

Valery Louis

Submission date: 01/21/2023

Submitted to: Data Glacier internship

Steps of Deployment

1. model.py

```
1  import pandas as pd
2  from sklearn.preprocessing import StandardScaler
3  from sklearn.ensemble import RandomForestClassifier
4  from sklearn.model_selection import train_test_split
5  import pickle
6
7  df = pd.read_csv("titanic.csv")
8
9  print(df.head())
10
11  # independent and dependent variable
12  X = df[["Pclass", "SibSp", "Parch", "Fare"]]
13  y = df["Survived"]
14
15  # split data set into train and test
16  X_train, X_test, y_train, y_test = train_test_split(X, y, test_size=0.3, random_state=50)
17
18  # Feature scaling
19  sc = StandardScaler()
20  X_train = sc.fit_transform(X_train)
21  X_test = sc.transform(X_test)
22
23  # Instantiate the model
24  classifier = RandomForestClassifier()
25
26  # Fitting the model with training data
27  classifier.fit(X_train, y_train)
28
29  # make pickle file of model
30  pickle.dump(classifier, open("model.pkl", "wb"))
31
```

2. app.py

```
1  import numpy as np
2      from flask import Flask, request, render_template
3  import pickle
4
5      app = Flask(__name__)
6      app.config['TEMPLATES_AUTO_RELOAD'] = False
7
8      model = pickle.load(open("model.pkl", "rb"))
9
10
11      @app.route('/')
12      def home():
13          return render_template("index.html")
14
15
16      @app.route("/predict", methods=["POST"])
17      def predict():
18          float_features = [float(x) for x in request.form.values()]
19          features = [np.array(float_features)]
20          prediction = model.predict(features)
21          return render_template("index.html", prediction_text="Survived: {}".format(prediction))
22
23
24  if __name__ == "__main__":
25      app.run(debug=True)
26
```

3. index.html

```
1  <!DOCTYPE html>
2  <html>
3  <head>
4      <title>Titanic Survival Prediction</title>
5  </head>
6  <body>
7      <h1>Titanic Survival Prediction</h1>
8      <form action = "/predict" method = "POST">
9          <label for="Pclass">Pclass:</label>
10         <input type="text" id="Pclass" name="Pclass"><br><br>
11         <label for="SibSp">SibSp:</label>
12         <input type="text" id="SibSp" name="SibSp"><br><br>
13         <label for="Parch">Parch:</label>
14         <input type="text" id="Parch" name="Parch"><br><br>
15         <label for="Fare">Fare:</label>
16         <input type="text" id="Fare" name="Fare"><br><br>
17         <input type="submit" value="Predict">
18     </form>
19     <br>
20     <p>{{ prediction_text }}</p>
21 </body>
22 </html>
23
```