

Project Report

Name: bmi flask app

Report Date: 26 March 2022

Internship Batch: LISUM07

Project by: Emre Yesilyurt

Data Intake Reviewer: Data Glacier

Data Storage Location: <https://www.kaggle.com/datasets/yersever/500-person-gender-height-weight-bodymassindex>

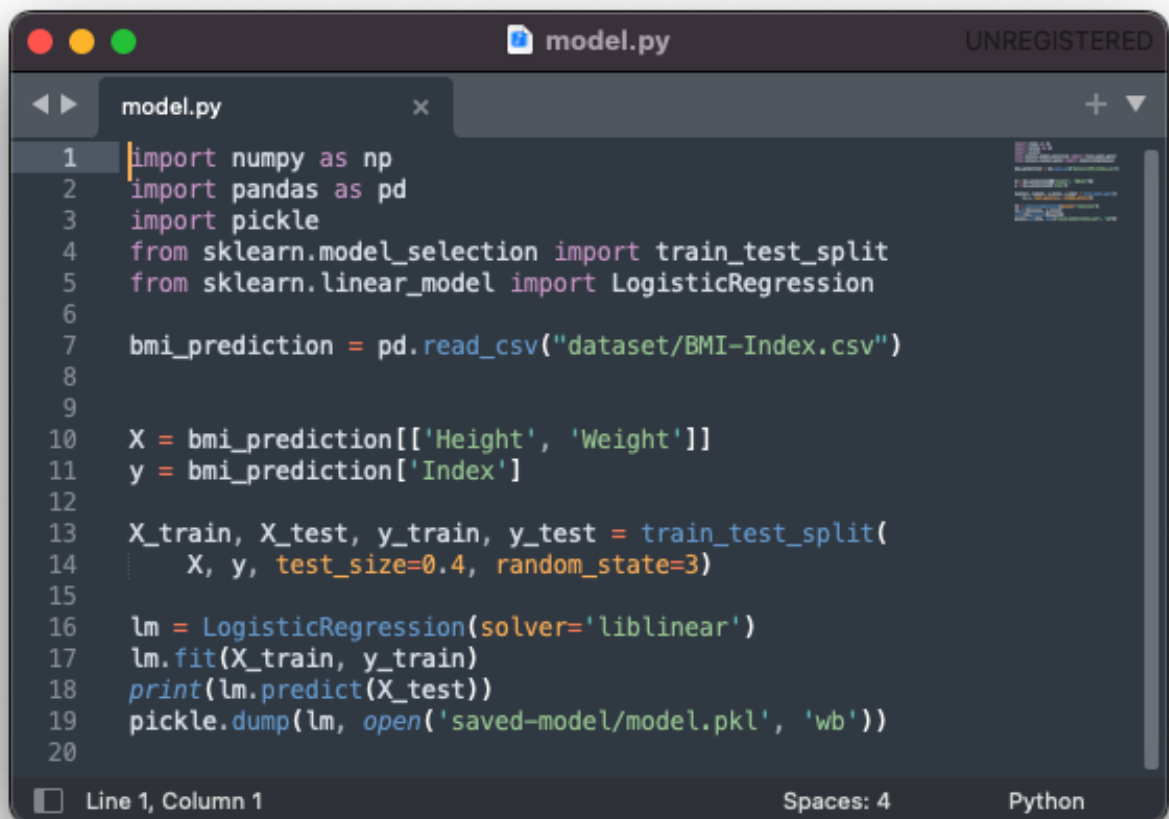
Project Location: https://github.com/emreyesilyurt/flask_demo_app

app.pyUNREGISTERED

app.py

```
1 import numpy as np
2 from flask import Flask, request, jsonify, render_template
3 import pickle
4 import sys
5 import logging
6
7 app = Flask(__name__, template_folder='template')
8
9 model = pickle.load(open('model.pkl', 'rb'))
10
11 @app.route('/')
12 def home():
13     return render_template('index.html')
14
15
16 @app.route('/predict', methods=["POST"])
17 def predict():
18     '''
19     For rendering results on HTML GUI
20     '''
21     int_features = [int(x) for x in request.form.values()]
22     final_features = [np.array(int_features)]
23     prediction = model.predict(final_features)
24
25     if prediction == 0:
26         output = "Extremely Weak. Please go to a doctor to check."
27     elif prediction == 1:
28         output = "Weak"
29     elif prediction == 2:
30         output = "Normal"
31     elif prediction == 3:
32         output = "Overweight"
33     elif prediction == 4:
34         output = "Obesity. Please go to a doctor to check."
35     elif prediction == 5:
36         output = "Extreme Obesity. Please go to a doctor to check."
37     return render_template("index.html", prediction_text = output)
38
39
40 if __name__ == "__main__":
41     app.run(debug=True)
42
```

Line 20, Column 8Spaces: 4Python



The image shows a code editor window with a dark theme. The title bar at the top has three colored window control buttons (red, yellow, green) on the left, the filename 'model.py' in the center, and the word 'UNREGISTERED' on the right. Below the title bar is a tab bar with one tab labeled 'model.py'. The main editing area contains 20 lines of Python code. The code imports numpy, pandas, and pickle, then uses sklearn for train_test_split and LogisticRegression. It reads a CSV file 'dataset/BMI-Index.csv', extracts features (Height, Weight) and the target variable (Index), splits the data into training and testing sets, fits a LogisticRegression model, and finally saves the model to 'saved-model/model.pkl'. A status bar at the bottom shows 'Line 1, Column 1', 'Spaces: 4', and 'Python'.

```
1 import numpy as np
2 import pandas as pd
3 import pickle
4 from sklearn.model_selection import train_test_split
5 from sklearn.linear_model import LogisticRegression
6
7 bmi_prediction = pd.read_csv("dataset/BMI-Index.csv")
8
9
10 X = bmi_prediction[['Height', 'Weight']]
11 y = bmi_prediction['Index']
12
13 X_train, X_test, y_train, y_test = train_test_split(
14     X, y, test_size=0.4, random_state=3)
15
16 lm = LogisticRegression(solver='liblinear')
17 lm.fit(X_train, y_train)
18 print(lm.predict(X_test))
19 pickle.dump(lm, open('saved-model/model.pkl', 'wb'))
20
```

Line 1, Column 1 Spaces: 4 Python

index.htmlUNREGISTERED

index.html

```
1 <!DOCTYPE html>
2 <html>
3 <head>
4   <meta charset="UTF-8">
5   <title>Body Mass Index (BMI) Prediction</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='style.css') }}">
11  </head>
12
13  <body>
14    <div class="login">
15      <h1> Body Mass Index (BMI) Prediction </h1>
16      <h3> Please Enter Your Height and Weight</h3>
17
18      <!-- Main Input For Receiving Query to our ML -->
19      <form action="{{ url_for('predict') }}" method="post">
20        <input type="text" name="Height" placeholder="height in cm" required="required" />
21        <input type="text" name="Weight" placeholder="weight in kg" required="required" />
22
23        <button type="submit" class="btn btn-primary btn-block btn-large">BMI Predict</button>
24      </form>
25      <br>
26      <br>
27
28      {{prediction_text}}
29
30    </div>
31  </body>
32 </html>
```

Line 1, Column 1Spaces: 2HTML

style.cssUNREGISTERED

style.css

```
1  html { width: 100%; height:100%; overflow:hidden; }
2
3  body {
4      width: 100%;
5      height:100%;
6      font-family: 'Open Sans', sans-serif;
7      background: #092756;
8      color: #fff;
9      font-size: 18px;
10     text-align:center;
11     letter-spacing:1.2px;
12     background-color: #e09d00;
13 }
14
15 .login {
16     position: absolute;
17     top: 40%;
18     left: 50%;
19     margin: -150px 0 0 -150px;
20     width:400px;
21     height:400px;
22 }
23
24 .login h1 { color: #fff; text-shadow: 0 0 10px rgba(0,0,0,0.3); letter-spacing:1px; text-align:center; }
25
26 input {
27     width: 100%;
28     margin-bottom: 10px;
29     background: rgba(0,0,0,0.3);
30     border: none;
31     outline: none;
32     padding: 10px;
33     font-size: 13px;
34     color: #fff;
35     text-shadow: 1px 1px 1px rgba(0,0,0,0.3);
36     border: 1px solid rgba(0,0,0,0.3);
37     border-radius: 4px;
38     box-shadow: inset 0 -5px 45px rgba(100,100,100,0.2), 0 1px 1px rgba(255,255,255,0.2);
39     -webkit-transition: box-shadow .5s ease;
40     -moz-transition: box-shadow .5s ease;
41     -o-transition: box-shadow .5s ease;
42     -ms-transition: box-shadow .5s ease;
43     transition: box-shadow .5s ease;
44 }
45 input:focus { box-shadow: inset 0 -5px 45px rgba(100,100,100,0.4), 0 1px 1px rgba(255,255,255,0.2); }
```

Line 1, Column 1Tab Size: 4CSS

Body Mass Index (BMI) Prediction

Please Enter Your Height and
Weight

180

73

73

BMI Predict

Normal