Web Development Using Application Frameworks
Coding Assignment: Controller
Instructions

Overview

The Controller coding assignment is the next in a series of assignments in which we will be developing the EZU database system, a full C-R-U-D database application for a simplified university record keeping. In the first part of this assignment, we refactor the controller code (urls.py and views.py) for the list pages. In the second part of the tutorial, we create template files for the detail pages and enable them by creating entries in urls.py and views.py.

Tools

I am expecting you to use the tools that are demonstrated in the tutorial videos: Anaconda and PyCharm.

Tool Versions

In the current semester, I am expecting you to use Python 3.10 and Django 4.1.

Starter Files

Please note that I have provided starter files for use in Part 2 of the tutorial. You may download them from the Weekly Schedule:

- starter_files_for_controller_assignment.zip

Tutorial Parts

Exercise 1 of this tutorial has two parts.

In Part 1, we refactor the urls.py and views.py entries for the list pages. In the video, I demonstrate refactoring and testing for the following list pages.

- Instructor
- Section

At the end of the Part 1 tutorial video, you are instructed to perform the same refactoring and testing for the remaining list pages on your own:

- Course
- Semester
- Student
- Registration

In Part 2, we create template files for the detail pages and enable them by creating appropriate entries in urls.py and views.py. During the video, I demonstrate coding and testing for the following detail pages.

- Instructor
- Section
- Semester

At the end of the Part 2 tutorial video, you are instructed to perform similar coding and testing for the remaining detail pages on your own:

- Course
- Student
- Registration

Exercises

1. **Exercise 1 (Regular)**
   Follow both Part 1 and Part 2 of the tutorial instructions exactly. Be sure to do manual testing on your code.

2. **Exercise 2 (Challenge)**
   My tutorial videos for this assignment do not include automated unit testing. For the Challenge exercise, code automated unit tests using the same approach that we used for the Vincent Chapter 5 coding assignment. In this week's challenge, include automated unit tests for any code that we created in urls.py, in views.py, and in our templates.

Code Deliverables

You are expected to submit one properly organized PyCharm Django project that is ready to be tested using PyCharm. Please refer to my tutorial video for details. Even if you have decided to do Exercise 2, just submit one Django project.

Non-Code Deliverables

Please be sure that the project you submit includes the following:

1. A test user (username = "tester", password = "{iSchoolUI}". PLEASE NOTE: We have changed the password that in the current semester. The old password is mentioned in some of the tutorial videos. Please be sure to use the new password instead.
2. Sufficient test data present in the database to allow for testing all functions

Submission Method

Follow the process that I demonstrated in the tutorial video on submitting your work. This involves:

- Locating the properly named directory associated with your project in the file system.
- Compressing that directory into a single .ZIP file using a utility program.
- Submitting the properly named zip file to the submission activity for this assignment.

File and Directory Naming

Please use the following naming scheme for naming your PyCharm project:

surname_givenname_ezu

If this were my own project, I would name my PyCharm project as follows:

trainor_kevin_ezu

Use a zip utility to create one zip file that contain the PyCharm project directory. The zip file should be named according to the following scheme:

surname_givenname_ezu.zip

If this were my own project, I would name the zip file as follows:

trainor_kevin_ezu.zip

PLEASE NOTE: All file and directory names must be in lower case. Deductions will be made for submissions that do not conform to this standard.

Due Date

Please see the Weekly Schedule for the date and time when this assignment is due.

Last Revised
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