

Name: Prediction of Red Wine Quality

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Internship Batch: LISUM 25

Submitted to: Data Glacier

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1. app.py

```
from flask import Flask, request, render_template
import pickle

app = Flask(__name__)
model = pickle.load(open('model.pkl', 'rb'))

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

@app.route(rule: '/predict', methods=['POST'])
def predict():
    fixed_acidity = float(request.form['fixed_acidity'])
    volatile_acidity = float(request.form['volatile_acidity'])
    citric_acid = float(request.form['citric_acid'])
    residual_sugar = float(request.form['residual_sugar'])
    chlorides = float(request.form['chlorides'])
    free_sulfur_dioxide = float(request.form['free_sulfur_dioxide'])
    total_sulfur_dioxide = float(request.form['total_sulfur_dioxide'])
    density = float(request.form['density'])
    pH = float(request.form['ph'])
    sulphates = float(request.form['sulphates'])
    alcohol = float(request.form['alcohol'])

    input_features = [fixed_acidity, volatile_acidity, citric_acid, residual_sugar, chlorides,
                      free_sulfur_dioxide, total_sulfur_dioxide, density, pH, sulphates, alcohol]

    prediction = model.predict([input_features])

    result = "Bad" if prediction[0] == 0 else "Good"


    prediction_text = f'Predicted Red Wine Quality: {result}'

    return render_template(template_name_or_list: 'index.html', prediction_text=prediction_text)

if __name__ == '__main__':
    app.run(port=5000, debug=True)
```

2. Application

127.0.0.1



Red Wine Quality

Fixed Acidity

Volatile Acidity

Citric Acid

Residual Sugar

Chlorides

Free Sulfur Dioxide

Total Sulfur Dioxide

Density


pH

Sulphates

Alcohol

Predict

127.0.0.1



Red Wine Quality

7.4

0.7

0

1.9

0.076

11

34

0.998


3.51

0.56

9.4

Predict

127.0.0.1



Red Wine Quality

Fixed Acidity

Volatile Acidity

Citric Acid

Residual Sugar

Chlorides

Free Sulfur Dioxide

Total Sulfur Dioxide

Density

pH

Sulphates

Alcohol

Predict

Predicted Red Wine Quality: Bad