

Web Development Using Application Frameworks

Coding Assignment: Django Girls Tutorial

Instructions

Overview

Follow the instructions for the [Django Girls Tutorial](#) to begin creating your own copy of the Django Girls Blog. This tutorial is very popular and is geared toward beginners. This includes people who are experienced with Python and new to Django. It also includes people who are new to programming. So, don't be surprised when you find content that is targeted at someone with much less experience than you. Just give it a quick glance and then move on.

In just a few weeks, we will begin the EZ University (EZU) tutorial. The EZU tutorial covers more features of Django. More important, it dives into the details of Django features more deeply. The purpose of this Django Girls Tutorial is to get you into the rhythm of working with Django and to help you see the extent of Django's features. I don't want you to have to wait until Week 12 of the semester to finally see the big picture.

Save Your Creativity for the Final Project

In some coding-oriented courses, creativity is encouraged. This is NOT true of the coding assignments for this course. When grading your work on coding assignments, we want to know that you understand the features and can implement them as instructed. This means that you should build the exact product that is shown in the tutorial. There is no extra credit for adding extra content, picking a different font, using more appealing colors, or adding features that you believe are missing.

The Final Project assignment for this course will be a big Django application that you design and implement all by yourself. There is plenty of work to be done on this assignment and it is a great outlet for your creativity. Please save all of your creative energy for the Final Project!

Tools

The instructions for the Django Girls tutorial direct the student to use a more basic set of developer tools than we will be using for most of this course. Coding is done with a text editor. Virtual environments are created at the command line using *virtualenv* and *pip*. Testing is done at the command line. Version control with Git is done at the command line. The Django Girls folks wanted to pick a tool set that is free today and likely to be free forever. They teach day-long seminars with this content to people of all means all over the world. So, this tool set fits their requirements well.

I recommend that you use the tools that you installed during Week 1 of this course rather than those mentioned in the Django Girls Tutorial. Our approach to tools favors those tools more typically used in the U.S. workplace. Anaconda will be used to create virtual environments. PyCharm will be used for coding and testing. If you start to use our preferred tool set in this assignment, you will be a step ahead when we begin work on the EZU tutorial in a few weeks.

If you decide to use the exact toolset described in the Django Girls Tutorial, it will be easier to follow the instructions. If you use our preferred toolset, you will need to adapt some of the procedures to our toolset. There is no perfect choice here. You will need to weigh these two options and pick one.

Remember that we will be grading your submission using the preferred tool set. We will open the project that you submit with PyCharm and test it. So, even if you decide to use the more basic tools mentioned in the Django Girls Tutorial, you still need to do a final test using PyCharm. Please remember to do this before submitting your work in order to avoid grade deductions.

Software Versions

This semester we will be using Python 3.8 and Django 3.2 for this assignment.

Code Deliverables

You are expected to submit a properly organized PyCharm Django project that is ready to be tested using PyCharm. If you have been using the simpler tool set described in the Django Girls Tutorial, you will need to convert it to a proper Django project before final testing and submission. Please refer to my tutorial video for details.

Exercise 1 (Required)

This exercise is based on the Django Girls Tutorial:

- <https://tutorial.djangogirls.org/en/>

Follow the directions in the following sections to create your Django project:

- Your first Django project!
- Django models
- Django admin
- Django URLs
- Django views – time to create!
- Dynamic data in templates
- Django templates
- **CSS – make it pretty**
- Template extending
- Extend your application
- Django Forms

Feel free to read the other sections of the tutorial. Do NOT include the work from those other sections in your submission.

Exercise 2 (Optional Challenge Exercise)

If you choose to do this option, then you will be enhancing the code created in Exercise 1. So, you will submit the enhanced code from Exercise 2 rather than the code from Exercise 1.

This exercise is based upon the Django Girls Tutorial - Extensions:

- <https://tutorial-extensions.djangogirls.org/>

Follow the directions in the following sections to create your Django project:

- Homework: add more to your website!
- Homework: secure your website
- Homework: create comment model

Feel free to read the other sections of the tutorial. Do NOT include the work from those other sections in your submission.

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_django_girls_tutorial

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

trainor_kevin_django_girls_tutorial

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_django_girls_tutorial.zip

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

trainor_kevin_django_girls_tutorial.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
2022-02-24