INSTRUCTIONS

Hierarchy Overview:

1. Doc Folder

- This folder contains the documentation of the work. It has the following 2 files:
  - **Report** - A PDF file ('report.pdf') which has a detailed report.
  - **Readme** - A PDF file ('readme.pdf') which contains instructions.

2. Code Folder

- This folder contains important files and folders like the codes/notebook, results, graph plots, dataset, and other relevant files. Each folder/file is listed below:
  - **link.txt**: This file contains drive link to the dataset. The dataset has 2 CSV files which contain which contain bitcoin price information. More information about the dataset is available in the report.
  - **weights/:** This folder contains the saved model weights in HDF5 format. These weights can be loaded directly for using
  - **CODE.ipynb** : The Python notebook file which contains all the codes.
  - **RESULT.html** : An HTML file (open it using a browser) which displays the output screen of the code (associated CSS file is 'custom.css').
  - **PNG files:** The output prediction curves of bitcoin predicted using different models saved in image (.png) format.

Usage:

First step is to open the 'Code Folder'. Inside the folder only these 2 files are enough to view the working of this project. The files are the following:-

A. RESULT.html

- Run this file first if you want to see the output of the compiled code. Since the CODE.ipynb notebook takes some time to train models and make predictions.

- Open this file in any browser (eg Chrome, Firefox, etc).

- This file is an HTML files which depicts the output of the CODE.ipynb file when it is run. It contains the graphs and the prediction error.

- The prediction curves can also be directly viewed by opening the image PNG.

B. CODE.ipynb

- The Python notebook file which contains all the codes.

- To run this open it using any python notebook (ex: Jupyter) .

- The path_to_data variable in the code needs to be modified so that it points to the file named 'coinbaseUSD_1-min_data_2014-12-01_to_2019-01-09'. This CSV file is available in the dataset folder in the drive link.

- Compile and Run the code after the data path has been modified.

- The code includes data processing, training all the models, plotting graphs and also calculating the mean square error in prediction.