Code explanation

Welcome to the new tour given by Pepper, are you ready to join?

Our robot is programmed to give a small tour in the Atlas building on the ground floor from the south to its north side. The robot stops at three targets to explain some things about the building. The tour is meant for people who are either a bachelor or master student at the university. For now, the robot will only be able to interact with one person at the time.

To get more familiar, the robot will first introduce itself and later ask the student's name and study. It will give a unique reaction to each study and ask if the person enjoys their time as a student. Any time the robot cannot catch what the student is saying, it will ask the student to repeat the answer to make sure no errors occur.

After each explanation at the target, the robot will give the chance to repeat part of the information. Additionally, it will ask if there are any other questions and propose topics from which it can answer questions. For now, three questions are coded but this could be elaborated. Furthermore, these questions are hard coded due to time and costs, it is possible however to connect an AI like ChatGPT to the code to answer some of the more technical questions that are asked. It is possible to ask various questions in a row until the student is satisfied. After the explanation and question round, the robot will walk on onto the second target and repeat the same process with the question round and end the tour after the question round next to the third target when there are no more questions.

Throughout the whole code it is kept in mind that if the robot cannot catch the answer given by the student, it will ask to repeat it to avoid unnecessary loops. Additionally, various concepts were defined to give the student more answer options that the robot will understand. By using proposals, the robot can hold a steady dialogue containing various questions and answers and give the answer in timely manner.

The full script of the dialogue can be found in Appendix A.