Full Stack Development
Sesi 11

DEPLOYMENT

Deploy to Heroku

Heroku makes building and deploying applications really friendly for developers. It removes much of the burden related to building and running web applications, taking care of most infrastructure details and letting you focus on creating and improving the app. Some of the details handled by Heroku include:

- Provisioning HTTPS certificates
- Managing DNS records
- Running and maintaining servers

Heroku Account Setup

Your first step is to create a Heroku account. If you don't have one already, you can use the Free and Hobby plan. It allows you to deploy non commercial applications, personal projects, and experiments without spending money.

You'll be able to start using Heroku after completing the required information and confirming your email address.

Heroku Command-Line Interface (CLI)

The Heroku command-line interface (CLI) is a tool that allows you to create and manage Heroku applications from the terminal. It's the quickest and the most convenient way to deploy your application.

You can download the CLI from here.

After installing, run the following command.

```
$ heroku login
```

This opens a website with a button to complete the login process. Click Log In to complete the authentication process and start using the Heroku CLI

Application Deployment to Heroku

The first step is to create a file named Procfile in the project's root directory. This file tells Heroku how to run the app. You can create it by running the following command:

```
$ echo "web: gunicorn app:app" > Procfile
```

Note that this filename must start with a capital letter. This file tells Heroku to serve your application using Gunicorn, a Python Web Server Gateway Interface (WSGI) HTTP server compatible with various web frameworks, including Flask.

```
$ python3 -m pip freeze > requirements.txt
```

Since you added and changed files, you need to commit them to Git. You can do this by executing the following two commands:

```
$ git add .
$ git commit -m "Add Heroku deployment files"
```

Application Deployment to Heroku

You can create the application in Heroku by running the following command:

```
$ heroku create hacktiv8-flask-rest
```

Running the above command initializes the Heroku application, creating a Git remote named heroku. Next, you can push the Git repository to this remote to trigger the building and deployment process:

```
$ git push heroku master
```

After pushing the master branch to the heroku remote, you'll see that the output displays information about the building and deployment process.
You can use the following Heroku CLI command to open your app's URL:

```
$ heroku open
```

External References

Code for today's lecture - Visit Here