IS 668 Class Project

Objectives

The IS 668 class project is designed to provide graduate students with the opportunity to exercise the following skills:

1. Working together in a small team setting
2. Performing independent research on technical topics
3. Practice source code control using github
4. Integrate many of the technologies used in IS 668 in a single project
    - Python
    - Web Development Frameworks (Flask)
    - HTML and CSS, Bootstrap
    - Data Base Management

Details

The project objective is to build a web application that provides the functionality of classroom gradebook, similar, *in concept*, to the gradebook we commonly use in class. This is a student project - there is no expectation of a professional gradebook. The gradebook shall have the following *Basic* characteristics and requirements. To receive a grade of B in the project, all Basic Requirements must be implemented.

- The project must be deployed on pythonanywhere. If need be, create a team account so that multiple team members can access the account.
- The capability to add a student to the class
- The capability to delete a student from the class
- As a minimum the following data shall be available for each student
    - First name
    - Last name
    - Student id
    - Students major
    - Students email address
- Initially, there shall be 4 assignments, populated with grades
- The capability to change/edit a grade shall be provided
- The capability to display the student roster and all grades
- The name of the class shall be displayed
- The gradebook shall be accessed via username and password
- Working together, as a team, is a project requirement.

The gradebook shall have the following *Advanced* characteristics and requirements. To receive a grade of A in the project, all Advanced Requirements must be implemented.

- The capability to add an assignment to the gradebook
- The capability to delete an assignment from the gradebook
- The capability to display the students aggregate grade (assume all assignment are equally weighted)
- The capability to display the student roster and grades, in alphabetical order.
- The capability to display the data (all grades and other data) for a single student

Optional Challenge: The ability for more than one user to simultaneously access the gradebook. You will need to do independent research on the Flask Session.

GitHub

Each team is required to create an account on GitHub . You are required to put all code, templates and other resources on this github account. If need be, create a team account so that multiple team members can access the account.

Submission

You are required to submit the following to Blackboard.

1. A link to your team github account
2. A link to your pythonanywhere project

3. A 3 to 5 page write up describing the overall structure of your project, team member contributions and responsibilities, testing methodology, and any other design detail you think is relevant. Please include the database structure you chose (it is assumed that it will be a simple structure). As you proceed with the project, you will have many questions that are not addressed by the requirements and capabilities specified above - as is almost **always** the case in development projects. It is left to you to make these decisions. Please specify the decisions you made in your write up.
4. The project is worth 20% of your grade. Both team members shall receive the same grade
5. The project is due by 11:59 PM EST, May 22nd.

Good luck and have fun!