CSC 202: Intro to Machine Intelligence

Lab 10: Watson Assistant

Watson Assistant is a digital assistant for building conversational interfaces to applications.

Some key components of Watson Assistant are described below:

- An *intent* is a purpose or goal (such as to make a reservation, ask about store hours, etc). Watson Assistant learns how to recognize intents by training on examples.
- An *entity* represent information in the user input that is relevant to the user's purpose, such as a produce, a reservation time, etc. Entities are specified through keywords, synonyms, or patterns.
- A *context variable* is a variable used to store information that may persistent during a conversation, such as the user's name. Context variables are set in the dialogue, and can store entities or other variables. To clear a context variable, set it to *null*.
- The *dialogue* is a conversation flowchart that determines how Watson welcomes the user, responds to different intents, and converses with the user.

Watson Assistant Tutorial

- 1. Sign up for an account by clicking the Get Started Free button at https://www.ibm.com/cloud/watson-assistant/
- 2. Then go back to https://www.ibm.com/cloud/watson-assistant/ and click the Get Started Free button again, and log in when prompted.
- 3. Click the Create Assistant button to get started

IBM Watson Assistant

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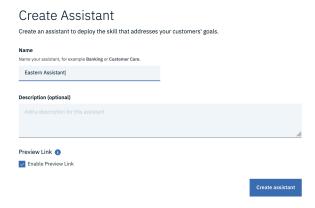
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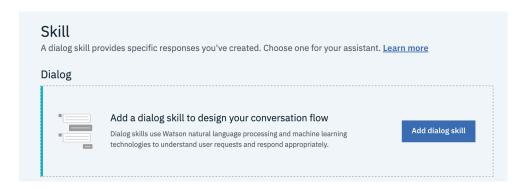
An assistant helps your customers complete tasks and get information faster. It may clarify requests, search for answers from a knowledge base, and can also direct your customer to a human if needed.

Create assistant

4. Give your assistant a name, and an optional description, and then click Create Assistant.



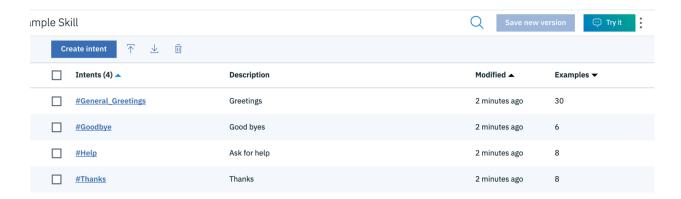
5. Click the button to add a Dialog skill.



6. Select Use Sample Skill, and then click on the Customer Care Sample Skill under Dialog, to view the Intents.

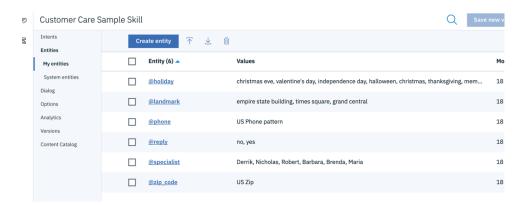
Add an existing skill, or create a new dialog skill to add to your assistant. Add existing skill Create skill Use sample skill Import skill Customer Care Sample Skill TYPE: Dialog — English (US) Sample simple customer service skill to get you started.

7. We can delete all the intents but the last 4, shown below. Click the Try it button on the top right to test whether the Assistant correctly recognizes an Intent.

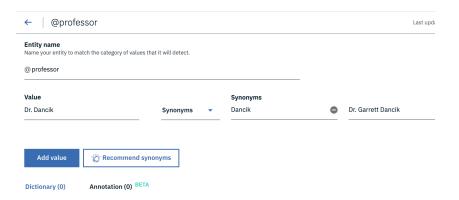


- 8. Click the Create Intent button to create a new Intent with the name #Get_Contact_Info, and type 5 examples of how you might ask to reach somebody. For example, consider:
 - Where is Dr. Smith's office?
 - What is Dr. John's phone number?
 - Where can I find Dr. Roberts?
 - What are Dr. Jim's office hours?
 - I need to e-mail Dr. Roberts.

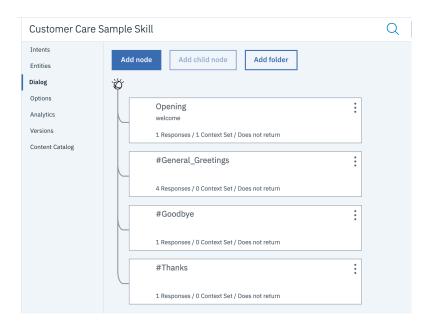
Click the back arrow when you are finished. Then click the Entities tab on the left. You can delete the current entities, and click the Create entity button to create a new one.



9. Create the entity @professor with the value Dr. Dancik, and synonyms Dancik and Dr. Garrett Dancik. Click Add Value to add the entity, then create a similar entity for Dr. Tasneem.

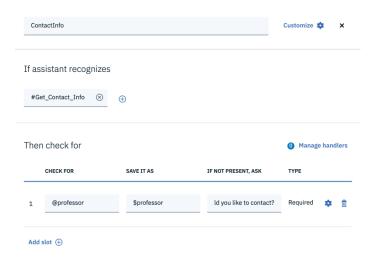


10. Click the blue back arrow to and then select the dialog tab. Delete everything except for the nodes shown below.

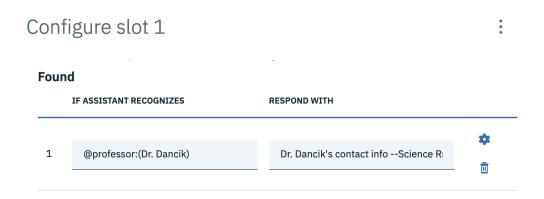


11. Add a node called ContactInfo that responds if the assistant recognizes #Get_Contact_Info. Click the Customize button, turn slots On and click Apply.

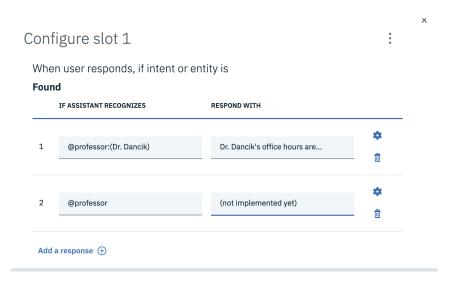
Now we can check for @professor, and ask the user to enter one if one was not provided.



12. Click the blue customize slot wheel next to Required, and add an appropriate response if Dr. Dancik is recognized.

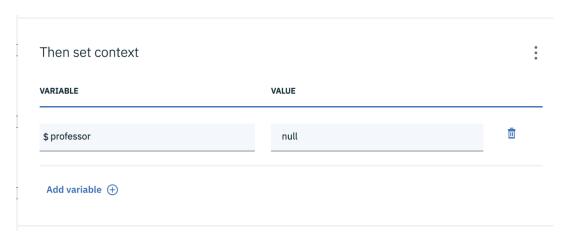


13. Click the blue wheel, and configure slot 1 as shown below, and save the changes



You may optionally set a response if the intent or entity is Not Found, and can skip the current slot if desired (click the blue wheel under Not Found).

14. Save the changes, then click the three dots next to "Assistant Responds" to Open the Context Editor. Set \$professor to null as shown below.



Watson Assistant Assignment

- Extend the Eastern Assistant to provide contact info (e-mail address and office location) for Dr. Dancik, Dr. Tasneem, and Dr. Gao (you can get this info from http://www.easternct.edu/computerscience/faculty/)
- 2. Add an additional intent so a user can get the office hours for Dr. Dancik, Dr. Tasneem, and Dr. Gao.
- 3. Click the 3 dots next to the final Skill to export it, and submit the JSON file through Blackboard.

