CS 466/566: Voice Assistants

Homework 3

Homework 3 - Dialogflow

In this assignment, we will build on the same use case from previous assignments to create an agent with [Dialogflow](#).

- ❏ **Step 1 - Select the Use Case**
    - ❏ Identify the use case you are using for your Dialogflow agent. This should be the same use case you used in the previous assignments.
    - ❏ List of use cases:
        - ❏ Use Case 1: Create a food cart directory for your city
        - ❏ Use Case 2: Book a conference room in the different buildings at your university
        - ❏ Use Case 3: Create an inventory management and purchasing system for textbooks

- ❏ **Step 2 - Intents**
    - ❏ Identify **two intents** for your application, define them in this step, and describe what each intent entails.
        - ❏ In the previous assignment, you created one intent for your Alexa Skill. You tested your Alexa Skill with other students in the class. Did the intent hold up? In most cases, students need to make adjustments to the intent after a round of testing.
        - ❏ There should be a second intent created for this assignment.

- ❏ **Step 3 - Training Phrases**

❏ For each intent, create **<u>at least 15 training phrases</u>** that can be used by the user to fulfill the specific intent. The majority of your training phrases should include at least one entity and some of the training phrases should include both entities.

❏ Note: You already created sample utterances for HW 2. Those sample utterances should be updated based on the feedback you received from testing sessions. You can reuse some parts in this step, but there should be updates.

❏ **Step 4 - Conversational Flow Diagram**

❏ In HW 1, you created the initial conversational flow diagram for your use case. In this assignment, you will revisit that diagram and upgrade it as needed, based on what you have learned since creating and testing your Alexa Skill.

❏ There should be two main paths in the conversational flow diagram, for the two intents in this assignment.

❏ Make sure to clearly identify the paths the user's journey might take in this diagram.

❏ As a reminder, here's the example from [Conversing About Conversation](#).

❏ **Step 5 - Logic for Each Intent**

❏ What logic or algorithm is used in the intent? Define it using **pseudocode** in this section. Your logic should be based on the information received from the slots in this intent. Do not write any code in this section.

❏ You have written logic for one intent already in your HW 2. Revisit that pseudocode and update it as needed, based on the feedback you gathered since testing your application.

❏ **Step 6 - Build the Dialogflow agent**

  ❏ Create an agent in the [Dialogflow](#) console.

  ❏ You are expected to submit code that is properly formatted and does not contain errors.

❏ **Step 7 - Test the Application**

  ❏ Create a list of phrases that someone can use to test your skill and write down your VA's answers.

  ❏ Write a list of at least **3 testing phrases** that will test different permutations of the training phrases for the new intent. These testing phrases should include testing the entities.

  ❏ Document each testing phrase and the VA's answer in this step.

❏ **Step 8 - Review and Reflection**

  ❏ In this step, you will need to answer the following questions thoughtfully and thoroughly. You are expected to show critical thinking and careful reflection in your answers.

    ❏ **Impressions**: What was your overall impression of building Dialogflow? What parts of this development experience were the most enjoyable? What parts were the trickiest to figure out?

    ❏ **Platforms:** Was the process of building the Dialogflow agent easier after having previously built a skill with the Alexa Developer Console? What are your thoughts on the two platforms? Which did you enjoy using the most? Why is that? Which one do you plan to use for the Final Project?

    ❏ **Feedback**: Did you integrate the feedback you received after testing the Alexa Skill in this new application? If so, how did you integrate the feedback? If not, why not?

❏ **Next Steps:** What's missing in this application? If you had more time, what would you like to add to it? Why?

Grading Guidelines

❏ Your submission should be very well-organized and easy to follow.
❏ This assignment will primarily be graded on the thoughtful and thorough completion of the steps above.

Submission Guidelines

❏ Turn in a PDF with the answers + a zip of the necessary files (interaction model and fulfillment) to the associated Canvas folder.
  ❏ To download the interaction model, go to Settings (the icon next to the project name) --> Export and Import --> Export a Zip.
  ❏ To download the fulfillment file, go to "Fulfillment" in the left-hand menu, and click the download button in the web editor.
  ❏ For testing purposes, you will need to add the Web Demo link to your submission. Go to "Integrations" in the left-hand menu, scroll down, select the "Web Demo" and copy the URL shown in the modal window. The format of the URL should look like this:
    https://bot.dialogflow.com/a0ce77ee-7964-4644-aed1-79d9b291a9f6
❏ **Due Date:** Week 7, Monday at 5:00 pm.