

## COM214 - Spring 2021

### Final Project Option - ToDo App

**Due by 5PM on Monday 05/17, NB: Submit by NOON if a graduating senior (let me know by email).**

For this option of the Final Project, you will design and create a basic and interactive TODO application in Django. Your application will have custom user accounts, and the ability to create and manage ToDo items; in addition - each ToDo item will have an associated Category - another managed item in your application. Thus, there is a one-to-many relationship between Categories and ToDo items; A Category will have many associated ToDo items, and each ToDo item will belong to or be associated with a single Category - through a foreign key field. Your application will have at least three PERMANENT links in its NavBar - Todos - lists all Todos, Categories - lists all categories, Completed Todos - only listing Todos that are complete.

The visual / front-end design of your application is for you to design a professional and polished application, with the full use of CSS, images, Bootstrap, icons, etc. as you see fit.

#### DESIGN & FUNCTIONALITY:

- Users - Authentication & Authorization (20 pts):
  - Your custom user accounts/models should allow users to sign-up with their first name, last name, username, and email address. When logged in, the first name of the user should be displayed in all pages.
  - Only logged in users can see and manage Todos and Categories in your application, your application should direct users to login/signup pages accordingly.
- Categories (28 pts):
  - Model fields: name - text, owner - User > automatically assigned to the logged user, this field doesn't show up in Category forms.
  - Functionality views/pages and urls:
    - /categories/ - lists all Categories
    - /categories/<pk> - displays the Category details, AND LISTS all of its associated Todos. On this page:
      - Include links/buttons to Edit and Delete the category - deleting a Category also deletes all of its associated ToDo items.

- Each listed ToDo item should have a link/button to its ToDo/detail page.
    - /categories/<pk>/edit
    - /categories/<pk>/delete
- Todos (40 pts):
  - Model fields: title - text, priority - boolean, completed - boolean, category - Category, owner - User > automatically assigned to the logged user, this field doesn't show up in ToDo forms.
  - Functionality views/pages and urls:
    - /todos/ - lists all Todos. On this page:
      - Each ToDo item should have links/buttons to edit, delete pages.
      - Design: ToDo items that have a priority or completed should have specific visual design indicating these attributes - think CSS design and Bootstrap components - eg. label, background, colors, etc.
    - /todos/complete - lists completed Todos
    - /todos/<pk> - displays a single ToDo based on id/pk
      - Includes links/buttons to edit and delete the ToDo
    - /todos/<pk>/edit
    - /todos/<pk>/delete

### DESIGN COMPONENTS (12 pts):

- (3 pts) Full Bootstrap design on your UI
- (3 pts) Use of Font-Awesome icons
- (3 pts) Use of custom CSS
- (3 pts) README.txt - Include a README.txt file in your project folder: listing your team members, development process, and any special instructions on packages/libraries used and how to install them, and how to properly run and test your application.

### BONUS:

- (Up to 5pts) Personalized/Unique data per user, where all displayed Todos and Categories are user-specific, only those created by the user based on the owner fields.
- (Up to 5pts) Exceptional creativity in visual design or functionality.

**SUBMISSION:**

A final project submission link will be added to Moodle, and your final project is to be submitted the same way all other projects have been: with all files (and subdirectories, if any) collected into one folder, which is then compressed into one .zip file. Name your submission folder using the usual convention (username\_finalproj).

Only one group member should submit each project, but make sure all group members' names are displayed prominently in the comments at the top of each created/edited code file.