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LISUM34
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Submitted to Canvas

```
from sklearn import linear_model
import pandas as pd
import numpy as np
import pickle
# build model for predicting price charged by Pink Cab in Boston
df = pd.read_csv("finalCabData.csv")
filteredDf = df[(df["City"] == "BOSTON MA")]
filteredDf = filteredDf[filteredDf["Company"] == "Pink Cab"]
x = np.array(filteredDf[["KM Travelled", "Cost of Trip"]])
y = np.array(filteredDf["Price Charged"])
model = linear_model.LinearRegression()
model.fit(x, y)
#save model to pickle file
pickle.dump(model, open("model.pkl", "wb"))
```

[3] ✓ 0.4s

```
1 from flask import Flask, request, render_template
2 import numpy as np
3 import pickle
4
5 app = Flask(__name__)
6 model = pickle.load(open("model.pkl", "rb"))
7
8
9 @app.route("/") # home root
10 def home():
11     return render_template("index.html")
12
13
14 @app.route("/predict", methods=["POST"]) # prediction post method for submission
15 def predict():
16     # predict price charged based on user inputted distance travelled and cost of trip
17     args = [int(x) for x in request.form.values()]
18     prediction = model.predict([np.array(args)])
19     output = round(prediction[0], 2)
20     return render_template(
21         "index.html", prediction="You can expect to charge ${}".format(output)
22     )
23
24
25 if __name__ == "__main__":
26     app.run(port=5000, debug=True)
27
```

```

plates > index.html
1 <!DOCTYPE html>
2 <html lang="en">
3   <head>
4     <meta charset="utf-8" />
5     <title>Predictor</title>
6   </head>
7   <body>
8     <div>
9       <form action="/predict" method="post">
10        <input
11          type="text"
12          name="Distance"
13          placeholder="Distance Travelled in KM"
14        />
15        <input type="text" name="Cost" placeholder="Cost of Trip" />
16        <button type="submit">Submit</button>
17      </form>
18      {{prediction}}
19    </div>
20    <link
21      rel="stylesheet"
22      href="{{url_for('static', filename='css/styles.css')}}"
23    />
24  </body>
25 </html>

```

```

1 1. html {
2   background-color: red;
3   color: white;
4 }
5
6 2. div {
7   width: 50%;
8   margin: auto;
9   align-items: center;
10 }
11
12 3. form {
13   width: fit-content;
14   margin: auto;
15 }

```

127.0.0.1:5000

10

130

Submit

127.0.0.1:5000/predict

You can expect to charge \$196.19

Distance Travelled in KM

Cost of Trip

Submit