Practice 6: Hands-on Chatbots

For this practice we chose to do the design of a chatbot using Dialogflow.

Our chatbot is named CafeterIA and it’s a chatbot for a coffee shop where you can place your order online and it will be delivered to an address you specify.

We have a total of 12 intents:

1. *Welcome Intent*

Represents the start of the conversation. After a greeting of the user, the agent: replies with a greeting too, introduces itself and gives a small context, and asks how it can help.

1. *Show Menu*

Upon the user asking questions related to the menu, the agent returns a list of the drinks and their prices. This is necessary for the user to know what drinks are accepted as input. It also asks about allergies.

*2.1. Recommendations*

In the case of the user asking for recommendations, suggestions or popular drinks, the agent provides a list of 3 predetermined products. We thought of adding this to increase the naturality of the conversation.

1. *Allergies*

We created an entity called Allergies containing a list of allergies and possible synonyms for them. If no allergies are specified when the user is asked, the agent responds by saying the user can have anything off the menu. Otherwise, the menu is shown again, this time including the list of allergens. This again adds to the naturality of the conversation, since we have to take into account health risks.

1. *Place order*

We created an entity called Drinks that contains all drinks on the menu. When a drink that is on the menu is ordered, the agent asks if the user wishes to add any toppings and shows a list of available toppings. If the users ask for a drink that is not on the menu, a message is displayed saying the choice is not available and showing the menu again.

This is the intent that gives the main functionality of the chatbot.

1. *Add Toppings* + *5.1 No toppings wanted*

We created an entity called Toppings that contains the available toppings. If the user selects a valid one the agent will display a message saying it has been added successfully to the drink. If it’s not a valid topping the message will communicate so and will show the list of toppings and ask to try again.

In the case the users say no topping is wanted, they will be asked directly where they want the drink to be delivered.

Again, this was added for naturality.

1. *Deliver Information*

Since the intention is to order online and have the coffee delivered to the user, this intent is needed to process the address and then ask for the method of payment.

For processing the address we made use of the system entity *@sys.location*.

1. *Select CardType*

Intent created to process the type of payment the user wants. For this we have used an entity called CardType that contains the valid payment methods and their possible synonyms. When choosing one that is not on the list (for example, paying with cash) the agent answers saying that is not an option for payment and states the ones that **are** available.

1. *Introduce CardNumber*

This intent is to finalize the payment. We know a credit card number is 16-digits long so we impose that with the annotation. When a number that does not fulfill that requirement is introduced, the agent outputs an error message and asks to try again.

1. *Quit*

Being that the interaction is happening in an online environment, the user must always have the option to stop the process, which is the purpose of this intent.

1. *Default Fallback Intent*

Default Fallback Intent with the purpose of trying to remediate the situation when the user gives an input that is not covered by the agent and not.

**DIVISION OF WORK**

The 3 of us have been working together for a long time, and whenever we do something, we do it all together, because it’s what works best for us. This way, we avoid misunderstandings, we have more control over the work that is done and we make sure that the effort that each one puts in is balanced and nobody does more work than the others.

So, both the chatbot and this report were done in equal parts, in a joint teamwork.