

Lab Assignment #3 – Designing and implementing a complete web app using MEAN stack

Due Date: March 20

Purpose: The purpose of this homework is to:

- Build an Express Rest API
- Build an Angular 2 MVC front end that utilizes Express rest API
- Perform CRUD operations

References: Read the textbook, lecture slides, and class examples. This material provides the necessary information that you need to complete the exercises.

Be sure to read the following general instructions carefully:

- This assignment must be completed using the **pair programming technique** (https://en.wikipedia.org/wiki/Pair_programming).
- You will have to demonstrate your solution in a scheduled lab session, and submit the project using the assignment link on Dropbox. **You VS project name should be named “YourFullNameLab3” and should be zipped in a file YourFullNameLab3.zip.**

Exercise 1

Create an Express Rest API which exposes CRUD functionalities for a student/course system. Create a *student* model which describes student information (*student number, password, first name, last name, address, city, phone number, email, program*) and also a *course* model which describes course information (*course code, course name, section, semester*). The information should be stored in a MongoDB database. Provide authentication capabilities using Passport – local strategy.

Create an Angular 2 MVC front end that allows students to *login*, *add* a course, *update* a course (for example change the section), *drop* a course, and *list* all the courses.

Apply MVC principles. Design nice and friendly web pages.

(10 marks)

Evaluation:

Functionality:

MongoDB database	10%
Express Rest API	40%
Angular 2 MVC	35%

Friendliness: 10%

Innovation: 5%

Total: 100%