# Lab 6, Group A – 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, tutorial, you can download the completed ch. 6 code from the author's GitHub repository, https://github.com/apress/pro-asp.net-core-mvc-2 .

## Part 2: Community Information Site

You will be adding testing capability to the Contact page. At this point, messages will still just be stored in memory, not in a database. Here is what you need to add:

1) A Message repository; which means you will need:
   a) An interface
   b) A real repository that in the future will store messages entered by the user. You should already have this, but will need to modify it to implement the interface above
   c) A fake repository that contains hard-coded messages for testing
2) View(s) and Controller method(s) for replying to messages (if you haven't already done this).
3) Modify the Contact controller to work with the new ContactRepository.
4) Unit tests for the methods in the Contact controller.
   a) The tests should use the fake Message 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 or 4 methods.

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## 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.

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