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Batch Code: LISUM 10

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Created this webapp using the load_iris dataset.

1. HTML file for the homepage in the app.

```
1 <html>
2 <body bgcolor=yellow>
3
4 <center>
5
6 <h1> IRIS FLOWER DETECTION </h1><br>
7
8 <form method="POST" action="{{url_for('home')}}">
9 <b> First Value : <input type="text" name='a' placeholder="enter 1"> <br><br>
10 Second Value : <input type="text" name='b' placeholder="enter 2"> <br><br>
11 Third Value : <input type="text" name='c' placeholder="enter 3"> <br><br>
12 Fourth Value : <input type="text" name='d' placeholder="enter 4"> <br><br><br></b>
13 <input type="submit" value='predict!' >
14 </form>
15
16 <img src='static\flower1.jpg' alt="flower">
17
18 </center>
19
20 </body>
21 </html>
```

2. Creating HTML file for backend

```
1 <html>
2 <body bgcolor=#a3cfb4>
3
4 <center>
5
6 <h1> PREDICTION : </h1>
7
8
9 {%if data == 0%}
10 <h1>Iris-setosa</h1>
11 <img src='static\setosa.jpg'>
12
13 {%else%}
14 <h1>Iris-versicolor</h1>
15 <img src='static\verci.jpg'>
16
17 {%endif%}
18
19 <br><br>
20 <a href='/'>go back to home page</a>
21
22 </center>
23
24 </body>
25
26 </html>
```

3. Loading the iris dataset

```
1 import pandas as pd
2 import numpy as np
3 import pickle
4
5 df = pd.read_csv('iris.data')
6
7 X = np.array(df.iloc[:, 0:4])
8 y = np.array(df.iloc[:, 4:])
9
10 from sklearn.preprocessing import LabelEncoder
11 le = LabelEncoder()
12 y = le.fit_transform(y.reshape(-1))
13
14 from sklearn.model_selection import train_test_split
15 X_train, X_test, y_train, y_test = train_test_split(X, y, test_size=0.2)
16
17 from sklearn.svm import SVC
18 sv = SVC(kernel='linear').fit(X_train, y_train)
19
20
21 pickle.dump(sv, open('iri.pkl', 'wb'))
```

4. Creating the application file

```
1 from flask import Flask, render_template, request
2 import pickle
3 import numpy as np
4
5 model = pickle.load(open('iri.pkl', 'rb'))
6
7 app = Flask(__name__)
8
9
10
11 @app.route('/')
12 def man():
13     return render_template('Home.html')
14
15
16 @app.route('/predict', methods=['POST'])
17 def home():
18     data1 = request.form['a']
19     data2 = request.form['b']
20     data3 = request.form['c']
21     data4 = request.form['d']
22     arr = np.array([[data1, data2, data3, data4]])
23     pred = model.predict(arr)
24     return render_template('After.html', data=pred)
25
26
27 if __name__ == "__main__":
28     app.run(debug=True)
```

5. Rendering the webapp

```
1
2
3 from flask import Flask, render_template
4
5 app = Flask(__name__)
6
7
8 @app.route('/Home')
9 def home():
10     return render_template('Home.html')
11
12 if __name__ == "__main__":
13     app.run(debug=True)
```

6. The webapp

← → ↻ 127.0.0.1:5000/Home

Netflix United Kin... Amazon.co.uk: Lo... Prime Video Hotstar - Watch T... Prime Music Disney+ | Streami... Dashboard What's On NOW


IRIS FLOWER DETECTION

First Value :

Second Value :

Third Value :

Fourth Value :

 flower