"Shelley" – a voice-operated tortoise care assistant report

A project by Maria Irena Szawerna for LT2319 Dialogue Systems 2

REPOSITORY

The repository with all the code, this write-up, presentation, and demo can be found under the following link: https://github.com/Turtilla/shelley

INTRODUCTION

Nearly anyone who has a pet and has had to travel knows the struggle of having to find someone to take care of their beloved animal while they're away. While the maintenance of some kinds of pets, like cats or dogs, is common knowledge, the more exotic ones require the owner to leave instructions. However, going back and forth between those and the actual maintenance of an animal may be a bit problematic – and this is where a voice-operated app comes into play. With instructions being given step by step once the user is ready and an ability to answer an array of tangentially related questions, as well as the ability to potentially provide some visual output when necessary, that seems to be a decent solution to the problem.

THE PRE-EXISTING SERVICE (THE TORTOISE TABLE)

The external service that I utilized for a part of this project (the request plant edibility functionality) is a website called The Tortoise Table (https://www.thetortoisetable.org.uk/). Aside from other general tortoise-keeping advice it features an extensive database of plants that someone could feed to a tortoise and their edibility. It is indispensable when picking while greens and deciding what is fine to feed to your pet. It has a mobile app version, but as far as I could tell, it has no openly available API. Luckily, when using the search option, one can notice that the text one searched for appears in the URL of the site with the results. I decided to use that to request websites for a given input plant name, and then utilize the Beautiful Soup Python library to parse the result. Using custom functions I created appropriate entries in http-service as well as a separate file, TTT_API.py; unfortunately, importing functions from that one to http-service did not work for me. In the latter file you can also find functions that were used to obtain a .csv file with the names of all the plants featured in the database, that was later used to train RASA. Nevertheless, the website has some limitations, and, for example, it doesn't always return very accurate results, and rarely works if the name of the plant is given in plural.

DATA COLLECTION

The data collection part was conducted during Lab 1. The participants were asked to instruct their partners on how to take care of their pets. One of the participants did not interrupt or ask anything throughout the instruction, and those results were discarded. In the end, two dialogues remained, totalling a 9:25 minutes of recording. While it is fewer dialogues than requested in the lab and the project, I have been informed that they are sufficient due to their length. One of the dialogues is about tortoises, and one is about dogs, as the other person was not knowledgeable enough to comfortably talk about tortoise care. From the analysis of the distilled dialogues I have noticed that the instructions usually consist of descriptions of steps that the other person or the user must carry out. The interlocutor sometimes asks questions about the details of those actions, and sometimes provides feedback in the form of utterances like "okay." Unfortunately, these dialogues were not accompanied by the carrying out of the instructions, but they can be adapted to such a format for the testing of the app.

IMPLEMENTATION

For building the app I relied on the TDM infrastructure. I created two instructional plans, one for the daily routine (feeding and cleaning) and one for baths (including health check-ups), as well as an explicit option to make use of the TTT database querying. In addition, I implemented multiple "hidden" query options, that would let the user ask questions that were to some extent related to taking care of a tortoise (e.g. "Can I pet it?" "Do I have to walk it?" "How do I carry it?" "How much food should I give to it?"). The main menu has a visual input option for quick choosing of which instructions are desired, or whether an edibility query will be made. Several steps in the instructions and some in the "hidden" queries are enriched with pictures. As for the handling of the edibility queries, the implementation of that was described in more detail in the pre-existing service section.

SAMPLE DIALOGUES

Several of the dialogues that I included in this section are taken from the interaction tests, I have also provided an example of a spontaneous interaction. At the end I will include the dialogues that I aimed to be able to carry out initially (in the project proposal), but they are not necessarily worded in the same way as Shelley responds in – and I will provide explanations as to what was changed and why.

The first two test dialogues:

```
--- dialogue 1, part 1
S> Hi, I am Shelley, your tortoise care assistant. What can I help you with today?
U>
S> Do you want to know the daily schedule, know the bathing schedule or know plant edibility?
U> What do I feed?
S> Tortoises mostly eat grass and weeds, plants that would not be very nutritious to humans, like dandelions or clover. if you
are unsure if a tortoise can eat a certain plant, you can always ask me.

--- dialogue 1, part 2
S> Hi, I am Shelley, your tortoise care assistant. What can I help you with today?
U>
S> Do you want to know the daily schedule, know the bathing schedule or know plant edibility?
U> When do I feed him?
S> You should feed the tortoise in the morning.
```

The last test dialogue:

```
--- dialogue 1, part 4
S> Hi, I am Shelley, your tortoise care assistant. What can I help you with today?
U>
S> Do you want to know the daily schedule, know the bathing schedule or know plant edibility?
U> How is he bathed?
S> Baths are usually given on Saturdays. First you will need to get a large container that the tortoise cannot get out of and
fill it with a bit of lukewarmwater.
U> Okay done.
S> Next gently place the tortoise in the water and pour some of the water over its shell. Leave the tortoise for a few minutes,
but keep an eye out on it.
U> How?
S> Always use both of your hands to carry the tortoise, and provide support for its tummy. It might not be happy in the water,
but the bath is important. Make sure that the tortoise has no problems keeping its head up above the water. It's okay if it
drinks some of it. It is also fine to leave it there for a few minutes.
U> Okay, done.
S> Righty-o!
U>
S> In the meantime, make sure that the soil is evenly spread in the terrarium and that the decorations are in their right place.
You can also clean the glass using an aquarium cleaning spray.
U> Done.
S> Now you should take a towel, take the tortoise out of the bath, and gently dry it, checking of its healthy at the same time.
U> Done.
S> Finally, gently place the tortoise back in its terrarium. Then pour out the bath water and tidy everything else up.
U> Done.
```

Spontaneous interaction:

```
turtilla@LAPTOP-R5DMFSM2:~$ kubectl exec -n gusszawma -it deploy/tdm -- tala interact http://pipeline/interact
Defaulted container "tdm" out of: tdm, ddds (init), tdm-build (init), okteto-bin (init), okteto-init-volume (init)
S> Hi, I am Shelley, your tortoise care assistant. What can I help you with today?
U>
S> Do you want to know the daily schedule, know the bathing schedule or know plant edibility?
U> Can I walk my tortoise
S> Where do you want to walk your tortoise, outside or inside?
U> I want to walk it inside
S> I'm sorry, but it's not a good idea to let your tortoise out in the apartament. the floors are not good for its legs,
 and it can catch a cold.
U>
S> Returning to main menu. Do you want to know the daily schedule, know the bathing schedule or know plant edibility?
U> Can I pet the tortoise?
S> You can pet the tortoise gently on the shell or on the head, if you want. do not try to touch its legs, as that will
scare it. please be very gentle when petting the tortoise and don't do it too much.
U>
S> Returning to main menu. Do you want to know the daily schedule, know the bathing schedule or know plant edibility?
U> What does a tortoise eat?
S> Tortoises mostly eat grass and weeds, plants that would not be very nutritious to humans, like dandelions or clover.
if you are unsure if a tortoise can eat a certain plant, you can always ask me.
U>
S> Returning to main menu. Do you want to know the daily schedule, know the bathing schedule or know plant edibility?
```

Project proposal dialogues:

S: Hi, I am Shelley, your tortoise care assistant. What can I help you with today?
U: What do I have to do during the week?
S: During the week you have to do general maintenance every day and bathe it on Saturday.
S: Would you like me to tell you more about daily maintenance or bathing?
U: Tell me how to bathe the tortoise.

S: Okay, here is how you bathe the tortoise. First you [...]

For this dialogue, there is no question about weekly maintenance implemented; however, there is one about what has to be done "today," with the system asking what day it is today. In addition, there is one more alternative than daily maintenance and bathing.

U: How do I take care of the tortoise?
S: Okay, let's see, today is Monday. Start by making sure that the UVB and heating lamps are working. Are they fine?
U: Yes.
S: Okay, next you should clean out yesterday's food and wash the bowls.
U: How do I do that?
S: Make sure to pick up whatever food was not eaten since yesterday, throw it out, and then use warm water and, if needed, unscented soap to scrub the water dish and food bowl.
U: Okay. [....] What do I do next?
S: Now you should [...]

For this dialogue, the first user utterance would not necessarily trigger this response, and one would have to explicitly ask about the daily schedule. In addition, the transition between the stages of a plan can predominantly only be prompted by "done" or "okay, done."

U: Shelley, can tortoises eat roses? [request for information from TTT]
S: [too many results are returned] I'm sorry, but you need to be more specific. What plant species do you mean exactly?
U: Can tortoises eat wild rose? [request for information from TTT]
S: [one result returned] Wild rose can be fed in moderation.

Finally, in this dialogue plurals do not agree well with TTT, and, unfortunately, incremental search does not work either. In this case the system would either give the response about a specific species, or the closest match it could find.

DEMO

The demo was only required for the in-class presentation. However, the recording is available in the repository, along with the code and other related files.

EVALUATION

This part was not mandatory, but I decided to include it either way, as I wanted to see how real users would interact with my system. Due to technical issues related to running the app on someone else's computer (I was informed I would have to be logged onto eduserv for that to work),

I only had 3 participants, but ideally, I would gather more feedback. In order to have people who do not live with me test the project, I streamed it to them on Discord and used a virtual audio cable to reroute Discord output to PC input (PC and Discord in/outputs are set up separately and the PC one does not override the Discord one). This way, while I was not able to hear the participants, the app was able to detect their speech as if they spoke into the microphone and they were able to hear it through the stream. While that did take away the option of clicking the visual input options, it was not a huge detriment. The only disadvantage was that I had to be present throughout the testing and it could not be done whenever the participants wanted.

The participants were instructed to simply interact with the system and play around with it; the goal was for them to use it as if they were supposed to use it, not to test if every option works. Following the testing, the participants were asked to fill out a SASSI-inspired questionnaire, the exact results of which can be found in the appendix, together with the distilled dialogues. Overall the participants rated themselves as good speakers of English and as relatively unfamiliar with voice-operated systems. They judged the app to be accurate, useful, pleasant, enjoyable, and easy to learn, among other things. However, they also considered it repetitive and frustrating at times. In additional comments the participants specified that they liked the plant edibility query option but wished that system utterances were captioned, and that instructions on how to use the system were missing (other than the ones that I gave them).

DISCUSSION

Overall, the system is able to handle two sets of instructional dialogue, but also tangentially related queries as well as sourcing information from an external database. It features the appropriate features provided by TDM, such as topic switching, for example. It is not without a fault though; during prolonged interactions it sometimes freezes upon returning to the main menu. Oftentimes the TTT queries time out, which I have been told is a TDM-specific issue (an internal timer of how long it can wait for a response). Understanding plant names is also rather finnicky and is perhaps related to not enough training data for RASA. Speaking of RASA, the automatically generated utterances for it to learn "done" from seem to be lacking, as I believe utterances such as "okay" should trigger that response. Additionally, the frontend does not handle any utterances that it should say before finding out what the user wants to do (e.g. greetings), which means that it is impossible to even give any initial instructions to the users of the frontend. Unfortunately, other frontend limitations also made it impossible for me to include captioned system utterances or more dynamic illustrations. What I personally found rather annoying, was the repeating of the instructions for a given stage upon returning from "how" as well. On that topic, it would have been amazing to be able to edit more of

the frontend interface, but naturally it is not the main topic of the course. For a ready product though I would definitely make it fit the theme of the app more.

FUTURE WORK

When it comes to developing the app further, I would like to introduce more variety to some system utterances, such as alternative greetings or main menu utterances. I would also like to figure out how to include more visual interaction; especially one button for "done" during instructions (right now it would require a ton of different transitions to be accounted for) and dynamic visual output, e.g. of the images sourced from TTT for a given plant so that the user can see if that is what they were asking about. Sadly, for that one, we were informed that it is not really possible with the way the app currently works. I presume instead one would have to build hundreds of built-in queries and answers based on the database if one wanted to include images. Finally, I would like to be able to make the plant request function more robust, let it handle requests in plural and perhaps provide more information.

APPENDIX

CODE

As mentioned before, the code can be found in my repository under the following link: https://github.com/Turtilla/shelley ; you should also receive a zipped copy thereof together with this report.

QUESTIONNAIRE RESULTS

I will include the "personal profile" information, but there are not enough respondents to draw any conclusions from that. All of the people that participated in the evaluation either have or may have to take care of my own tortoise in the future. Questions where a rating is asked for stretch from 1 (strongly dislike/disagree or other negative options) to 7 (strongly like/agree or a other positive options).

Question	Participant 1	Participant 2	Participant 3
How old are you?	21	31	26
What gender do you identify as?	Female	Male	Female
What is your highest completed level of education?	Secondary School or equivalent	Secondary School or equivalent	MA/MSc or equivalent

How would you rate your familiarity with voice-operated systems?	1	3	2
How would you rate your level of English?	7	6	6
How would you rate your attitude to voice-operated systems in general?	3	4	3
The system is accurate.	6	5	5
The system is unreliable.	2	2	2
The interaction with the system is unpredictable.	1	4	2
The system didn't always do what I wanted.	1	3	3
The system didn't always do what I expected.	2	3	3
The system is dependable.	6	3	6
The system makes few errors.	6	4	2
The interaction with the system is consistent.	4	5	6
The interaction with the system is efficient.	6	4	6
The system is useful.	7	4	7
The system is pleasant.	5	5	6
The system is friendly.	7	4	6
I was able to recover easily from errors.	7	5	7
I enjoyed using the system.	7	5	7
It is clear how to speak to the system.	7	5	5
It is easy to learn to use the system.	7	5	6
I would use this system.	6	4	6
I felt in control of the interaction with the system.	3	4	6
I felt confident using the system.	3	2	6
I felt tense using the system.	1	5	1

I felt calm using the system.	7	2	6
A high level of concentration is required when using the system.	6	5	4
The system is easy to use.	6	5	6
The interaction with the system is repetitive.	4	4	6
The interaction with the system is boring.	3	5	2
The interaction with the system is irritating.	1	5	1
The interaction with the system is frustrating.	1	4	1
The system is too inflexible.	2	4	3
I sometimes wondered if I was using the right word.	2	5	2
I always knew what to say to the system.	5	4	4
I was not always sure what the system was doing.	1	4	1
It is easy to lose track of where you are in an interaction with the system.	2	3	1
The interaction with the system is fast.	5	3	6
The system responds too slowly.	1	5	1
Final remarks:	Asking for what plants were edible was a really cool addition to this program. I missed being able to read along to the voice assistant as I have a hard time keeping up with vocal instructions.		Overall - the system works great. It's a shame you couldn't write a manual with the commands etc., so it would be even easier and intuitive to use.

DIALOGUES

The dialogues can also be found in the aforementioned repository in the other_things folder, but I will include them here for your convenience:

Dialogue 1 (transcribed):

M: Uhm… to take care of the tortoise you will have to feed him and make sure he is okay.

T: Oh, that's it? (...) What do I feed?

M: Uh… you should feed him, uhm, greens, um, and by that I mean, um, the stuff that's in the fridge, prepared for him, which includes, um, grass and a lot of what people consider weeds.

T: When do I feed him?

M: You should feed him in the morning. And make sure there are no leftovers from the day before. (...) And that his bowls are clean.

T: How do I clean the bowls?

M: Ahh… You shouldn't use any scented detergent or anything that might cause irritation, so just water… and maybe, like, pure soap… and there is a brush to scrub them. (...) Oh and you should… either give him calcium or pellets, depending on the day.

T: What day?

M: Oh, calcium just on Mondays and the rest of the days it's pellets.

T: Where is… uh, these things?

M: Ah, they are on the shelf under the terrarium. Pellets are in a, uh, kind of a plastic jar, I don't know how to describe it, and the calcium is in a… kind of a ziploc bag, yeah, so. You should just sprinkle that, and the pellets it's also not much.

T: How much do I feed him?

M: Oh, it's a matter of getting the feel for it (chuckle). Kind of a handful, but not like a huge handful. Uhm, it's a couple of big leaves, a couple of small leaves, make sure it's a variety of foods that have been picked for him, not just one kind of. Uhm, and you'll see, like, the day after if he's eaten everything it means he can get more… the next day.

T: (silent)

M: You might also need to give him a bath every once in a while.

T: How is he bathed?

M: Uhm, (cough), he has a big bathing bowl which is also on that shelf under his terrarium. Uhm, so on… I think it's Sat--turday, uhm, he usually gets water in that instead of his water dish, uhm, it's a pretty heavy bowl so gotta be careful with that, uhm, and because he muddies it up with

the soil from his enclosure, uhm, I usually follow it up with a bath in a plastic container that's in the bathroom. So, like, lukewarm water, uhm, let him stay there for 10 minutes-

T: How much water?

M: Oh, that's a very good question! Uhm… like… 2-3cm in that plastic container, you can see once you put him in, um, he shouldn't need to, um, have to put a lot of effort into keeping his head above the water. (...) If he is struggling with it, it means it is too much.

T: How long does he bathe?

M: Uh, it was, like I said, around 10 minutes. You can take that time to like, clean out the, uh, his bathtub… the one that was in the terrarium.

T: (silent)

M: Is there anything else that, uh, you want to know about how to take care?

T: No.

M: Okay!

Dialogue 1 (distilled):

S: In order to take proper care of the tortoise you will have to feed it and make sure it is okay. (SYNTAX)

T: Oh, that's it? (...) What do I feed?

S: You want to know what the tortoise eats. (CONFIRMATION) It should be fed a variety of plants such as grasses and weeds. The tortoise's owner has left some of the food it is usually fed in the fridge. (SYNTAX)

T: When do I feed him?

S: Okay, you should feed it in the morning. (CONFIRMATION, SYNTAX, RELEVANCE)

T: How do I clean the bowls?

S: Right, you should only use non-invasive, non-scented detergents around the tortoise. I recommend using a brush and warm water, and, if necessary, natural soap. (CONFIRMATION, SYNTAX). Let's get back to the topic of feeding. (TURN-KEEPING? or TURNTAKING 3) You should supplement the tortoise's food with calcium or pellets, depending on the day. (SYNTAX)

T: What day?

S: You want to know the schedule for food supplements. Let's see, the tortoise should receive calcium on Mondays and pellets on the other days. (CONFIRMATION, SYNTAX).

T: Where is… uh, these things?

S: You're asking about the location of food supplements. (CONFIRMATION) The pellets are stored in a plastic container and the calcium is in a ziploc bag. They are both on a shelf under the terrarium. (SYNTAX)

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T: How much do I feed him?

S: Right, the tortoise should get a handful of food that includes a few different plant species. If you notice that there are no leftovers the next day, you can try feeding the tortoise more. When supplementing, use half a teaspoon of calcium or a teaspoon of pellets. (CONFIRMATION, SERIOUSNESS, SYNTAX)

T: (silent)

S: Let's continue with how to take care of the tortoise. (TURNTAKING 3) The tortoise should be given a bath every Saturday. (SYNTAX)

T: How is he bathed?

S: Okay, you want more details on the topic of bathing. (CONFIRMATION) In the morning you should fill its bathing bowl with water and put it in the terrarium instead of the regular water dish. This bowl and the tortoise will get muddy so you may want to give the tortoise a second bath. In order to do that, fill the plastic box with lukewarm water and let him soak for 10 minutes. (SYNTAX, TURN-TAKING 2)

T: How much water?

S: Right, the bowl should be filled to the brim. The plastic container should be filled with 2-3cm water. Make sure that the tortoise is not struggling to keep its head above the water. In that case, it is too much water. (CONFIRMATION, RELEVANCE, SYNTAX)

T: How long does he bathe?

S:The bath bowl should remain in the terrarium for between 6 and 24 hours. The bath in the plastic container should take about 10 minutes.

T: (silent)

S: Is there anything else that you want to know about caring for the tortoise? (TURNTAKING 3, SYNTAX)

T: No.

S: Okay! (CONFIRMATION)

Dialogue 2 (transcribed):

M: Uhm, how do I take care of your dog? What do I need to do during the day?

T: Walk him and feed him.

M: How many walks does he need?

T: 3 or 4. According to him, a lot more.

M: (chuckle) Okay… that's a good one. Uhm, how long should they be?

T: He usually have one longer and a few shorter. Around half an hour, hour for the longer one.

M: Which one will it be then? Out of the four ones? 'Cause I guess they are spread out.

T: Uh, the morning walk is usually longer.

M: Okay, sure. Uh, does he have any favorite places to go to?

T: Anything water.

M: Anything water, okay, sure. Uhm, so I should walk him and feed him, right? Uh, how often do I feed him?

T: Uh, morning and dinner.

M: And how- what and how much?

T: Uh, 2 deciliter of dry food- food, and some, uh, tasty thing to it.

M: What constitutes a tasty thing?

T: Ham, wet food, or, uh, the human dinner.

M: Okay, is there anything in the human dinner that I should watch out for, not to give him?

T: Onion and spice.

M: Okay, so that's not good for a doggo. Uhm, is there anything else I should keep in mind? Uh, when it comes to taking care of him? (...)

T: Hmm… You might want to shower him.

M: How do I shower him though?

T: You put him in the shower and you… shower him.

M: With like, uh, shampoo or?

T: You can use shampoo. I would use water.

M: Okay. Uh, sure. When do I need to shower him?

T: When he smells.

M: So, all the time?

T: Yes.

M: (chuckle). Okay, so he's gonna stay in the shower, can do that. He liked water, right?

T: Not shower.

M: But that's water!

T: No, it's shower.

M: No, that is water!

T: That is shower. Shower is not good-

M: Okay.

T: -water is good, shower is not good.

M: That is illogical. Is that because it's clean water?

T: Maybe. Or it's involuntary water.

M: Okay, sure, uhm, do I need to play with him or anything like that? Does he have any toys?

T: He does have toys.

M: What toys does he like?

T: Things that squeak.

M: Okay.

T: Or reward candy.

M: Okay. You mean like dog candy?

T: Yes.

M: Uhm, okay, I think that's all the questions. Or do you have any final tips?

T: Give him water?

M: Is that your final tip?

T: Yes, because I didn't say that when-

M: Yeah. Uh, okay, I will do that. How often do I need to change it?

T: With food.

M: Okay, so, twice a day, sure, I will take the best care of your dog I can. Which is probably not very good. But, I will do my best.

Dialogue 2 (distilled):

DIALOGUE 2

M: Uhm, how do I take care of your dog? What do I need to do during the day?

S: To take proper care of the dog throughout the day you will need to walk it and feed it. (CONFIRMATION, SYNTAX)

M: How many walks does he need?

S: The dog will need around 3 or 4 walks in a day. (SYNTAX, SERIOUSNESS)

M: Uhm, how long should they be? (removing the chuckle as it is a response to something that is not said by the system)

S: Let's see how long the walks should be. One of the walks should be between 30 minutes and 1 hour. The rest can be shorter than that. (CONFIRMATION, SYNTAX)

M: Which one will it be then? Out of the four ones? 'Cause I guess they are spread out.

S: Right, it is usually the morning walk that is the longest. (CONFIRMATION, SYNTAX)

M: Okay, sure. Uh, does he have any favorite places to go to?

S: Let's see what the dog's favorite walks are. The best places are ones with access to bodies of water. (CONFIRMATION, SYNTAX)

M: Anything water, okay, sure. Uhm, so I should walk him and feed him, right? Uh, how often do I feed him?

S: Back on the topic of food. The dog should be fed in the morning and at dinner-time. (CONFIRMATION, SYNTAX)

M: And how- what and how much?

S: You want to know how much food to give to the dog. It should be 2 deciliters of dry dog food and a bit of something tasty as an extra. (CONFIRMATION, SYNTAX)

M: What constitutes a tasty thing?

S: Right, that would be something like ham, wet dog food, or something from your dinner. (CONFIRMATION, SYNTAX)

M: Okay, is there anything in the human dinner that I should watch out for, not to give him?

S: Let's see what human foods are not suitable for dogs. You should avoid giving the dog onions or spicy food. (CONFIRMATION, SYNTAX)

M: Okay, so that's not good for a doggo. Uhm, is there anything else I should keep in mind? Uh, when it comes to taking care of him? (...)

S: Okay, you want to know what other actions may be necessary when taking care of the dog. You may want to shower it. (CONFIRMATION, SYNTAX)

M: How do I shower him though?

S: In order to shower the dog you should put him in the shower enclosure. (TURNTAKING 2)

M: With like, uh, shampoo or?

S: When showering the dog you can use shampoo or just water. (SYNTAX)

M: Okay. Uh, sure. When do I need to shower him?

S: Right, the dog should be showered when it is smelly. (CONFIRMATION, SYNTAX)

M: So, all the time?

S: You should not shower the dog all the time. The dog should only be showered when its smell is unpleasant and noticeable. (SYNTAX, REFORMULATION, SERIOUSNESS)

(The following few lines were removed both from the user and the system as they were not following the principle of seriousness)

M: Okay, sure, uhm, do I need to play with him or anything like that? Does he have any toys?

S: You want to know if you should play with the dog. You can play with the dog using his toys. (CONFIRMATION, SYNTAX)

M: What toys does he like?

S: The dog's favorite toys include ones that squeak- (SYNTAX, FEEDBACK 2)

M: Okay.

S: Or reward candy.

M: Okay. You mean like dog candy?

S: Right, human candy is not suitable for dogs. You should only feed dog candy to the dog. (CONFIRMATION, SYNTAX)

M: Uhm, okay, I think that's all the questions. Or do you have any final tips?

S: Let's see what steps we have left. You should make sure that the dog has access to fresh water. (SYNTAX)

M: Is that your final tip?

S: This is the final step. (RELEVANCE)

M: Yeah. Uh, okay, I will do that. How often do I need to change it?

S: Fresh water should be given with every meal. (SYNTAX)

M: Okay, so, twice a day, sure, I will take the best care of your dog I can. Which is probably not very good. But, I will do my best.