### Exercise 2.8: Deploying a Django Project

1. Explain how you can use CSS and JavaScript in your Django web application.

You can improve user experience, feel and look of the application by adding consistent stylings, animations using CSS and JavaScript.

1. In your own words, explain the steps you’d need to take to deploy your Django web application.

First you have to upload all the files in src folder of your project to an online repository like GitHub. It’s important to remove settings.py (or at least SECRET\_KEY in the file) for security reason before uploading it and remember to add necessary files like .gitignore for Django application and README.md. Next step is to amend code for deploying. This process consists of several steps:

* Create Procfile
* Install necessary packages (gunicorn, dj-database-url, psycopg2, whitenoise)
* Add new configurations in settings.py (for database, static files, SECRET\_KEY, set DEGUG=False etc.)
* Generate requirements.txt

After the completing the process above, it is the step to host your Django application on Heroku. Login to Heroku, create application ($heroku create) and push your project ($git push heroku main). Then set up database table ($heroku run python manage.py migrate ) and create superuser. This is required as the database for production environment is different from the one you’ve been using in the development environment. Finally add the URL of deployed application on ALLOWED\_HOST in settings.py then push the changes to both GitHub and Heroku. And your application should be successfully deployed. You can use $heroku open to open the site on the browser.

1. You’ve now finished Achievement 2 and, with it, the whole course! Take a moment to reflect on your learning:
   1. What went well during this Achievement?

I was able to understand the MVT architecture, what they do, how to define each of them and how all works together in the same application.

* 1. What’s something you’re proud of?

I learned another use of popular framework with new language Python (so far I have only been working with JavaScript technologies stack).

* 1. What was the most challenging aspect of this Achievement?

The most challenging process was to implement data visualization using pandas and matplotlib. The logic for generating the chart was complicated involving muti packages.

* 1. Did this Achievement meet your expectations? Did it give you the confidence to start working with your new Django skills?

I am definitely more confident using Django compared to when I initially started to work on this project. However I would try building another Django application before identifying myself as Django developer because it has much more useful features that I did not learn in this course and would love to know more about it.