1 Overview

The fifth assignment is a web programming exercise on a topic of your choice. This assignment differs from the previous ones in a number of ways:

1) You pick the topic – it can extend one of the earlier assignments, or it can be something entirely new;
2) You pick the technology to use – it can be client-side programming, server-side programming, and it can also use technologies you may be familiar with that we have not covered in the class (php, ruby on rails, etc.);
3) You can work in teams, but the larger the team the more you will have to do.

We propose below two sample topics suitable for individual assignments but we encourage you to come up with your own topics. Due to the differences between this assignment and the previous ones the evaluation and the format will also differ.

2 Sample assignment – extended student information system

Extend your code for assignment 3 with web pages that implement all database interactions described in assignment 2. The application-wide default parameter values should be implemented by selecting the appropriate element by default in drop-down lists. These defaults should also apply to the existing grade report and class roster pages. You should not implement the open and close commands, but you should provide a page where the user can override the default parameters for the database connection. The transcript page should not have any inputs. Instead, the user would obtain a transcript for a given student through the listfromstate or classroster pages by clicking on the name of a student. The transcript page should display the class names, catalog numbers, the semester and year the student took them and grades. It should also display other information the database keeps about the student (address, etc.).

3 Sample assignment – extended catch-the-prof

Extend your code for assignment 4 with new features for the game. You should add a timer measuring how long it took the player to catch all profs. You should also add a scoreboard summarizing some type of score based on the time it took to catch individual images and the speed setting of the game (together with the record of the current “session”). You should also add one more complex feature. For example the game can give bonus points for catching a given prof in the arena (selected at random by the game). The image of the bonus prof should be distinguished from the others (e.g. by adding some form of blinking border around it). The bonus can be active for a pre-set period of time, or until the image bounces into the first wall. This can be turned into a team assignment by adding more features such as negative bonuses, profs randomly escaping from jail, non-linear trajectories through the arena, etc.
5 **Grading and topic selection**
Before starting work on a given topic for this assignment, you need to discuss it with me (the instructor) so that I can make sure it is in scope and that the amount of work required is appropriate for the size of your team. We can have this discussion over email.

6 **Submission**
Please email your assignment as attachment to a single message to me (the instructor). You will also have to schedule a meeting where you can demonstrate your web application live. This meeting must take place before the final for the class.