WIA 1002

DATA STRUCTURE AND ALGORITHM

ASSIGNMENT MANAGERIAL REPORT

GROUP MEMBERS   **:**   **CHOO XIANG LUN (S2132552)**

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LECTURER NAME   **:**   **DR. HOO WAI LAM**

GROUP NO   **:**   **GROUP 1**

TITLE   **:**   **CONFESS TIME!**

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Member and responsibility:

No	Name	Responsibilities
1.	Choo Xiang Lun	- Leader - GitHub project manager - Backend developer - Basic & extra features
2.	Chong Jia Xuan	- Frontend developer - Designer
3.	Jason Wong Jack	- Backend developer - Spam detection feature
4.	Lim Jiajun	- Backend developer - Application authentication feature

Problem faced and solutions:

Initially, we struggle a lot since the development time was quite short. Throughout the development process, we had contacted each other through our WhatsApp group, and we had also conducted a few meetings on Microsoft Teams to share with others the problems faced as well as the distribution of the tasks. Before starting to work on this project, we found out that it is hard for us to share our code using the traditional approach since all of us had to work on the project simultaneously. Therefore, we choose to use GitHub for code sharing, and this definitely has made the application development process much easier. The next problem that we faced was database connection. Initially, we use a local database to connect with our application. However, the database is only accessible on that member's local machine. In the end, we solved the problem by using the Firebase realtime database, an online database to store all the application's data. In this way, we have also brought our application online, and everyone across the world is able to use our application no matter where they are.

Besides that, as first-year students with no prior knowledge about multithreading and parallel programming, we faced some difficulties when we are dealing with the Firebase listeners as it is asynchronous, where it does its tasks in the background. Fortunately, after going through tutorials and googling for solutions, we managed to solve this problem at the end. Next, we actually faced some problems training the text classification Spam machine learning model. I would say the early exposure of the Machine Learning course actually helped us in doing this project. It will be hard to manually code out a method to detect the spam post without a machine learning model. However, due to a lack of confession post dataset, we have no choice but to detect only promotional content by scrapping the comments from the Youtube platform. Finally, we used GoogleColab in helping us to train the model successfully. Even though we faced a lot of problems along the way, we still managed to finish the project on time since all our team members were very cooperative. We managed to solve most of our problems with the help of YouTube, Stack Overflow, Google and some advice from our demonstrator, Lee Cheng Hui and our lecturer, Dr. Hoo Wai Lam. We would like to thank them all for helping us to finish this assignment.

Project timeline:

No.	Activity	Week							
		7	8	9	10	11	12	13	14
1.	Team formation	▓							
2.	Distribution of assignment questions	▓							
3.	Role assignment for team members	▓	▓						
4.	Algorithm planning		▓	▓					
5.	Program coding		▓	▓	▓	▓	▓		
6.	Program testing				▓	▓	▓	▓	
7.	Prepare managerial report							▓	▓
8.	Prepare technical report							▓	▓
9.	Demo on lab								▓