

Week 5 - Cloud and API Deployment

Task:

1. Select any toy data (simple data)
2. Save the model
3. Deploy the model on any cloud eg: Heroku,AWS,GCP,Azure (Deployment should be API based as well as web app)
4. Create pdf document (Name, Batch code, Submission date, Submitted to) which should contain snapshot of each step of deployment)
5. Upload the document and code to Github
6. Submit the URL of the uploaded document.

Use free credits(trial or student account) of AWS, GCP, Azure to deploy the app.

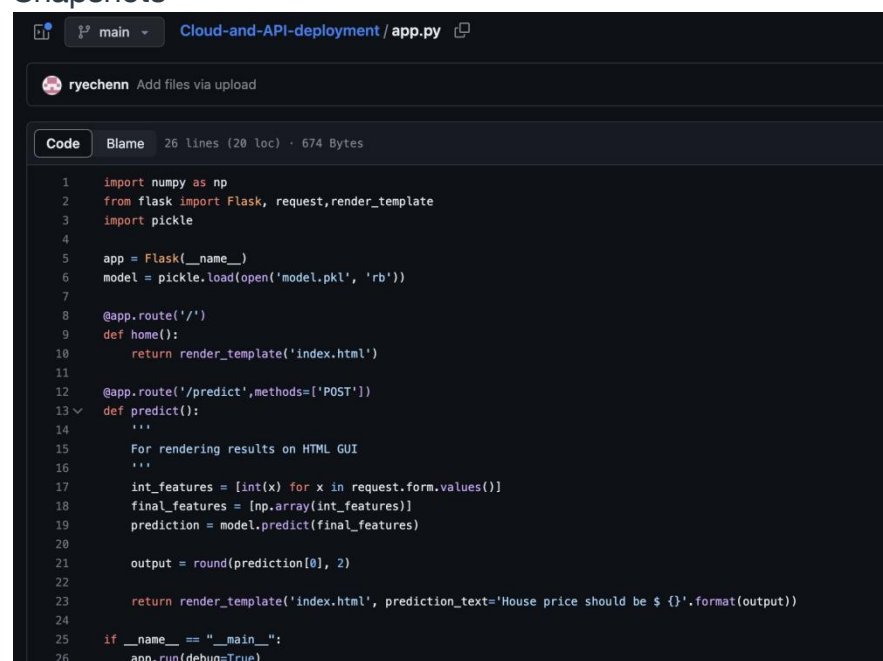
Name: Yuhong Chen

Batch Code: LISUM22

Submission date: July 4th, 2023

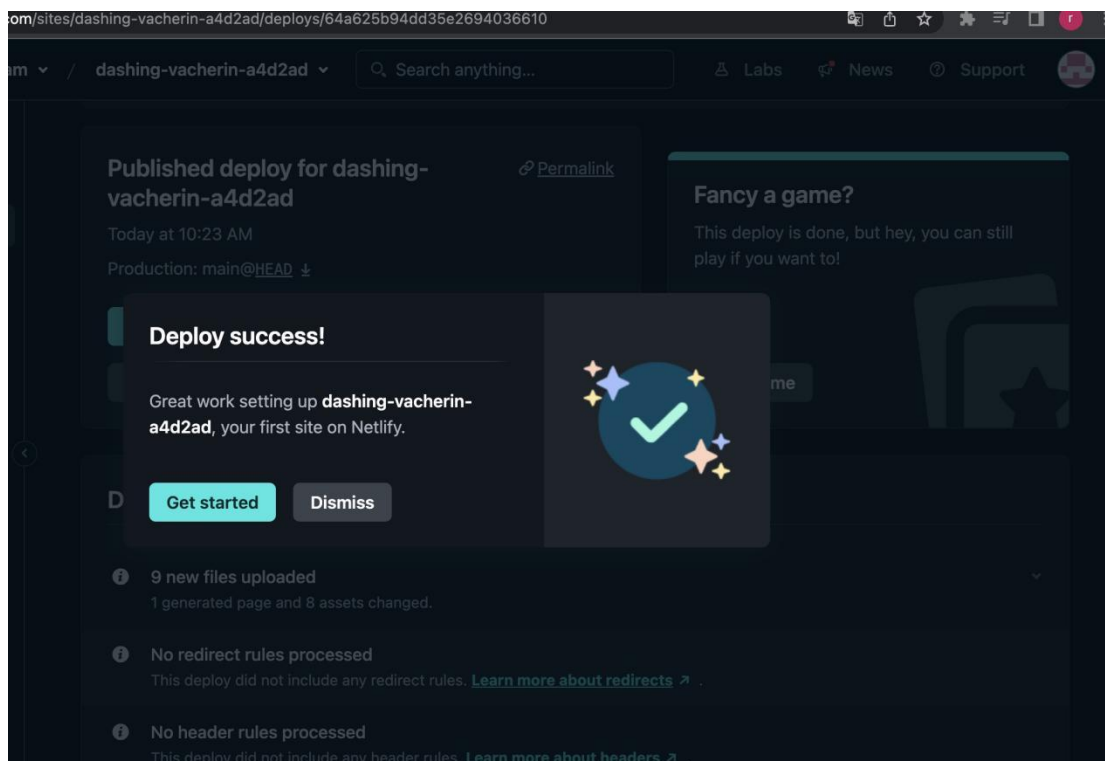
Submitted to: Data Glacier by Github

Snapshots



```
Cloud-and-API-deployment / app.py
ryechenn Add files via upload
Code Blame 26 lines (20 loc) · 674 Bytes
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.pkl', 'rb'))
7
8 @app.route('/')
9 def home():
10     return render_template('index.html')
11
12 @app.route('/predict', methods=['POST'])
13 def predict():
14     """
15     For rendering results on HTML GUI
16     """
17     int_features = [int(x) for x in request.form.values()]
18     final_features = [np.array(int_features)]
19     prediction = model.predict(final_features)
20
21     output = round(prediction[0], 2)
22
23     return render_template('index.html', prediction_text='House price should be $ {}'.format(output))
24
25 if __name__ == "__main__":
26     app.run(debug=True)
```

```
Cloud-and-API-deployment / model.py
Code Blame 35 lines (24 loc) · 931 Bytes
5
6     dataset = pd.read_csv('price.csv')
7
8     dataset['bed_room'].fillna(0, inplace=True)
9
10    dataset['area'].fillna(dataset['area'].mean(), inplace=True)
11
12    X = dataset.iloc[:, :3]
13
14    #Converting words to integer values
15    def convert_to_int(word):
16        word_dict = {'one':1, 'two':2, 'three':3, 'four':4, 'five':5, 'six':6, 'seven':7, 'eight':8,
17                    'nine':9, 'ten':10, 'eleven':11, 'twelve':12, 'zero':0, 0: 0}
18        return word_dict[word]
19
20    X['bed_room'] = X['bed_room'].apply(lambda x : convert_to_int(x))
21
22    y = dataset.iloc[:, -1]
23
24    from sklearn.linear_model import LinearRegression
25    regressor = LinearRegression()
26
27    #Fitting model with trainig data
28    regressor.fit(X, y)
29
30    # Saving model to disk
31    pickle.dump(regressor, open('model.pkl','wb'))
32
33    # Loading model to compare the results
34    model = pickle.load(open('model.pkl','rb'))
35    print(model.predict([[2, 2200, 5]]))
```



Site overview

Site configuration

Deploys

Functions

Edge Functions

Integrations

Analytics

Forms

Split Testing

Large Media

Build time: 25s. Total deploy time: 26s

Build started at 10:23:55 AM and ended at 10:24:20 AM. [Learn more about build minutes](#)

Deploy log

Preview

> Initializing

Complete

> Building

Complete

> Deploying

Complete

> Cleanup

Complete

> Post-processing

Complete

Upgrade

Site overview

Site configuration

Deploys

Functions

Edge Functions

Integrations

Analytics

Forms

Split Testing

Large Media

Deploy log

Preview

> Initializing

Complete

1

10:23:55 AM: build-image version: 38af4ab90399ed91221627dcc339da9f809f0ed8 (focal)

2

10:23:55 AM: buildbot version: de517a2916afd11dc227c5e8bb9727a6ead9fac1

3

10:23:55 AM: Fetching cached dependencies

4

10:23:55 AM: Failed to fetch cache, continuing with build

5

10:23:55 AM: Starting to prepare the repo for build

6

10:23:55 AM: No cached dependencies found. Cloning fresh repo

7

10:23:55 AM: git clone --filter=blob:none <https://github.com/ryechenn/Cloud-and-API-deployment>

8

10:23:55 AM: Preparing Git Reference refs/heads/main

9

10:23:57 AM: Starting to install dependencies

10

10:23:57 AM: Python version set to 3.8

11

10:23:57 AM: Installing pip dependencies

12

10:23:57 AM: Started restoring cached pip cache

13

10:23:57 AM: Finished restoring cached pip cache

14

10:23:58 AM: Collecting Flask==1.1.1

15

10:23:58 AM: Downloading Flask-1.1.1-py2.py3-none-any.whl (94 kB)

16

10:23:58 AM: Collecting gunicorn==19.9.0

17

10:23:58 AM: Downloading gunicorn-19.9.0-py2.py3-none-any.whl (112 kB)

18

10:23:58 AM: Collecting itsdangerous==1.1.0

19

10:23:58 AM: Downloading itsdangerous-1.1.0-py2.py3-none-any.whl (16 kB)

Upgrade

ryechenn's team

dashing-vacherin-a4d2ad

Search anything...

Labs

News

Support

Site overview

Site configuration

Deploys

Functions

Edge Functions

Integrations

Analytics

Forms

Split Testing

Large Media

Upgrade

Deploy log

Preview

10:24:17 AM: Using Kudu version 2.7.2

10:24:18 AM: Started restoring cached go cache

10:24:18 AM: Finished restoring cached go cache

10:24:18 AM: go version go1.19.10 linux/amd64

10:24:18 AM: Using PHP version 8.0

10:24:19 AM: v18.16.1 is already installed.

10:24:19 AM: Now using node v18.16.1 (npm v9.5.1)

10:24:19 AM: Enabling Node.js Corepack

10:24:19 AM: Started restoring cached build plugins

10:24:19 AM: Finished restoring cached build plugins

10:24:20 AM: Install dependencies script success

10:24:20 AM: No build steps found, continuing to publishing

Building

Deploying

Cleanup

Post-processing

ryechenn's team

dashing-vacherin-a4d2ad

Search anything...

Labs

News

Support

Site overview

Site configuration

Deploys

Functions

Edge Functions

Integrations

Analytics

Forms

Split Testing

Large Media

Upgrade

Deploy log

Preview

Initializing

Building

10:24:20 AM: Section completed: building

10:24:20 AM: Finished processing build request in 25.162s

Deploying

Cleanup

Post-processing

ryechenn's team

dashing-vacherin-a4d2ad

Search anything...

Labs

News

Support

Site overview

Site configuration

Deploys

Functions

Edge Functions

Integrations

Analytics

Forms

Split Testing

Large Media

Upgrade

Deploy log

Preview

Initializing

Building

Deploying

10:24:20 AM: Starting to deploy site from '/'

10:24:20 AM: Calculating files to upload

10:24:20 AM: 9 new files to upload

10:24:20 AM: 0 new functions to upload

10:24:20 AM: Section completed: deploying

Cleanup

Post-processing

app.netlify.com/sites/dashing-vacherin-a4d2ad/deploys/64a625b94dd35e2694036610

ryechenn's team / dashing-vacherin-a4d2ad

Search anything...

Labs News Support

Site overview
Site configuration
Deploys
Functions
Edge Functions
Integrations
Analytics
Forms
Split Testing
Large Media

Upgrade

Deploy log

Preview

- > Building Complete
- > Deploying Complete
- > Cleanup Complete

```
91 10:24:20 AM: Uploading Cache of size 30.7KB
92 10:24:20 AM: Section completed: cleanup
```

- > Post-processing Complete

```
93 10:24:20 AM: Starting post processing
94 10:24:20 AM: Skipping HTML post processing
95 10:24:20 AM: Post processing - header rules
96 10:24:21 AM: Post processing - redirect rules
97 10:24:21 AM: Post processing done
98 10:24:21 AM: Section completed: postprocessing
99 10:24:22 AM: Site is live 🎉
```

ryechenn's team **Starter** Current usage period (Jul 5 to Aug 5)

Bandwidth → 0 KB/100 GB

Build minutes → 0/300


Concurrent builds → 0/1

Team members → 1

You can manage all your sites via the [Netlify CLI](#) by running `netlify sites`.

Sites →

Add new site

 **cloud-api-deploy** Deploys from [GitHub](#)

Builds →

cloud-api-deploy Completed
Production: main@HEAD