CSE/CPEG Final Year Project/Thesis

Monthly-Report Submission Guideline

Objective: To track the progress of the Final Year Project/Thesis (FYP/FYT).

- There are 3 monthly reports which account for **5%** of the final grade.
- There are 3 monthly reports due in the Fall, i.e. Oct, Nov and Dec/Jan. The monthly reports in Oct and Nov are due by 11:59pm on the last day of each month. The monthly report in Dec/Jan is due by 11:59pm on 15 Jan.
- We recommend the meetings with project advisor(s) to take place in the middle of the month in Oct, Nov and Dec.
- It is the responsibility of the student to submit the completed report to the FYPMS.

Monthly Report for CSE FYP/FYT

Project Code:	DL3	Supervisor(s):	Professor Dik-Lun LEE

Project Title:	A system for predicting stock price and offering financial advice

Group Member(s) and Student ID(s):	Aadhar Agarwal (20386840), Luk Yin Chai, Leung Ka Wing (20341943), Jose Luis Amador Jaime (20391429)

Reporting Period: • Scan report and submit via the FYPMS	Report #1 ☐ Oct Report #2 ☒ Nov Report #3 ☐ Dec/Jan

Progress: • List the work completed in this reporting period. • Identify the major difficulties encountered. • Comment on the overall progress.	1. Linked database with the HKEX API to get stock information in HK 2. Set up the database to automatically call the API and get daily stock data. 3. Started parallel development of the frontend UI 4. Used the data collected to make rudimentary models for price prediction on local machine 5. Created basic linear regression, logistic regression, and random forest models for price prediction. 6. Began working on using SciPy and NumPy on the server • We faced some challenges this month as we have to pivot from the data source we had chosen last month due to limits on the free tier of Yahoo Finance. Instead, we decided to use HKEX; this was for two reasons. Firstly, we are able to make many more calls to the HKEX API than the yahoo finance one. Second, given that we were initially focusing on stocks listed on the HK exchange, it made sense to use an API specialized for this market. • Overall progress of the FYP is somewhat slower than we thought it would be. However, given the load due to external pressures such as midterms, the progress can be considered satisfactory. This means that great efforts have to be made over the winter to ensure the project is finished on time.

Future Plan: • Write down the working plan	1. Fully implement basic ML models such as regression and binary classification on the server 2. Begin implementation of scrapers to gather relevant news about a stock from trusted site and models to perform basic sentiment analysis 3. Write the text trees for the financial advice providing system.

Supervisor's Comments:	The group made good progress, having made progress in crawling stock data and experimenting with machine learning methods. It would be nice to see a prototype to be demonstratable "soon". Although the major theme of the project is prediction, the second them is advice giving or explanations. I expect this to be a challenge the team has to face next. As always, effective assignment of works among the team memory is important.

Supervisor's Overall Evaluation:	(please circle) (letter grade) F D C- C C+ B- B B+ A- Ⓐ A+

Meeting Date & Time:	26th Nov 2020

Group Representative's Signature:	_Aadhar_	Supervisor's Signature:	