Web Development Using Application Frameworks
Coding Assignment: Authentication and Admin
Instructions

Overview

The Authentication and Admin coding assignment is the ninth 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 simplified university record keeping. In this assignment, we add login and logout functionality; create users, user groups and permissions; and restrict access within most parts of our application to authorized users.

Tools

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

Tool Versions

In the current semester, I am expecting you to use Python 3.6 and Django 2.1.X.

Tutorial Parts

This is a 3-part tutorial.

Part 1 – Add Login/Logout Functionality

In this part of the tutorial, we work together to add login/logout functionality to our *courseinfo* app. The following is a list of activities conducted in this part:

1. Add urlpattern and template for login

2. Add LOGIN_REDIRECT_URL to settings.py

3. Add urlpattern for logout

4. Add LOGOUT_REDIRECT_URL to settings.py

5. Test login/logout using admin pages

6. Add markup for login/logout to base.html

7. Test finished version of login/logout

Part 2 – Create Groups, Users and Permissions

In this part of the tutorial, we work together to create user groups, users, and permissions. The following is a list of activities conducted in this part:

1. Do migration for create groups (see starter file)

2. Create users by hand using Admin app

3. Do migration for create group permissions (see starter file)

4. Explore user powers in Admin app and Courseinfo App.

Files needed for this part of the tutorial are provided in:

- starter_files_for_ez_university_authentication_and_admin_part_2.zip

Part 3 – Modify Courseinfo App to Enforce Permission Scheme

In this part of the tutorial, we work together to make modifications to the EZ University project that enforce previously created login and permission rules. The following is a list of activities conducted in this part:

1. Add LoginRequiredMixin and PermissionRequiredMixin to class-based views.

2. Set target of redirect_root to about page (about_urlpattern).

3. Set LOGIN_REDIRECT_URL to about_urlpattern in settings.py.

4. Set LOGIN_URL to reverse_lazy('login_urlpattern') in settings.py

5. Add SESSION_EXPIRE_AT_BROWSER_CLOSE variable to settings.py

6. Replace base.html template with new version that hides links (see starter files).

7. Replace all _list.html and _detail.html templates with new version that hides buttons (see starter files).

Files needed for this part of the tutorial are provided in:

- starter_files_for_ez_university_authentication_and_admin_part_3.zip

Deliverables

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

1. A test user (username = "tester", password = "(secret)"
2. Sufficient test data present in the database to allow for testing all functions

Submission

Submit 1 properly named and properly organized zip file containing your PyCharm project. Remember to use the following naming conventions:

- Project Name: yourLastName_yourFirstName_ez_university
- File Name: yourLastName_yourFirstName_ez_university.zip

Due Date

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