

Conv Agent

Agenda

- Problem Statement
- Solution approach
- Understand Dialogflow
- How to create intents
- How to create entities
- How to map intent to entities
- Requirements
- Conclusion

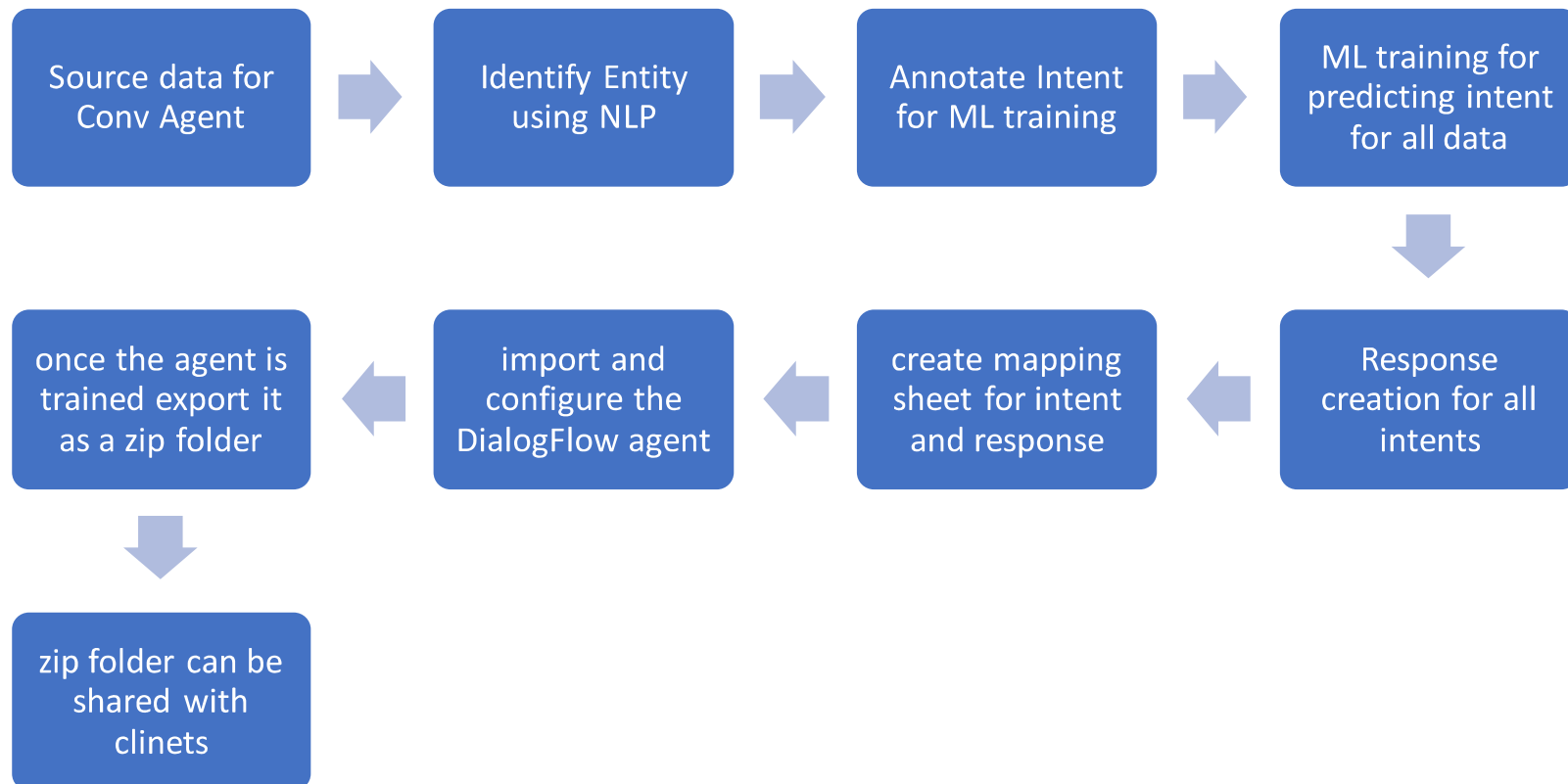
Problem Statement

- The new Ubuntu Dialogue Corpus consists of almost one million two-person conversations extracted from the Ubuntu chat logs, used to receive technical support for various Ubuntu-related problems. The conversations have an average of 8 turns each, with a minimum of 3 turns.

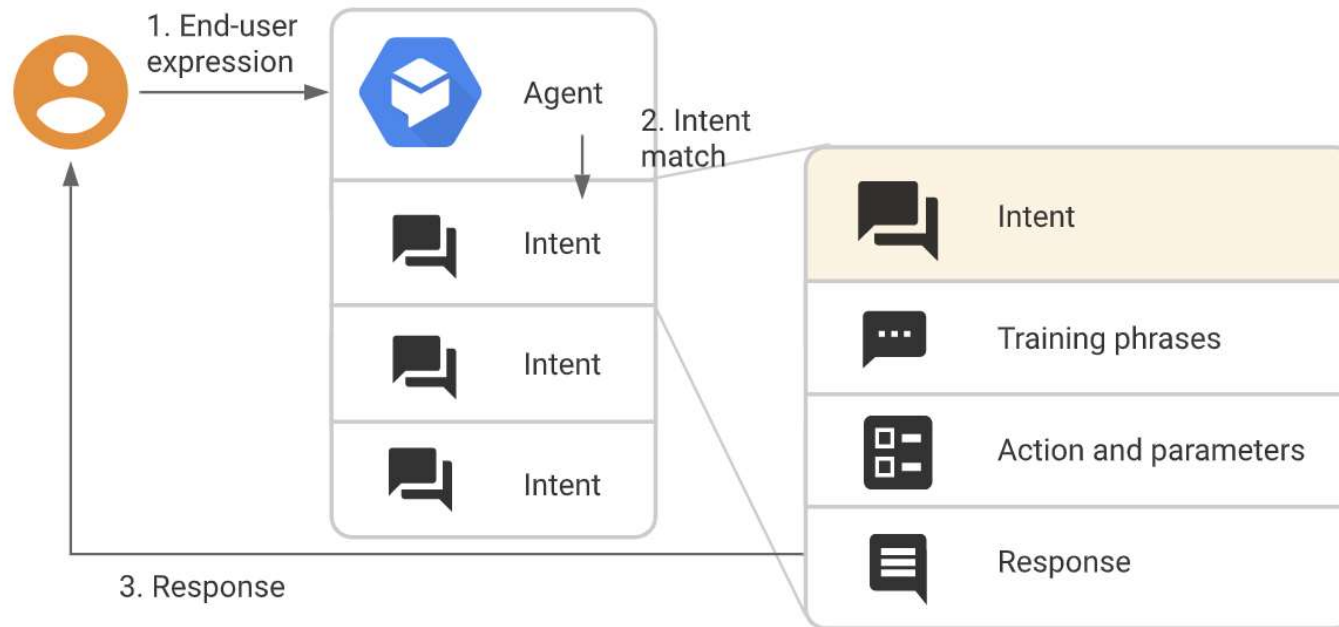
Solution Methods

- The entity, intent and the response need to be identified from the conversation corpus
- some sample data can be annotated and a machine learning model can be trained to predict the intents
- intents and response mapping process need to be completed
- dialog flow from Google account should be signed in
- the intent, entity and response need to be configured into dialog flow

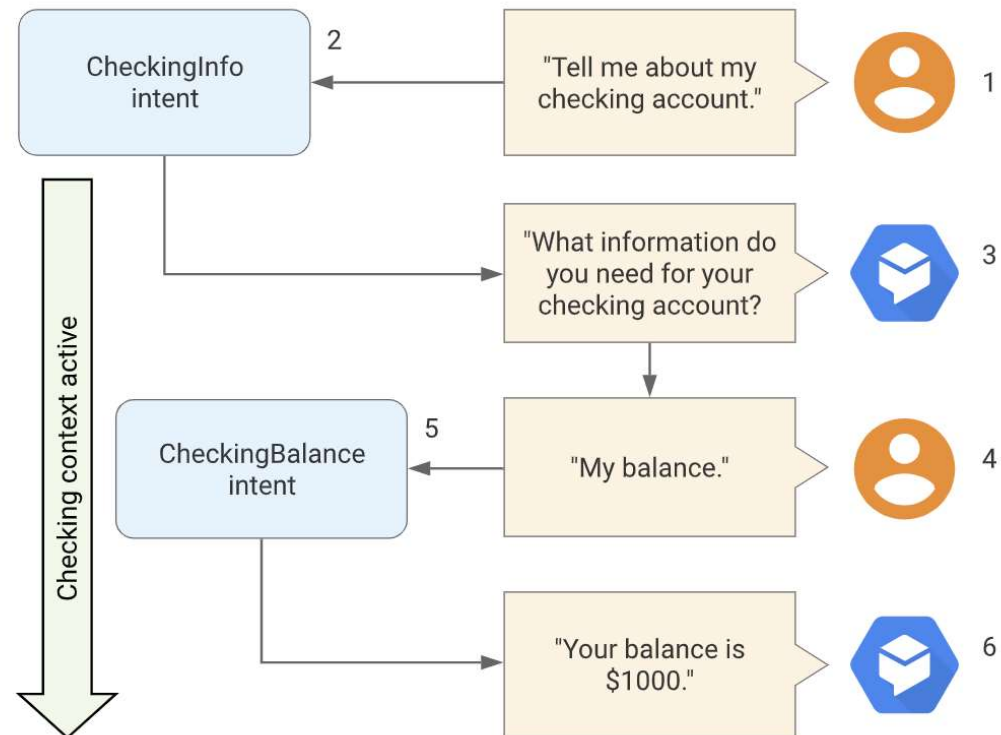
Intents and Entities using ML



Approach



Using Context



Dialogflow

- Go to the [Dialogflow console](#).
- Sign in. If you're a first-time user, then use your email to sign up.
- Accept the terms and conditions, and you'll be in the Dialogflow console.
- To create an agent, click Down arrow, scroll to the bottom of the menu, and click **Create new agent**

Screen

Dialogflow Essentials Global ▾

Maps ▾ ⚙️

Banking

BankingAI

RevaUniv

+ Create new agent

☰ View all agents

🔄 Integrations

🎓 Training

Intents

Search intents

- 🔖 Default Fallback Intent
- maps.current_location
- maps.search
- maps.search - context:maps-search - comment:address

Defaults

- Dialogflow creates the following two default intents as a part of the agent:
- Default welcome intent greets your users.
- Default fallback intent catches all the questions that your bot doesn't understand.

Intents

- An intent categorizes an end-user's intention for one conversation turn.
- For each agent, you define many intents, where your combined intents can handle a complete conversation.
- When an end-user writes or says something, referred to as an end-user expression, Dialog flow matches the end-user expression to the best intent in your agent.
- Matching an intent is also known as intent classification.

Entities

- An entity is basically the thing that is consistently talked about or refer to in the text.

Intents and Entities

<div>S</div> <div>Stephan E Strange</div> <div>Could you book a restaurant in Manhattan?</div> <div>Apr 2, 2021</div>	Intent: RestaurantBooking Entities: Location: Manhattan
<div>W</div> <div>Wall E West</div> <div>Could you book a seafood restaurant near me?</div> <div>Apr 2, 2021</div>	Intent: RestaurantBooking Entities: Location: near me Cuisine: seafood
<div>P</div> <div>Peter Parkeur</div> <div>Could you make a reservation at Red Lobster tonight?</div> <div>Apr 2, 2021</div>	Intent: RestaurantBooking Entities: Place name: Red Lobster Time: tonight

Intents and Entities using ML

The screenshot displays the Dialogflow console interface for an agent named 'Ubuntu_Conv_Agent'. The browser address bar shows the URL `dialogflow.cloud.google.com/#editAgent/ubuntu-conv-agent-s9fw/`. The left sidebar contains a navigation menu with options: 'Ubuntu_Conv_Agent' (selected), 'en', 'Intents', 'Entities', 'Knowledge^[beta]', 'Fulfillment', 'Integrations', 'Training', 'Validation', 'History', 'Analytics', and 'Prebuilt Agents'. The main content area has a tabbed interface with 'Export and Import' selected. It features three blue buttons: 'EXPORT AS ZIP' (with description: 'Create a backup of the agent'), 'RESTORE FROM ZIP' (with description: 'Replace the current agent version with a new one. All the intents and entities in the older version will be deleted.'), and 'IMPORT FROM ZIP' (with description: 'Upload new intents and entities without deleting the current ones. Intents and entities with the same name will be replaced with the newer version.'). A 'SAVE' button is located at the top right of the main area. On the far right, there is a 'Try it now' button and a message: 'Please use test console above to try a sentence.' The browser's bookmark bar at the top shows various links, including 'Matt Boyle | My N...', 'Statistics 110: Pro...', 'Jean Paul Benzécr...', 'GitHub - dair-ai/M...', 'Dive into Deep Le...', 'Statistical Comput...', and two instances of 'www.isibang.ac.in...'.

Requirements

- Entities and Intents well defined
- Google Account
- Phrases and further retraining words
- automated process to update the corpus
- larger the corpus the better will be the understanding
- Human in the loop for better response
- Need for language expert to bring empathy