Info

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- Batch Code : LISUM 13:30 August - 30 November 2022
- Submission date: 2022/9/26
- Submitted to : Week 4 : Deployment on Flask

Process

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

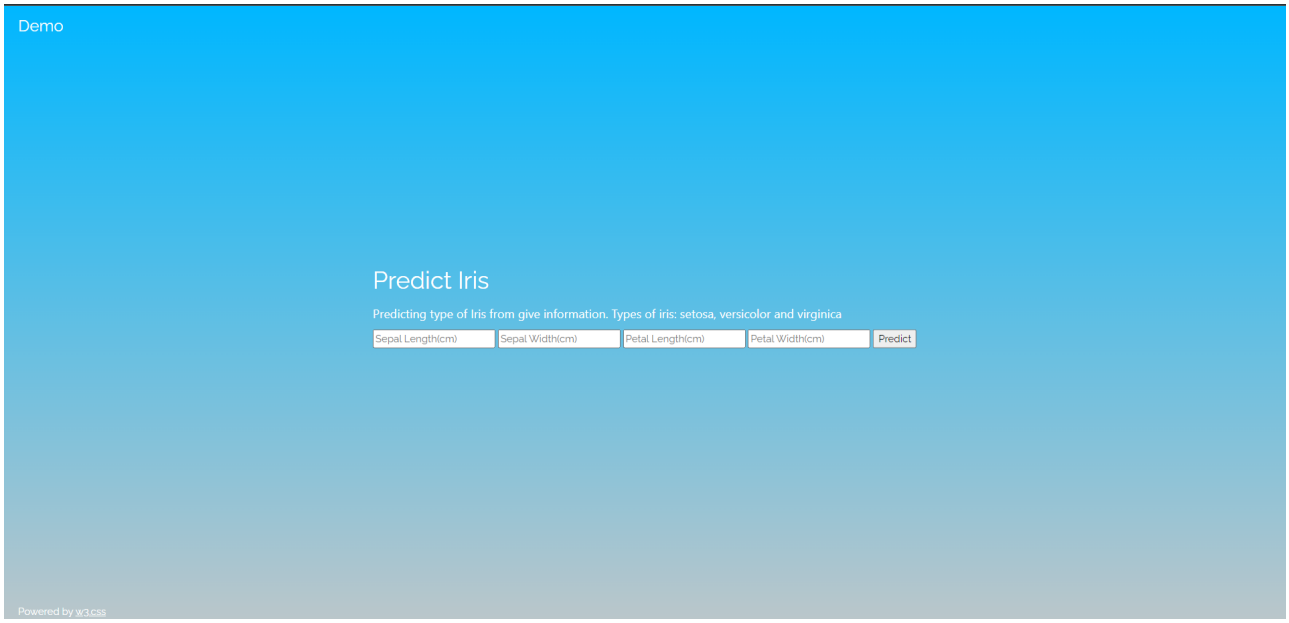
3. make a simple webpage

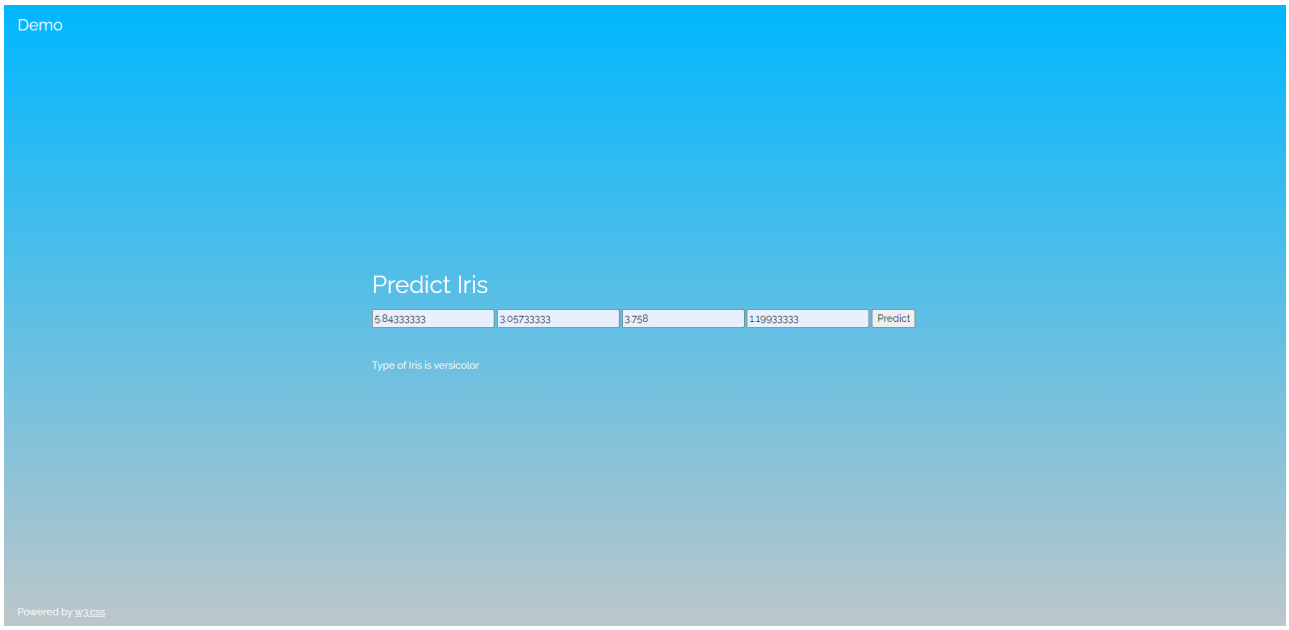
app.py > index

```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)
```

```html
<!DOCTYPE html>
<!-- ref : https://www.w3schools.com/w3css/tryit.asp?filename=tryw3css_templates_coming
<html>
<head>
<title>My ML Demo</title>
<meta charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale=1">
<link rel="stylesheet" href="https://www.w3schools.com/w3css/4/w3.css">
<link rel="stylesheet" href="https://fonts.googleapis.com/css?family=Raleway">
<style>
body,h1 {font-family: "Raleway", sans-serif}
body, html {height: 100%}
.bgimg {
  background-image: linear-gradient( #00b7ff, #bdc7ca);
  min-height: 100%;
  background-position: center;
  background-size: cover;
}
</style>
</head>
<body>

<div class="bgimg w3-display-container w3-animate-opacity w3-text-white">
  <div class="w3-display-topleft w3-padding-large w3-xlarge">
    Demo
  </div>
  <div class="w3-display-middle">
```

4. deploy the model on the web page





5. Done