Lab 5 Handout: A Web Application for Scheduling Courses

Due: 29 November 2018

1 Objectives

- View all current and past courses from web.
- Schedule a course using a web form.

2 Task description

This lab is a follow-up to Lab 4. In this lab, you will use Flask to create a web application that allows us to view all current and past courses, and to schedule a course in a semester (i.e., assign a course to an instructor and allocate a time and location for it).

The functional requirements of the web application are described as follows:

- The main page shows a list of courses, sorted by course number in increasing order, then by semester in decreasing order. Each item in the list includes course number, course name, semester, time, location, and course instructor. Clicking course number shows detailed course information. Clicking course instructor shows detailed instructor information. Clicking course name shows a list of students enrolled in that course.
- The main page also includes a link called *Schedule Course*. Clicking this link will open a form in which we can enter course information, semester, time, location, and instructor information. Note that if we are scheduling an existing course to an existing instructor, we only need to provide the course number, semester, time, location, and instructor number.
- The successfully scheduled course will appear in the main page.

Hints:

- Create class `SchoolDatabase` for various database queries.
- Import classes from your previous labs in `school.py`. `school.py` does flask-related jobs.

The starter code and several example web pages for this lab can be downloaded from the course homepage under section Labs.

3 Other requirements

- Do the lab in a group with a maximum of 2 students.
- I only accept object-oriented implementation. I should be able to run your program by typing `python school.py` in the command line and then entering `http://127.0.0.1:5000/` in firefox.
- The partial work is due immediately after the lab. The completed work is due on November 29.
- Submit your work with the following email subject line: `[OO Lab5] STATUS Name(s) and student number(s)`, where `STATUS` can be `PARTIAL`, `COMPLETE`, or `PARTIAL&COMPLETE`.
- Submit by the due date three working python source files, namely, `interface.py` and `Lab5.py` and `school.py`.
- Submit by the due date your SQLite databases, `school.sqlite3`.