

# Report

Name: Week 5: Cloud and API deployment

Report date: 03/13/2024

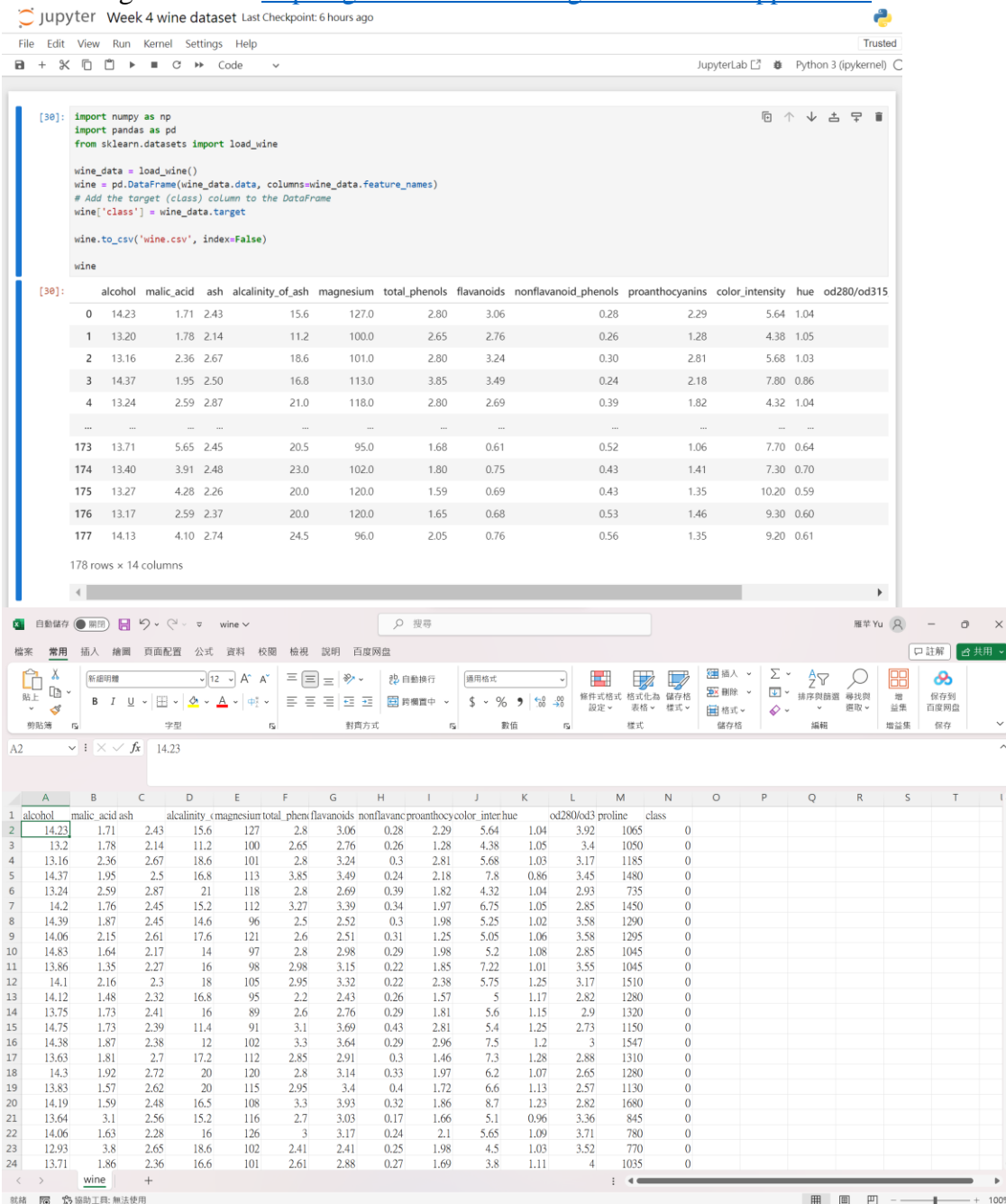
Internship Batch: LISUM30

Version:1.0

Report by: Yan-Ping Yu

Data intake reviewer:

Data storage location: <https://github.com/YanPing0227/Heroku-application>



```
Spyder (Python 3.10)
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C:\Users\User\Desktop\Data Glacier Internship\Week4\model_classification.py

model_classification.py X Week4_Flask.py X

1 import pandas as pd
2 import pickle
3
4
5 dataset = pd.read_csv('wine.csv')
6
7
8 X = dataset.iloc[:, :13]
9 y = dataset.iloc[:, -1]
10
11 from sklearn.ensemble import RandomForestClassifier
12 rf = RandomForestClassifier()
13
14 #Fitting model with training data
15 rf.fit(X, y)
16
17 # Saving model to disk
18 pickle.dump(rf, open('model_classification.pkl', 'wb'))
```

```
Spyder (Python 3.10)
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C:\Users\User\Desktop\Data Glacier Internship\Week4\html_week4.html

model_classification.py X html_week4.html X Week4_Flask.py X

1 <!DOCTYPE html>
2 <html>
3 <head>
4 <meta charset="UTF-8">
5 <title>ML API</title>
6 <link href='https://fonts.googleapis.com/css?family=Pacifico' rel='stylesheet' type='text/css'>
7 <link href='https://fonts.googleapis.com/css?family=Arimo' rel='stylesheet' type='text/css'>
8 <link href='https://fonts.googleapis.com/css?family=Hind:300' rel='stylesheet' type='text/css'>
9 <link href='https://fonts.googleapis.com/css?family=Open+Sans+Condensed:300' rel='stylesheet' type='text/css'>
10 <link rel="stylesheet" href="{{ url_for('static', filename='css/style.css') }}">
11
12 </head>
13
14 <body>
15 <div class="Login">
16 <h1>Classify Wine</h1>
17
18 <!-- Main Input For Receiving Query to our ML -->
19 <form action="{{ url_for('predict')}}" method="post">
20 <input type="text" name="alcohol" placeholder="alcohol" required="required" />
21 <input type="text" name="malic_acid" placeholder="malic acid" required="required" />
22 <input type="text" name="ash" placeholder="ash" required="required" />
23 <input type="text" name="alcalinity_of_ash" placeholder="alcalinity_of_ash" required="required" />
24 <input type="text" name="magnesium" placeholder="magnesium" required="required" />
25 <input type="text" name="total_phenols" placeholder="total_phenols" required="required" />
26 <input type="text" name="flavanoids" placeholder="flavanoids" required="required" />
27 <input type="text" name="nonflavanoid_phenols" placeholder="nonflavanoid phenols" required="required" />
28 <input type="text" name="proanthocyanins" placeholder="proanthocyanins" required="required" />
29 <input type="text" name="color_intensity" placeholder="color_intensity" required="required" />
30 <input type="text" name="hue" placeholder="hue" required="required" />
31 <input type="text" name="od280/od315_of_diluted_wines" placeholder="od280/od315_of_diluted_wines" required="required" />
32 <input type="text" name="proline" placeholder="proline" required="required" />
33
34 <button type="submit" class="btn btn-primary btn-block btn-Large">Predict</button>
35 </form>
36
37 <br>
38 <br>
39 {{ prediction_text }}
40
41 </div>
42 
43
44 </body>
45 </html>
```

Spyder (Python 3.10)

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C:\Users\User\Desktop\Data Glacier Internship\Week4\app.py

```
1 import numpy as np
2 from flask import Flask, request, render_template
3 import pickle
4
5 app = Flask(__name__)
6 model = pickle.load(open('model_classification.pkl', 'rb'))
7
8 @app.route('/')
9 def home():
10     return render_template('html_week4.html')
11
12 @app.route('/predict', methods=['POST'])
13 def predict():
14     """
15     For rendering results on HTML GUI
16     """
17     features = [x for x in request.form.values()]
18     final_features = [np.array(features)]
19     prediction = model.predict(final_features)
20
21     output = prediction[0]
22
23     return render_template('html_week4.html', prediction_text='The class of wine should be {}'.format(output))
24
25 if __name__ == "__main__":
26     app.run(debug=True)
```

YanPing0227 / Heroku-application

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main 1 Branch 0 Tags

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About

No description, website, or topics provided.

Readme MIT license Activity 0 stars 1 watching 0 forks

Releases

No releases published

Create a new release

Packages

No packages published

Publish your first package

Contributors

YanPing0227 ginichoco

Deployments

heroku-application 8 minutes ago

+ 8 deployments

File	Commit Message	Time
for_flask	Add "for_flask" environment	yesterday
static/css	Delete static/images/Original.svg	yesterday
templates	Add files via upload	yesterday
LICENSE	Initial commit	yesterday
Profile	Add files via upload	9 minutes ago
README.md	Initial commit	yesterday
app.py	Add files via upload	9 minutes ago
html_week4.html	Add files via upload	yesterday
model_classification.py	Add files via upload	yesterday
model_classification.pkl	Add files via upload	yesterday
requirements.txt	Add files via upload	yesterday
runtime.txt	Add files via upload	yesterday
wine.csv	Add files via upload	yesterday

README MIT license

## Heroku-application

Personal

>

heroku-application

☆

Open app

More

GitHub

YanPing0227/Heroku-application

Overview

Resources

Deploy

Metrics

Activity

Access

Settings

Add this app to a pipeline

Create a new pipeline or choose an existing one and add this app to a stage in it.

Add this app to a stage in a pipeline to enable additional features

Pipelines let you connect multiple apps together and **promote code** between them.

[Learn more.](#)

Pipelines connected to GitHub can enable **review apps**, and create apps for new pull requests.

[Learn more.](#)

Choose a pipeline

Deployment method

Heroku Git

Use Heroku CLI

GitHub

Connected

Container Registry

Use Heroku CLI

App connected to GitHub

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

Connected to [YanPing0227/Heroku-application](#) by [YanPing0227](#)

Disconnect...

Releases in the [activity feed](#) link to GitHub to view commit diffs

Automatic deploys

Enables a chosen branch to be automatically deployed to this app.

You can now change your main deploy branch from "master" to "main" for both manual and automatic deploys, please follow the instructions [here](#).

Enable automatic deploys from GitHub

Every push to the branch you specify here will deploy a new version of this app. **Deploys happen automatically:** be sure that this branch is always in a deployable state and any tests have passed before you push. [Learn more.](#)

Choose a branch to deploy

main

☐ Wait for CI to pass before deploy

Only enable this option if you have a Continuous Integration service configured on your repo.

Enable Automatic Deploys

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

Deploy Branch

Receive code from GitHub

Build `main` 2d26b4ac

Release phase

Deploy to Heroku

Your app was successfully deployed.

View

heroku-application-556faeb406ee.herokuapp.com

Classify Wine

alcohol

malic\_acid

ash

acidity\_of\_ash

magnesium

total\_phenols

flavanoids

nonflavanoid\_phenols

proanthocyanins

color\_intensity

hue

od280od315\_of\_diluted\_wines

proline

Predict

Company Logo

heroku-application-556faeb406ee.herokuapp.com

Classify Wine

13.2

1.76

2.45

15.6

100

3.85

2.78

0.28

2.81

5.64

1.05

3.4

1185

Predict

Company Logo

heroku-application-556faeb406ee.herokuapp.com

heroku-application-556faeb406ee.herokuapp.com/predict

Classify Wine

alcohol

malic\_acid

ash

alcalinity\_of\_ash

magnesium

total\_phenols

flavanols

nonflavanoid\_phenols

proanthocyanins

color\_intensity

hue

od590od215\_of\_diluted\_wines

proline

Predict

Company Logo

The class of wine should be 0