


IBM Dialog Management Tool:

With the help of IBM Watson Dialog service present on Bluemix , the developers can easily build applications using natural language to automatically respond to user questions. For example online ordering of the pizza.


Below is a sample demonstrating on how this service works.


Try the service



Hi! I can help you order a pizza, what size would you like?

small





What toppings are you in the mood for? (Limit 4)

chicken, mushroom,

DataJSON


Information

Dialog ID: 9feb4449-bf69-43e6-bbd3-82b317e2ff31
Conversation ID: 1702109
Client ID: 1704433

Profile


size: Small


Try the service



What toppings are you in the mood for? (Limit 4)

chicken, mushroom





Do you prefer pickup or delivery?

pickup

DataJSON

Information

Dialog ID: 9feb4449-bf69-43e6-bbd3-82b317e2ff31
Conversation ID: 1702109
Client ID: 1704433

Profile

size: Small
topping1: Chicken
topping2: Mushrooms

Basically no dialog management system is perfect. Even the IBM Watson Dialog service will not be able to answer few of the users responses. For example if the user wants to know the different sizes that the pizza shop offers, then the user may ask the question in different ways.

Choose a Dialog Template

A template that contains prepared structures to create natural dialogs for your app.

☒ Order A Pizza Template

Try the service

The screenshot displays the IBM Watson Dialog service interface. On the left, a chat window shows a conversation: a system message (pizza icon) asking for pizza size, a user message "tell me about the sizes" (speech bubble icon), and a system message asking for clarification. A text input field at the bottom prompts the user to "Type a response and hit enter". On the right, a panel shows the "Data" tab with "JSON" selected. It contains "Information" (Dialog ID, Conversation ID, Client ID) and a "Profile" section.

If the user says “tell me about the sizes” then the system will not be able to reply for it. Since the existing system can reply the different sizes that are available when the users asks in the format of what do they have or something in that way.

```
<folder label="Library">
  <folder label="Live Content" id="folder_2442998">
    <input>
      <grammar>
        <item>What do you have?</item>
        <item>$ What * do you have</item>
        <item>$ what * do you carry</item>
        <item>$ What * is there</item>
        <item>$ What are my choices</item>
        <item>$ do you have *</item>
        <item>$ which * do you have</item>
      </grammar>
    </input>
```

Problems:

Here we cannot predict all the possible ways the user might ask the question. So we will not be able to write all the possible ways.

The existing system IBM Watson Dialog service system does not provide any technique that can learn from the users inputs.

Solution:

If we are able to perform text mining on the users input and can gain the knowledge from the input and reply back to the user with an appropriate response. For example from the previous users input scenario “tell me about the sizes” the users likes to know about the sizes. Instead of us giving all the possible matches we can try to retrieve the information from the input.

Similarly if we are able to learn from our previous input then that could improve our system. For example in some cases the system may not give an appropriate response fro the users input. If we are able to store the information in the logs and can train the model accordingly then that could increase the efficiency of the system. For example if the user say “tell me about the sizes” if the system mayn’t identify this as a size intent then if we can train it saying the this comes under a size intent that would help the system to improve the efficiency .

References:

<http://heidloff.net/article/sample-watson-dialog-service-bluemix>