

COMP 474/6741 Intelligent Systems (Winter 2020)

Project Assignment #2

Due date (Moodle Submission): Friday, April 24th
Counts for 25% of the total course marks (half of the course project)

In this second part of our Intelligent Systems project, your task is to add a chat interface to your system.

A1 Updates. In case there were issues with your first project submission that prevent you from running the queries, you should fix these for the second part of the project.

University Chatbot. You have to develop a new *Python*-based chatbot interface to your knowledge base from A1 (i.e., a *grounding*-based bot). It has to be able to answer (at least) the following questions:

1. “What is the <course> about?”
E.g., “What is COMP 474 about?”: provides the course description as answer.
2. “Which courses did <Student> take?”
Lists course names/subject/numbers, like “COMP 474 Intelligent Systems” and the achieved grade/term.
3. “Which courses cover <Topic>?”
E.g., “Which courses cover Expert Systems?”: lists all courses that include this topic.
4. “Who is familiar with <Topic>?”
E.g., “Who is familiar with Natural Language Processing?”: maps to Query #5 from A1.

For *graduate students (COMP 6741) only*:

5. “What does <Student> know?”
Answer using Query #6 from A1.

You are free in choosing any technology for translating the input questions to a suitable SPARQL-query to your knowledge base.

Report. Update your report from part one, i.e., submit a revised report for your complete project, with the following changes:

Report updates: Fix any mistakes (spelling, structure, etc.) that was pointed out in A1.

Chatbot method: Describe your method of translating the input questions into SPARQL queries. Provide at least one example input & output for each of the questions above.

Deliverables. Your submission must include the following deliverables within a single **.zip** archive:

Deliverables from A1: All the parts of your project as listed for A1 (with any modifications you might have made for A2).

Chatbot: Your new chatbot Python code, including any associated resources (configuration files, training data, etc.).

Report: The project report, as detailed above, as PDF.

Submission. You must submit your code electronically on Moodle by the due date (late submission will incur a penalty, see Moodle for details). *Only if your group members have changed from A1:* Include a new, signed by all team members, *Expectation of originality* form (see <https://www.concordia.ca/encs/students/sas/expectation-originality.html>) with your submission.

Demo. We will schedule online demos sessions for your project using Zoom.