Handout for Coursework Mini-Project

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1. Requirements

In this mini group project, you will design an application that involves some AI techniques and solves a real-world problem of your choice. The problem scenario can be a business challenge, a technical problem, or a societal issue. You are required to produce a system design document that explains the problem you aim to tackle, and AI techniques that you think could help different steps involved in tackling this problem. In your solution, you are required to consider at least one of the Responsible AI Practices taught in class, and explain in your system design how that aspect has been addressed. Suggested Responsible AI Practices include 1) **explainability**, 2) **fairness**, and 3) **privacy preservation**.

[**Note**] You are NOT required to implement your design in this mini-project.

The following videos can serve as examples to help you brainstorm:

- Federated Vision (privacy preservation): https://youtu.be/yfiO3NnSqFM;
- Shareable Bike Rebalancing (fairness and explainability): https://youtu.be/OGj5z5_EH6A;
- Smart Workforce Engagement (fairness, explainability, and privacy preservation): https://youtu.be/vV3RsdCCETw.

Bonus marks may be awarded on a case-by-case basis if your solution can adopt more than one Responsible AI Practice.

2. Team Formation

You are required to form a team of up to 6 people to complete this mini-project. You can opt to form your own groups or let the course instructor allocate a group for you. We will use online Google Docs (https://docs.google.com/spreadsheets/d/1oyCTVuxuwMFYvfJPa_rxiICHAhipO-qFvRIQkmoVSdE/edit#gid=0) to coordinate team formation.

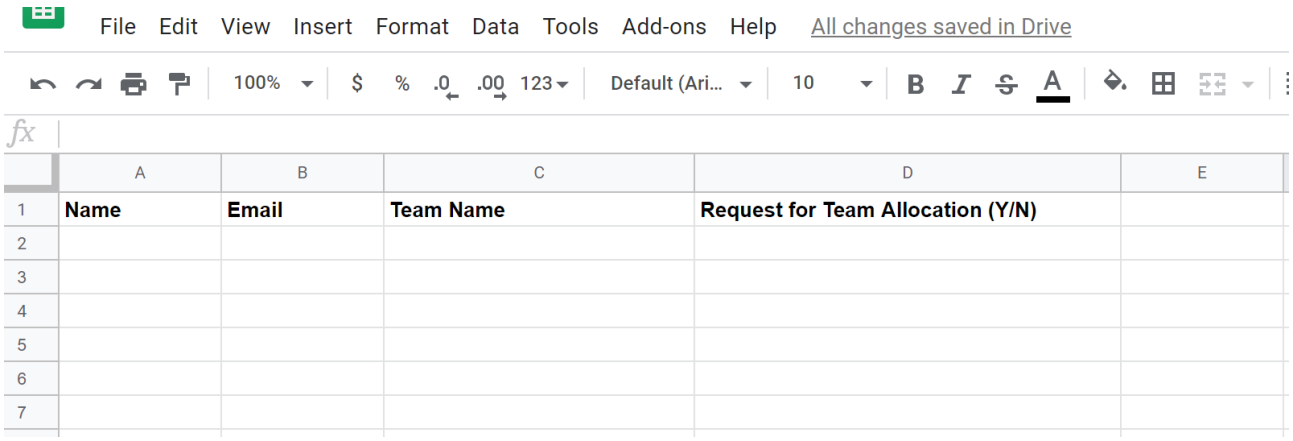

Figure 1. Example team formation Google Docs file.

As shown in Figure 1: if you know who you are going to form a team with, please enter your name, email and the name of the team you will join, and indicate "N" under the "**Request for Team Allocation (Y/N)**" column. If you need the course instructor to help you find a team, please enter your name, email and indicate "Y" under the "**Request for Team Allocation (Y/N)**" column. In this case, please leave the "**Team Name**" blank.

You will have until the end of Week 10 to form your team. After the end of Week 10, the course instructor will consolidate the information, and make announcements about team information via emails.

3. Deliverables

You are required to produce:

1) **A final report of no more than 10 pages** (A4 size pages, with Arial font size 10 and reasonable margins) including all figures, tables and references. Your report must cover the following topics: i) Introduction, ii) Application Description, iii) Use of AI Technologies, and iv) Responsible AI Practices Addressed. The report is to be submitted before the end of **Friday of Week 14 (midnight)**. Name your report as *<team name>-final-report.docx*. Please choose one of your team members as a representative and send the report to my email: han.yu@ntu.edu.sg

Please clearly indicate in your report and presentation stack the **team name**, **team members' names** and their **email** addresses.

4. Marking Criteria

This mini-project will constitute **30% of the total coursework marks** for AI6101.

The evaluation criteria are as follows:

Item		**Percentage of Mini-Project Mark**
Final Report	Originality of Design	25%
	Quality of Design	25%
	Responsible AI Practices included	25%
	Clarity of Design	25%
Total		**100%**

A bonus mark of up to 10% could be awarded on a case-by-case basis if your solution successfully addressed more than one Responsible AI Practices. Nevertheless, your final project mark will still be capped at 100% even if the total mark and the bonus mark exceed 100%.