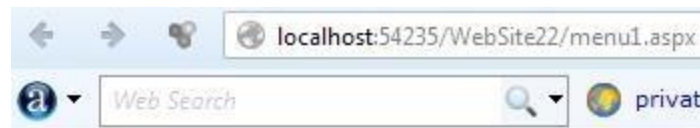
Step 2: Now click **Edit TreeNode DataBindings..**-->Select each page one by one -->and click **Add** button -->set **TextField** =**title** from right side for each page-->click **Apply** as sown below:

Step 3: Now Run the program(press F5).
Output:-

Note:- We can use same process for SiteMap File also.
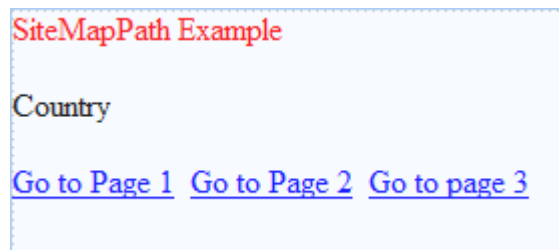
3.The SiteMapPath Control:

The SiteMapPath displays a navigation path (which is also known as a breadcrumb or eyebrow) that shows the user the current page location and displays links as a path back to the home page.

There are some steps to implement the **SiteMapPath** control on the web page. Which are given below:
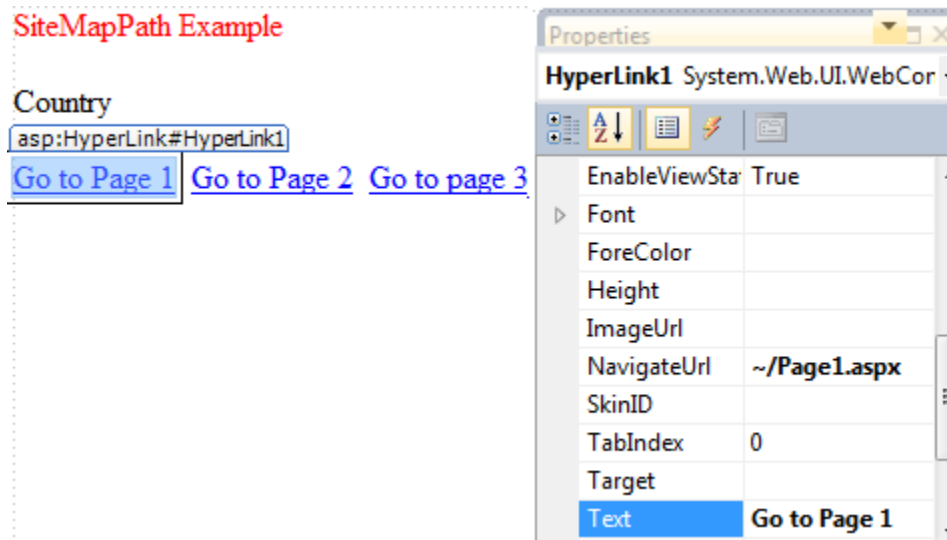
Step 1: First open your visual studio -->File -->New-->Website-->Select ASP.NET Empty Website-->Open **solution Explorer**-->Add a **Web Form** (SiteMap.aspx)-->Now again Add **Site Map** File in solution Explorer-->open **web.sitmap** file-->write the following codes , which are given below:

```xml
<?xml version="1.0" encoding="utf-8" ?>
<siteMap xmlns="http://schemas.microsoft.com/AspNet/SiteMap-File-1.0" >
  <siteMapNode url="SiteMap.aspx" title="Country"  description="">
    <siteMapNode url="page1.aspx" title="India"  description="" />
    <siteMapNode url="page2.aspx" title="China"  description="" />
    <siteMapNode url="page3.aspx" title="US"  description="" />
  </siteMapNode>

</siteMap>
```
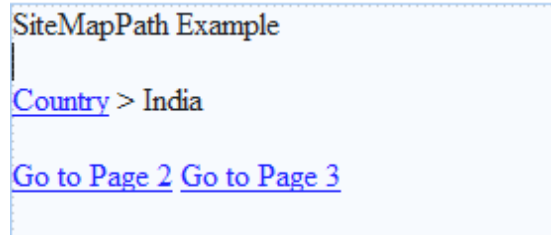
Step 2:Now drag and drop **SiteMapPath** control on the web Form (SiteMap.aspx)-->Now drag and drop **HyperLink** control on the Form as shown below:
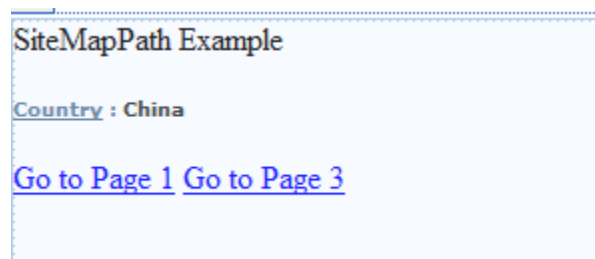

Step 3: Now Add three more **Web Form (**page1.aspx ,page2.aspx, page3.aspx**)** in Solution Explorer-->Go **properties** of **HyperLink Button** control -->set **NavigateUrl-**->Write **Text** Information ,as shown below:

SiteMapPath Example

Country

asp:HyperLink#HyperLink1

Go to Page 1 Go to Page 2 Go to page 3

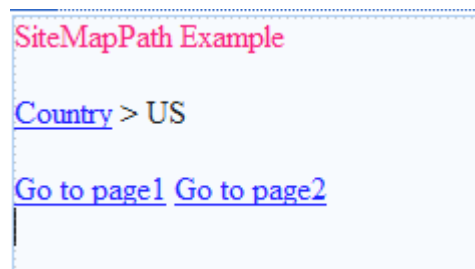| Properties	HyperLink1 System.Web.UI.WebCor ▾
EnableViewSta	True
▷ Font	
ForeColor	
Height	
ImageUrl	
NavigateUrl	~/Page1.aspx
SkinID	
TabIndex	0
Target	
Text	Go to Page 1

Step 4: Now Go **page1.aspx** -->drag and drop **SiteMapPath** control and HyperLink control on the Form as shown below-->Set the **NavigateUrl** of each **HyperLink** control as previous i have done.

SiteMapPath Example

Country > India

Go to Page 2 Go to Page 3

Step 5: Now Go **page2.aspx -->**Same steps perform as step 4.

SiteMapPath Example

Country : China

Go to Page 1 Go to Page 3

Step 6: Now Go **page3.aspx -->**Same steps perform as step 4 and step 5.

SiteMapPath Example

Country > US

Go to page1 Go to page2

Step 7: Now Run the program(press F5).
Output:-

localhost:54043/WebSite21/SiteM

Web Search

SiteMapPath Example

Country

Go to Page 1   Go to Page 2   Go to page 3