	Read the requirements thoroughly	

Informal description of "Monash Community Exchange System (MCES)"

Monash Campus management department has asked you and your team to develop a **Monash Community Exchange System (MCES)** to meet the ongoing demand for waste/second-hand item disposal. As of now, Monash students will be the customers who will use this system.

The system will be used to help people find potential buyers for their used textbooks, furniture, or items they deem still valuable, but not further needed. As of now, the system is only used by the students on the Clayton campus. However, they want the system to be further expanded to other campuses so that it can be used by other organisations in the future as well.

Monash Campus management department has a student accommodation system to manage on-campus student profiles. However, as of now, the department has not decided to link the two systems yet.

This system will have the following functionalities:

- Student Registration/ Login / Logout
- Community Exchange Management
- Exchange Record management
- Watchlist management

Feature 1: Customer Registration/ Login / Logout

- The system should allow customers (i.e., students) to create an account using their existing Monash email address. The system needs to validate the email they have provided using the @student.monash.edu email they provide. They can create their own password, and this can be different from their Okta login password.

Feature 2: Community Exchange Management

- There are two major modules for this feature- Module 1: Post an ad, and Module 2: Browse the ad
- For module 1 posting an ad:
  - The customers can choose either posting an item or services
  - The customer needs to enter the item/ service title
  - The customer needs to choose the category they prefer
  - The customer needs to choose the subcategory they prefer after the top category if applicable, for example, Miscellaneous goods do not have a sub-category. For textbook sub category includes: Art, Business & Economics, Education, Engineering, Information Technology, Law, Medicine/Nursing, Pharmacy/ Pharmaceutical Sciences, Science

- o The customer needs to enter the price they would like to sell, also they can set what they would do with the price-
- o The customer will also need to share the condition of the item (Used/ New), and a minimum 50-character description of the item
- o The next option is to let the customer choose how they want the item to be traded.
- o The system will then display a set of details that customers entered when they register, and let customers know that these details will be also displayed as part of the ad. If they refuse, they just need to choose the option to skip the particular detail, and the detail will not show up inside the ad
- o The last thing system will display are a confirmation screen showing all the details that customers entered, and if there is a change needed, the customer can pick one of the options to modify it. And upon saving, the system will also capture the date listed in a format of dd/mm/yyyy hh:mm (e.g., 27/07/2022 10:18)
- o When the customer chooses services, the customer can pick a category of cleaning or learning & tutoring or Miscellaneous services.
- o The customer can choose their faculty and write areas of expertise after picking the category
- o And system will then do the same thing as when customer posting item at the end
- For module 2 Browse the ad:
  - o The customer can choose to browse the ad from the category/subcategory they like. They also have the option to view the top 10 newly posted items based on the date listed information.
  - o After they finish choosing the option above (category/ subcategory/ top 10 newly posted items), they will be able to browse the item based on the title
  - o Then the customer can reach out to the person by looking at the contact details the person has left. This is not going to be part of the system
  - o While customer is browsing the ad, they have the option to add the item to the watch list or be auto captured by the system. More details will be explained in Feature 4

Feature 3: Exchange Record management

- The ad will have a valid date of 7 days. After that, the customer's ad will be archived to the Exchange record management feature under [Previously posted ad].
  Customers can see their [previously posted ad] in the same way the customer browses for the ad, however, they have the option to [reactivate the ad] so that the ad will go into Feature 2 again.

Feature 4: Watchlist management

- The watchlist management has two modules, Module 1: Recently Viewed Items/ Services 2. Module 2: Watchlist

  - o For Module 1, this is auto captured by the system, when a customer chooses this option, they will see the recently viewed item with some statistics.

  - o For Module 2, this is added by the customer itself, if the customer chooses to add the item to the watchlist, the item will show up here stating the time they added to the watchlist as well as the date the item was listed.

Technical Requirements:

You have two options to choose from

*Advise: Please make a decision as a team. Please do not rely on one person to make the sole decision, at least have some discussions first.

Option 1: Text-based application

1. Programming Language
   - Java (Core Java)
   - Python (Basic)

2. IDE Requirements
   - Java
     - IntelliJ (Recommended)
     - VS Code
     - NetBeans
     - Eclipse
     - Blue J
   - Python
     - PyCharm
     - VS Code
     - Anaconda (accepted for initial learning/ production; However, final delivery must be done using PyCharm)
   - Database
   You can store data in any of the following files:
     - CSV File
     - Text File

Option 2: Desktop-based application

1. Programming Language
   - Java (Core Java)
   - Python (Basic)

   Note: You can use any external libraries, extensions, etc

2. IDE Requirements
   - Java
     - IntelliJ (Recommended)
     - VS Code
     - NetBeans
     - Eclipse
     - Blue J (Not recommended)
   - Python
     - PyCharm
     - VS Code
     - Anaconda (accepted for initial learning/ production; However, final delivery must be done using PyCharm)
   - Database
     - You can store data in any of the following files:
       - CSV File
       - Text File