

Data Intake Report

Name: Flask Model

Report date: June 07, 2021

Internship Batch: LISUM01

Version:1.0

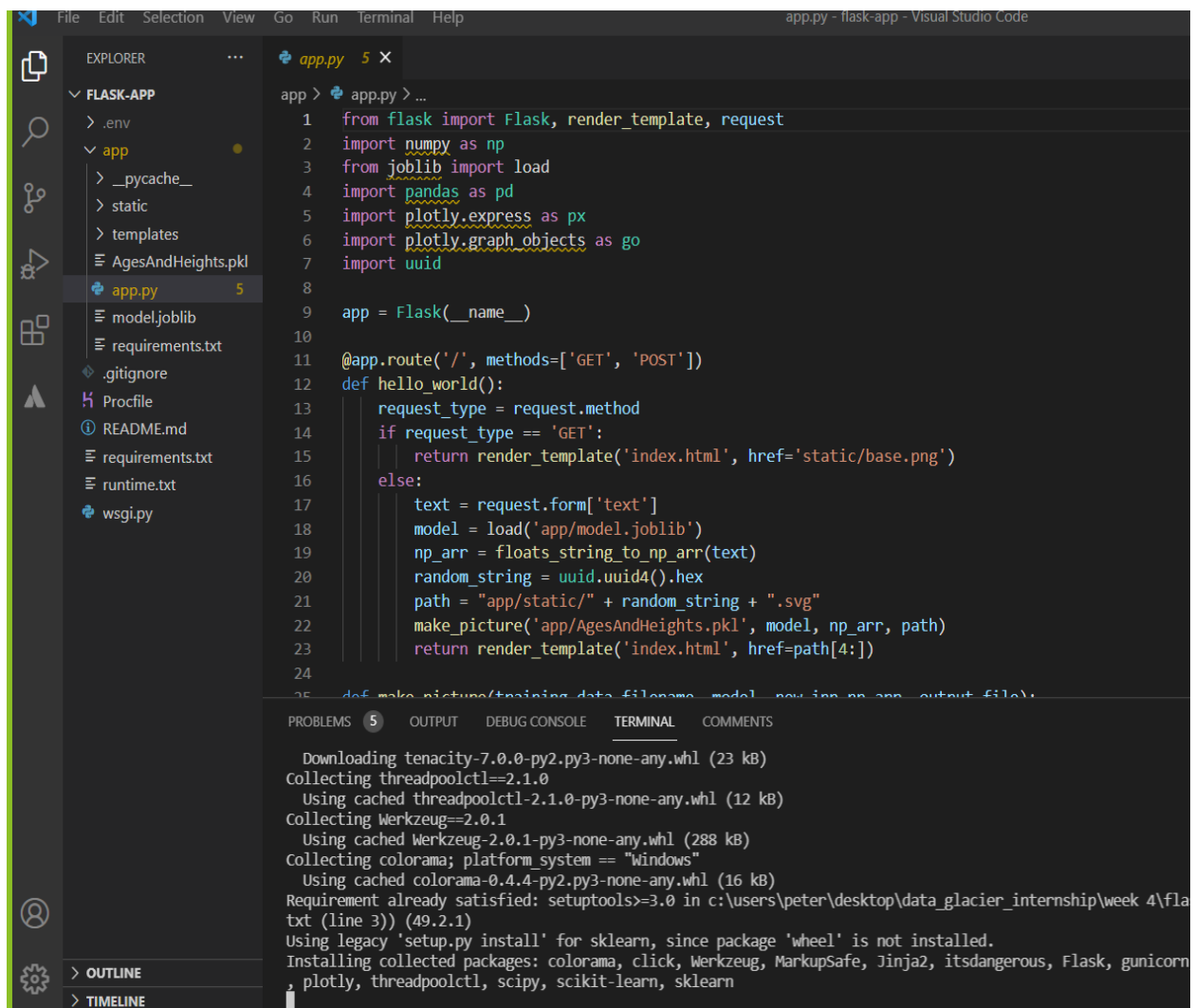
Data intake by: Nicolette Peterkin

Data intake reviewer Nicolette Peterkin

Data storage location: <https://github.com/NicolettePeterkin/flask-demo-week4.git>

Submitted to: Data Glacier

Pictorial data details:



The screenshot displays the Visual Studio Code interface. The Explorer pane on the left shows the project structure for 'FLASK-APP', including files like .env, app, __pycache__, static, templates, AgesAndHeights.pkl, app.py, model.joblib, requirements.txt, .gitignore, Procfile, README.md, runtime.txt, and wsgi.py. The main editor window shows the code for app.py, which is a Flask application. The code imports Flask, render_template, request, numpy, joblib, pandas, plotly.express, plotly.graph objects, and uuid. It defines a Flask app and a route for '/'. The route handler checks the request method; if GET, it renders 'index.html' with a href to 'static/base.png'. If POST, it processes the form data, loads the model, converts the input to a numpy array, generates a random string, and makes a prediction using the model. The prediction result is then rendered back to the user. The terminal pane at the bottom shows the output of the command 'pip install -r requirements.txt', indicating the successful installation of various packages including tenacity, threadpoolctl, Werkzeug, colorama, and scikit-learn.

```
app.py 5 X
app > app.py > ...
1 from flask import Flask, render_template, request
2 import numpy as np
3 from joblib import load
4 import pandas as pd
5 import plotly.express as px
6 import plotly.graph objects as go
7 import uuid
8
9 app = Flask(__name__)
10
11 @app.route('/', methods=['GET', 'POST'])
12 def hello_world():
13     request_type = request.method
14     if request_type == 'GET':
15         return render_template('index.html', href='static/base.png')
16     else:
17         text = request.form['text']
18         model = load('app/model.joblib')
19         np_arr = floats_string_to_np_arr(text)
20         random_string = uuid.uuid4().hex
21         path = "app/static/" + random_string + ".svg"
22         make_picture('app/AgesAndHeights.pkl', model, np_arr, path)
23         return render_template('index.html', href=path[4:])
24
25 def make_picture(training_data, filename, model, new_in, np_arr, output_file):
```

PROBLEMS 5 OUTPUT DEBUG CONSOLE TERMINAL COMMENTS

```
Downloading tenacity-7.0.0-py2.py3-none-any.whl (23 kB)
Collecting threadpoolctl==2.1.0
Using cached threadpoolctl-2.1.0-py3-none-any.whl (12 kB)
Collecting Werkzeug==2.0.1
Using cached Werkzeug-2.0.1-py3-none-any.whl (288 kB)
Collecting colorama; platform_system == "Windows"
Using cached colorama-0.4.4-py2.py3-none-any.whl (16 kB)
Requirement already satisfied: setuptools>=3.0 in c:\users\peter\desktop\data_glacier_internship\week 4\fla
txt (line 3)) (49.2.1)
Using legacy 'setup.py install' for sklearn, since package 'wheel' is not installed.
Installing collected packages: colorama, click, Werkzeug, MarkupSafe, Jinja2, itsdangerous, Flask, gunicorn
, plotly, threadpoolctl, scipy, scikit-learn, sklearn
```

```
EXPLORER
FLASK-APP
  > __pycache__
  > .env
  > app
  > __pycache__
  > static
  > templates
  AgesAndHeights.pkl
  app.py
  model.joblib
  requirements.txt
  .gitignore
  Procfile
  README.md
  requirements.txt
  runtime.txt
  wsgi.py

app.py
30 heights = data["Height"]
31
32 x_new = np.array(list(range(19))).reshape(19, 1)
33 preds = model.predict(x_new)
34
35
36 fig = px.scatter(x=ages, y=heights, title="Height VS Age of People", labels={'x': "Ages (years)", "y": "Heights (inches)"})
37
38 fig.add_trace(go.Scatter(x=x_new.reshape(19), y=preds, mode='lines', name='Model'))
39
40 new_preds = model.predict(new_inp_np_arr)
41
42 fig.add_trace(go.Scatter(x=new_inp_np_arr.reshape(len(new_inp_np_arr)), y=new_preds, mode='markers', name='New Output', marker=dict(color='purple')
43
44 fig.write_image(output_file, width=800, engine='kaleido')
45
46 def floats_string_to_np_arr(floats_str):
47     def is_float(s):
48         try:
49             float(s)
50             return True
51         except:
52             return False
53     floats = np.array([float(x) for x in floats_str.split(',') if is_float(x)])

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL COMMENTS
, plotly, threadpoolctl, scipy, scikit-learn, sklearn
Running setup.py install for sklearn ... done
Successfully installed Flask-2.0.1 Jinja2-3.0.1 MarkupSafe-2.0.1 Werkzeug-2.0.1 click-8.0.1 colorama-0.4.4 gunicorn-20.1.0 itsdangerous-2.0.1 joblib-1.0.1 kaleido-0.2.1 numpy-1.21.0 pandas-1.2.5 plotly-5.1.0 python-dateutil-2.8.1 pytz-2021.1 scikit-learn-0.24.2 scipy-1.7.0 six-1.16.0 sklearn-0.0 tenacity-7.0.0 threadpoolctl-2.1.0
WARNING: You are using pip version 20.2.3; however, version 21.1.3 is available.
You should consider upgrading via the 'c:\users\peter\desktop\data_glacier_internship\week 4\flask-app\.env\scripts\python.exe -m pip install --upgrade pip' command.
(.env) PS C:\Users\peter\Desktop\Data_Glacier_Internship\Week 4\flask-app> flask run
* Environment: production
  WARNING: This is a development server. Do not use it in a production deployment.
  Use a production WSGI server instead.
* Debug mode: off
* Running on http://127.0.0.1:5000/ (Press CTRL+C to quit)
```

