

Model Deployment Flask

Name: Popa Larisa

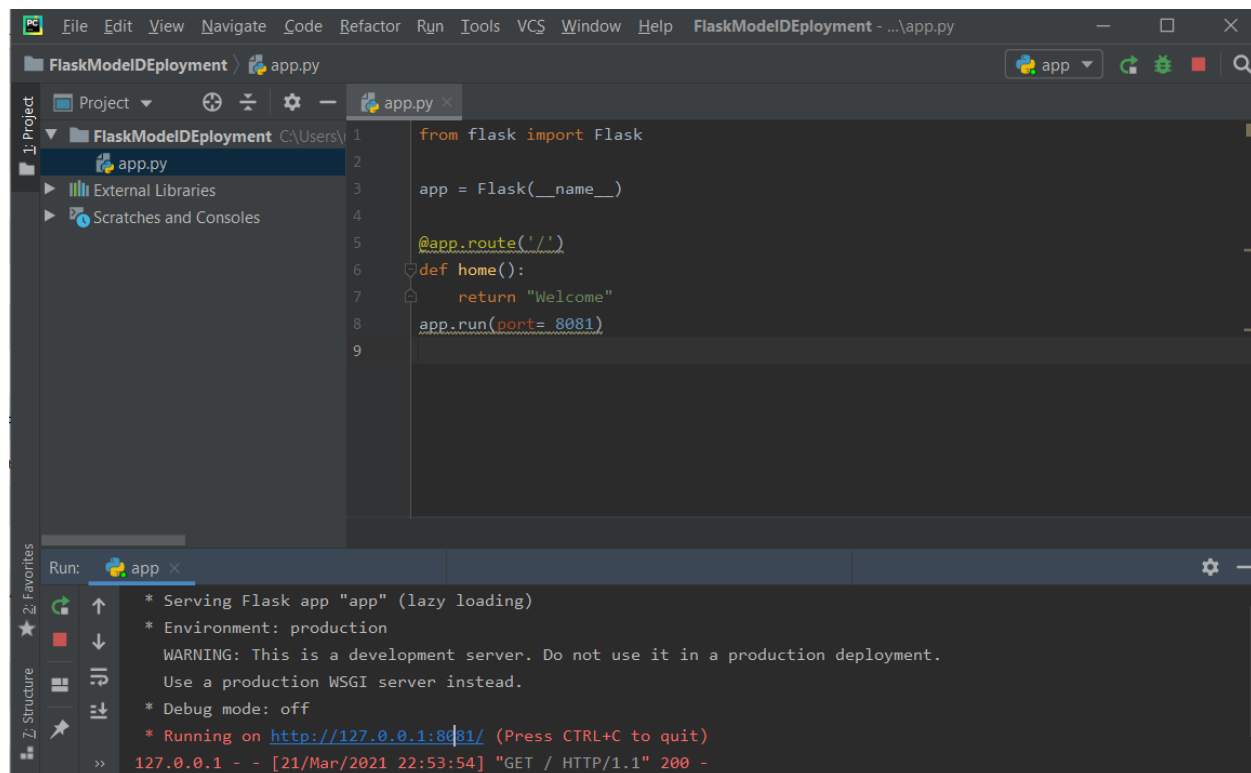
Batch code: LISP01

Submission date: 22.03.2021

Submitted to: Data Glacier

Steps:

1. Test server



The screenshot shows an IDE window titled 'FlaskModelDEployment - ...\app.py'. The left sidebar shows a project structure with 'FlaskModelDEployment' and 'app.py'. The main editor displays the following Python code:

```
1 from flask import Flask
2
3 app = Flask(__name__)
4
5 @app.route('/')
6 def home():
7     return "Welcome"
8 app.run(port= 8081)
9
```

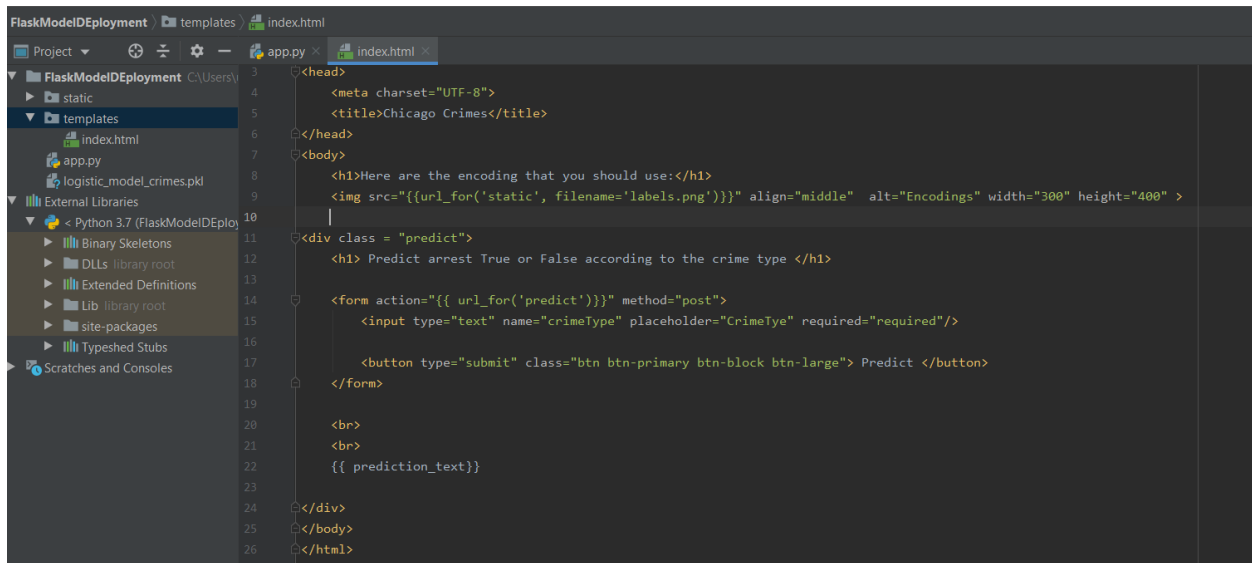
The bottom console window shows the output of running the application:

```
Run: app x
* Serving Flask app "app" (lazy loading)
* 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://127.0.0.1:8081/ (Press CTRL+C to quit)
127.0.0.1 - - [21/Mar/2021 22:53:54] "GET / HTTP/1.1" 200 -
```

← → ↻ ⓘ 127.0.0.1:8081

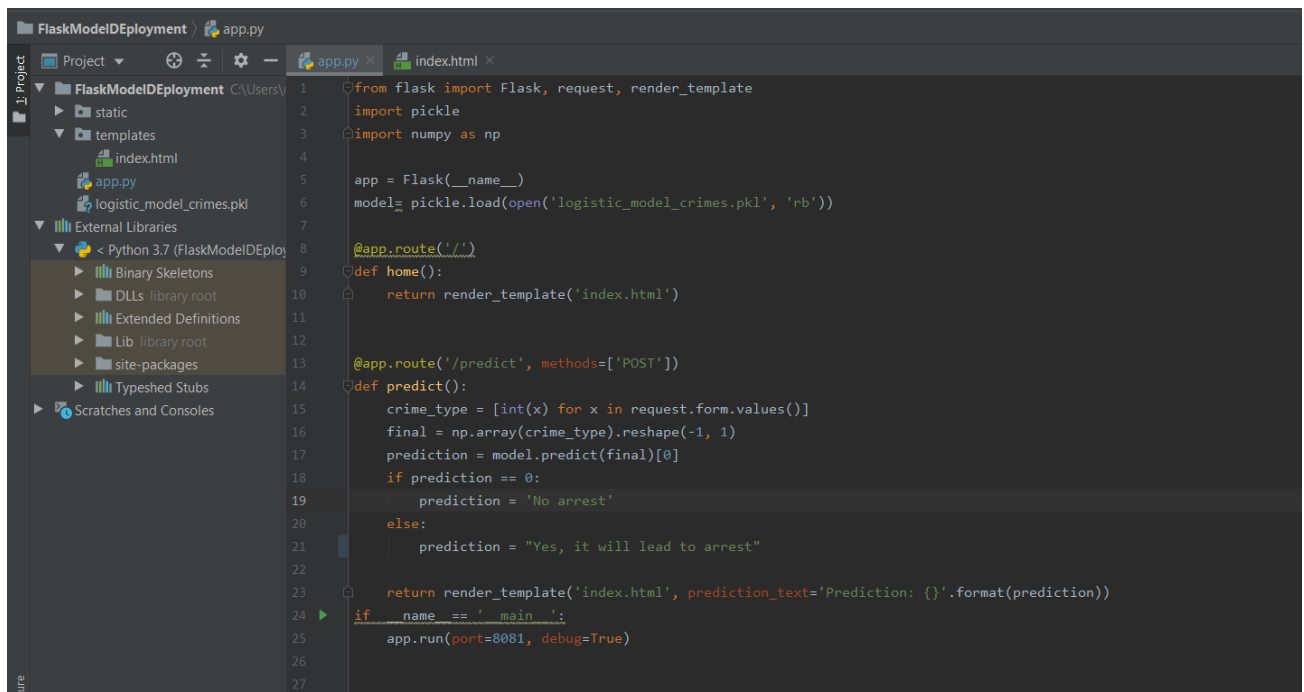
Welcome

2. Create HML page



```
1 <?xml version="1.0" encoding="UTF-8" ?>
2 <html>
3 <head>
4 <meta charset="UTF-8">
5 <title>Chicago Crimes</title>
6 </head>
7 <body>
8 <h1>Here are the encoding that you should use:</h1>
9 
10
11 <div class = "predict">
12 <h1> Predict arrest True or False according to the crime type </h1>
13
14 <form action="{{ url_for('predict')}}" method="post">
15 <input type="text" name="crimeType" placeholder="CrimeTye" required="required"/>
16
17 <button types="submit" class="btn btn-primary btn-block btn-large"> Predict </button>
18 </form>
19
20 <br>
21 <br>
22 {{ prediction_text}}
23
24 </div>
25 </body>
26 </html>
```

3. Create application: render html, home request, predict request, use model(logistic regression model)



```
1 from flask import Flask, request, render_template
2 import pickle
3 import numpy as np
4
5 app = Flask(__name__)
6 model = pickle.load(open('logistic_model_crimes.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     crime_type = [int(x) for x in request.form.values()]
15     final = np.array(crime_type).reshape(-1, 1)
16     prediction = model.predict(final)[0]
17     if prediction == 0:
18         prediction = 'No arrest'
19     else:
20         prediction = "Yes, it will lead to arrest"
21
22     return render_template('index.html', prediction_text='Prediction: {}'.format(prediction))
23
24 if __name__ == '__main__':
25     app.run(port=8081, debug=True)
26
27
```

4. Results

Home

← → ↻ ⓘ 127.0.0.1:8081

Here are the encoding that you should use:

ASSAULT	1
BATTERY	2
BURGLARY	3
CONCEALED CARRY LICENSE VIOLATION	4
CRIM SEXUAL ASSAULT	5
CRIMINAL DAMAGE	6
CRIMINAL SEXUAL ASSAULT	7
CRIMINAL TRESPASS	8
DECEPTIVE PRACTICE	9
GAMBLING	10
HOMICIDE	11
HUMAN TRAFFICKING	12
INTERFERENCE WITH PUBLIC OFFICER	13
INTIMIDATION	14
KIDNAPPING	15
LIQUOR LAW VIOLATION	16
MOTOR VEHICLE THEFT	17
NARCOTICS	18
NON - CRIMINAL	19
NON-CRIMINAL	20
NON-CRIMINAL (SUBJECT SPECIFIED)	21
OBSCENITY	22
OFFENSE INVOLVING CHILDREN	23
OTHER NARCOTIC VIOLATION	24
OTHER OFFENSE	25
PROSTITUTION	26
PUBLIC INDECENCY	27
PUBLIC PEACE VIOLATION	28
RITUALISM	29
ROBBERY	30
SEX OFFENSE	31
STALKING	32
THEFT	33
WEAPONS VIOLATION	34

Predict arrest True or False according to the crime type

← → ↻ ⓘ 127.0.0.1:8081/predict

Here are the encoding that you should use:

Predict

ASSAULT	1
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CRIMINAL DAMAGE	6
CRIMINAL SEXUAL ASSAULT	7
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Predict arrest True or False according to the crime type

CrimeTye

Predict

Prediction: No arrest