

NAME : BURAK DEMİR

BATCH CODE : LISP01

SUBMISSION DATE : 15/04/2021

SUBMITTED TO : DATA GLACIER

I USED MODEL OF WEEK 4

### Creating The Model

```
import pandas as pd
from sklearn.linear_model import LogisticRegression
from sklearn.metrics import classification_report
from sklearn.metrics import accuracy_score
from sklearn.model_selection import train_test_split
import pickle

data=pd.read_csv('iris.csv')
a = data.copy()
a.drop('Id',axis=1, inplace = True)
X = a.iloc[:, :-1]
y = data.iloc[:, -1]
#Split the data into 80% training and 20% testing
X_train, X_test, y_train, y_test = train_test_split(X, y, test_size=0.2, random_state=42)
```

```
#Train the model
model = LogisticRegression()
model.fit(X_train, y_train)
#Test the model
predictions = model.predict(X_test)
print( classification_report(y_test, predictions) )
print( accuracy_score(y_test, predictions))
```

	precision	recall	f1-score	support
Iris-setosa	1.00	1.00	1.00	10
Iris-versicolor	1.00	1.00	1.00	9
Iris-virginica	1.00	1.00	1.00	11
accuracy			1.00	30
macro avg	1.00	1.00	1.00	30
weighted avg	1.00	1.00	1.00	30

1.0

```
pickle.dump(model,open('model.pkl','wb'))
```

```
p=model.predict([[5.1,3.5,1.4,0.2]])
print(p[0])
```

Iris-setosa

index.html

```
app.py x index.html x
1 <!DOCTYPE html>
2 <html >
3 <head>
4 <meta charset="UTF-8">
5 <title>Iris Flower ML API</title>
6 </head>
7 <body>
8 <div class="login">
9 <h1>Predict The Flower (Iris)</h1>
10 <!-- Main Input For Receiving Query to our ML -->
11 <form action="{{ url_for('predict')}}" method="post">
12 <input type="text" name="SepalLength" placeholder="SepalLength" required="required" style="font-family:verdana" />
13 <input type="text" name="SepalWidth" placeholder="SepalWidth" required="required" style="font-family:verdana" />
14 <input type="text" name="PetalLength" placeholder="PetalLength" required="required" style="font-family:verdana" />
15 <input type="text" name="PetalWidth" placeholder="PetalWidth" required="required" style="font-family:verdana" />
16 <button type="submit" class="btn btn-primary btn-block btn-large" style="font-family:verdana">Predict</button>
17 </form>
18 <br>
19 <br>
20 {{ prediction_text }}
21 </div>
22 </body>
23 </html>
```

Flask App

```
app.py x
1 import numpy as np
2 from flask import Flask, request, render_template
3 import pickle
4
5 model = pickle.load(open('model.pkl', 'rb'))
6 app = Flask(__name__)
7
8 @app.route('/')
9 def home():
10     return render_template('index.html')
11
12 @app.route('/predict', methods=['POST'])
13
14 def predict():
15     int_features = [float(x) for x in request.form.values()]
16
17     final_features = [np.array(int_features)]
18     prediction = model.predict(final_features)
19
20     output = prediction[0]
21
22     return render_template('index.html', prediction_text='The flower is : {}'.format(output))
23
24 if __name__ == "__main__":
25     app.run(port=5000, debug=True)
```

python app.py

```
(base) C:\Users\burak>cd FlaskWorkspace
(base) C:\Users\burak\FlaskWorkspace>python app.py
* 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: on
* Restarting with windowsapi reloader
* Debugger is active!
* Debugger PIN: 239-397-975
* Running on http://127.0.0.1:5000/ (Press CTRL+C to quit)
127.0.0.1 - - [21/Mar/2021 15:39:42] "[37mGET / HTTP/1.1[0m" 200 -
127.0.0.1 - - [21/Mar/2021 15:39:42] "[37mGET / HTTP/1.1[0m" 200 -
127.0.0.1 - - [21/Mar/2021 15:39:51] "[37mPOST /predict HTTP/1.1[0m" 200 -
127.0.0.1 - - [21/Mar/2021 15:40:01] "[37mPOST /predict HTTP/1.1[0m" 200 -
127.0.0.1 - - [21/Mar/2021 15:40:06] "[37mPOST /predict HTTP/1.1[0m" 200 -
```

## Predict The Flower (Iris)

<input type="text" value="SepalLength"/>	<input type="text" value="SepalWidth"/>	<input type="text" value="PetalLength"/>	<input type="text" value="PetalWidth"/>	<input type="button" value="Predict"/>
--	---	--	---	--

## Predict The Flower (Iris)

<input type="text" value="3.2"/>	<input type="text" value="2.2"/>	<input type="text" value="4.2"/>	<input type="text" value="3.5"/>	<input type="button" value="Predict"/>
----------------------------------	----------------------------------	----------------------------------	----------------------------------	--

The flower is : Iris-virginica


## Creating Heroku App

Create New App

App name

cloudflaskapi

Choose a region

 United States

Add to pipeline...

Create app

## Procfile and requirements.txt

```
web: gunicorn app:app
```

```
requirements - Not Deferi
Dosya Düzen Biçim Görünüm Yardım
Flask
gunicorn
pandas
requests
scikit-learn
scipy
numpy
```

```
(base) C:\Users\burak\FlaskWorkspace>pip install -r requirements.txt
Requirement already satisfied: Flask in c:\users\burak\anaconda3\lib\site-packages (from -r requirements.txt (line 1)) (1.1.2)
Requirement already satisfied: gunicorn in c:\users\burak\anaconda3\lib\site-packages (from -r requirements.txt (line 2)) (20.1.0)
Requirement already satisfied: pandas in c:\users\burak\anaconda3\lib\site-packages (from -r requirements.txt (line 3)) (1.2.4)
Requirement already satisfied: requests in c:\users\burak\anaconda3\lib\site-packages (from -r requirements.txt (line 4)) (2.25.1)
Requirement already satisfied: scikit-learn in c:\users\burak\anaconda3\lib\site-packages (from -r requirements.txt (line 5)) (0.24.1)
Requirement already satisfied: scipy in c:\users\burak\anaconda3\lib\site-packages (from -r requirements.txt (line 6)) (1.6.2)
Requirement already satisfied: numpy in c:\users\burak\anaconda3\lib\site-packages (from -r requirements.txt (line 7)) (1.19.3)
```

## Pushing to the Heroku

```
(base) C:\Users\burak\FlaskWorkspace>git add .

(base) C:\Users\burak\FlaskWorkspace>git commit -m "update"
[master 719732f] update
1 file changed, 2 deletions(-)

(base) C:\Users\burak\FlaskWorkspace>git push heroku master
Enumerating objects: 8, done.
Counting objects: 100% (8/8), done.
Delta compression using up to 4 threads
Compressing objects: 100% (6/6), done.
Writing objects: 100% (6/6), 546 bytes | 546.00 KiB/s, done.
Total 6 (delta 3), reused 0 (delta 0), pack-reused 0
remote: Compressing source files... done.
remote: Building source:
remote:
remote: -----> Building on the Heroku-20 stack
remote: -----> Using buildpack: heroku/python
remote: -----> Python app detected
remote: -----> Requirements file has been changed, clearing cached dependencies
remote: -----> Installing python-3.6.13
remote: -----> Installing pip 20.2.4, setuptools 47.1.1 and wheel 0.36.2
remote: -----> Installing 501ite?
remote:
remote: -----> Compressing...
remote: Done: 130.5M
remote: -----> Launching...
remote: Released v9
remote: https://cloudflaskapi.herokuapp.com/ deployed to Heroku
remote:
remote: Verifying deploy... done.
To https://git.heroku.com/cloudflaskapi.git
7648eb0..719732f master -> master

(base) C:\Users\burak\FlaskWorkspace>
```

Personal > cloudflaskapi

☆ Open app More

Overview Resources Deploy Metrics Activity Access Settings

Installed add-ons \$0.00/month [Configure Add-ons](#)

There are no add-ons for this app  
You can add add-ons to this app and they will show here. [Learn more](#)

Latest activity [All Activity](#)

burak\_kasta\_37@hotmail.com.tr: Deployed 719732fc  
Today at 5:57 PM - v9

burak\_kasta\_37@hotmail.com.tr: Build succeeded  
Today at 5:55 PM - [View build log](#)

< > ↺ 🪞 | VPN 🔒 cloudflaskapi.herokuapp.com

## Predict The Flower (Iris)

<input type="text" value="SepalLength"/>	<input type="text" value="SepalWidth"/>	<input type="text" value="PetalLength"/>	<input type="text" value="PetalWidth"/>	<input type="button" value="Predict"/>
--	---	--	---	--