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Batch code: LISUM11: 30
Submission date: 8/20/2022
Submitted to: https://myirisdataset.herokuapp.com
Github Repo: Ovuowo-Rukevwe/Iris-Data (github.com)

preview.html M | app.py M | index.html M

templates > preview.html > div.showcase.container.white-text.blue.lighten-3 > div.row > div.col.12.m10.offset-ml.center

```
{% extends "material/base.html" %}
{% block content %}
<div class="showcase container white-text blue lighten-3">
    <div class="row">
        <div class="col 12 m10 offset-ml center">
            <h2>Iris Species predictor</h2>
            <p>ML WEB APP</p>
            <a href="{{url_for('index')}}" class="btn btn-small blue white-text waves-effect waves-d
        </div>
    </div>
</div>

<div class="container">
    {{ df_view.to_html(classes="table striped", na_rep="-") | safe }}
</div>

{% endblock %}


{% block scripts %}
{{ super() }}


{% endblock %}
```

preview.html M | app.py M | index.html M

app.py > ...

```
from flask import Flask, render_template,url_for,request
from flask_material import Material


#EDA PKg
import pandas as pd
import numpy as np

#ML PKg
import sklearn.externals
import joblib

app = Flask(__name__)
Material(app)

@app.route('/')
def index():
    return render_template("index.html")

@app.route('/preview')
def preview():
    df = pd.read_csv('data/iris ds.csv')
    return render_template("preview.html", df_view=df)

@app.route('/analyze', methods=['POST'])
def analyze():
    if request.method == 'POST':
        petal_length = request.form['petal_length']
        sepal_length = request.form['sepal_length']
        petal_width = request.form['petal_width']
```

preview.html M | app.py 1, M | index.html M

app.py > ...

```python
@app.route('/analyze', methods=['POST'])
def analyze():
    if request.method == 'POST':
        petal_length = request.form['petal_length']
        sepal_length = request.form['sepal_length']
        petal_width = request.form['petal_width']
        sepal_width = request.form['sepal_width']


        arr = np.array([[sepal_length,sepal_width,petal_length,petal_width]])
        #change from unicode to float

        svm_model = joblib.load('data/model_joblib')
        result_prediction = svm_model.predict(arr)

    return render_template("index.html", petal_width=petal_width,
        sepal_width=sepal_width,
        sepal_length=sepal_length,
        petal_length=petal_length,
        svm_model=svm_model,
        result_prediction=result_prediction,
        )


if __name__=='__main__':
    app.run(debug=True)
```

preview.html M | app.py 1, M | index.html M

templates > index.html > section.section.section-signup > div.container > div.row > div.col.s12.m4 > div.card-panel.grey.lig

```
{% extends "material/base.html" %}
{% block content %}
<div class="showcase container white-text blue lighten-3">
    <div class="row">
        <div class="col 12 m10 offset-ml center">
            <h2>Iris Species predictor</h2>
            <p>ML WEB APP</p>
            <a href="{{url_for('index')}}" class="btn btn-small blue white-text waves-effect waves-d
            <a href="{{url_for('preview')}}" class="btn btn-small white blue-text waves-effect waves
        </div>

    </div>
</div>
<section class="section section-signup">
    <div class="container">
        <div class="row">

            <div class="col s12 m4">
                <div class="card-panel grey lighten-4 grey-text text-darken-4 z-depth-0">

                    <form method="POST" action="{{url_for('analyze')}}">
                        <div class="input-field">
                            <p class="range-field"></p>
                            <input type="range" min="4" max="8" step="0.1" value="0" name="sepal_len
                            <label>sepal_length</label>
                        </div>
                        <div class="input-field">
                            <p class="range-field"></p>
                            <input type="range" min="2" max="5" step="0.1" value="0" name="sepal_wid
                            <label>sepal_width</label>
```

preview.html M | app.py 1, M | index.html M

templates > index.html > section.section.section-signup > div.container > div.row > div.col.s12.m4 > div.card-panel.grey.lig

```
                        <input type="range" min="2" max="5" step="0.1" value="0" name="sepal_wid
                        <label>sepal_width</label>
                    </div>
                    <div class="input-field">
                        <p class="range-field"></p>
                        <input type="range" min="0" max="7" step="0.1" value="0" name="petal_len
                        <label>petal_length</label>
                    </div>
                    <div class="input-field">
                        <p class="range-field"></p>
                        <input type="range" min="0" max="8" step="0.1" value="0" name="petal_wid
                        <label>petal_width</label>
                    </div>


                    <button type="submit" value="Predict" class="btn btn-small white blue-text w


                </form>

            </div>
        </div>

        <div class="col 12 m4 offers">
            <div class="card-panel blue lighten-4 grey-text text-darken-4 z-depth-0">
                <p>Sepal Length: {{ sepal_length }}</p>
                <p>Sepal_width: {{ sepal_width }}</p>
                <p>Petal_length: {{ petal_length }}</p>
                <p>petal_width: {{ petal_width }}</p>
            </div>
```

preview.html M | app.py 1, M | index.html M

templates > index.html > section.section.section-signup > div.container > div.row > div.col.s12.m4 > div.card-panel.grey.lig

```
            </div>
        </div>

        <div class="col s12 m4 offers">
            <h5>Prediction</h5>
            <div class="collection" role="alert">
                <p class="collection-item active blue">Predicted result {{ result_prediction }}
            </div>
            <div class="card-image waves-effect waves-block waves-light">

                {% if result_prediction == 0 %}
                <h5>setosa</h5>
                <img src="static/imgs/iris setosa.jfif" width="200px" height="200px">

                {% elif result_prediction == 1 %}
                <h5>versicolor</h5>
                <img src="static/imgs/iris versicolor.jfif" width="200px" height="200px">

                {% elif result_prediction == 2 %}
                <h5>virginica</h5>
                <img src="static/imgs/iris virginica.jfif" width="200px" height="200px">

                {% else %}
                    <p></p>

                {% endif %}


            </div>
        </div>
```

Iris Species predictor

ML WEB APP

BACK

	sepal length (cm)	sepal width (cm)	petal length (cm)	petal width (cm)	target	flower names
0	5.1	3.5	1.4	0.2	0	setosa
1	4.9	3.0	1.4	0.2	0	setosa
2	4.7	3.2	1.3	0.2	0	setosa
3	4.6	3.1	1.5	0.2	0	setosa
4	5.0	3.6	1.4	0.2	0	setosa
5	5.4	3.9	1.7	0.4	0	setosa
6	4.6	3.4	1.4	0.3	0	setosa

Iris Species predictor

ML WEB APP

RESET VIEW DATASET

sepal_length

sepal_width

petal_length

petal_width

PREDICT

Sepal Length: 4.4

Sepal_width: 3.9

Petal_length: 0

petal_width: 2.4

Prediction

Predicted result [0]

setosa

Iris Species predictor

ML WEB APP

RESET VIEW DATASET

sepal_length

sepal_width

petal_length

petal_width

PREDICT

Sepal Length: 4

Sepal_width: 3.9

Petal_length: 2.2

petal_width: 6.4

Prediction

Predicted result [2]

virginica

Iris Species predictor

ML WEB APP

RESET VIEW DATASET

sepal_length

sepal_width

petal_length

petal_width

PREDICT

Sepal Length: 4.8

Sepal_width: 4.1

Petal_length: 4

petal_width: 2.5

Prediction

Predicted result [1]

versicolor