Data Science Intern at Data Glacier

Week 5: Cloud and API deployment

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Introduction:

In this project assignment, we will showcase how to deploy a trained machine learning model using Flask on the Heroku cloud app services. The model we will be using is a Random Forest Regressor, which was trained to predict the shipping cost estimate of sculptures based on features such as the price of sculpture, artist reputation, base shipping price, weight, and dimensions.

Deploying a machine learning model on a cloud platform like Heroku allows for easy accessibility and use of the model by others. The workflow for deploying the model involves creating a Flask web application that takes in user inputs and generates predictions using the trained model. Figure 1 below provides an overview of the workflow and the different components involved in the deployment process.

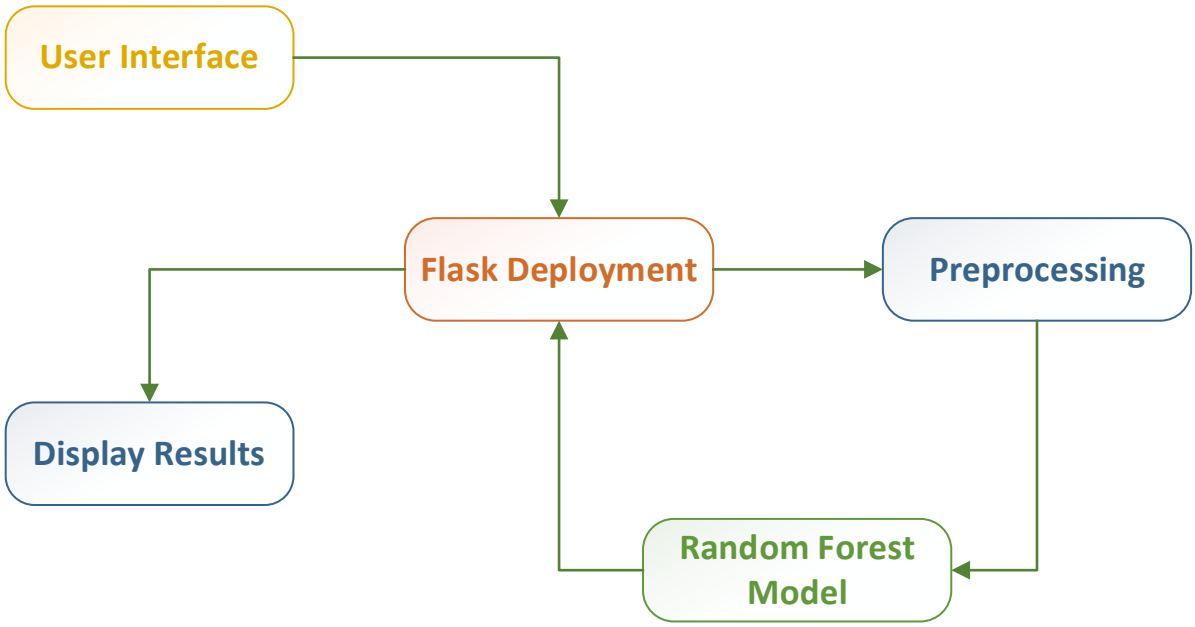

Figure 1: Deployment Workflow

The snapshots of the deployment are as follows:

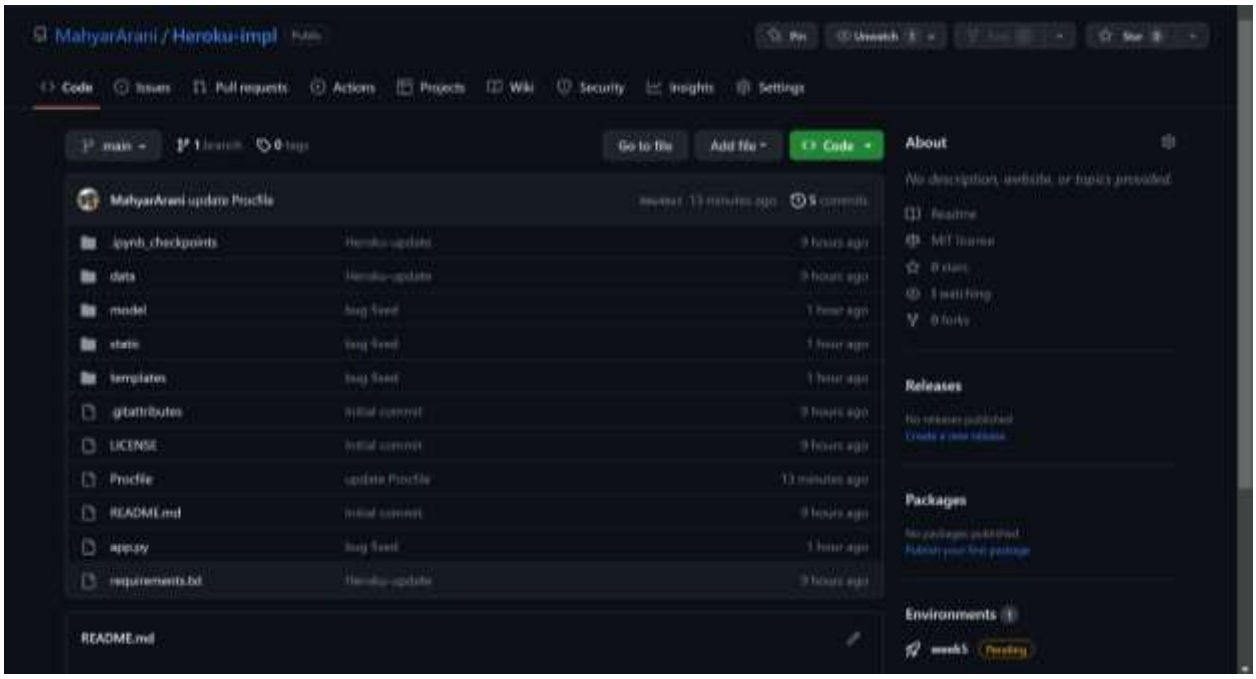

Figure 3: Creating a New Repository on GitHub to Implement Heroku

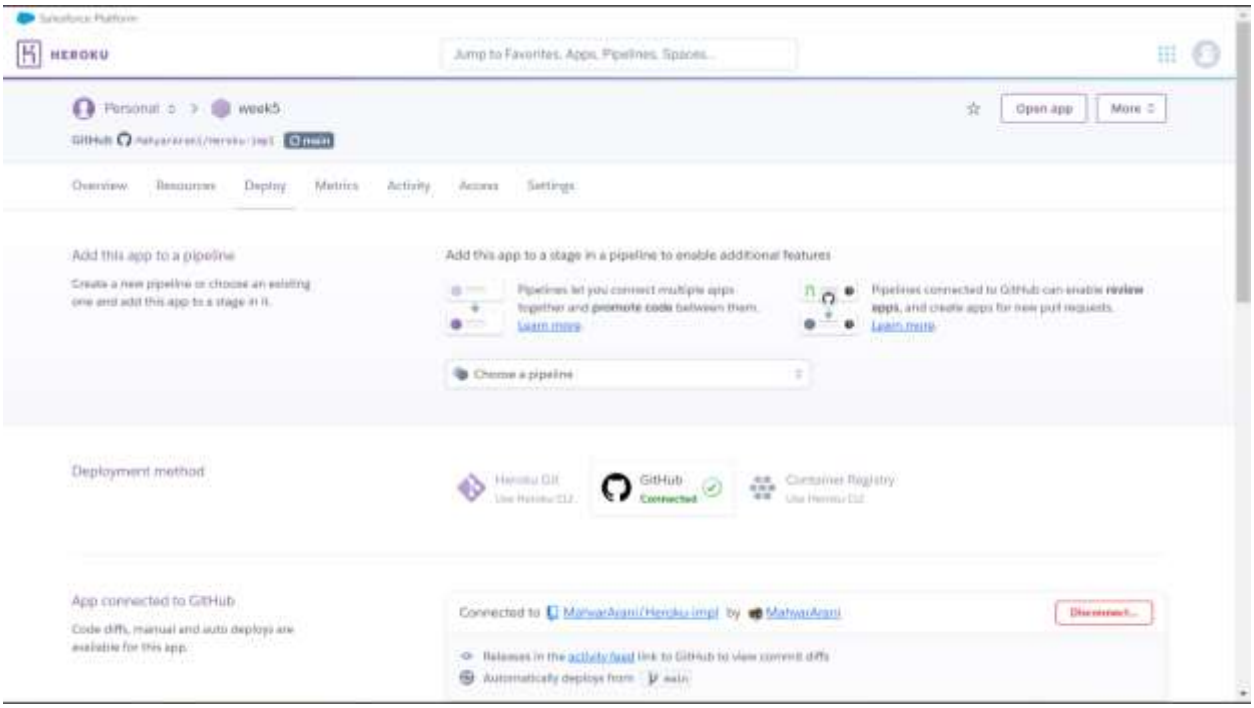

Figure 2: Connecting Heroku to The GitHub Repository

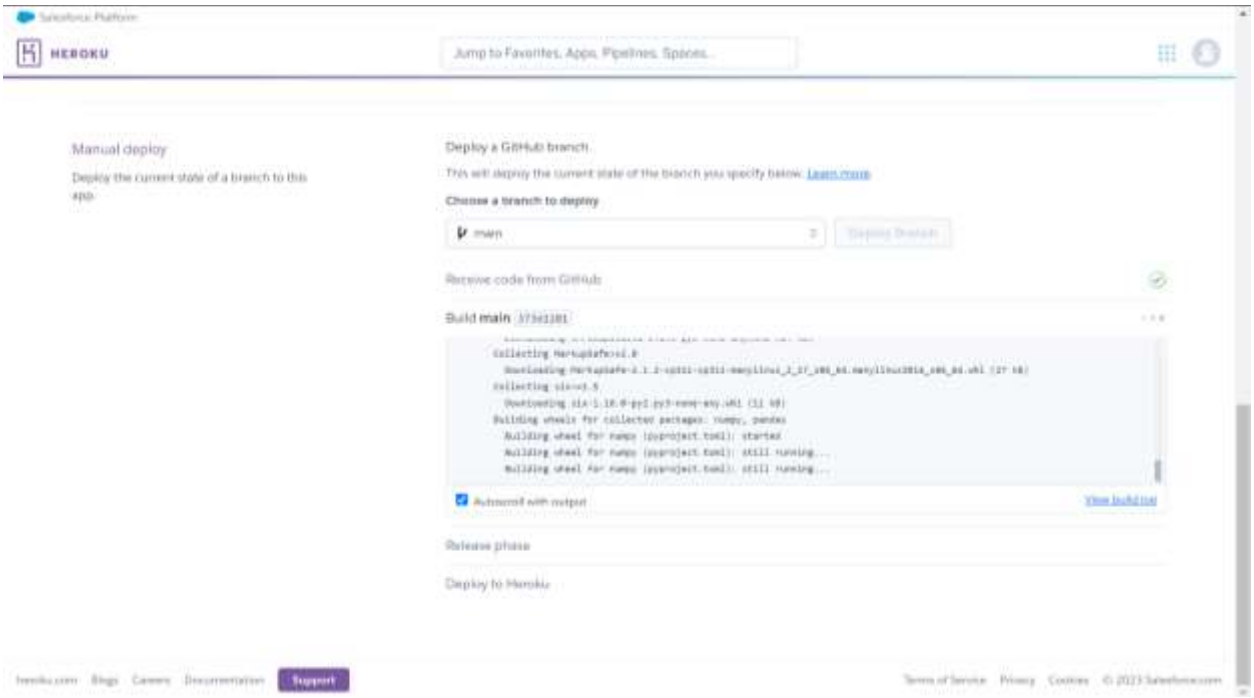

Figure 4: Application Deployment on Heroku

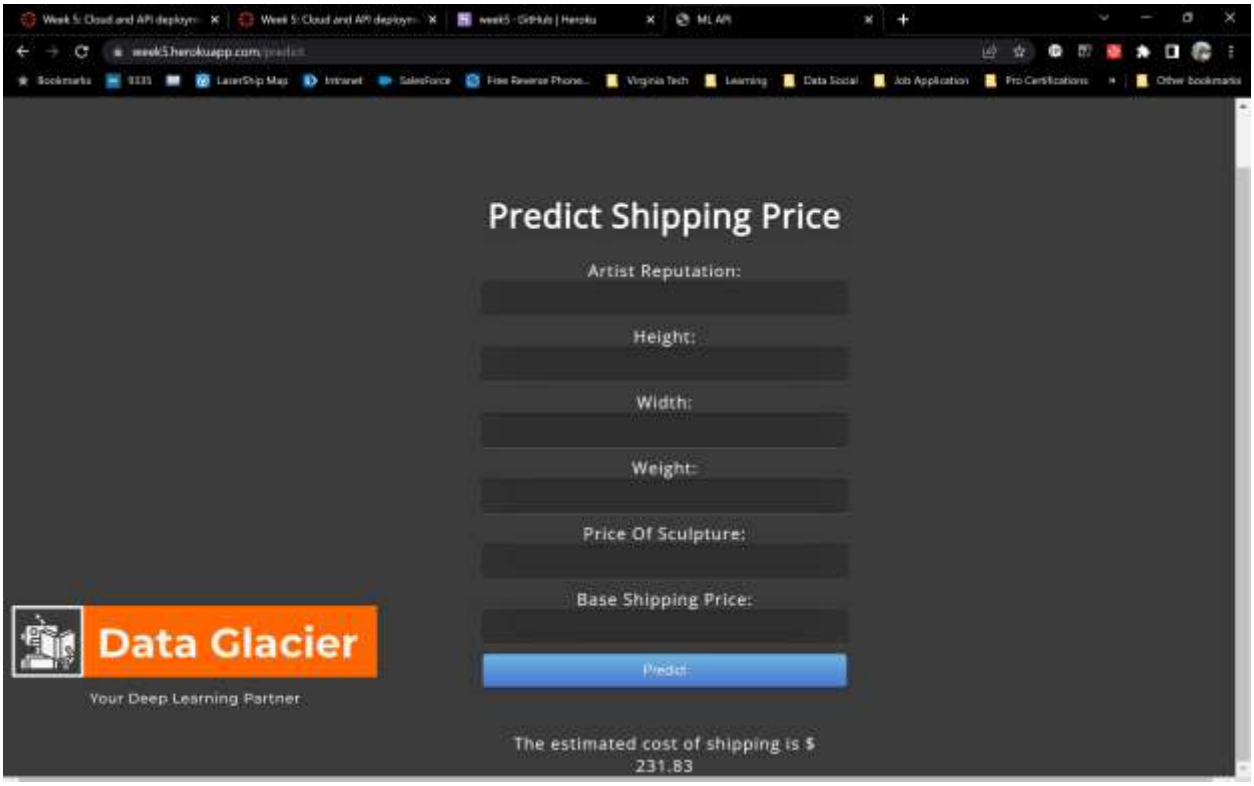

Figure 5: Cloud Application Deployed API