

CSY2088 GROUP PROJECT

BSc AI and Data Science Group Project 24/25

INTRO

- Module intro
- Project topic
- Work plan

MODULE INTRO

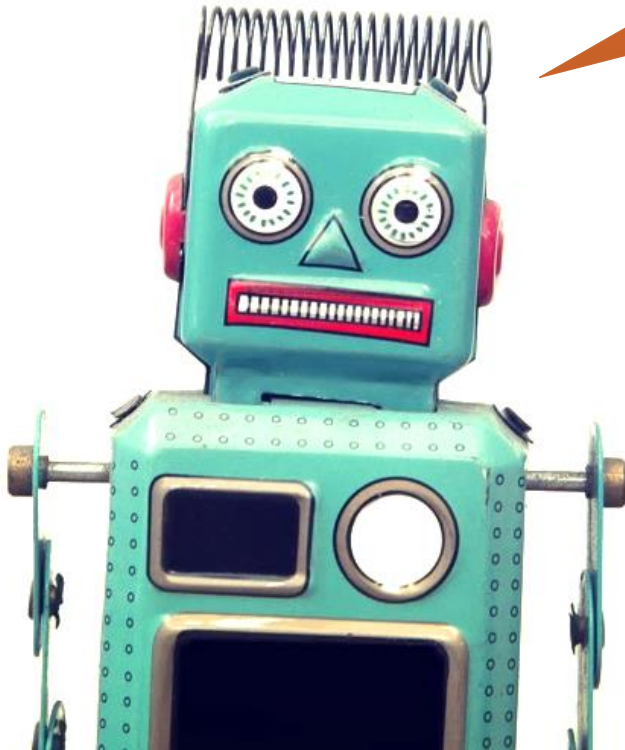
- Group-based project (3-4 students)
 - One group lead
 - Equal contribution from all members
 - Weekly meetings and presentation (NILE submission)
 - Personal reflection
 - Individual grades

MODULE INTRO

- Research, Design and Development
 - Background research, literature review
 - Public involvement, Data gathering, Establishing requirements
 - Design and prototyping
 - Evaluation
 - Report and public demo

PROJECT TOPIC

TOPIC: Building a mental health chatbot



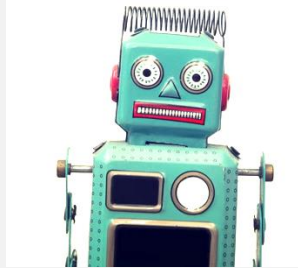
TOPIC: BUILDING A MENTAL HEALTH CHATBOT

- Group discussion
 - Discuss how such chatbots can offer life-changing services that complement traditional healthcare services.
 - Can you think of any particular use cases?

TOPIC: BUILDING A MENTAL HEALTH CHATBOT

- Group discussion
 - Think of 3 reasons that this is a good idea.
 - What could go really well?
 - Think of 3 reasons this is a terrible idea.
 - What could go terribly wrong?

MENTAL HEALTH CHATBOT

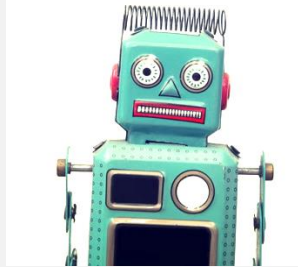


TOPIC: Mental Health chatbot

SUMMARY: You will work in a team (3 or 4 students) to design, develop and evaluate an AI chatbot to provide a selected mental health service to UON students.

- It can be a chatbot to provide consultation, general advice, guided therapies, useful information, etc. You, as a team, must define the scope and features of the chatbot.
- The project must be user-centred, which means that the design, prototyping, and testing must involve targeted users and not just the project team members.
- The project will be assessed based on requirement analysis, technical development, evaluation study, and project management/teamwork.
- Project deliverables include Technical Report, Software solution including all source code, and Team Presentation.
- Grades are given to individuals based on their contributions to the project.

MENTAL HEALTH CHATBOT



1. Establishing Requirements:

- The project requirements will be established by the team through both primary and secondary research.
- The team will gather first-hand information from the targeted user group through interviews and/or questionnaires to understand their challenges and expectations.
- Research of related solutions and literature should be carried out to ensure that the design is competitive.

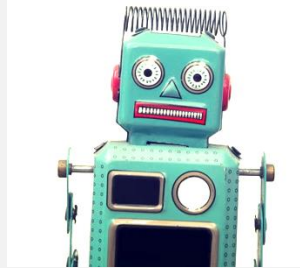
MENTAL HEALTH CHATBOT

2. Functionalities:

The project should cover but not limited to the following functionalities.

- The design should reflect **evidence** from the primary and secondary research.
- The chatbot should have the “intelligence” to interact with its users **naturally** and **adapt** to individual user’s response. Such interactions can take place via text messages while natural voices and move advanced techniques such as virtual characters are also welcomed.
- The information provided by the chatbot should be **specific** to UON students.
- For the development, you should use **open-source** packages whenever possible. The use of commercial APIs is permissible, but you must provide an estimated operational cost of your solution and prove that it can be financially sustainable for the client, i.e., university.
- The design and implementation should factor in **EDI** (equality, diversity, and inclusion) and **ethical** considerations.
- You may choose any **user interface types** (web, app, etc.)
- The final product should be **evaluated** by at least 10 participants who are not from your team. The chatbot should record granular user interaction **data** anonymously for evaluation and service improvement.

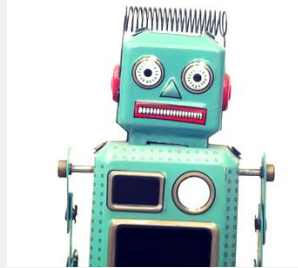
PROJECT TOPIC



3. Deliverables:

- The project deliverables are detailed below:
- Weekly submission
- A suitable group project Technical Report. An indication of essential reports sections and suggested content can be found in Appendix 1
- A formal final Group Presentation demonstrating your final software solution (Approximately 30 minutes).
- All Software Components and source code developed as a solution to the problem.

PROJECT TOPIC



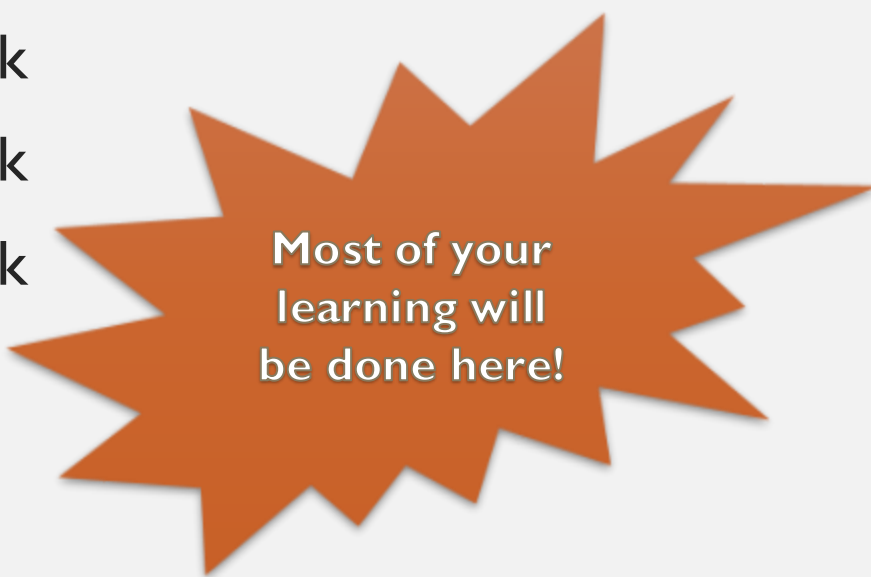
4. Assessment Criteria (subject to change):

Assignment Component	Weighting
Primary and secondary research	15%
Requirement Specification	15%
System Design	20%
Prototype System	30%
Test/Evaluation Strategy	10%
Project Management/Teamwork	10%

Individual student grades will be extracted from the overall group grade based on individual contribution and peer assessment.

WORK PLAN

- In class
 - Taught lessons on Interaction Design
 - Taught lessons on Chatbot/NLP
 - Topics for discussion
 - Weekly presentation
 - Development
- Out of class group work
 - Weekly meeting (keep logs)
 - Teamwork
 - Teamwork
 - Teamwork

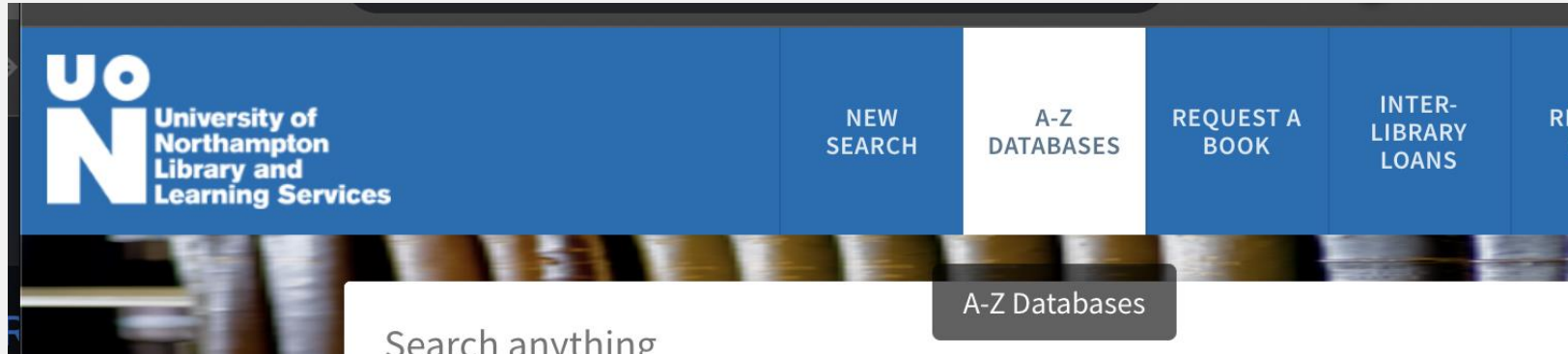


Most of your
learning will
be done here!

WEEKLY TASKS

- Background research
 - Similar systems
 - Find as many use cases as possible
 - What have you learned from them:
 - What are the core technologies?
 - Good and Bad
 - How do you categorise them?
 - What do you think the UON chatbot should look like?
 - List of main risks and challenges
 - Submit your report (presentation) on NILE

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