# Lab 7, Group B - Repositories and Unit Tests

CS295N, Web Development 1: ASP.NET

## **Objectives**

The purpose of this lab is to help you learn to:

- Create real and fake repositories
- Use dependency injection to provide controller objects with the correct repository
- Write controller methods that use the repositories
- Write Unit tests to test the controller methods

# **Part 1: Chapter 7 Exercise**

Do the exercise in Freeman, *Pro ASP.NET Core 2*, chapter 7 through page 185 (stop before the section on Moq).

If you haven't done the chapter 6, exercise, you can download the completed Ch. 6 code from the author's GitHub repository, <a href="https://github.com/apress/pro-asp.net-core-mvc-2">https://github.com/apress/pro-asp.net-core-mvc-2</a>.

### Part 2: Fan Web Site

You will be adding capability to the Story page so that fans can post stories. At this point, stories will just be stored in memory, not in a database. Here is what you need to add:

- 1. A Story repository which means you will need:
  - a. An interface
  - b. A real repository that in the future will store stories entered by fans. You should already have this, but will need to modify it to implement the interface above
  - c. A fake repository that contains hard-coded stories for testing
- 2. View(s) and Controller method(s) for commenting on stories (if you haven't already done this).
- 3. Modify the Story controller to work with the new StoryRepository.
- 4. Unit tests for the methods in the Story controller.
  - a. The tests should use the fake Story repository
  - b. Write tests for all the methods that do something more than just invoke a view.
  - c. You should end up with tests for at least  $3\ \text{or}\ 4\ \text{methods}.$

### **Submission to Moodle**

#### Beta Version

Upload the following to the Code Review Forum:

- 1. A document containing screen-shots of the web app in exercise running in your browser. (please use .docx or .pdf format)
- 2. A zip file containing your web app's Visual Studio solution folder. Or, a link to a repository containing your web site solution source code. You can put the link on the same document with the report on your tutorial exercise.
- 3. A code review of your lab partner's work. (You do this after your lab partner submits items 1 and 2 and you review them.)

#### **Production Version**

- 1. Items 1 and 2 above, but revised as needed.
- 2. The code review of your work (the one done by your lab partner) with the second column ("Production") completed by you.