Model Deployment on Heroku

Name: Robin Masawi
Batch Code: LISP01
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Submitted To: Data Glacier

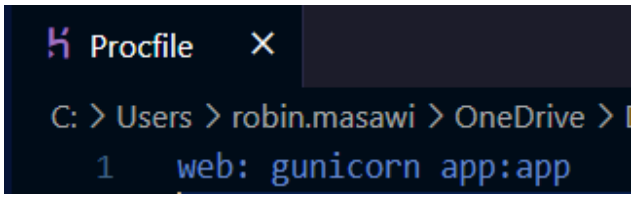
1. Used the same model that we had when we did the Flask deployment.
   So the same app.py file was used.

app.py

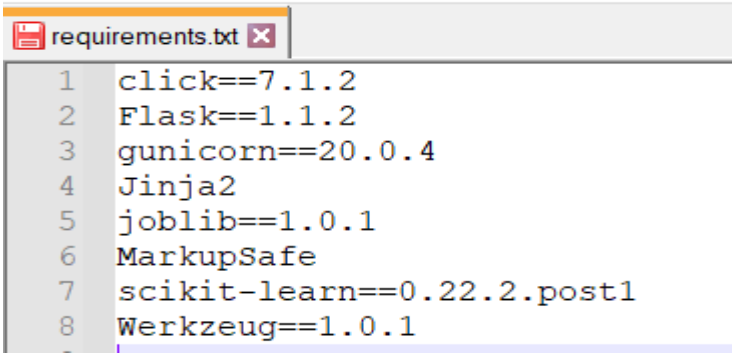
```python
import numpy as np
from flask import Flask, request, jsonify, render_template
import pickle

app = Flask(__name__)
model = pickle.load(open('model.pkl', 'rb'))

@app.route('/')
def home():

    return render_template('index.html')


@app.route('/predict',methods=['POST'])
def predict():

    '''

    For rendering results on HTML GUI

    '''

    float_features = [float(x) for x in request.form.values()]
    final_features = [np.array(float_features)]
    prediction = model.predict(final_features)

    output = prediction[0]

    return render_template('index.html', prediction_text='Diabetes progression one year after baseline is {}'.format(output))
```

```python


@app.route('/predict_api',methods=['POST'])
def predict_api():

    '''

    For direct API calls trought request

    '''

    data = request.get_json(force=True)
    prediction = model.predict([np.array(list(data.values()))])

    output = prediction[0]

    return jsonify(output)


if __name__ == "__main__":

    app.run(debug=True)
```

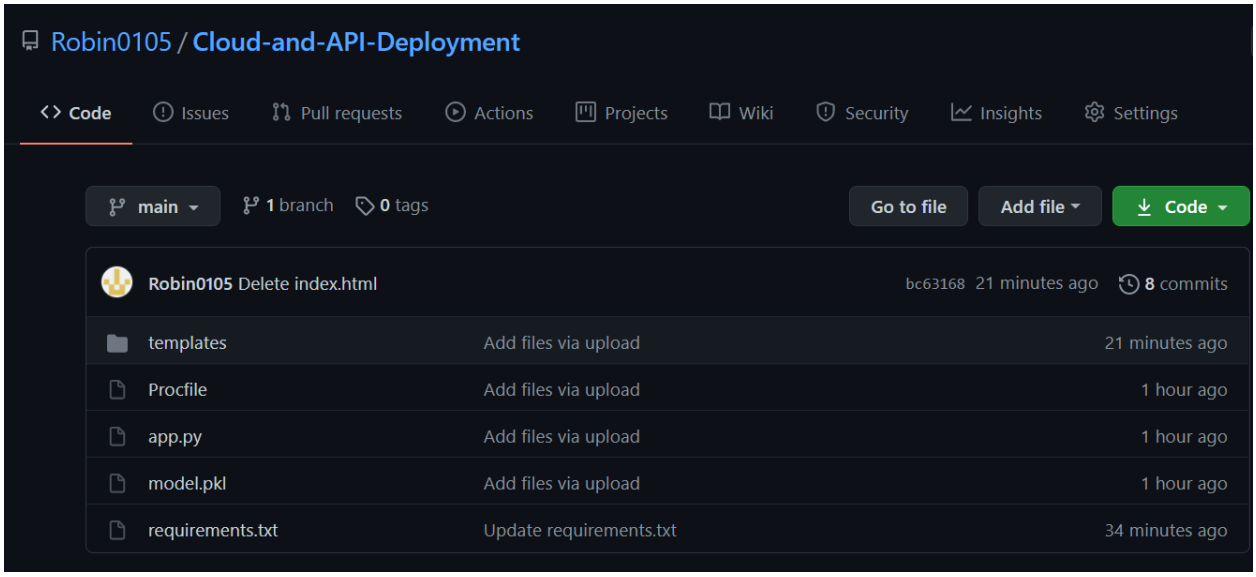
2. Create file Procfile (no file extension) which has “web: gunicorn app: app”.
   The web implies that this is a web app and gunicorn is the server on which our app will run.
   The first app represents the file name from where the web app should start. The second app represents the name of the app.



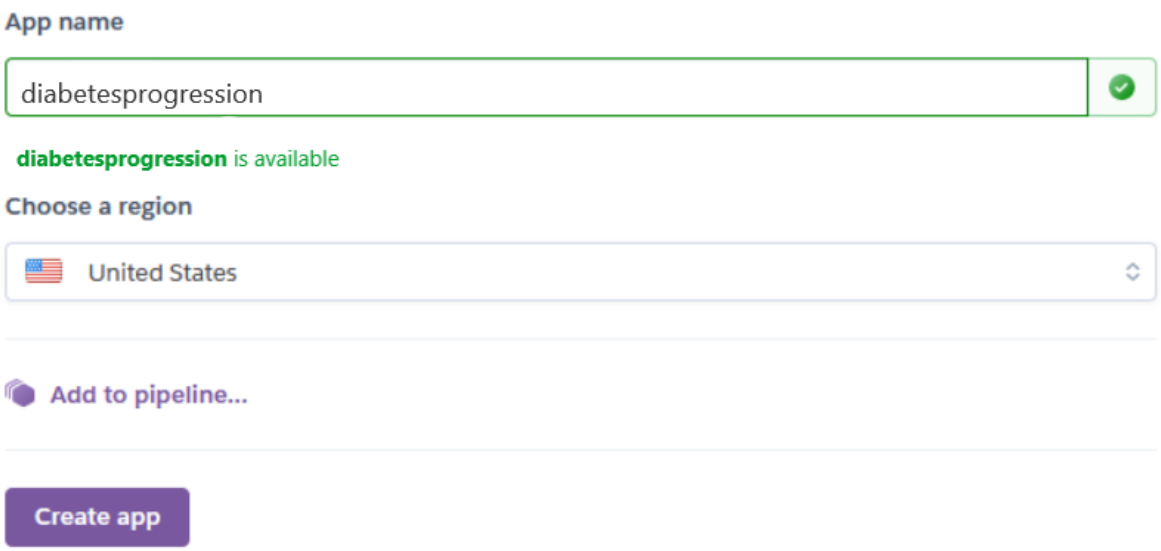
3. Create a requirements.txt file where we will add all the libraries that our web app will use.



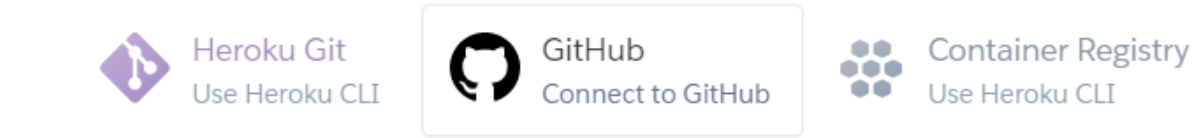
4. A new repository was created on GitHub and all the required files were uploaded into the repository.



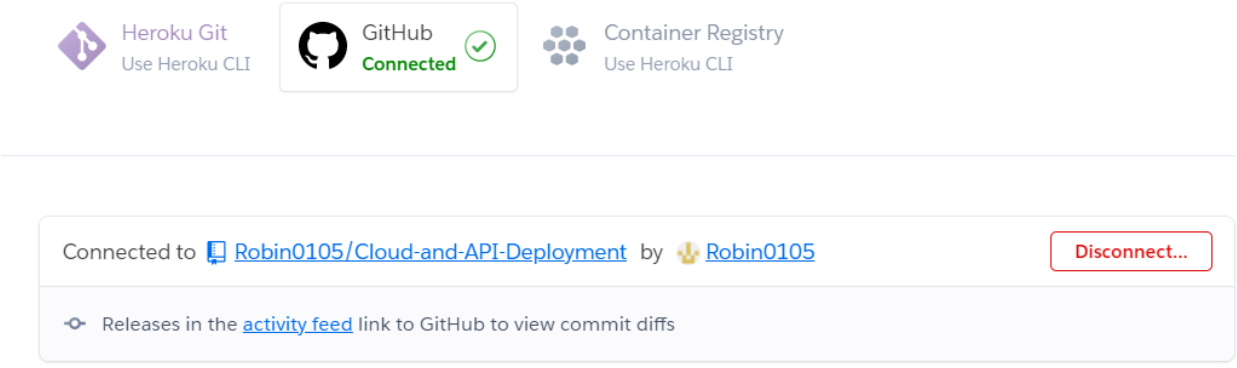
5. Create an account on Heroku.
Once the account is created, click on new and then create a new app.



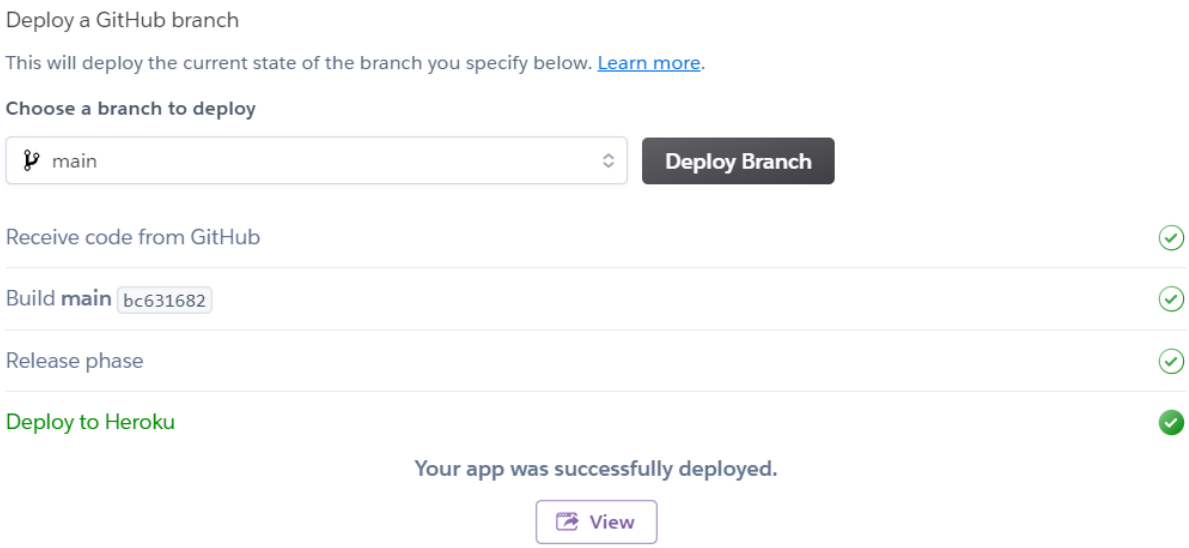
6. Once app has been created there will be various deployment options under Deploy, choose GitHub.
   A prompt window will pop up to authorize the connection between Heroku and GitHub, authorize.



7. Click on Search and connect to the repository created on GitHub.



8. Scroll downwards and click on Deploy Branch.



9. Click on Open App to visit the Web Application.