

In this assignment, you have three parts

1. Stock Details app:

You will create an interactive stock details streamlit. You will leverage <https://www.coingecko.com/en/api> API we used during the class for this assignment. The app takes a cryptocurrency name such as Bitcoin or Ethereum as user input. You can get all the available coins from this API call: <https://api.coingecko.com/api/v3/coins/list>. If the user inputs a valid cryptocurrency name, you will do the following:

- Plot the coin's price over the last year (or 52 weeks)
- Print the max and min during that timeframe
- Print the day when it traded the highest and lowest

2. Coin Comparison app:

In this streamlit app, you will compare two stocks instead of one. You can reuse the code from the first part. In this task, you will overlay the price performance of two coins over time on a graph. However, you will also add interactivity by allowing the user to choose the time frame they want to compare such as 1 week, 1 month, 1 year and 5 years.

3. Image classifier:

Streamlit app built to classify the images of 0,1,2,3....9. Your app will allow the user to upload an image file using the following widget:

https://docs.streamlit.io/develop/api-reference/widgets/st.file_uploader You can use the model we built in the class but you will need to save and load model. You can use this link for reference: https://keras.io/api/models/model_saving_apis/.

The user will upload an image of a digit of any size, however it will be a square image (width and height are equal). Your code should be able to handle the resize. You can use the images we used in the previous workshops and can be found in this link:

<http://bit.ly/smu-files-2>

Submission instructions:

1. All your code must be pushed to GitHub
2. Create a Streamlit cloud account, if you already haven't: <https://streamlit.io/cloud>
3. Link your GitHub repository for the assignment and publish.
4. Submit your Github and Streamlit URL