



Build bots with ease

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#### How to view a chat bot

- Conversations are always contextualized
- Each conversation have a start (an intent that is gathered from the user) and an end.
- Each conversation can be viewed as a path that the user can navigate through to reach a certain goal
- We like to view the conversation as a tree
- So each path start from a root and end in a leaf of the tree
- We can have multiple trees and multiple contexts.
  - A context is a group of certain conversations paths/trees that are related to each other.



### How to train intents

- Intents (and entities) are mapping of user text to some predefined names
- We use Wit.ai for NLP handling and mapping of what the user says to intents
- Each intent has a name and a set of examples that is used to trail wit NLP engine
- Example:
  - [I:Greeting]
    - Hi
    - Hey
    - Hello
- Entities:
  - [E:wit\$number]
    - **1**000



#### How to train conversation flow

- Each conversation point is either a tree leaf or in the middle of the conversation (used to gather some sort of information or prepare for next point of interaction)
- Tree Leafs [Q:\_\_name\_\_], Middle nodes [R:\_\_name\_\_]
  - Each of these nodes have a unique name. Example: [Q:my\_dialogue]
  - The name is used to navigate to when needed
  - Optionally, they can have an intent as [R:\_name\_:\_intent\_]
    - The intent specifies that optobot would go to this node when the user says something that match this intent. Example [R:my\_dialogue:greeting]
    - My Dialogue would be stated when a greeting intent is captured



## **Variables**

• Variables are definitions about some information that we want optobot to collect from the users. e.g. Age, name, intension, agreement, etc...

 Each variable will store user information when the user is asked about it and provide its answer.



#### Variables (cont'd)

- For example a variable can be age and its enquiry text can be "How old are you?". Enquiry text is a response from optobot to ask about this variable
- Each variable has a type (number, location, string, etc..)
  - Variable types can be any type that wit supports
- Each variable has a storage\_type. This can be either stored
  - in\_cache: very temporarily. In current node only
  - o in\_session: until the user session expires
  - o timeseries: an array stored every specific period of time
  - timeseries\_in\_cache: an array stored everytime regardless of how long since it was
     collected
  - o **normal:** default (stored only once and never asked about again). Like age



#### Variables (cont'd)

- Another type of variable, that is not collected is fetched variables.
- Fetched variable just like variables have type and storage\_type
- The start with [F:...] instead of [V:...]
- The they are followed by definition of how this variable is calculated.
  - It can be fetching something from a URL (get, post)
  - Or predefined built-in functions (like sum, subtract, division, multiply, power, weather, ...)
- Both types have the function in the beginning and then the arguments (all separated by ",")
- Examples:
  - o [F:....] sum, a, b, c
  - o [F:....] multiply, a, 2



# Responses

- After defining the node [R], [Q] or [V], you can add the text/image that the bot would say when it reaches this node
- Example [Q:my\_dialogue:greeting] Hi, how can I help you?
- Content can be text or image as [Q:my\_dialogue:greeting] image@http://....
- Multiple replies is also supported each in a separate line as follows

[Q:my\_dialogue:greeting] (response) Hi, I'm optobot (response) image@http://www....
(response) How can I help you?



# **Options**

- Options are quick replies that act like a suggestion to the user to choose among in a certain variable
- For example, when asking about something (v1) (do you want ... ?)
  - Options can be "yes" and "no"
- Options is stated as follows [O]yes, [O]no
- Whenever the user chooses one of the options the variable that these option belong to will store user data equal to this option
  - Earlier example. If the user chooses "yes" then v1 data for this user will be "yes"



#### **Conditions**

- Conditions are basically bot control flow.
- The decide how the bot respond in different scenarios.
- For instance, if we have a variable named age. If the age is less than 12, then we want to say something different than when the age is > 12
- To do this a condition [C:\_\_destination\_node\_\_] age < 12</li>
   and another condition [C:\_\_another\_destination\_node\_\_] age > 12
- destination\_node is the name of the node to go to if this condition is true
- Operator can be >, >=, =, <, <=</li>



# **Any Question?**