Week 4(Model Deployment)

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```python
from sklearn.model_selection import train_test_split
X_train, X_test, y_train, y_test = train_test_split(X, y, test_size=0.2, random_state=0)
```

```python
from sklearn import svm
clf = svm.SVC(kernel='linear')
clf.fit(X_train, y_train)
```
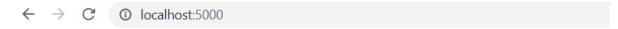
```
SVC(kernel='linear')
```

```python
from sklearn.metrics import accuracy_score
y_pred = clf.predict(X_test)
accuracy_score(y_test, y_pred)
```

```
0.819672131147541
```

```python
import pickle
filename = 'model.sav'
pickle.dump(clf, open(filename, 'wb'))
```

Create and save the Model

← → C ⓘ localhost:5000

Hello World!

Initializing Flask App

Creating the basic form

```python
from flask import Flask, render_template,request
import pickle
import numpy as np


app = Flask(__name__)

@app.route('/', methods = ['GET', 'POST'])
def main_page():
    if request.method == 'POST':
        model = pickle.load(open('model.sav', 'rb'))



        return render_template('predict.html',show = True)
    else:
        return render_template('predict.html',show = False)
```

Loading the Model

```python
import pickle
import numpy as np


app = Flask(__name__)

@app.route('/', methods = ['GET', 'POST'])
def main_page():
    if request.method == 'POST':
        model = pickle.load(open('model.sav', 'rb'))


        cp = int(request.form['cp'])
        max_heart = int(request.form['max_heart'])
        angia = int(request.form['angia'])
        st = float(request.form['st'])

        res = model.predict([[cp,max_heart,angia, st]])

        if res[0] == 1:
            text = 'High Chances of getting a heart disease'
        if res[0] == 0:
            text = 'Low Chances of getting a heart disease'

        return render_template('predict.html',show = True, res = text)
    else:
        return render_template('predict.html',show = False)


if __name__ == '__main__':
    app.run()
```
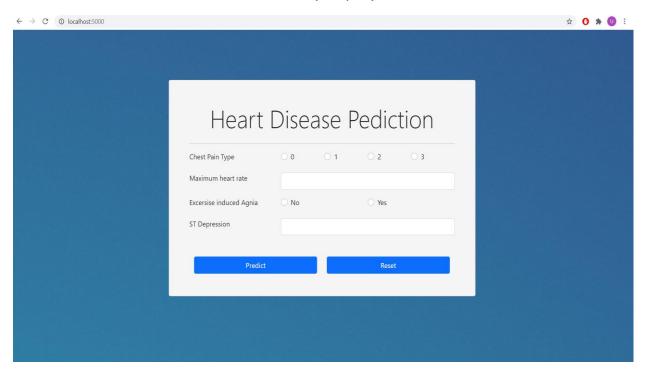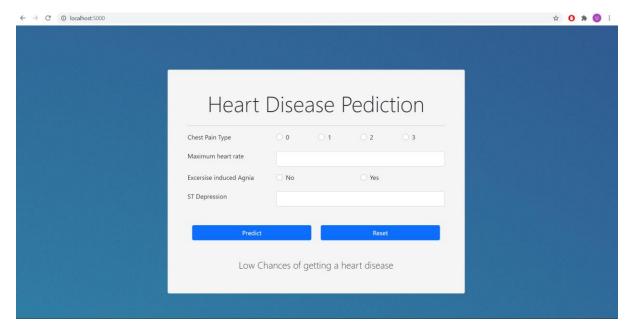
Making the Prediction

Successfully deployed

Final Design

Prediction