LAB 2
Spring 2011, BESE- 15
Introduction to ASP.net

Objective
The aim of this lab is to introduce the students to asp.net. A simple web application will be developed to implement the concepts of interface development.
By the end of this lab, you will learn how to use:
• Labels
• Text boxes
• Buttons
In your web applications.

Submission Requirements
You are expected to complete the assigned tasks within the lab session and show them to the lab engineer/instructor. Following guidelines will be helpful to you in carrying out the tasks and preparing the lab report.

Guidelines

- Name your reports using the following convention:
  - ***Lab#_Rank_YourFullName***
  - '#' replaces the lab number
  - '*Rank*' replaces Maj/Capt/TC/NC/PC
  - '*YourFullName*' replaces your complete name.

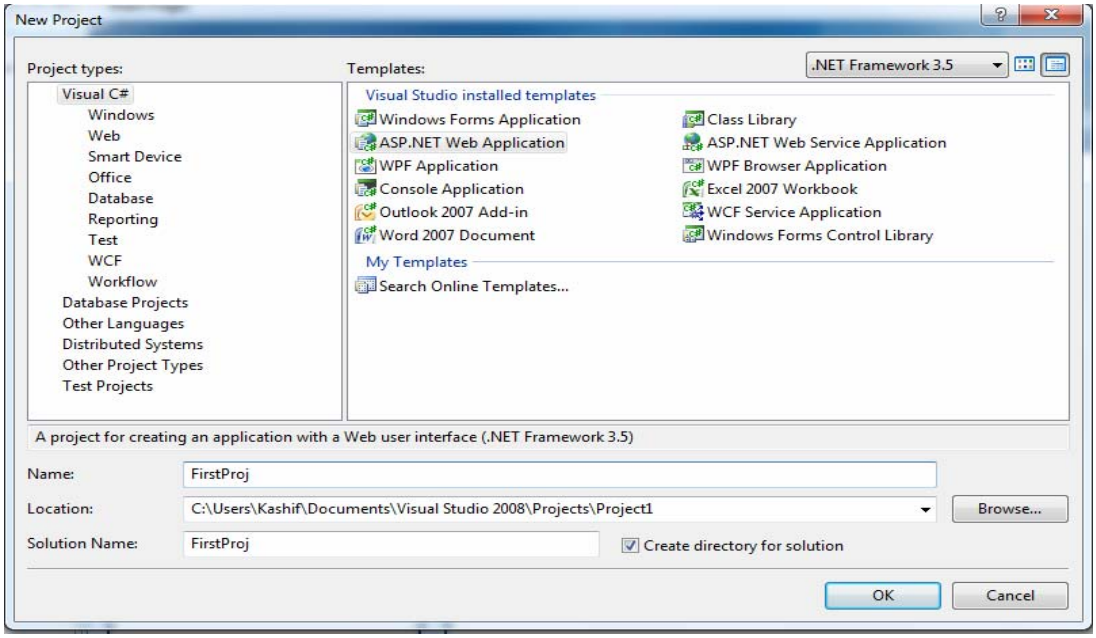
- You need to submit the report even if you have demonstrated the exercises to the lab engineer/instructor or shown them the lab report during the lab session.

Tasks for Today
Create a webpage performing the same functionalities as would a time converter. The user will input a certain time and time zone. The system will convert that to 5 other time zones and display the equivalent/appropriate time in those zones.

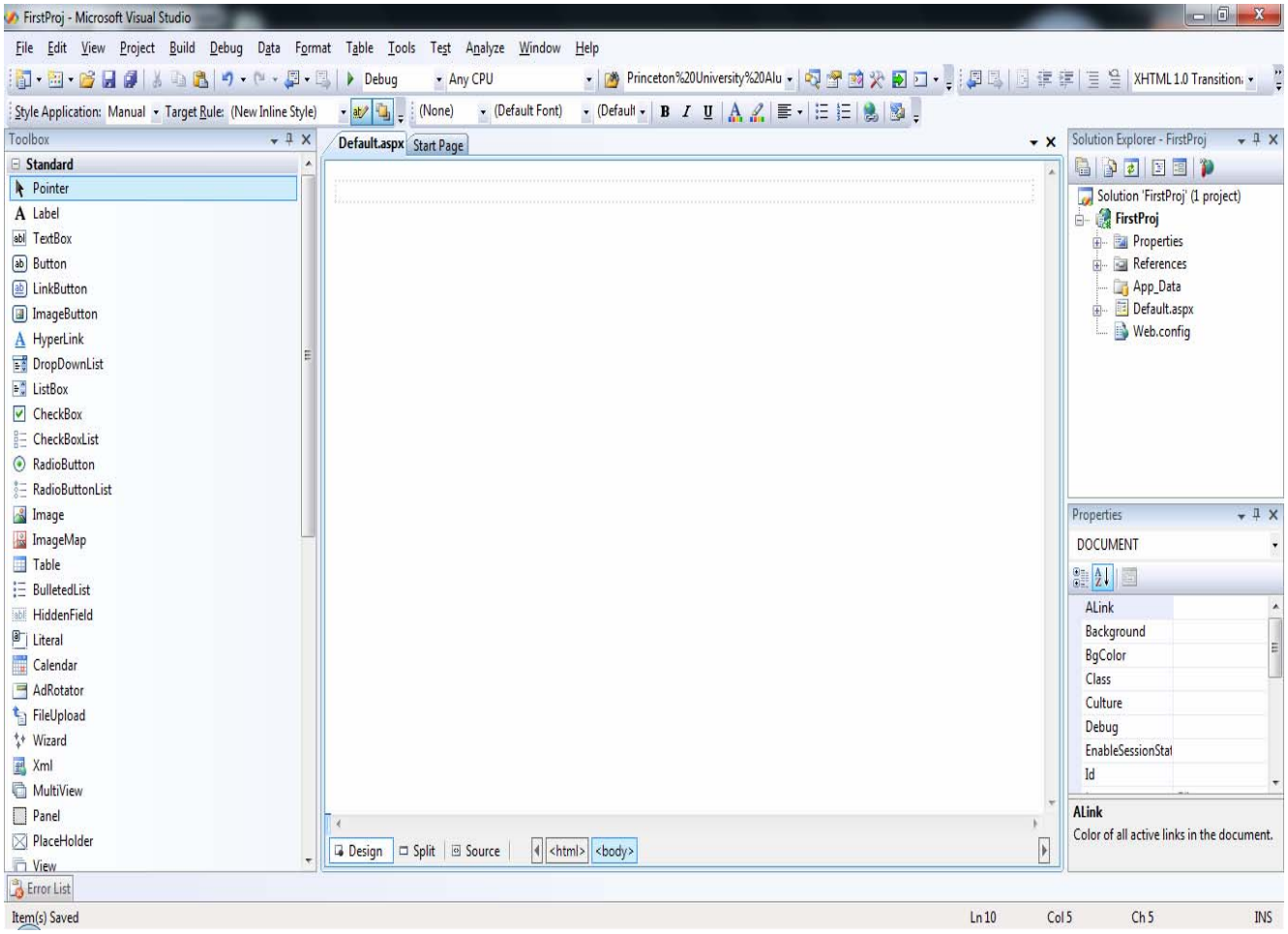
Task 1:
Visit all these websites and make a report on their shortcomings as usable interfaces. Mention the criteria you have used for regarding these as useful/not so useful, appropriate/ inappropriate and visually appealing websites.

Link 1: http://www.timezonecheck.com/
Link 2: http://www.worldtimezone.com/
Link 3: http://www.qlock.com/time/gmaps.php
Link 4: Functionality like: http://www.timezoneconverter.com/cgi-bin/tzc.tzc

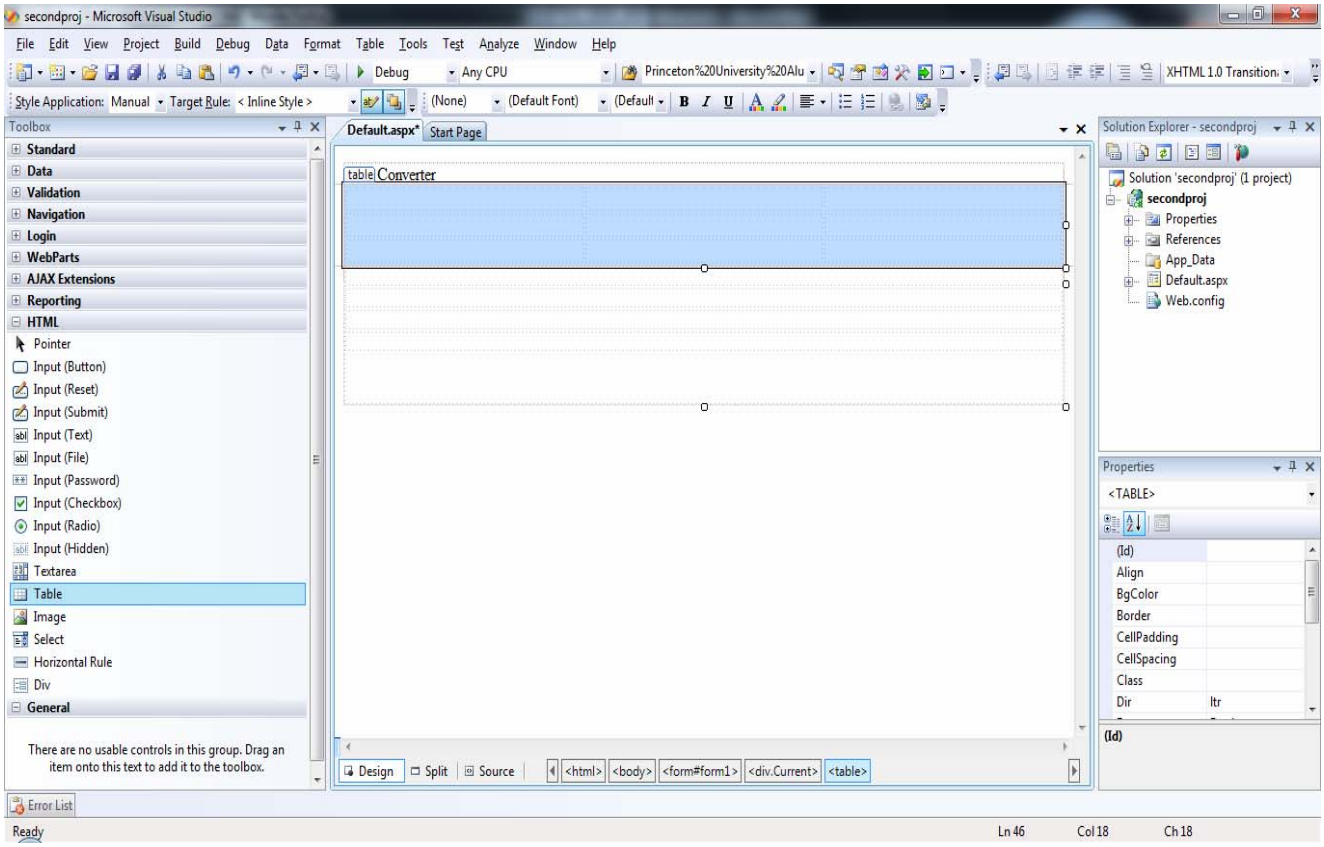
Task 2:
1. Open visual studio 2008. Navigate to file menu. Select new -> project -> web application.



2. Once the web application has been created, a screen having an empty webpage will be displayed. Select View->ToolBox and View -> Property Window.



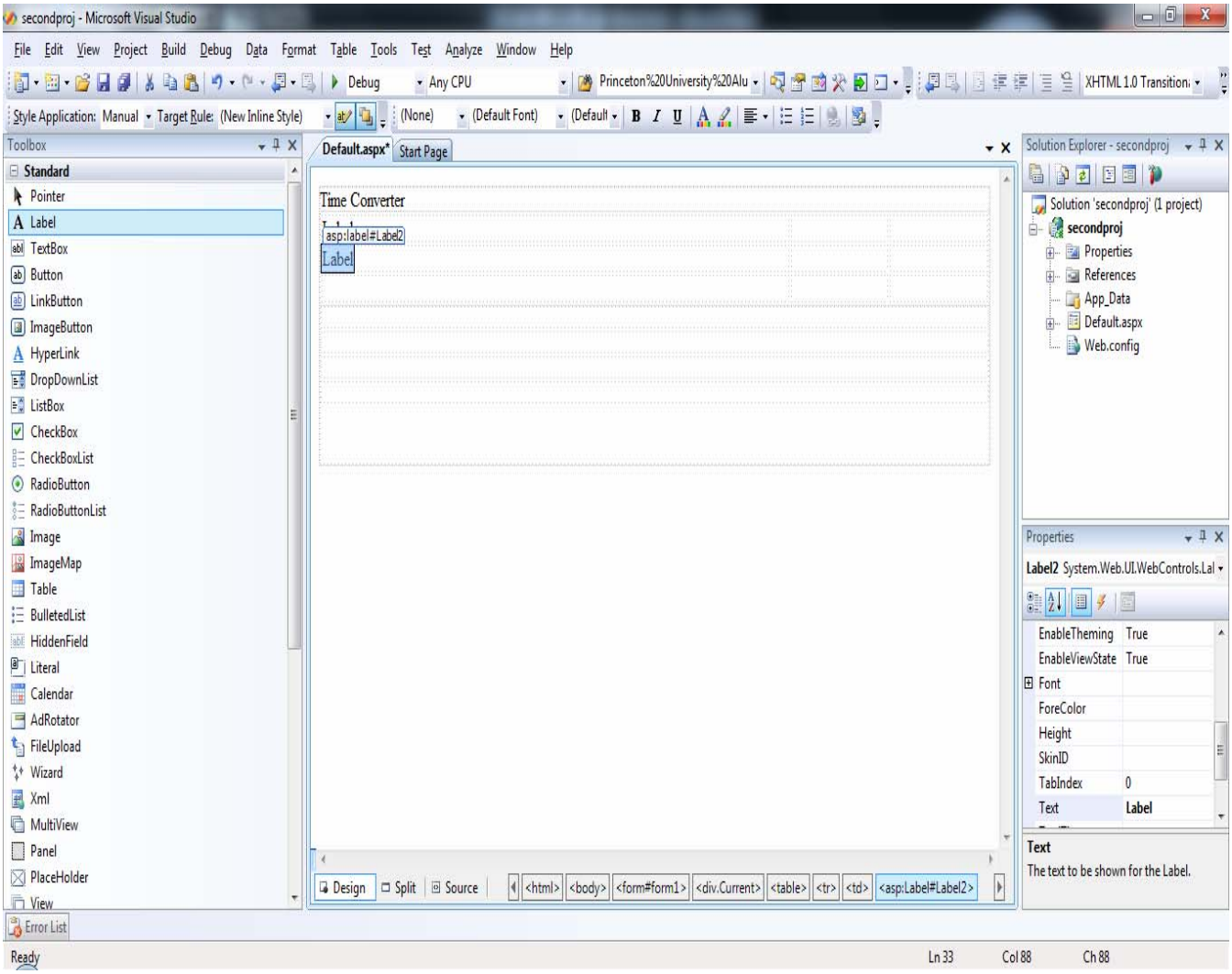
3. On this page drag and drop more HTML div items and HTML tables inside them so as to create sections to hold other control items. The HTML controls can be found in the toolbox under the main heading of 'HTML'.

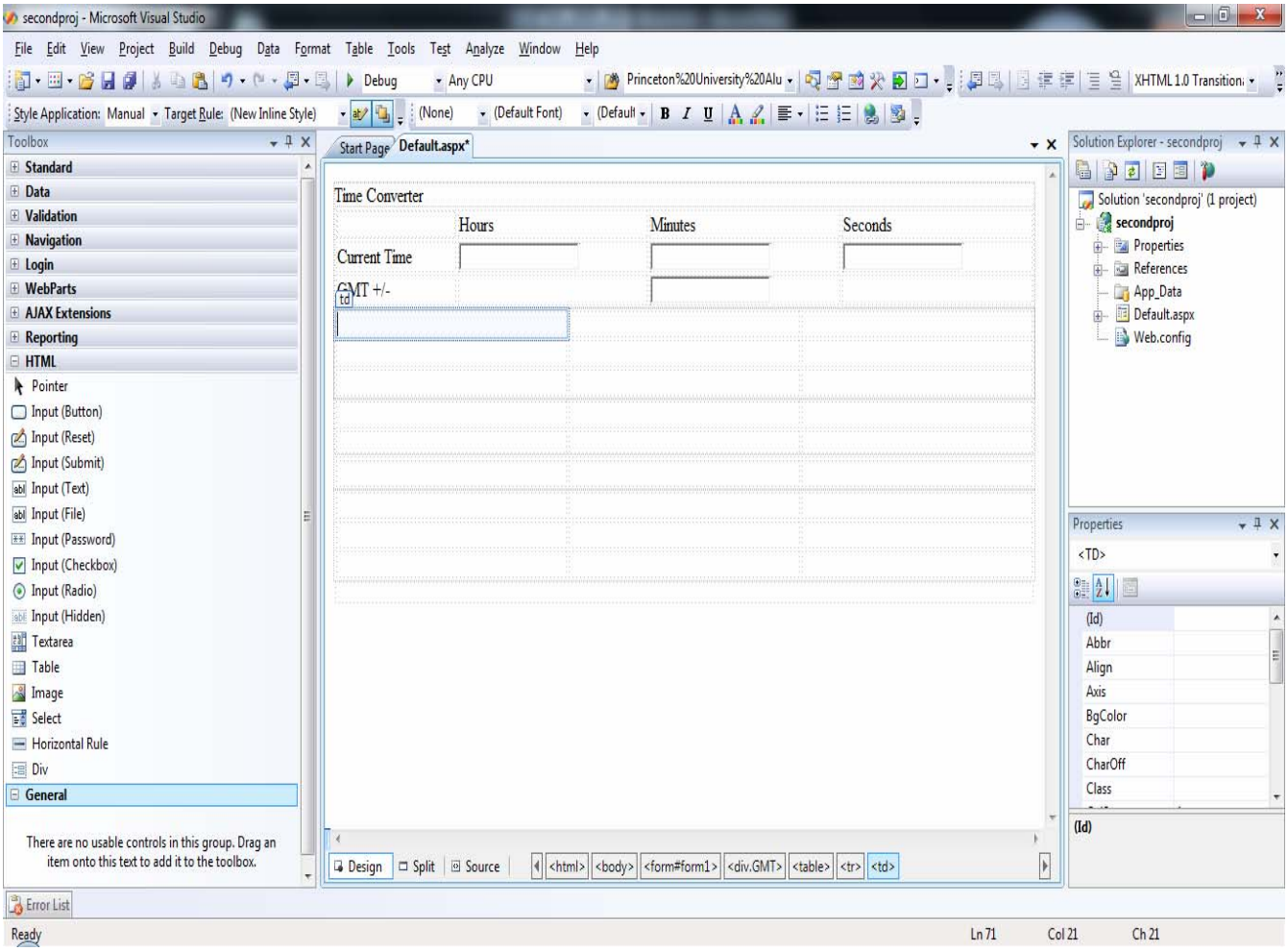


4. To add controls to your page you can either double click them or simply drag and drop them to the desired location.

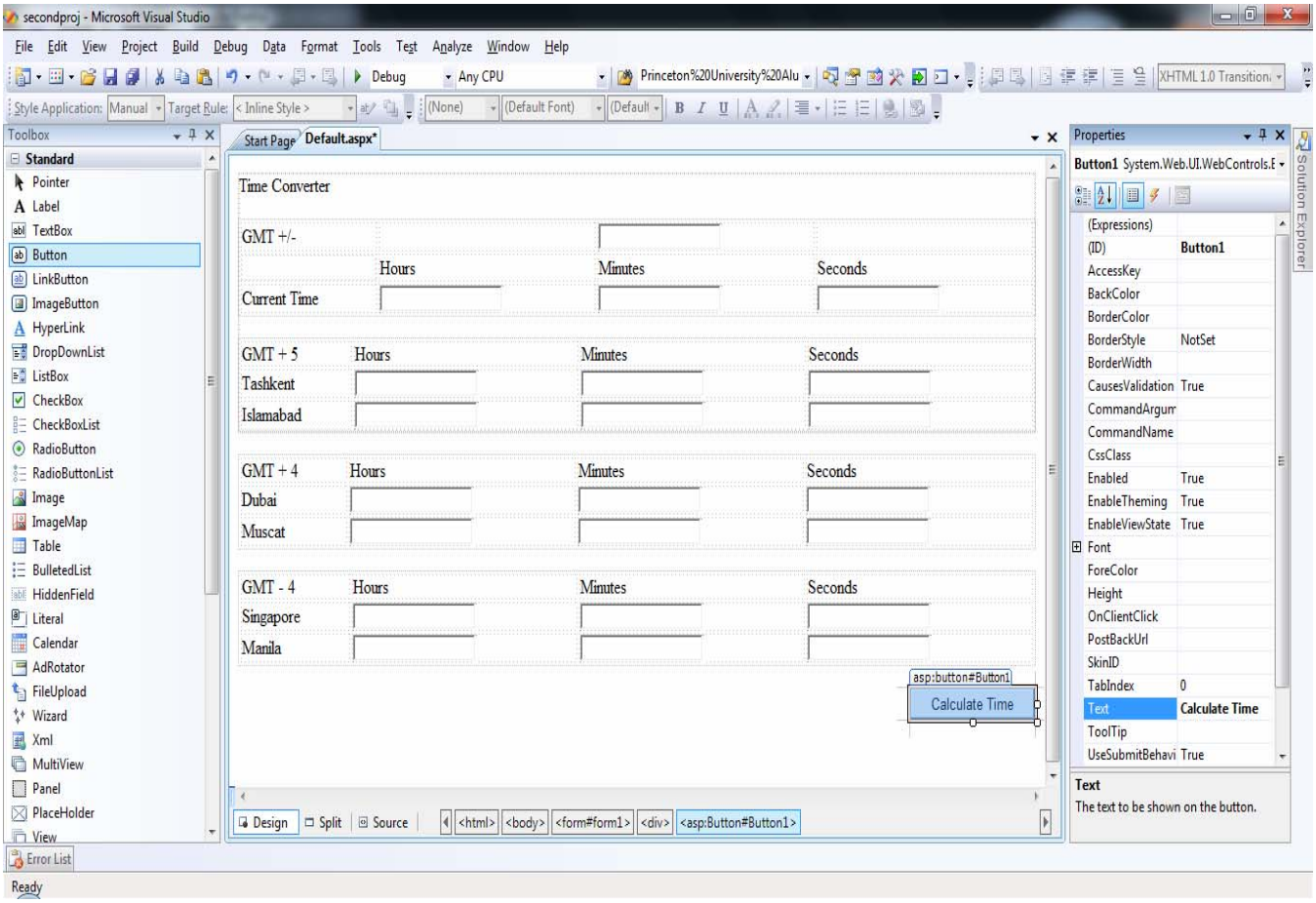
5. Add Labels to the page which will help display the necessary information. To rename the labels, select the label by clicking it; the properties window will display all properties related to that label. Find the 'Text' property and rename it to desired value.

6. Add text boxes that are to get information from user and display results.


secondproj - Microsoft Visual Studio
File Edit View Project Build Debug Data Format Table Tools Test Analyze Window Help
Debug
Any CPU
Princeton%20University%20Alu
XHTML 1.0 Transition
Style Application: Manual
Target Rule: (New Inline Style)
(None)
(Default Font)
(Default
Toolbox
Standard
Pointer
Label
TextBox
Button
LinkButton
ImageButton
HyperLink
DropDownList
ListBox
CheckBox
CheckBoxList
RadioButton
RadioButtonList
Image
ImageMap
Table
BulletedList
HiddenField
Literal
Calendar
AdRotator
FileUpload
Wizard
Xml
MultiView
Panel
PlaceHolder
View
Default.aspx*
Start Page
Time Converter
asp:label#Label2
Label
Design
Split
Source
<html>
<body>
<form#form1>
<div.Current>
<table>
<tr>
<td>
<asp:Label#Label2>
Solution Explorer - secondproj
Solution 'secondproj' (1 project)
secondproj
Properties
References
App_Data
Default.aspx
Web.config
Properties
Label2 System.Web.UI.WebControls.Lal
EnableTheming True
EnableViewState True
Font
ForeColor
Height
SkinID
TabIndex 0
Text Label
Text
The text to be shown for the Label.
Error List
Ready
Ln 33
Col 88
Ch 88



7. Add a button in the same manner as a label or textbox and rename it too. By the end you should have something like this:



8. After the designing has been completed, you can add the code. Double click the button and it will open a code window.

9. To get values from controls on the page you can add code:

```
protected void Button1_Click(object sender, EventArgs e)
{
    //---------------- getting values for initial time and gmt variation
    int hr = Convert.ToInt16(TextBox1.Text);
    int min = Convert.ToInt16(TextBox2.Text);
    int sec = Convert.ToInt16(TextBox3.Text);
    int gmth = Convert.ToInt16(TextBox4.Text);
    int gmtm = Convert.ToInt16(TextBox23.Text);
```

Notice the use of a converter function that changes value received from the webpage textboxes to integer values. The textboxes can only display strings and receive strings. These have to be converted to other data types if the need be.

10. To get the original GMT value, so that it can be added or subtracted from the given time to find time in other time zones:

```
//----------------- calculating GMT
int GMTh = hr - gmth;
int GMTM = min - gmtm;
```

11. To display corresponding time in other time zones:

```
//---------------------calculating corresponding times and displaying..
TextBox8.Text = Convert.ToString(GMTh + 5);
TextBox9.Text = Convert.ToString(GMTM);
TextBox10.Text = Convert.ToString(sec);
//-----------------------------------------------------------------
TextBox5.Text = Convert.ToString(GMTh + 5);
TextBox6.Text = Convert.ToString(GMTM);
TextBox7.Text = Convert.ToString(sec);

//-----------------------------------------------------------------

TextBox11.Text = Convert.ToString(GMTh + 4);
TextBox12.Text = Convert.ToString(GMTM);
TextBox13.Text = Convert.ToString(sec);

TextBox14.Text = Convert.ToString(GMTh + 4);
TextBox15.Text = Convert.ToString(GMTM);
TextBox16.Text = Convert.ToString(sec);

//-----------------------------------------------------------------
TextBox17.Text = Convert.ToString(GMTh - 4);
TextBox18.Text = Convert.ToString(GMTM);
TextBox19.Text = Convert.ToString(sec);
```

12. **You need to cater for the 12 hours and 24 hours time divisions and the rounding off of minutes to hours. Also adjust times when a complete 12 hour circle completes.**