Model Deployment on Flask and Heroku

Week 4-5 : Deliverables

Name: Amima Shifa

Email address: shifamima03@gmail.com

University: Osmania University

Country: India

Specialization: Data Science

Batch: LISUM12

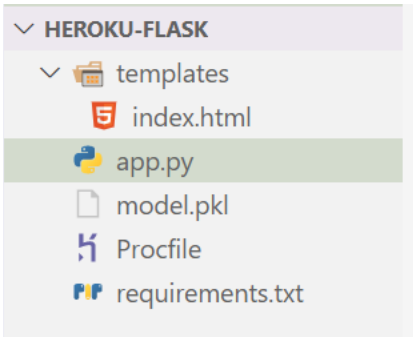
Submitted to: Data Glacier

Deployment on Flask:

Introduction

Flask is a web framework, it's a Python module that lets you develop web applications easily. It has a small and easy-to-extend core: it's a microframework that doesn't include an ORM (Object Relational Manager) or such features.

Organisation of the project folder



Application Folder Directory

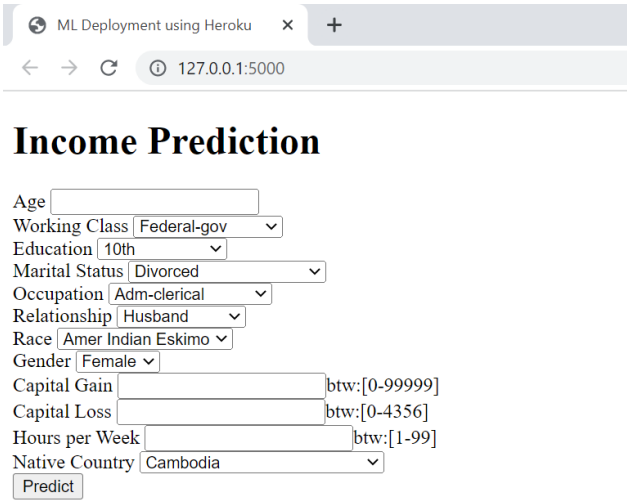
Contents of the project folder

- User interface file (index.html) for providing inputs (or features) to the model.
- Python main file (app.py) that can unpickle the machine learning model, renders Flask UI page then makes a prediction based on provided inputs.
- Saved or exported machine learning model (model.pk1) for income prediction.
- Procfile to initiate Flask app command.
- All of the dependencies for the flask app are stored in requirements.txt file.

Screenshot of app.py file

Running the application using Flask

In the project directory type the command "*app.py", and* the application opens up in the browser.



Screenshot of application running using Flask

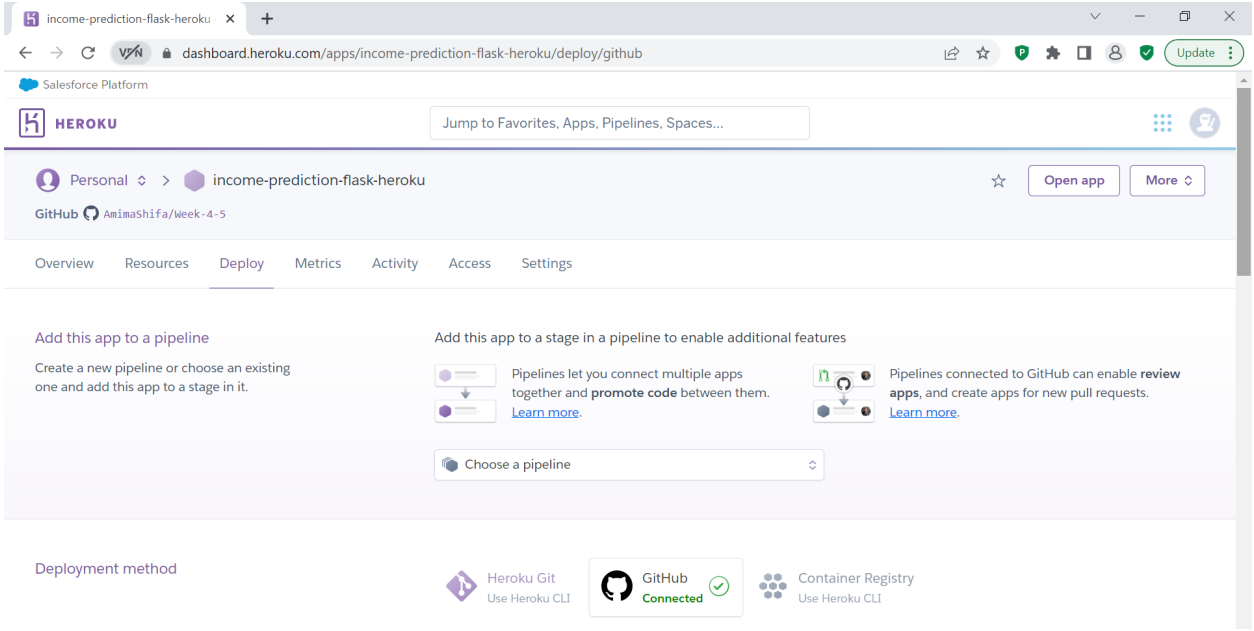
Deployment on Heroku:

Introduction

Heroku is a Platform-as-a-Service tool by Salesforce. Heroku is backed by AWS and all Heroku applications/services are hosted on AWS. AWS provides the infrastructure and handles all the load-balancing, resource utilization, networking, logging, monitoring and Heroku acts as a middle-man to provide a scalable, automated rapid deployment platform with all cloud capabilities.

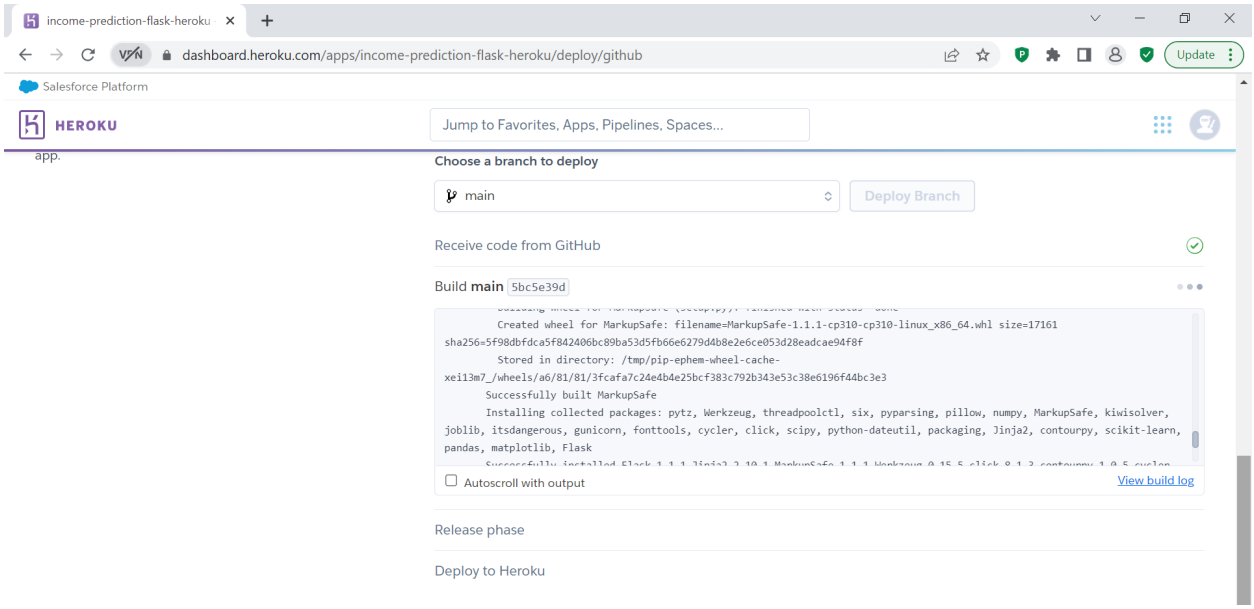
Deployment

The account on Heroku was created and connected with GitHub account and respective repository.



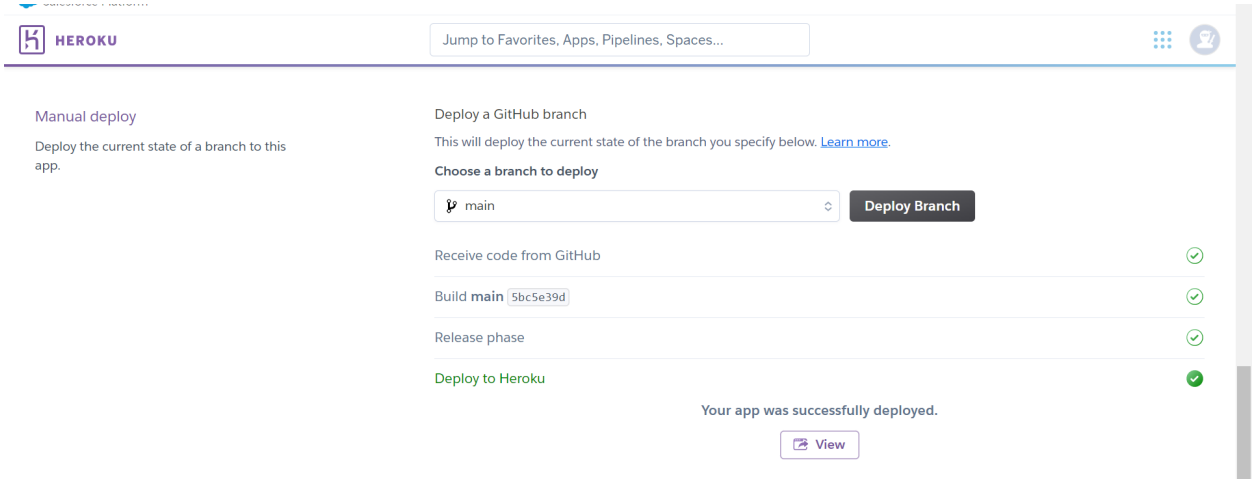
Screenshot of application deployment process

Followed by selecting manual deployment, selecting main branch and clicking on the deploy button.



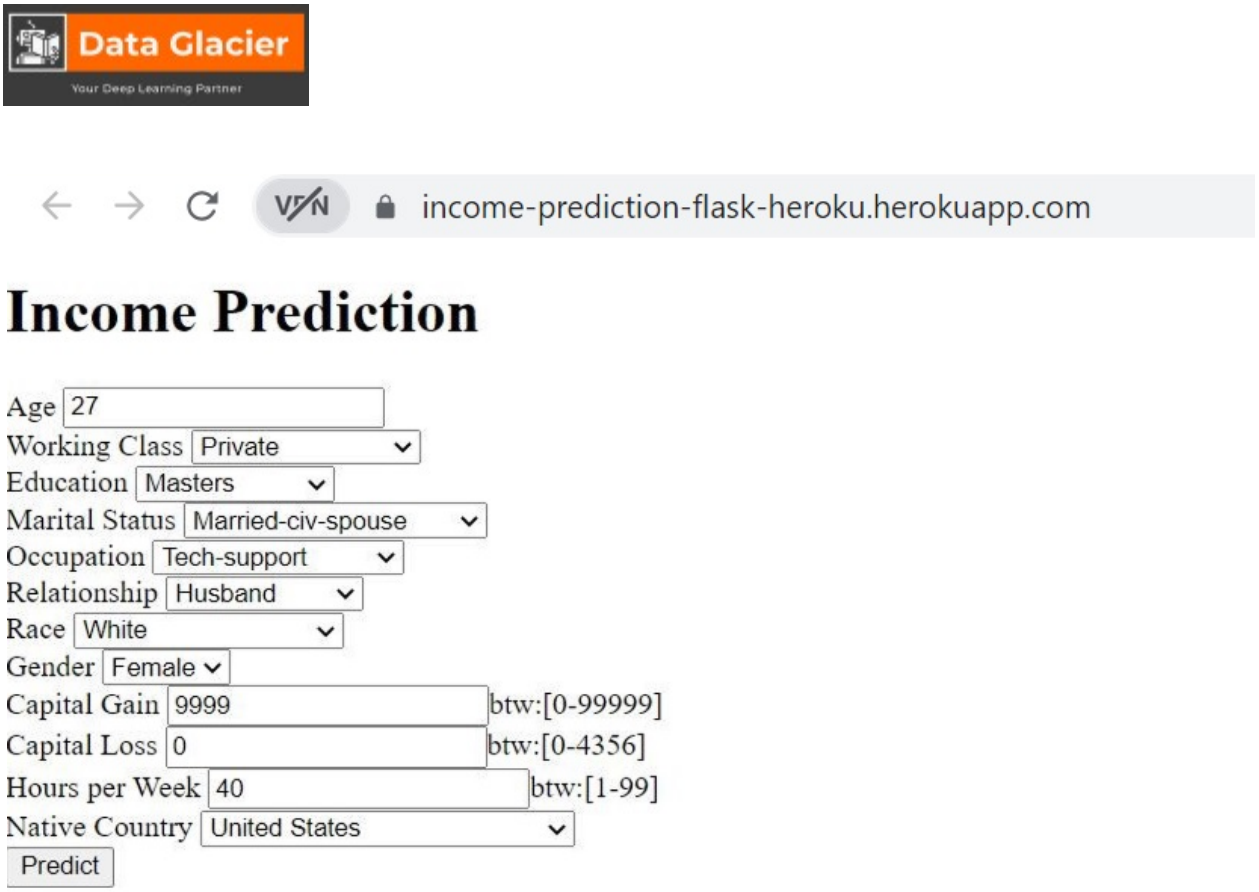
Screenshot of application deployment logs running

After the application is deployed, the application URL is showed in logs and it shows the success message.



Screenshot of application deployed successfully

On clicking the view button the applications up in a new tab, on entering the data it predicts the income of the person.



Screenshot of application deployed on heroku working

GitHub Repository:

https://github.com/AmimaShifa/Week-4-5