Info

- name : Juzheng Shi
- Batch Code : LISUM 13:30 August - 30 November 2022
- Submission date: 2022/9/26
- Submitted to : Week 5 : Cloud and API deployment

1. train a simple model

```python
import sklearn
from sklearn.linear_model import LogisticRegression
from sklearn.datasets import load_iris
import numpy as np
import pickle
```

✓ 0.4s Python

```python
X, y = load_iris(return_X_y=True)
lr = LogisticRegression()
lr.fit(X, y)
```

Python

2. save the model

```python
file_name = 'trained_model.sav'
pickle.dump(lr, open(file_name, 'wb'))
loaded_model = pickle.load(open(file_name, 'rb'))
```

✓ 0.4s Python

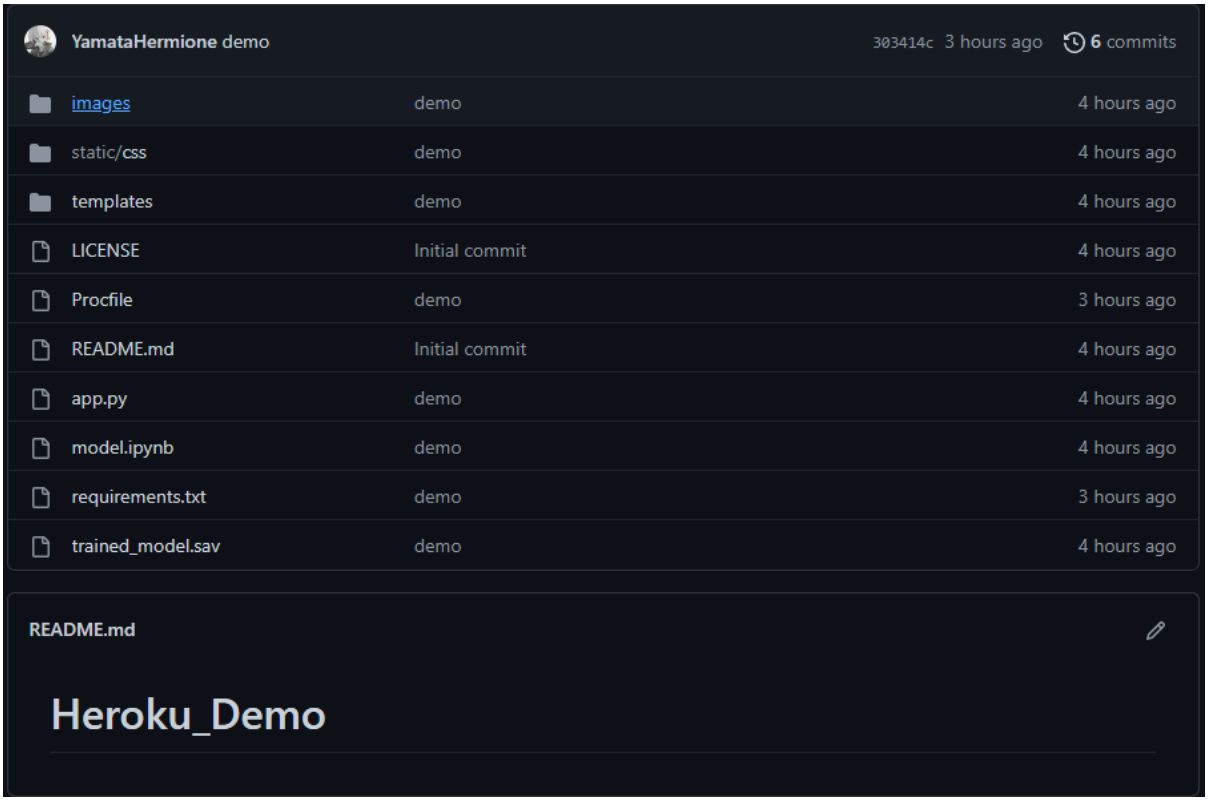
3. make a web app

app.py > index

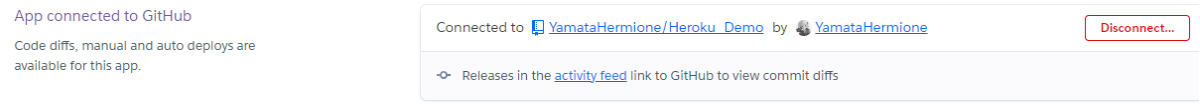
```python
from flask import Flask, render_template, request
import pickle
import numpy as np

app = Flask(__name__)
model = pickle.load(open('trained_model.sav', 'rb'))
labels = ['setosa', 'versicolor', 'virginica']

@app.route('/') #http://google/com/
def index():
    return render_template('index.html',
                           info = 'Predicting type of Iris from give information. Types of iris: {}, {} and {}'
                           .format(labels[0], labels[1], labels[2]))

@app.route('/predict', methods=['POST'])
def predict():
    features = [np.array([float(x) for x in request.form.values()])]
    prediction = model.predict(features)
    output = labels[prediction.item()]
    return render_template('index.html', prediction_text='Type of Iris is {}'.format(output))


app.run(port=5000, debug=True)
```

4. Deploy the model on Heroku

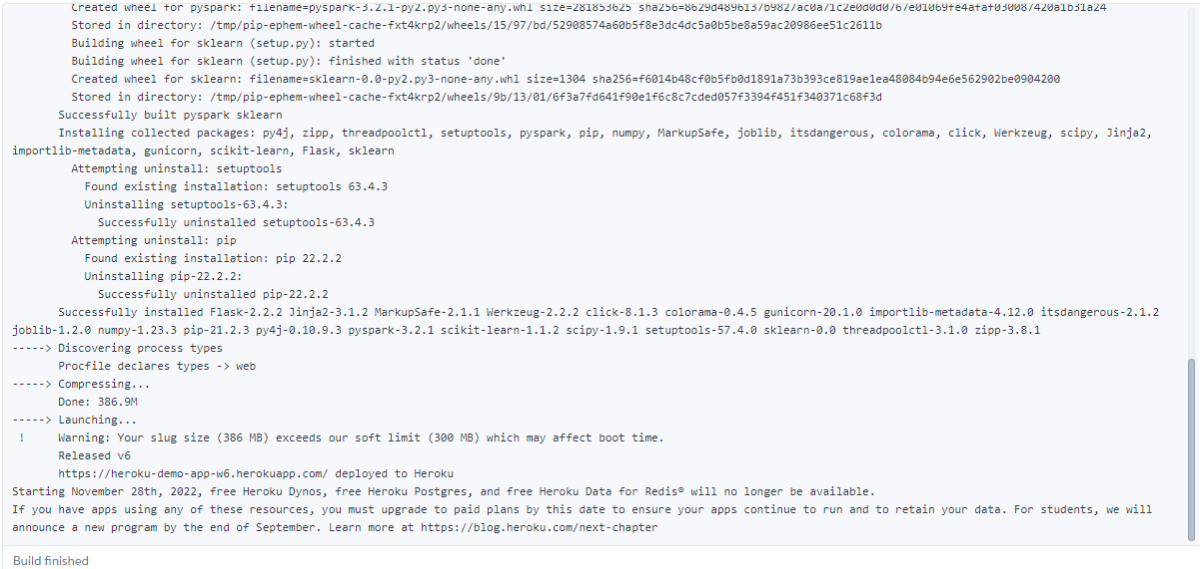
1. Create a github repository for heroku app



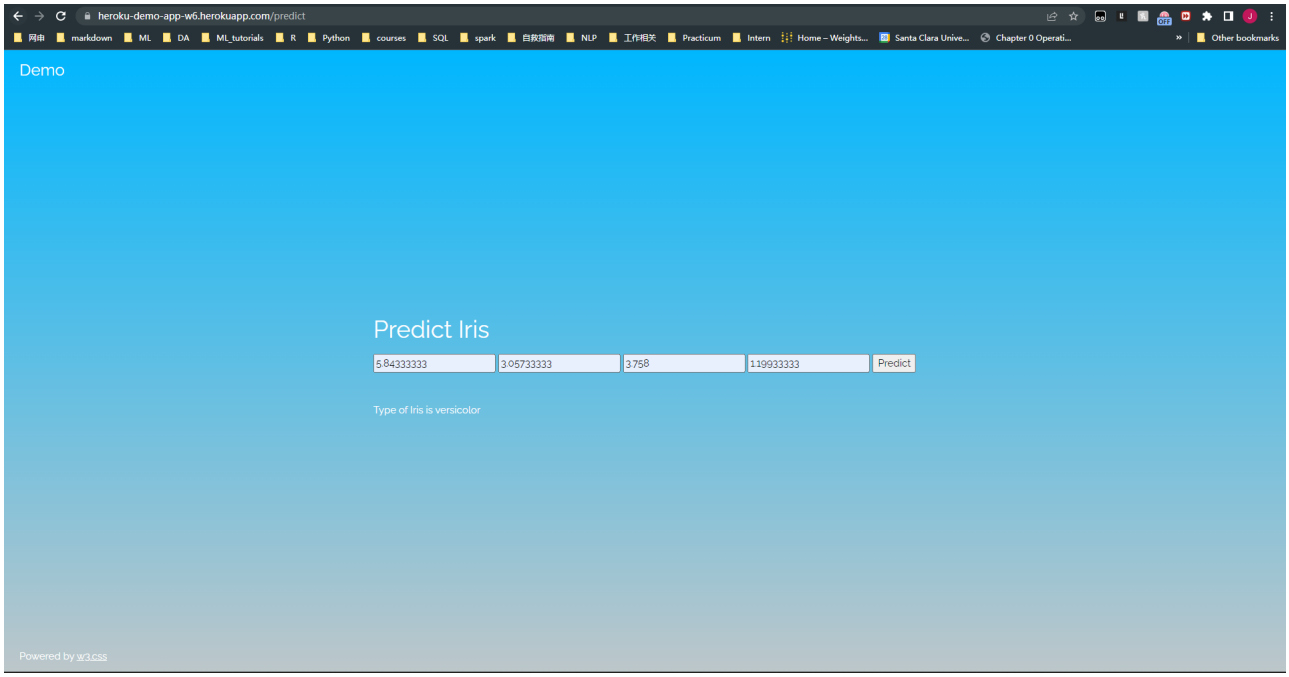
2. Connect heroku to github



3. Deploy the model



5. Done


heroku-demo-app-w6.herokuapp.com/predict
Demo
Predict Iris
5.84333333
3.05733333
3.758
1.19933333
Predict
Type of Iris is versicolor
Powered by w3.css