Lab II – Basic Dialogue Management

1. Errors and limitations of my app

When testing and evaluating my app I have not discovered any errors but many limitations.

First, I frequently get errors when I pronounce the names, weekdays etc. in the grammar in *dmAppointment* (maybe because I am not a native English speaker). It is quite annoying to hear e.g. "OK. John Appleseed. On which day is your meeting?" each time there is a *nomatch* for the weekdays. I would like to change this so that the app just declares it did not understand and repeats the question, without confirming the content from the previous step.

Second, when the user chooses *Appointments* in the menu, they must click on the screen to start it. This is not very convenient for a voice-controlled app.

Third, I would also like the app to return to the menu after the welcome messages under *Timer* and *To-do-list* and under *Appointments* after a meeting has been scheduled.

There are also some limitations when it comes the grammar in *dmAppointment* and Rasa's intent recognition.

The grammar in *dmAppointment* is very limited since the user has to say exactly what is in there for it to work. If the user says "Monday" instead of "on Monday" which is in the grammar, the app will not understand. I also noticed that "at eleven" is recognized as "at 11", and there would be no match if the numbers are written with letters in the grammar.

Even though Rasa's intent recognition offers more flexibility, it will always choose one of the three intents (appointments, timer, to-do-list) no matter what you say. If the user is not aware of the limited options and says e.g. "Order food", the app will still choose one of these three intents.

2. My solutions

First, I changed the entry in "nomatch" under "day" to "Sorry I didn't catch that. On which day is your meeting?" and then I go directly back to "ask". This way, the user will only hear the confirmation "OK. John Appleseed." once, and not repeatedly whenever there is a *nomatch*.

Second, I edited dmAppointment so it starts right away without waiting for the user to click on the screen, by removing `on: { CLICK: 'welcome' }`.

Third, in dmAppointment, I go back to "#root.dm" when a meeting has been scheduled. This way, if the user wants to do something else, they can just click on the screen and get back to the welcome message in the menu. I also go back to "#root.dm" after the welcome message for "timer" and "to-do-list". I like that the user needs to click on the screen for the app to start over, since that is a natural place to stop in case the user is done.

When it comes to the grammar in dmAppointments I have tried to extend it to cover both "11" and "at 11", "Monday" and "on Monday" etc. Additionally, it would be nice to implement a further step so the user can specify if the meeting is 8 am or 8 pm and perhaps add "halv past".

A simple but efficient solution to Rasa's limitation of intent recognition is to specify the user's option in the welcome message. It would be more elegant to only specify the user's options in case of a

mismatch, as in dmAppointments when there is no match in the grammar. But since Rasa always chooses one of the three intents, we will not know if the user says something completely different.