

**Name: Elizabeth Banning**

**Batch Code: LISUM14**

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**Steps to Deploying a Model with Heroku**

1. After importing and cleaning data, create model in Python and save model:

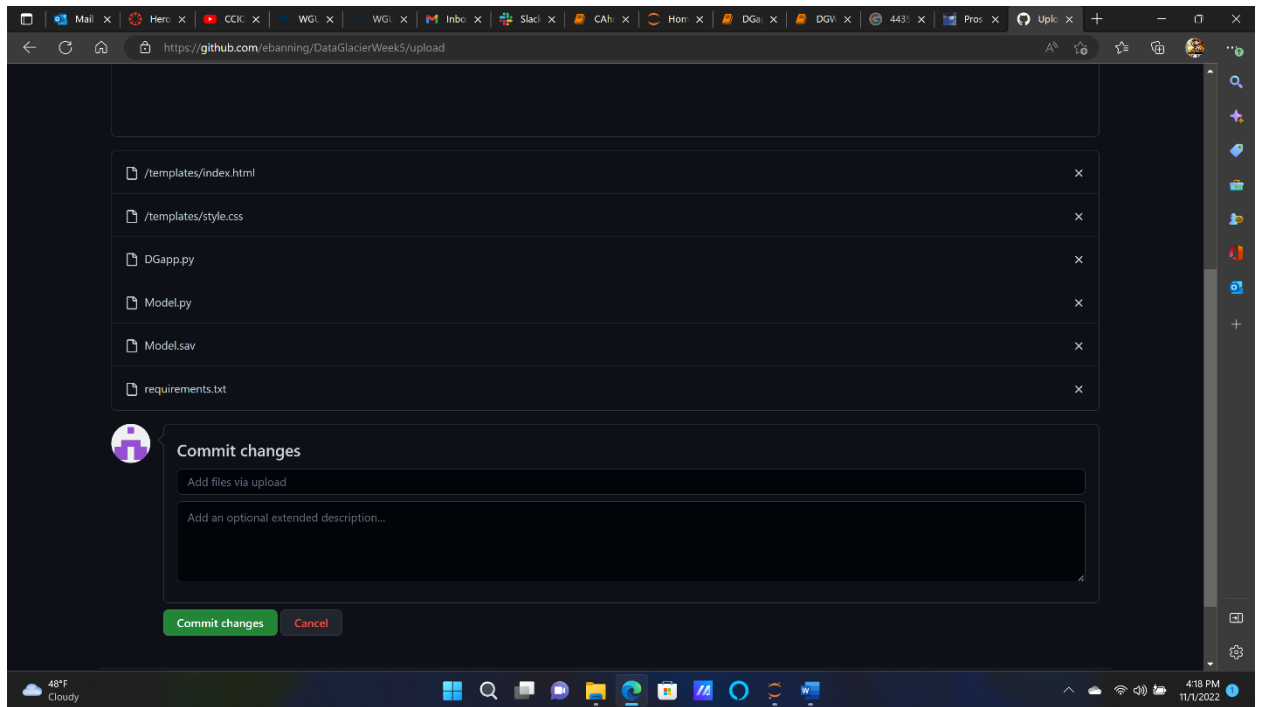
```
In [6]: > # Make model
import numpy as np
from sklearn.linear_model import LinearRegression
X = np.array(house[['Income', 'HouseAge', 'AveRooms', 'AveBedrms', 'Population', 'Occupancy']])
y = np.array(house['HousePrice'])
model = LinearRegression().fit(X,y)

In [ ]: > import pickle
filename = "C:/Users/estal/OneDrive/Desktop/DataGlacier/Week4/Model.sav"
pickle.dump(model, open(filename, 'wb'))
```

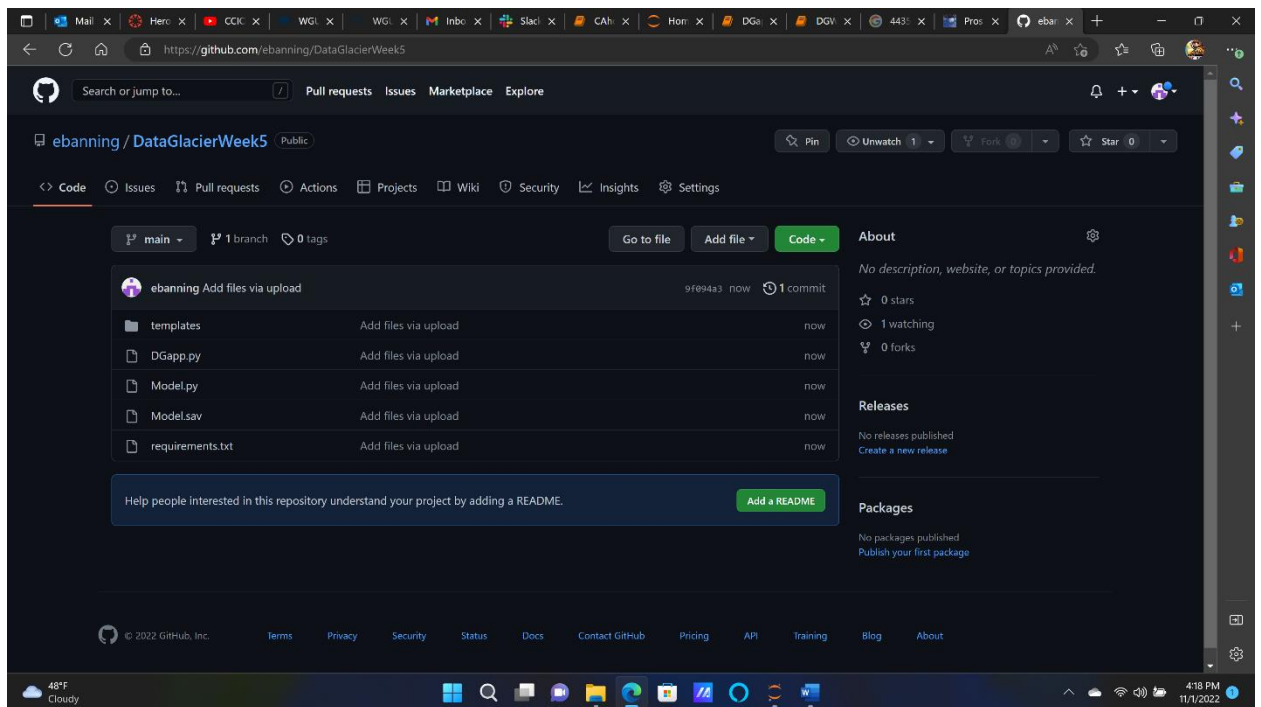
2. Create Flask app:

```
> import numpy as np
import pickle
from flask import Flask, request, render_template
app = Flask(__name__)
model = pickle.load(open('model.sav', 'rb'))
@app.route('/')
def home():
    return render_template('index.html')
@app.route('/predict', methods = ['POST'])
def predict():
    features = [np.array([float(x) for x in request.form.values()])]
    prediction = model.predict(features)
    output = round(prediction[0], 2)
    return render_template('index.html', prediction_text = 'House price prediction: {}'.format(output))
if __name__ == '__main__':
    app.run(port = 5000, debug = True)
```

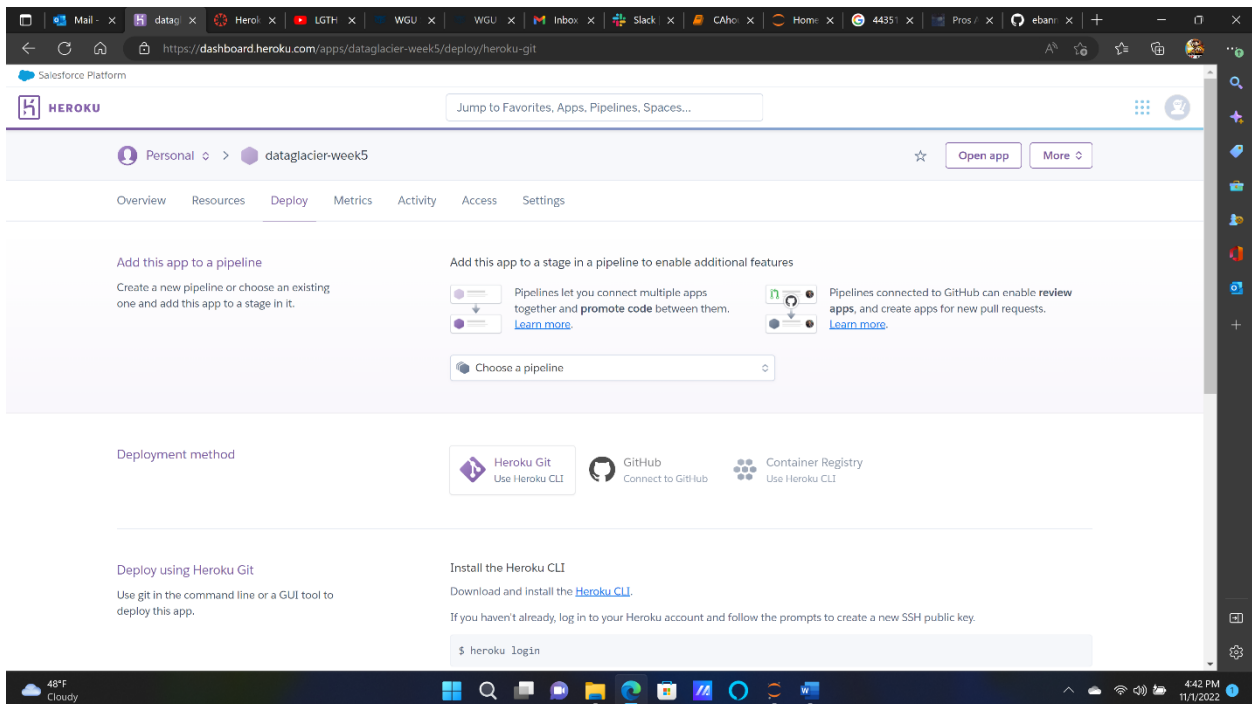
3. Upload files to GitHub repository and commit changes:



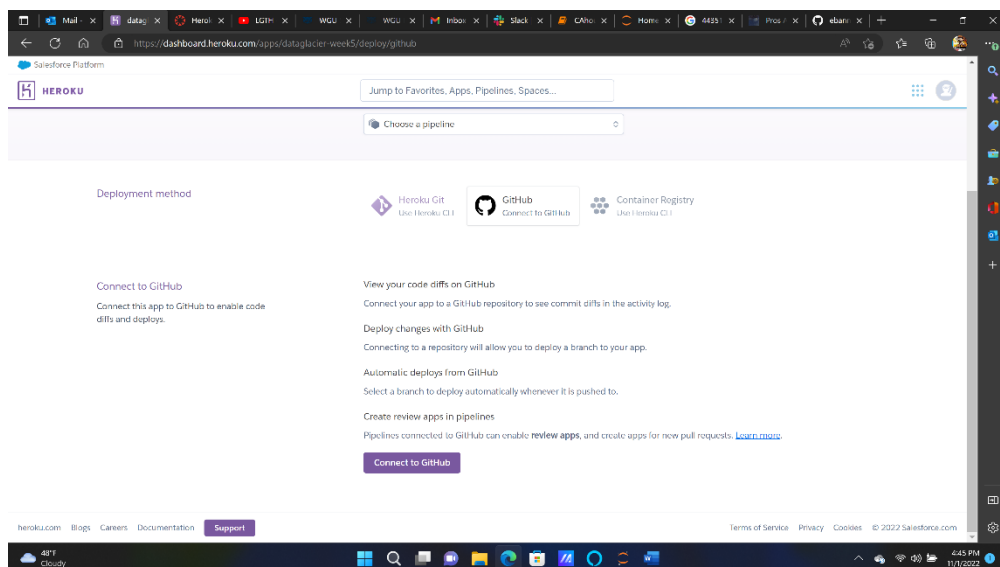
Files are now available in repository:



#### 4. Link GitHub repository to Heroku account. Create new app:





#### Click to connect to GitHub:




Search for repository and click on connect:

Deployment method

 Heroku Git  
Use Heroku CLI

 GitHub  
Connect to GitHub

 Container Registry  
Use Heroku CLI

---


Connect to GitHub

Connect this app to GitHub to enable code diffs and deploys.

Search for a repository to connect to

Search

Missing a GitHub organization? [Ensure Heroku Dashboard has team access.](#)

 ebanning/DataGlacierWeek5


Connect

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49°F Cloudy



5. Deploy app on Heroku. Click on the manual deploy branch button:

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 HEROKU

Jump to Favorites, Apps, Pipelines, Spaces...

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Automatic deploys

Enables a chosen branch to be automatically deployed to this app.

 You can now change your main deploy branch from "master" to "main" for both manual and automatic deploys, please follow the instructions [here](#).

Enable automatic deploys from GitHub

Every push to the branch you specify here will deploy a new version of this app. **Deploys happen automatically:** be sure that this branch is always in a deployable state and any tests have passed before you push. [Learn more.](#)

Choose a branch to deploy

☐ Wait for CI to pass before deploy  
Only enable this option if you have a Continuous Integration service configured on your repo.

Enable Automatic Deploys

---

Manual deploy

Deploy the current state of a branch to this app.

Deploy a GitHub branch

This will deploy the current state of the branch you specify below. [Learn more.](#)

Choose a branch to deploy


Deploy Branch

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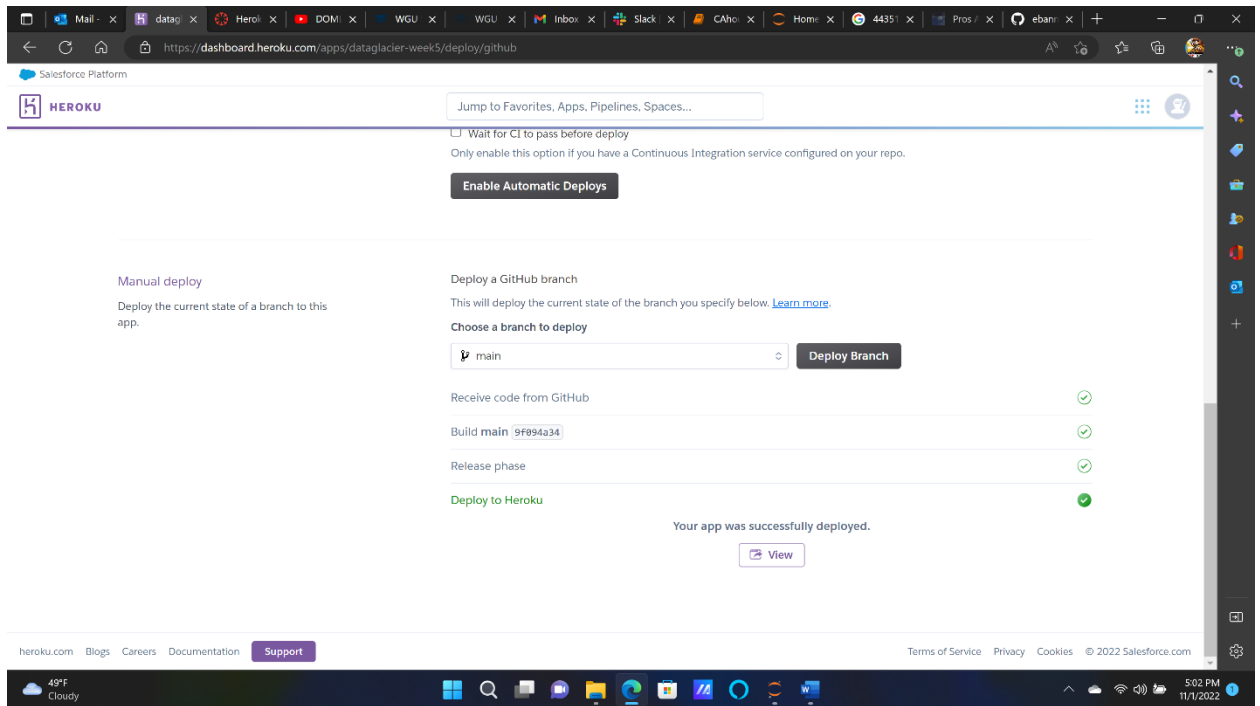
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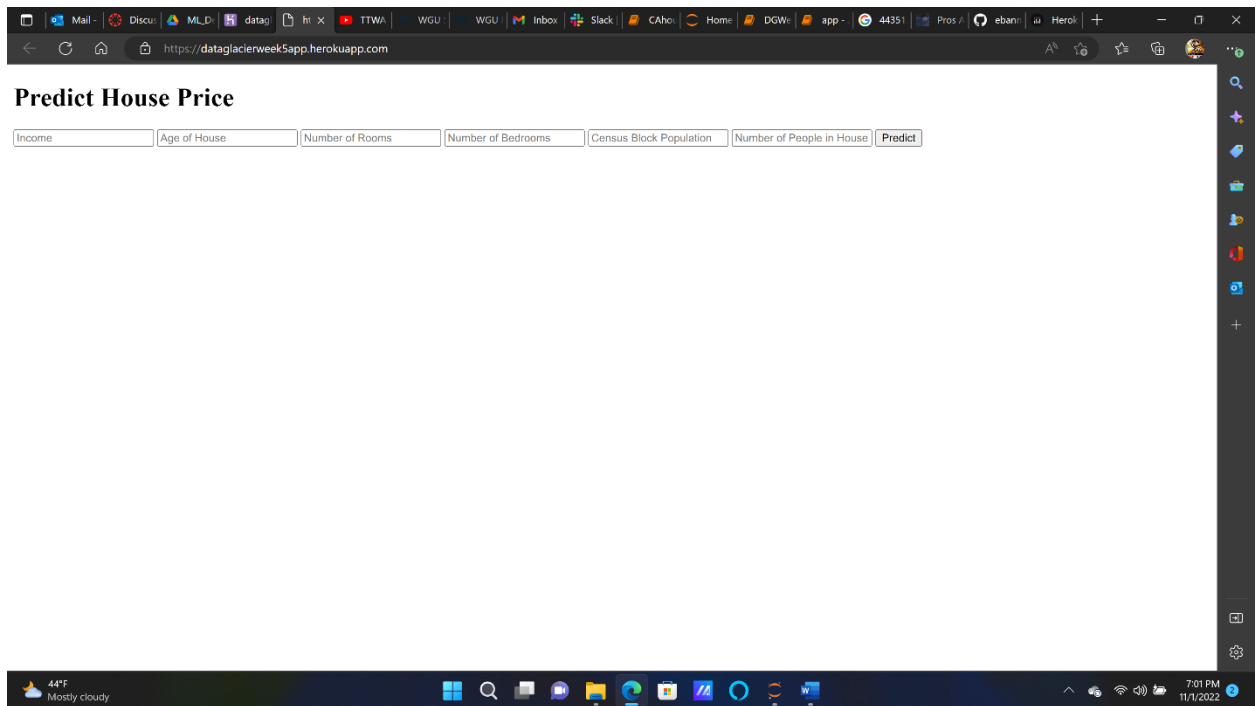
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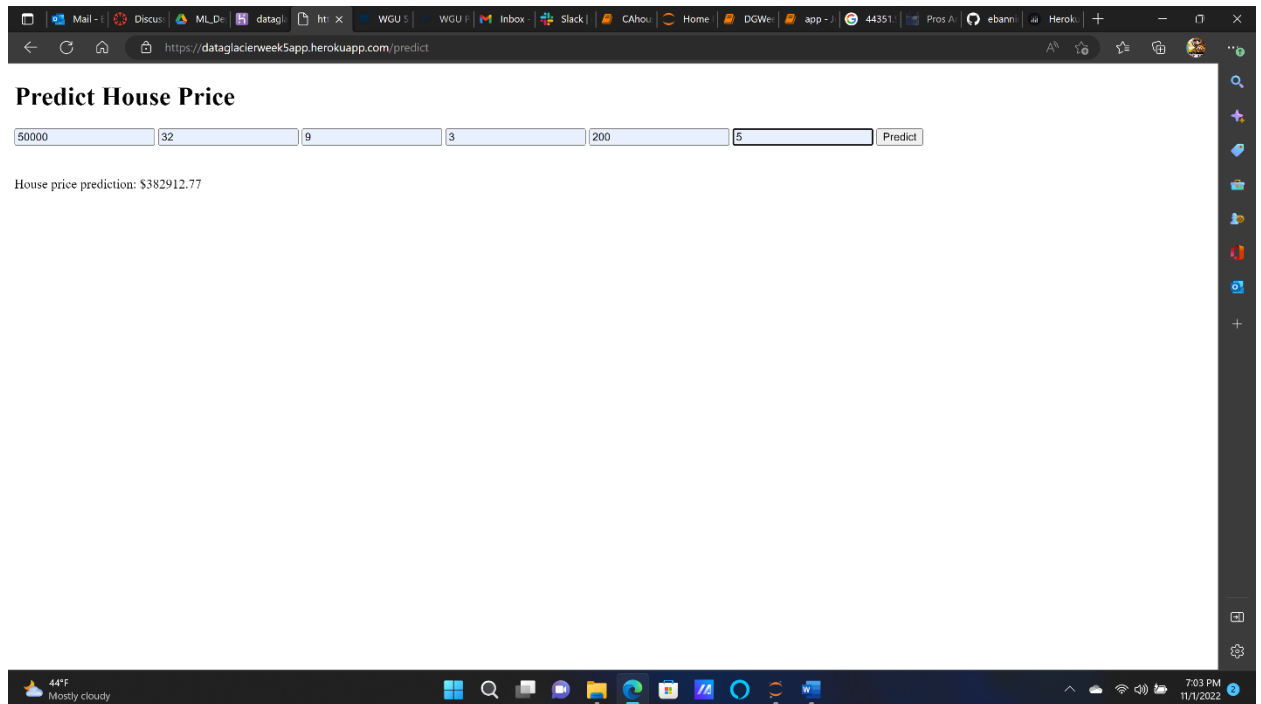
After necessary packages are installed, app is deployed. Click on view:



App is now available for use:



## 6. Test model:



The screenshot shows a web browser window with the URL <https://dataglacierweek5app.herokuapp.com/predict>. The page title is "Predict House Price". Below the title is a form with six input fields and a "Predict" button. The input fields contain the following values: 50000, 32, 9, 3, 200, and 5. Below the form, the text "House price prediction: \$382912.77" is displayed. The browser's taskbar at the bottom shows the Windows logo, search icon, and several application icons. The system tray on the right indicates a temperature of 44°F, mostly cloudy weather, and the time 7:03 PM on 11/1/2022.

**Predict House Price**

50000 32 9 3 200 5 Predict

House price prediction: \$382912.77