Functionalities Overview

Functionalities in depth

* Description
* How they address all project objectives
* Problems/challenges and how they were solved

Timetable

Content manager

Over view

Frog bot is a student-tutor support system that aim to answer administrative and general queries of students. This web-based platform consists of two major functionalities: chat bot and management portal.

After logging in by theirs email and designated key, students can access the chat bot service. The chatbot has two modes: formal mode and informal mode. In the formal mode, they can ask administrative questions about course information and ask the bot to search through the course content using keywords and topics. While in the informal mode, students can ask general questions and get timely response to a variety of topics. The bot can deliver lively visual feedback to students in both modes.

Users would be directed to management portal if they login using lecturer’s account. In the portal, they can manage the accessibility of students to the bot and modify their enrolment information. A lecturer can also upload and manage course materials for students to access them in the bot. Also, the lecturers are able to view and search the chat history to get feedback of students’ comprehension.

One of the core functionalities of the chat bot is to answer administrative questions. The students can ask for information about assessment details and class timetable. And the bot will extract relevant information from the database according to the students’ enrollment information. Because we aim to provide convenience to students when they are studying in UNSW, this functionality can save a lot of time finding the due date and timetable.

Class timetable: We also covered a wide range of possible queries about timetable to make this functionality easy to use. Once the timetable is set up following the user manual, the students can ask for the timetable about specific courses. To guarantee the correctness, we built the database based on data parsed from unsw official website <http://timetable.unsw.edu.au/2021/>. To enhance the modularity of the bot, we defined a generic function find() to lookup for certain events. Developers can set up their own database and modify the functions accordingly. Also, there is no strict requirement to the format of students’ questions, our dialog analyser powered by Dialog Flow can detect users’ intent accurately. These features enable the bot to deliver service to students in an intuitive and interesting way.

Content manager: We implemented a content manager to achieve this goal. First, we have a page with a box for lecturers to drag files in to upload materials and a pane for visually managing the uploaded files. Then the front-end UI can call the functions defined in the back-end content manager to add or remove files and to get the list of all uploaded files. This is critical for the management panel to display and manage the files properly. Without this functionality, the lecturers can only manually change the files stored in the designated directories, which is inconvenient especially when they don’t have direct access to the server. So, the content manager ensures that all operations can be done via the management panel visually. This is critical to one of our goals to provide great user experience.