

Due Date: May 2, 2016 @ 8:00am

To be submitted in the dropbox:

- Create a BitBucket account using your .edu email, use Git to push your project to BitBucket, and then give **roachj** read access to the BitBucket project (name the project **<your ETSU username> CSCI5220 Assignment 2** e.g. **roachj CSCI5220 Assignment 2**).
- Drop a text file with your BitBucket account username and project name. If you are using some other branch than master then name the branch.

Personal GPA Tracker

An ASP.NET MVC web based application has been written to manage and track someone's personal GPA (Grade Point Average). The application's features are described below.

- **Use SpecFlow and Gherkin**
- **For each feature, create a feature file and at least 2 scenarios. Then create a set of automated acceptance tests based on the scenarios.**
- **The application's code is provided (PersonalGPATracker.zip).**
- **Do not hesitate to ask your professor questions and clarifications.**

Title Bar Feature

The title bar is visible on all pages.

- Name of the application: **Personal GPA Tracker**
- 'Home' link – takes the user to the Home page
- 'Add Course' link – takes the user to the Add New Course page
- Name and email of the developer – the email is a mailto link

Show Courses and Total GPA Feature

/home/index

This is the home page of the application.

This page should:

- Display a link that allows the user to add a new course
- Display a list of courses that the user wants to track. The following information is to be displayed for each course line item:
 - Course code (e.g. CSCI3110)
 - Course title (e.g. Advanced Web Design and Development)
 - Course credit hours (e.g. 3)
 - Course letter grade and grade points (e.g. A [4.0])
 - A = 4.0
 - A- = 3.7
 - B+ = 3.3
 - B = 3.0

- B- = 2.7
- C+ = 2.3
- C = 2.0
- C- = 1.7
- D+ = 1.3
- D = 1.0
- F = 0.0
- U = 0.0
- Course quality points (e.g. 12.0)
 - Course quality points = course credit hours × grade points. An 'A' would give $3 \times 4.0 = 12.0$ while a 'C-' would give $3 \times 1.7 = 5.1$.
 - Displayed to 1 d.p.
- Displays links to allow the user to edit, view, or delete a course's data
- Display the total GPA
 - Total GPA = Total quality points ÷ Total credit hours

Add New Course Feature

`/course/add`

This page should:

- Present a form that allows the user to enter a course's data:
 - Course code
 - Course title
 - Course credit hours (Dropdown: 1, 2, 3, 4, 5, 6)
 - Course letter grade (Dropdown: A, A-, B+, B, B-, C+, C, C-, D+, D, F)
- Present a button that allows the user to submit the form as a POST to: `/course/addcourse`
- Display a link to allow the user to go back to the home page

When the form is submitted the course's data is stored into the course collection and the user is redirected to the home page.

Edit Course Feature

`/course/edit/<course code>` e.g. `/course/edit/csci3110`

This page should:

- Present a form that allows the user to edit a course's data:
 - Course code
 - Course title
 - Course credit hours (Dropdown: 1, 2, 3, 4, 5, 6)
 - Course letter grade (Dropdown: A, A-, B+, B, B-, C+, C, C-, D+, D, F)
- Present a button that allows the user to submit the form as POST to: `/course/editcourse`
- Display a link to allow the user to go back to the home page

When the form is submitted the course's data is updated in the course collection and the user is redirected to the home page.

View Course feature

`/course/view/<course code>` e.g. `/course/view/csci3110`

This page should:

- Display the course's data
 - Course code
 - Course title
 - Course credit hours
 - Course letter grade
- Display links to edit or delete a course
- Display a link go back to the home page

Delete Course Feature

`/course/delete/<course code>` e.g. `/course/delete/csci3110`

This page should:

- Confirm that the user want's to delete this course
 - If confirmed the course's data is deleted from the collection and the user redirected to the home page
- Display a link to allow the user to go back to the home page