

CSC 415/515 WEB APPLICATIONS

PROJECT 1

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1. OVERVIEW OF ASSIGNMENT

Write a CGI web application that allows an instructor of a course to compute grades for students. The application consists of two programs:

- (1) `CSC415Project1.exe`
- (2) `Compute_grades.exe`

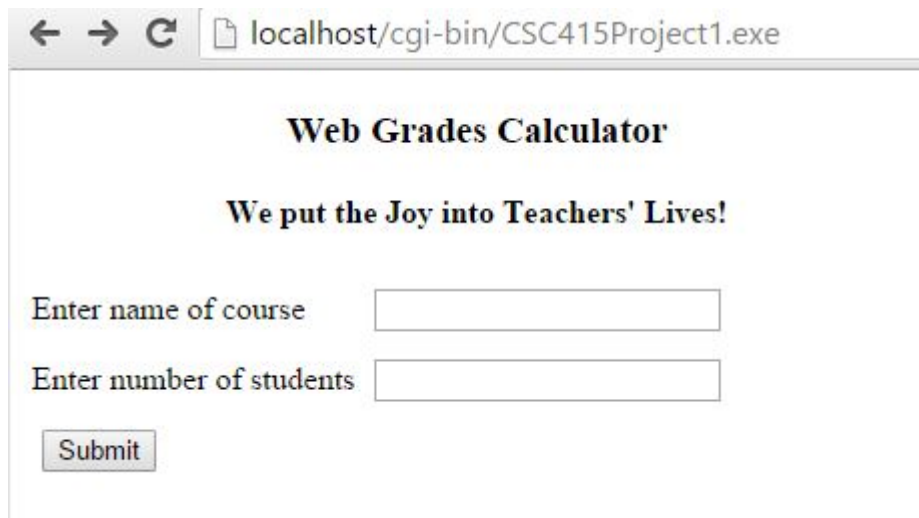
Both of these programs are explained below.

2. HOW THE WEB APPLICATION WORKS

The `CSC415Project1.exe` is a web resource that responds to both GET and POST requests. The first request for this request will typically be via the resource URL being typed into the address bar of a browser:

`http://localhost/cgi-bin/CSC415Project1.exe`

The response will be a HTML welcome page sent to the browser:



← → ↻

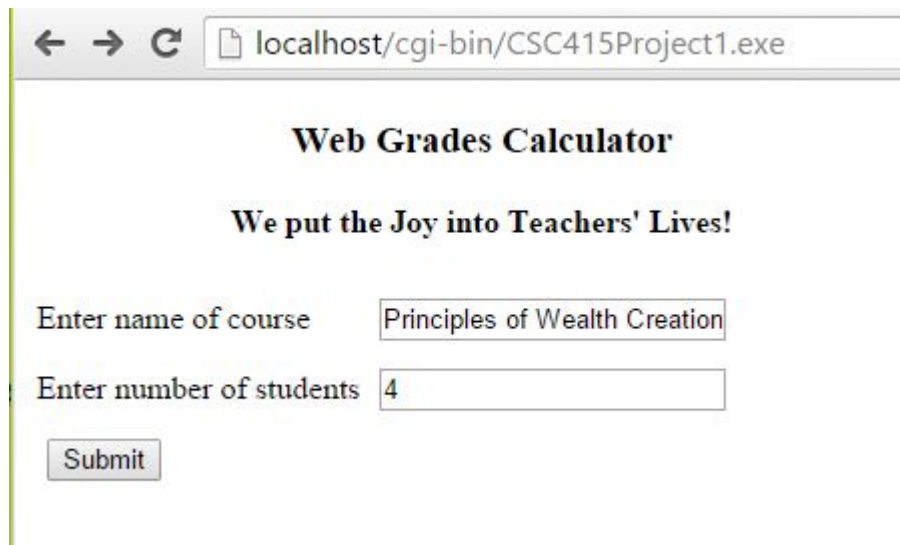
Web Grades Calculator

We put the Joy into Teachers' Lives!

Enter name of course

Enter number of students

The user will then enter the requested information



← → ↻ localhost/cgi-bin/CSC415Project1.exe

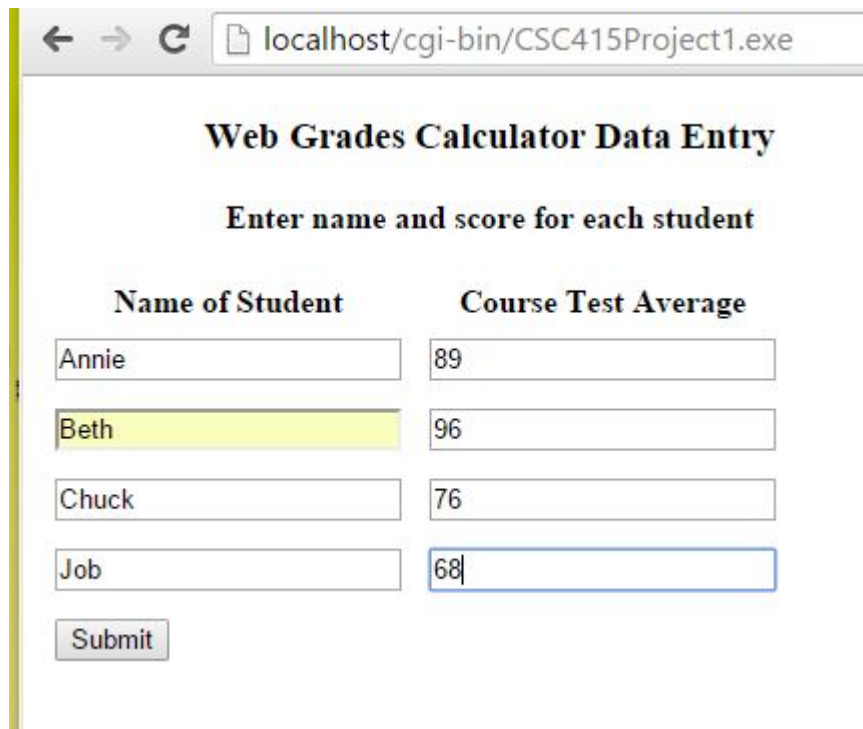
Web Grades Calculator

We put the Joy into Teachers' Lives!

Enter name of course

Enter number of students

and submit the form. The form is submitted via a POST request to the same program, which returns a HTML form suitable for entering name and score information for the specified number of students.



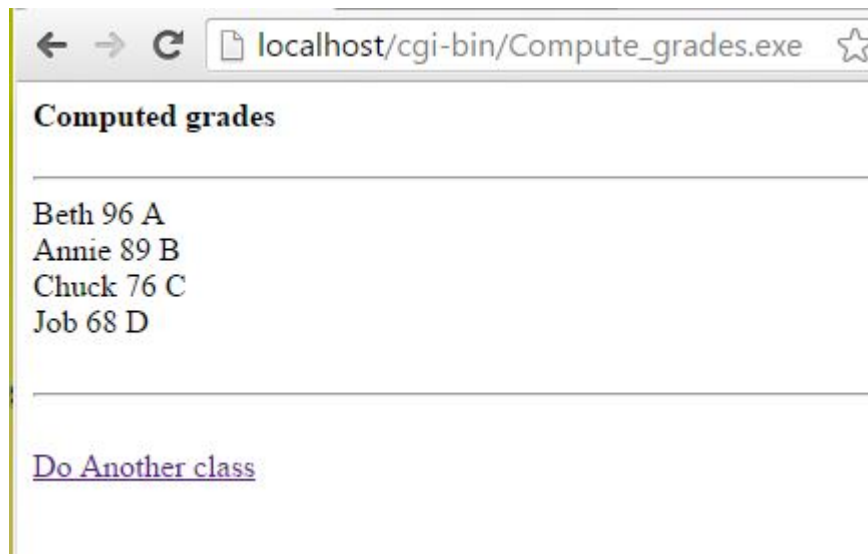
← → ↻ localhost/cgi-bin/CSC415Project1.exe

Web Grades Calculator Data Entry

Enter name and score for each student

Name of Student	Course Test Average
<input type="text" value="Annie"/>	<input type="text" value="89"/>
<input type="text" value="Beth"/>	<input type="text" value="96"/>
<input type="text" value="Chuck"/>	<input type="text" value="76"/>
<input type="text" value="Job"/>	<input type="text" value="68"/>

Once the instructor has filled out the form, pressing the Submit button will post the form to the `Computer_grades.exe` program, which returns the following HTML page



Observe that the returned page gives a list of the students in non-increasing order of scores, and assigns a grade to each student based on the score. Grading uses the usual 100-90-80-70-60-0 grading scale to assign letter grades.

In addition to the displayed grades, the results page includes a link with text

Do Another Class

that will send the user back to the welcome page.

3. DUE DATE AND SUBMISSION

This assignment is due Sunday night at the end of Week 3.

You will need to submit a zipped folder containing both the source code and Windows executables for the two programs. Source code must be written in C#.

I will provide advice on design and implementation, and briefly discuss features of C# that are likely to be useful and save you time, in the lecture Monday of Week 3.