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Deploy Titanic Model

HTTP Request method

Common HTTP request methods:

- **GET:** Retrieve data from the server.
- **POST:** Submit data to be processed to a specified resource.
- **PUT:** Update a resource or create a new resource if it does not exist.
- **DELETE:** Request the removal of a resource.

Model Overview

```
dataset = pd.read_csv('train.csv', encoding='latin-1')
dataset = dataset.rename(columns=lambda x: x.strip().lower())
dataset = dataset[['pclass', 'sex', 'age', 'sibsp',
                   'parch', 'fare', 'embarked', 'survived']]
dataset['sex'] = dataset['sex'].map({'male': 0, 'female': 1})
dataset['age'] = pd.to_numeric(dataset['age'], errors='coerce')
dataset['age'] = dataset['age'].fillna(np.mean(dataset['age']))
embarked_dummies = pd.get_dummies(dataset['embarked'])
dataset = pd.concat([dataset, embarked_dummies], axis=1)
dataset = dataset.drop(['embarked'], axis=1)
```

Model Overview

```
X = dataset.drop(['survived'], axis=1)
y = dataset['survived']

sc = MinMaxScaler(feature_range=(0, 1))
X_scaled = sc.fit_transform(X)

log_model = LogisticRegression(C=1)
log_model.fit(X_scaled, y)

pickle.dump(log_model, open("ml_model.pkl", "wb"))
pickle.dump(sc, open("scaler.pkl", "wb"))
```

Define FastAPI Instance

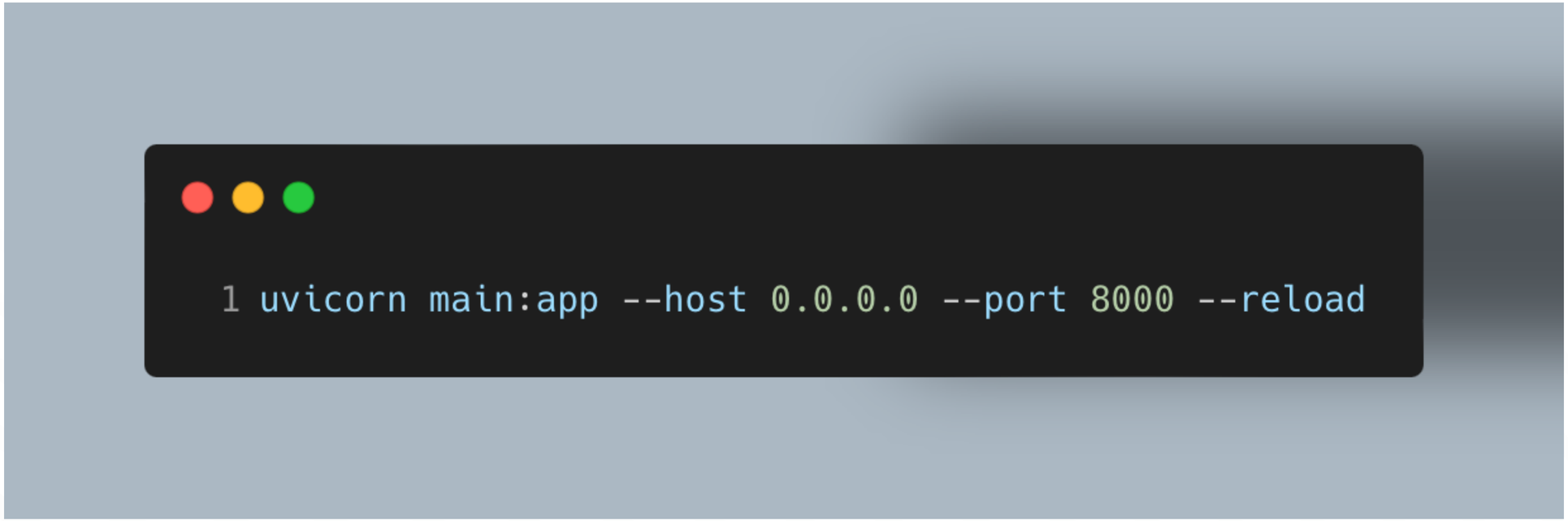
Welcome Page

```python
@app.get("/")
def read_root():
    return {"message": "Hello, FastAPI!"}
```

Define Predict Function

```python
@app.post("/predict")
def predict(data: dict):
    # Data Preprocessing
    # Model prediction code
    return {"prediction": "result"}
```

Run Your Server



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Thank You