

Web Development Using Application Frameworks

Coding Assignment: Pagination and Staticfiles

Instructions

Overview

The Pagination and Staticfiles coding assignment is the next in a series of assignments in which we will be developing the EZ University database system, a full C-R-U-D database application for a simplified university record keeping. In the Pagination portion, we add pagination to the Instructor List and Student List pages. In the Staticfiles portion, we add layout and styling to the pages of the EZU application.

Tools

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

Tool Versions

Use the versions of PyCharm Professional, Anaconda, and Python that we installed during Week 1 of the course when we created the *e4_trainor_django_course* virtual env. These versions are documented in *Instructions for Tool Versions, Installation, and Virtual Environments*.

Tutorial Parts

This is a three-part tutorial: Part 0, Part 1, and Part 2.

Part 0 – Run Migrations That Load Data for Pagination Testing

This part of the assignment is completely instructor-led. Play the tutorial video and follow along on your computer while you load test data for instructors and students. There is a starter zip file for this portion of the assignment that you need to download from the weekly schedule:

- ezu_test_data_migration_starter_files.zip

Part 1 – Add Pagination to Instructor List and Student List Pages

We begin this part of the tutorial by working together to code and test pagination capability for the following page:

- Instructor List

While accomplishing this goal, we will use the starter files provided in:

- ez_university_pagination_tutorial_starter_files.zip

After completing work on the Instructor List, you will work by yourself to code and test pagination capability for the following page:

- Student List

Part 2 – Staticfiles

In this part of the tutorial, we work together to do the following:

- Configure the Staticfiles feature in our Django project.
- Place .css and .png files into a *static* directory in our project.
- Update most of the template files in our project with new versions that contain styling hooks.

While accomplishing these goals, we will be using starter files provided in:

- ez_university_staticfiles_tutorial_starter_files.zip

The result of our efforts is a styled Web application that is substantially more visually appealing than the unstyled version that we have worked with up to this point.

Exercises

1. Exercise 1 (Regular)

Follow Parts 0 and 1 tutorial instructions exactly. These are the parts in which we load test data and develop the pagination features.

2. Exercise 2 (Regular)

Follow Part 2 of the tutorial instructions exactly. This is the part in which we add Staticfiles to the project.

3. Exercise 3 (Challenge)

The challenge exercises for all of the EZU-based coding assignments will be based on finding ways to maximize the usefulness of the Django Admin app in the activities of the current assignment. When working on these challenge exercises, you may consult any resources that you may find helpful. I am offering the following resources as a starting point:

1. [Django Software Foundation \(2025\)](#). *The Django admin site* in Django Documentation.
2. [Real Python \(2025\)](#). *Customize the Django Admin With Python*.
3. [Tomazic, N. \(2024\)](#). *Customizing the Django Admin* in TestDriven.io.

This week's challenge exercise is to do the following:

1. Write a short report that identifies ways in which we might customize the Django Admin app to help with the current week's work of writing and testing the code for this assignment.
2. Identify 1 or 2 customizations. For each customization briefly explain how that customization might make our work easier or might make us more effective. Also, identify any coding work that would be required to implement the customization.
3. Place your report in a text file named *pagination_assignment_challenge.txt*. Place that text file directly into your Django Project directory.
4. Format your work as a business report with proper paragraphs and sentences. Pay attention to grammar, choice of words, and spelling. You do not need to cite sources.

Code and Document 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}”
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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