Workshop 1

Please perform the following activities and write a report that illustrates you have performed and completed the activities. You need to present your report to your lecturer before the end of the class or at the beginning of week 2 workshop.

Activity One

Form a group of maximum 3 students. Settle down on a project topic and write a project proposal.

Activity Two

Project management.

GITHUB link: <https://github.com/Blynxxxx/CP3407-ChatBot>

Bao Linh Van: …

Cao Shaung Li: …

Yun Qiu Zhu: …

Vincent Thedean: …

# Project Proposal: Orientation Chatbot Application

1. **Project Overview**

The purpose of this project is to develop a web-based chatbot application tailored to enhance the experience and engagement of new students during their orientation program. This chatbot will serve as an interactive digital assistant, providing immediate and accurate responses to questions about the orientation program and fostering connections among new students through suggested games and interactions. By leveraging data provided by the Student Affairs department, the chatbot will deliver an engaging, informative, and seamless experience for students, aligning with the department's goals of improved orientation outcomes and increased student satisfaction.

# Objectives

* + Develop a web-based chatbot capable of answering questions about the orientation program, based on information shared by the Student Affairs department.
  + Promote engagement and interaction among new students by suggesting games and collaborative activities.
  + Create a scalable and user-friendly platform that integrates seamlessly with the existing orientation process.

# Features

* + **Information Support:**
    - Respond to frequently asked questions about the orientation schedule, locations, events, and other key details.
    - Provide immediate clarification on orientation-related policies or procedures.

# Interactive Suggestions:

* + - Recommend games or interactive activities to encourage socialization among students.
    - Suggest team-building exercises or group discussions.

# Feedback Collection:

* + - Collect feedback on the chatbot’s performance to enhance future iterations.
    - Use feedback to improve the orientation program.

# Technology Stack

**1）Frontend**

**HTML/CSS/JavaScript:**

Basic technologies for building the user interface.

**Framework (Optional):**

React or Vue.js: For a more dynamic and interactive chat interface.

**2）Backend**

**Programming Language:**

Python: A versatile choice for backend development.

**Framework:**

Flask: A lightweight framework to create REST APIs.

Django: If you prefer a more full-featured framework with additional capabilities.

**3）AI/NLP**

**Chatbot Service:**

OpenAI API: For natural language processing and generating responses.

**Prompt Engineering:**

Model Training: Prompts in training data can be designed to teach the machine learning model how to understand and respond to different types of queries.

Query Optimization: Prompts are dynamically generated or adjusted based on the context of the conversation to improve the relevance and accuracy of the response.

**4）Hosting**

**Cloud Platform:**

Heroku, AWS, or DigitalOcean: For deploying the application.

**5）Database (Optional)**

SQLite: For a lightweight, file-based database.

PostgreSQL: For a more robust relational database if needed.

**6）Integration**

Embedding: Use an iframe or script to integrate the chatbot into the school website.

WebSocket (Optional): For real-time communication.

**7）Version Control**

Git: For version control.

GitHub: For repository hosting and collaboration.

# Data and Privacy

The chatbot will be trained on data provided by the Student Affairs department, including orientation schedules, event descriptions, and FAQs. All data will be handled with strict adherence to privacy regulations, ensuring that student information and interactions remain confidential.

Interested students must contact Dr. Randy [randy.zhu@jcu.edu.au](mailto:randy.zhu@jcu.edu.au) by the end of week 1.