

## CST8253 Web Programming II

### Lab 6

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#### Objective

1. Use ASP.NET TextBox, RadioButton, Checkbox List, Panel and Table web controls.

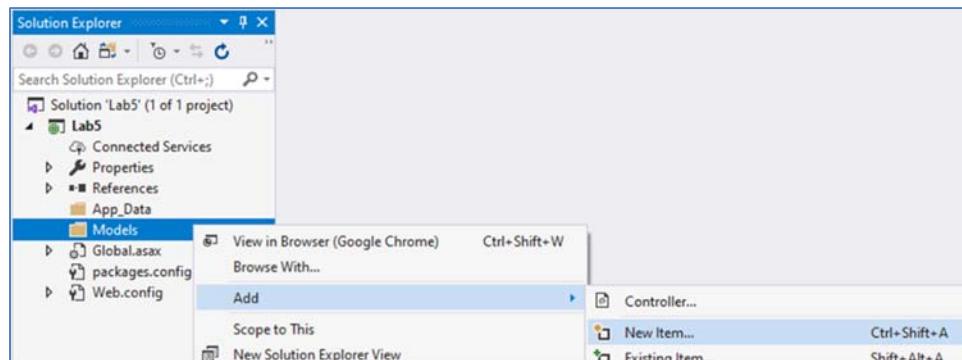
#### Due Date

See Brightspace posting for the due date of this lab. To earn 5 points, you are required:

1. Complete the lab as required.
2. Zip the web application's project folder and submit the zipped file to the Brightspace before due date.
3. Demo your lab work during the lab session in the week after the due date.

#### Preparations

1. Create a new Web Form ASP.NET Web Application (.NET Framework) project in Visual Studio.
2. Add a new class **Course** in the application's **Models** folder.



This class should have the following properties:

**Code** – a string, readonly

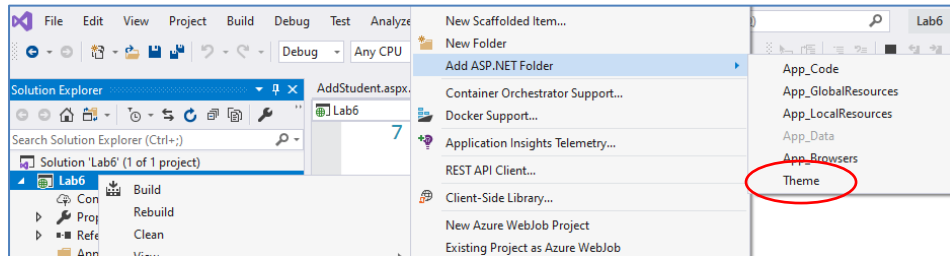
**Title** – a string, readonly

**WeeklyHours** – an integer, read and write

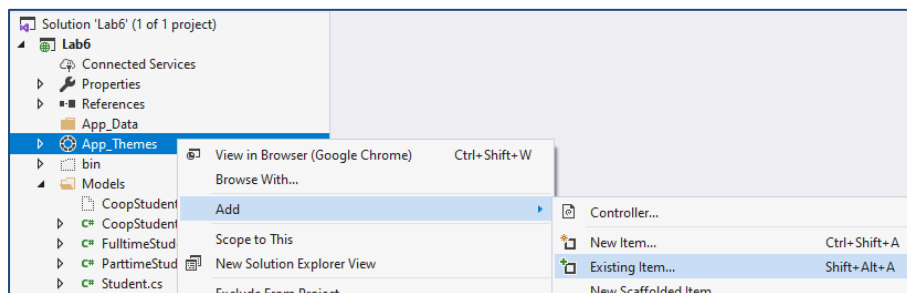
This class should have one constructor taking two parameters code and title for initializing the property Code and Title as:

```
public Course(string code, string title) { ... }
```

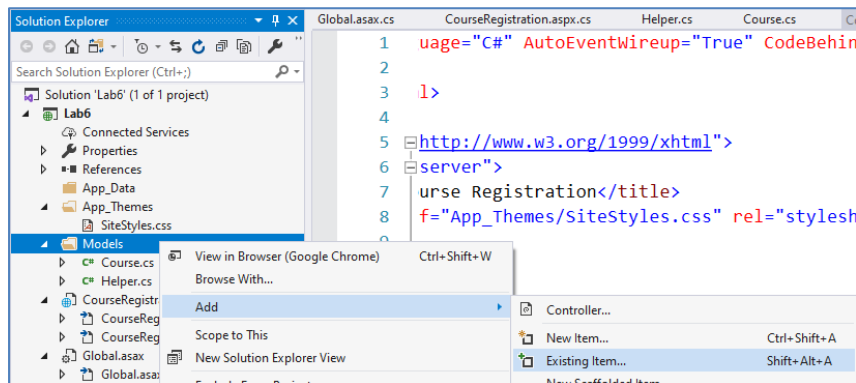
1. Add a Theme folder to the project



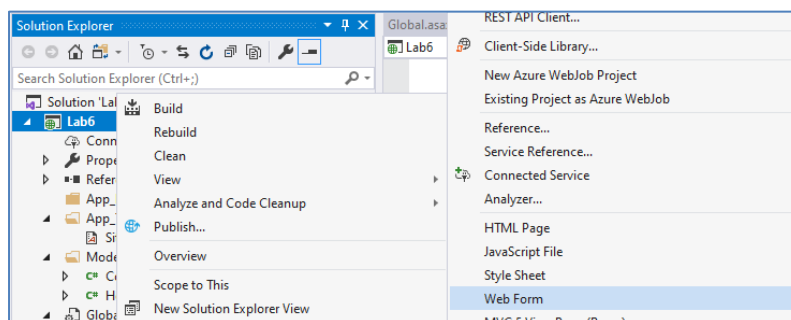
2. (optional) Add the given CSS file **SiteStyles.css** (downloadable from the Brightspace) to the App\_Themes folder created above

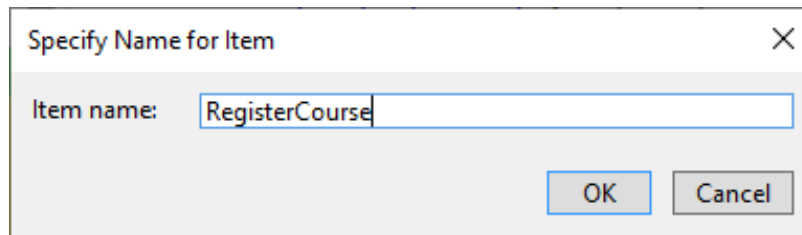


3. Add **Helper.cs** (downloadable from Brightspace) to Models folder.

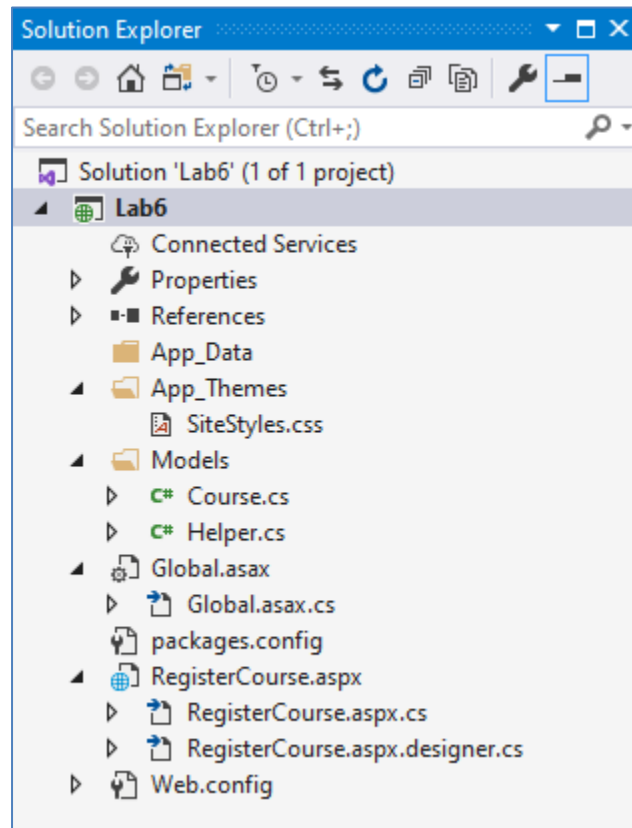


4. Add an ASP.NET web page **RegisterCourse.aspx** to the project.





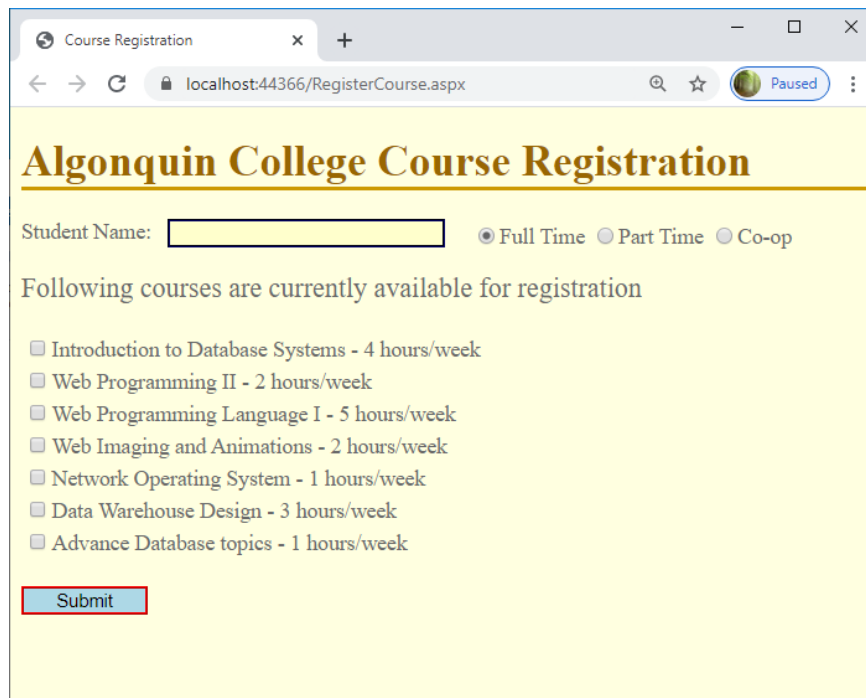
After complete this step, your Solution Explorer should look like:



- You are encouraged to use Bootstrap to style your page. But if you do not know or familiar with Bootstrap, you can use the supplied CSS file **SiteStyles.css** in App\_Theme folder to style your web page.
- Study the class Helper defined **Helper.cs** file
  - Use **public static List<Course> GetAvailableCourses()** method of the **Helper** class to get a list of available courses.
  - Use **public static Course GetCourseByCode(string code)** of the **Helper** class to get the Course object with specified code.

### Requirements

1. On initial load, the web page RegisterCourse.aspx presents the user: (see sample page below)
  - A text box to enter student name.
  - A three radio buttons to select student type from **full time**, **part time** or **co-op**.
  - A checkbox list for course currently available for registration.
  - A submit button to submit the registration.



The screenshot shows a web browser window with the title 'Course Registration'. The address bar shows 'localhost:44366/RegisterCourse.aspx'. The page has a yellow background and a title 'Algonquin College Course Registration' in a large, bold, brown font. Below the title, there is a form with a 'Student Name:' label and a text input field. To the right of the text box are three radio buttons labeled 'Full Time', 'Part Time', and 'Co-op'. Below this, the text 'Following courses are currently available for registration' is displayed. Underneath, there is a list of seven courses, each with a checkbox and a description: 'Introduction to Database Systems - 4 hours/week', 'Web Programming II - 2 hours/week', 'Web Programming Language I - 5 hours/week', 'Web Imaging and Animations - 2 hours/week', 'Network Operating System - 1 hours/week', 'Data Warehouse Design - 3 hours/week', and 'Advance Database topics - 1 hours/week'. At the bottom left of the form is a 'Submit' button.

2. Once the user entered his/her name, selected the course(s) to register and clicked the “Submit” button, the web application validate the student’s request against the following registration rules:
  - The user must enter a student name
  - Full time students – cannot exceed 16 hours in a week.
  - Part time students – cannot register more than 3 courses;
  - Coop students – cannot register more than 2 courses or exceed 4 hours in a week

If the validation fails, the page presents an error message to the user. The followings are a couple of sample screen captures when validation failed:

Course Registration

localhost:44366/RegisterCourse.aspx

## Algonquin College Course Registration

Student Name:  ☒ Full Time ☐ Part Time ☐ Co-op

**You must enter a name!**

Following courses are currently available for registration

- ☐ Introduction to Database Systems - 4 hours/week
- ☐ Web Programming II - 2 hours/week
- ☒ Web Programming Language I - 5 hours/week
- ☐ Web Imaging and Animations - 2 hours/week
- ☐ Network Operating System - 1 hours/week
- ☐ Data Warehouse Design - 3 hours/week
- ☐ Advance Database topics - 1 hours/week

Course Registration

localhost:44366/RegisterCourse.aspx

## Algonquin College Course Registration

Student Name:  ☒ Full Time ☐ Part Time ☐ Co-op

**Your selection exceeds the maximum weekly hours: 16**

Following courses are currently available for registration

- ☒ Introduction to Database Systems - 4 hours/week
- ☒ Web Programming II - 2 hours/week
- ☒ Web Programming Language I - 5 hours/week
- ☒ Web Imaging and Animations - 2 hours/week
- ☒ Network Operating System - 1 hours/week
- ☒ Data Warehouse Design - 3 hours/week
- ☐ Advance Database topics - 1 hours/week

Course Registration

localhost:44366/RegisterCourse.aspx

## Algonquin College Course Registration

Student Name:  ☐ Full Time ☒ Part Time ☐ Co-op

**Your selection exceeds the maximum number of courses: 3**

Following courses are currently available for registration

- ☒ Introduction to Database Systems - 4 hours/week
- ☒ Web Programming II - 2 hours/week
- ☒ Web Programming Language I - 5 hours/week
- ☐ Web Imaging and Animations - 2 hours/week
- ☐ Network Operating System - 1 hours/week
- ☒ Data Warehouse Design - 3 hours/week
- ☐ Advance Database topics - 1 hours/week

The screenshot shows a web browser window with the title 'Course Registration' and the URL 'localhost:44366/RegisterCourse.aspx'. The page has a yellow background and a title 'Algonquin College Course Registration' in bold. Below the title, there is a form with a 'Student Name' field containing 'Wei Gong' and three radio buttons for 'Full Time', 'Part Time', and 'Co-op', with 'Co-op' selected. A red error message states: 'Your selection exceeds the maximum number of courses: 2'. Below this, it says 'Following courses are currently available for registration'. A list of seven courses follows, each with a checkbox: 'Introduction to Database Systems - 4 hours/week' (unchecked), 'Web Programming II - 2 hours/week' (checked), 'Web Programming Language I - 5 hours/week' (unchecked), 'Web Imaging and Animations - 2 hours/week' (unchecked), 'Network Operating System - 1 hours/week' (checked), 'Data Warehouse Design - 3 hours/week' (unchecked), and 'Advance Database topics - 1 hours/week' (checked). At the bottom is a 'Submit' button.

The screenshot shows the same web browser window and page layout as the first one. The 'Student Name' is 'Wei Gong' and 'Co-op' is selected. The red error message now states: 'Your selection exceeds the maximum weekly hours: 4'. The list of seven courses and their checkboxes remains the same as in the first screenshot. The 'Submit' button is at the bottom.

3. If the validation is successful, the user will be presented with a confirmation page. On this page:
- The name of the student and type of the student are no changeable.
  - A table lists all courses the students selected and the total weekly hours.

Followings are two sample screen captures:

Course Registration

localhost:44366/RegisterCourse.aspx

## Algonquin College Course Registration

Student Name:  ☒ Full Time ☐ Part Time ☐ Co-op

has enrolled in the following courses

Course Code	Course Title	Weekly Hours
CST8282	Introduction to Database Systems	4
CST8253	Web Programming II	2
CST8256	Web Programming Language I	5
CST8254	Network Operating System	1
CST2240	Advance Database topics	1
Total		13

Course Registration

localhost:44366/RegisterCourse.aspx

## Algonquin College Course Registration

Student Name:  ☐ Full Time ☒ Part Time ☐ Co-op

has enrolled in the following courses

Course Code	Course Title	Weekly Hours
CST8255	Web Imaging and Animations	2
CST8254	Network Operating System	1
CST2240	Advance Database topics	1
Total		4