Flask Deployment to Heroku

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Recitation 10
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slides and codes: https://github.com/maher460/Pitt-CS1520-Recitations
Office hours today from 6:00 PM to 8:00 PM

What is Heroku?

Heroku is a cloud platform that lets companies/individuals build, deliver, monitor and scale apps

Fastest way to go from idea to URL, bypassing all those infrastructure headaches.

Open an account in Heroku

heroku.com

Download and install Heroku CLI

You need to download the Heroku CLI which will enable us deploy and manage our application:

https://devcenter.heroku.com/articles/heroku-cli

Login through Heroku CLI

After installation login into the Heroku Cli by running this command in the terminal:

heroku login

You will be prompted to enter your email address and password. You will only be logged in if these details match the credentials you signed up with on the Heroku platform.

Modify your flask app.py

- app.config['SECRET_KEY'] = os.getenv('SECRET_KEY', "my_super_secret_key_XXXXXXXX")

- app.config['SQLALCHEMY_DATABASE_URI'] = os.getenv('DATABASE_URL', 'sqlite:///test.db')

Install gunicorn webserver

Gunicorn is the web server which heroku is going to use in order to run your flask app

pip install gunicorn

Install psycopg2

psycopg2 is an interface for your app to use PostgresSQL

pip install psycopg2-binary

Create a Procfile in root directory

In order for us to successfully deploy any application to Heroku, we must add a `Procfile` to that application.

Create a new file with `Procfile` as the name and do not add any extension. Add these lines below (here app is the name of your app, and release are the flask commands to init and populate your database):

web: gunicorn app:app
release: flask initdb; flask bootstrap

Update requirements.txt and git init->add->commit everything

pip freeze > requirements.txt

git init

git add -A

git commit -m "App ready to push to heroku"

Create a new app on Herko using Heroku CLI

heroku create

Add Heroku Postgres plugin in the Heroku app dashboard

- Go to https://dashboard.heroku.com/apps

- Click the app that you just created

- Click on Resources tab, then select Find more add-ons

- Find Heroku Postgres in the list, and select it

- On the Heroku Postgres page, click on Install Heroku Postgres

- Choose Hobby Dev-Free option and type and find your app in the 'App to provision to' box

- Click Provision add-on and you are done!

Push and Deploy your app to heroku!

git push heroku master

That's all!

Open your app on the browser with the URL provided in the CLI