Data Glacier
Week 5: Cloud and API deployment

Name: Loh Wan Teng
Batch Code: LISUM11
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Submitted to: Data Glacier

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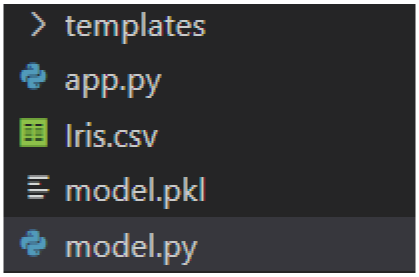
1. Model Deployment on Heroku

1.1. Copy Week 4 files to local

A folder is created with the name **flask-depoly-heroku-demo**. The Week 4 files are copied to then copy into the folder.



```
> templates
app.py
Iris.csv
model.pkl
model.py
```

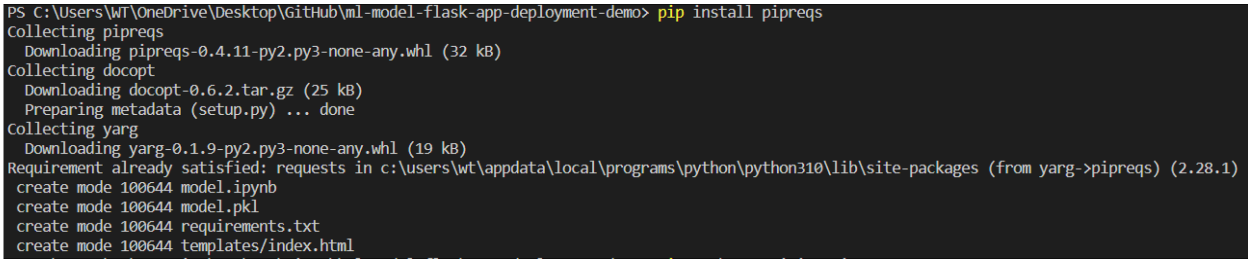
Figure 1: Copy Week 4 files to local

1.2. Create new repo

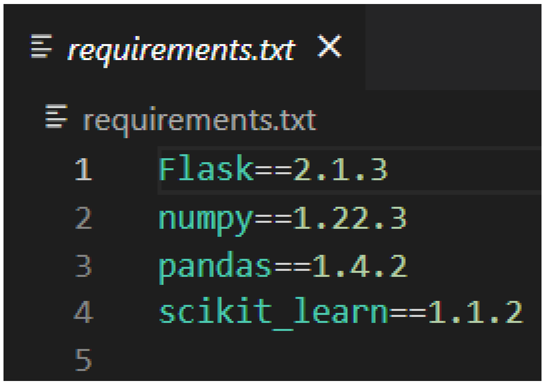
A new repo called **flask-deploy-heroku-demo** is initialised in local and is created on GitHub.

1.3. Generate requirement.txt

We first install **pipreqs** with `pip install pipreqs`. Then, we generate the **requirement.txt** using `pipreqs .`.



```
PS C:\Users\WT\OneDrive\Desktop\GitHub\ml-model-flask-app-deployment-demo> pip install pipreqs
Collecting pipreqs
  Downloading pipreqs-0.4.11-py2.py3-none-any.whl (32 kB)
Collecting docopt
  Downloading docopt-0.6.2.tar.gz (25 kB)
  Preparing metadata (setup.py) ... done
Collecting yarg
  Downloading yarg-0.1.9-py2.py3-none-any.whl (19 kB)
Requirement already satisfied: requests in c:\users\wt\appdata\local\programs\python\python310\lib\site-packages (from yarg->pipreqs) (2.28.1)
 create mode 100644 model.ipynb
 create mode 100644 model.pkl
 create mode 100644 requirements.txt
 create mode 100644 templates/index.html
```



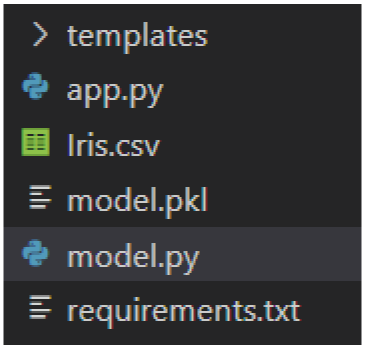
```
Flask==2.1.3
numpy==1.22.3
pandas==1.4.2
scikit_learn==1.1.2

```

Figure 2: Generate requirement.txt

1.4. Push local to remote

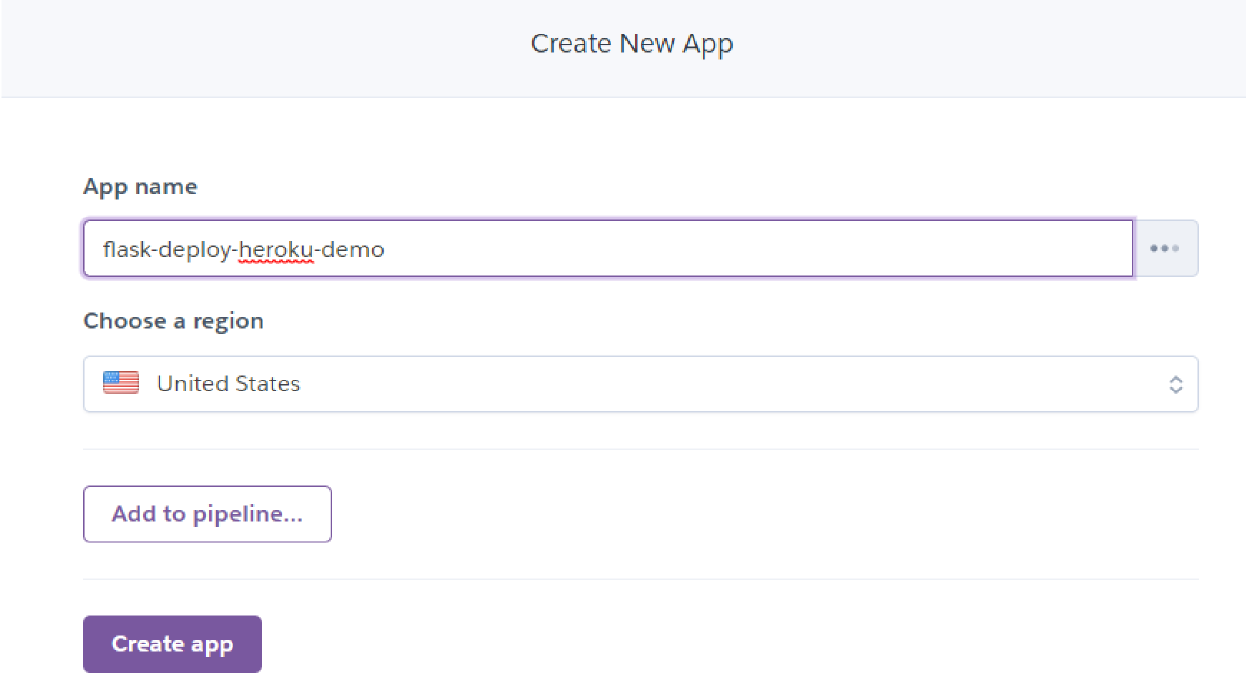
Then, perform `git add`, `git commit` and `git push remote`.



templates
app.py
Iris.csv
model.pkl
model.py
requirements.txt

Figure 3: Push local to remote

1.5. Create new Heroku app



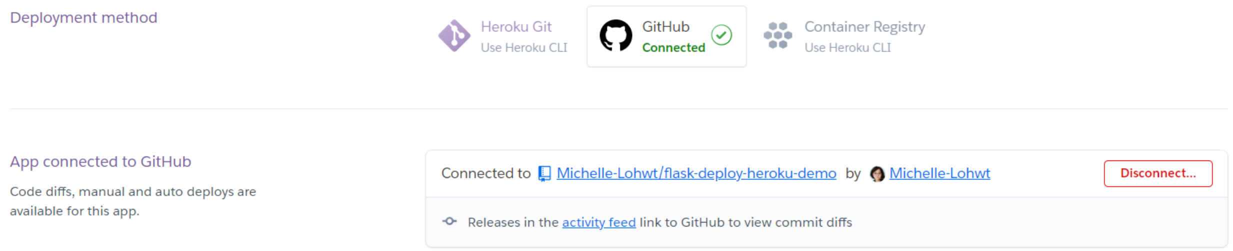
Create New App

App name: flask-deploy-heroku-demo

Choose a region: United States

Figure 4: Create new Heroku app

1.6. Connect Heroku app with GitHub repo



App connected to GitHub

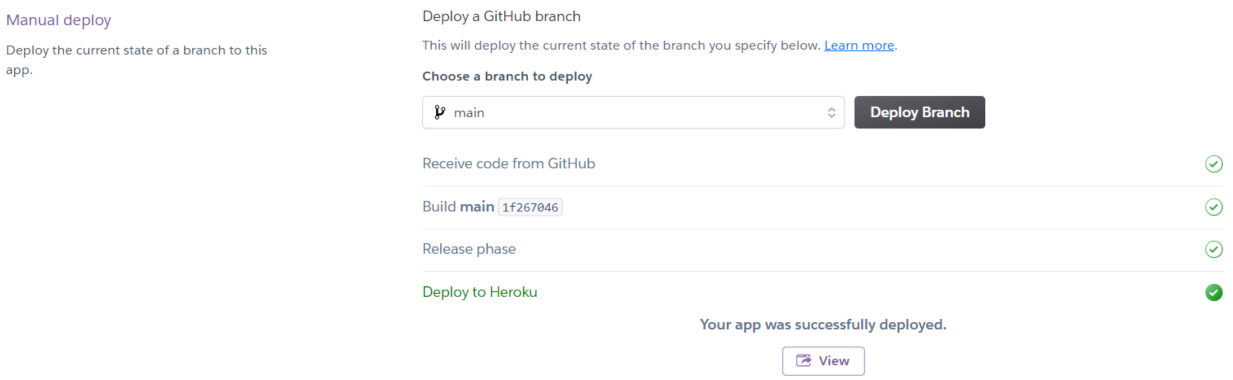
Code diffs, manual and auto deploys are available for this app.

Connected to Michelle-Lohwt/flask-deploy-heroku-demo by Michelle-Lohwt

Releases in the activity feed link to GitHub to view commit diffs

Figure 5: Connect Heroku app with GitHub repo

1.7. Deploy GitHub repo



Manual deploy

Deploy the current state of a branch to this app.

Deploy a GitHub branch

This will deploy the current state of the branch you specify below. Learn more.

Choose a branch to deploy: main

Receive code from GitHub ✓

Build main `1f267046` ✓

Release phase ✓

Deploy to Heroku ✓

Your app was successfully deployed.

Figure 6: Deploy GitHub repo

The app is deployed on https://flask-deploy-heroku-demo.herokuapp.com/.