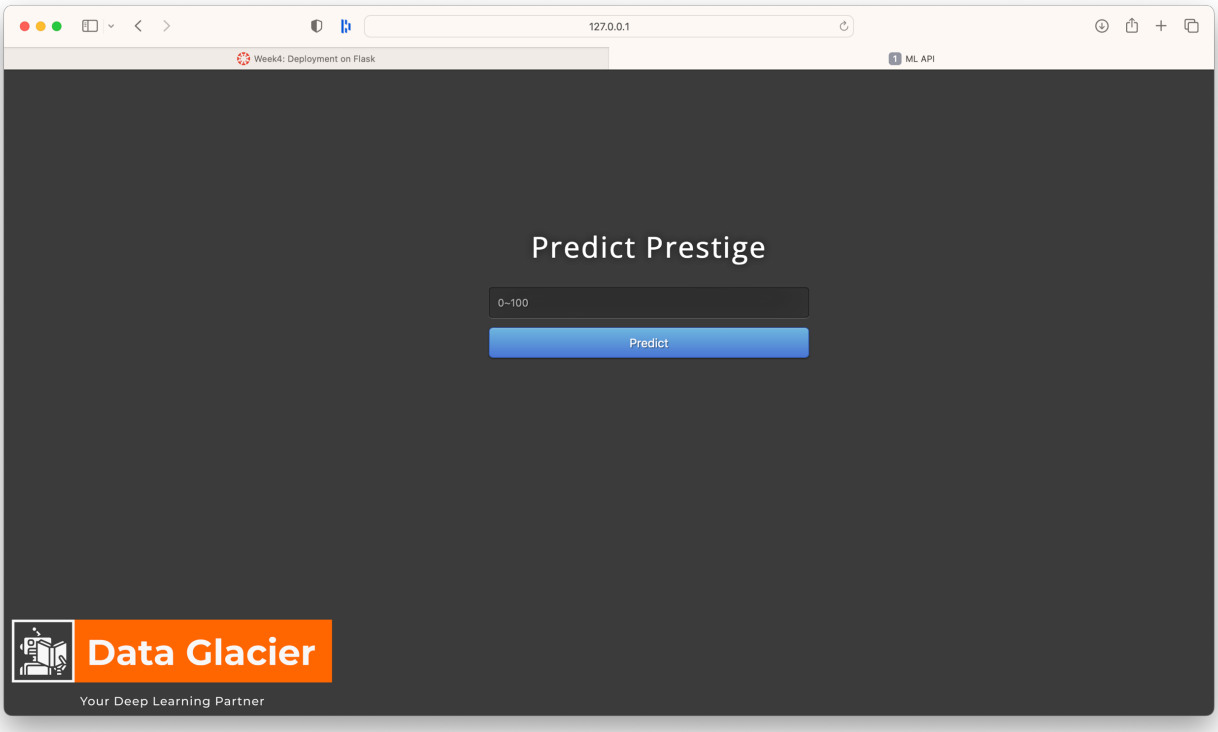
Name: Jiahao Yu
Batch code: LISUM14
Submission date: 24-Oct-22
Submitted to: GitHub (https://github.com/YUJH01/Data_Glacier_Week4.git)

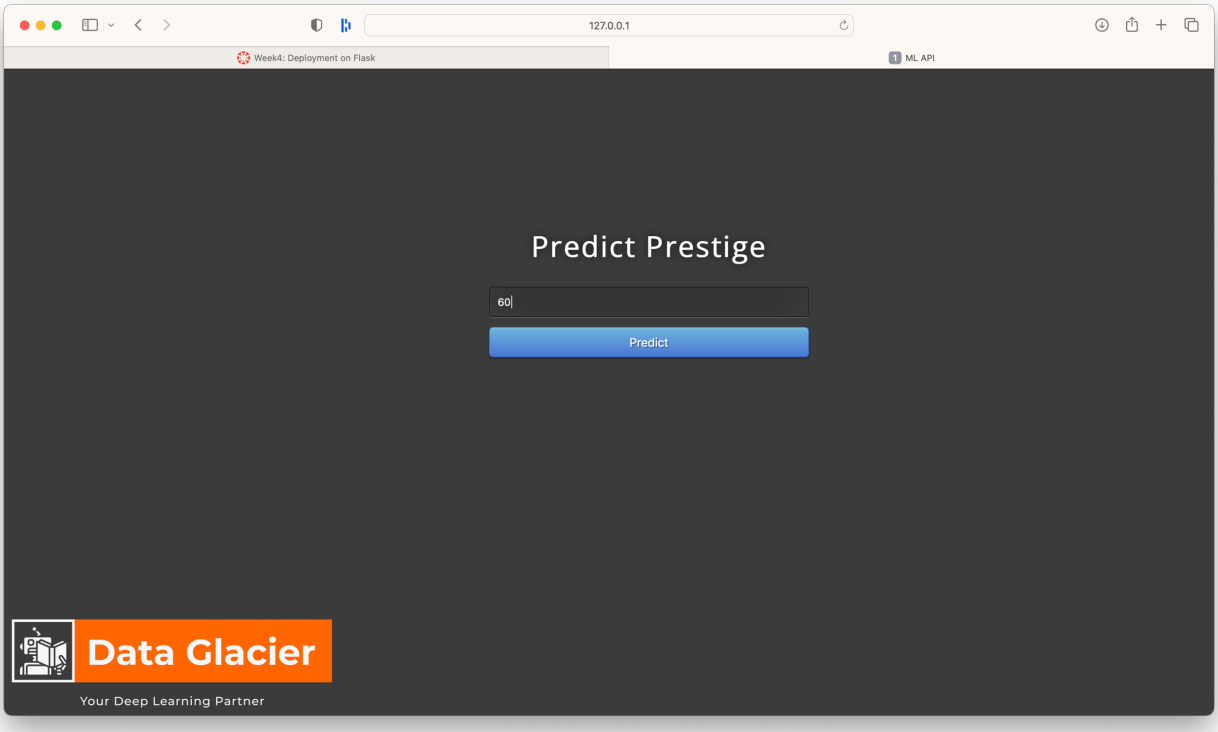
Step 1: We choose a simple dataset from statsmodels.api which contains income and prestige. Then we perform a linear regression to predict prestige based on income.

```python
from flask import Flask, request, render_template
import numpy as np
import statsmodels.api as sm
from sklearn import linear_model

app = Flask(__name__)
prestige = sm.datasets.get_rdataset("Duncan", "carData").data
X = prestige[["income"]]
y = prestige["prestige"]

model = linear_model.LinearRegression(fit_intercept=True)
model.fit(X,y)

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

@app.route('/predict', methods=['POST'])
def predict():
    in_ = float(request.form.get("Income"))
    out_ = model.predict(np.array([in_]).reshape(-1, 1))[0]
    return render_template('index.html', prediction_text = f'Prestige is {out_}')

if __name__ == "__main__":
    app.run(port=5000)
```

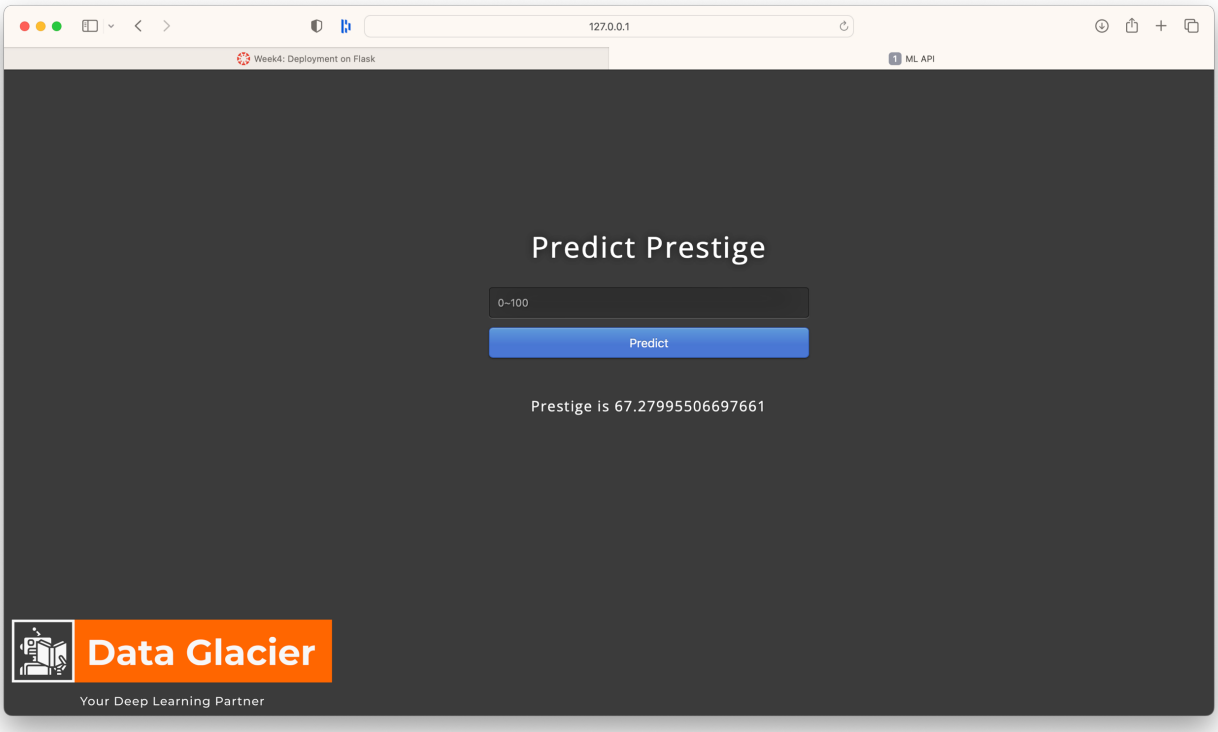
Step 2: We deploy the model and open it in the browser.



Step 3: We write the income as 60 in this case.



Step 4: Then we hit “Predict” and get the output.


127.0.0.1
Week4: Deployment on Flask
ML API
Predict Prestige
0~100
Predict
Prestige is 67.27995506697661
Data Glacier
Your Deep Learning Partner