

# Making a Chatbot with Rasa NLU



New York Big Data Workshop

# Prerequisites

- Install anaconda 3
- (optional) create a virtual environment  
**conda create -n chatbot python=3**
- Install the rest of the modules  
**pip install rasa\_nlu**  
**pip install rasa\_core**  
**conda install -c conda-forge spacy**  
**python -m spacy download en**

# To Install the Trainer UI

- For the trainer UI you need node
- (Linux)  
`curl -sL https://deb.nodesource.com/setup_8.x | sudo -E bash -`  
`sudo apt-get install -y nodejs build-essential`
- (Mac)  
`brew install node`
- (Windows)  
Download installer from <https://nodejs.org/en/#download>
- To install the trainer  
`npm i -g rasa-nlu-trainer`

# Using the Trainer UI

- Go to the following url:  
**<https://rasahq.github.io/rasa-nlu-trainer/>**
- Here you can edit the training examples, then download the files when done

# The Training UI

← → ↻ 🏠 Secure | https://rasahq.github.io/rasa-nlu-trainer/

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testData.json

|   | Intent ▾ ▼                                     | Text ▾ ▼  |
|---|--|---|
| + | <input type="text" value="greet"/>             | <input type="text" value="hey"/>  |
| + | <input type="text" value="greet"/>             | <input type="text" value="howdy"/>  |
| + | <input type="text" value="greet"/>             | <input type="text" value="hey there"/>                                    |
| + | <input type="text" value="greet"/>             | <input type="text" value="hello"/>  |
| + | <input type="text" value="greet"/>             | <input type="text" value="hi"/>   |
| + | <input type="text" value="restaurant_search"/> | <input type="text" value="i'm looking for a place to eat"/>               |
| + | <input type="text" value="restaurant_search"/> | <input type="text" value="i'm looking for a place in the north of town"/> |

# Training with Rasa NLU

- Click on the Download link to download the testData.json file
- Move or copy the file to your work folder
- Create a file named **config\_spacy.json** and add the following lines

```
{  
    "language": "en",  
    "pipeline": "spacy_sklearn"  
}
```

- Now we can train the model

```
python -m rasa_nlu.train \  
    --config config_spacy.json \  
    --data testData.json \  
    --path projects
```

# Testing our Rasa NLU Model

- Run the Rasa NLU server

```
python -m rasa_nlu.server --path projects
```

- Then in another shell

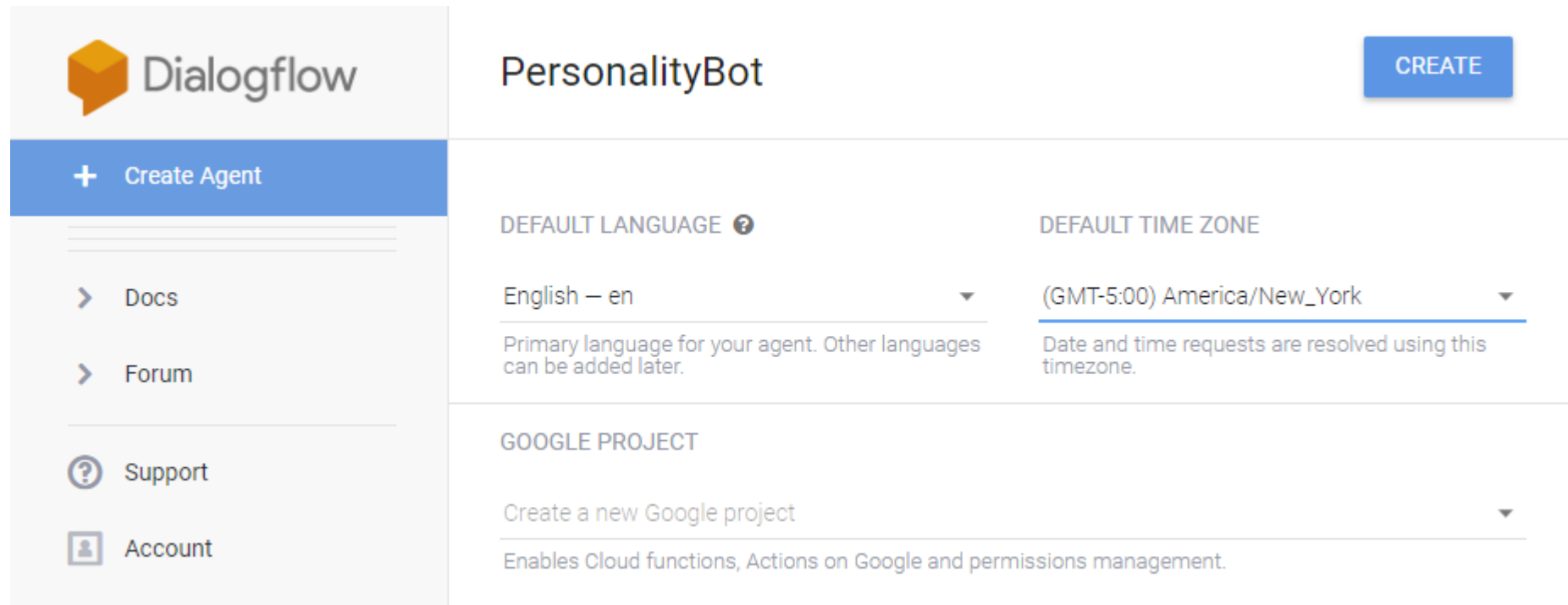
```
curl -X POST localhost:5000/parse -d '{"q":"I am looking for Mexican food"}' |  
python -m json.tool
```

- For status

```
curl 'http://localhost:5000/status'
```

# To Give our Chatbot some Personality

- Create a Dialogflow account and sign in with Google
- On the left side, click on Create Agent, enter a name for the agent and click on the CREATE button

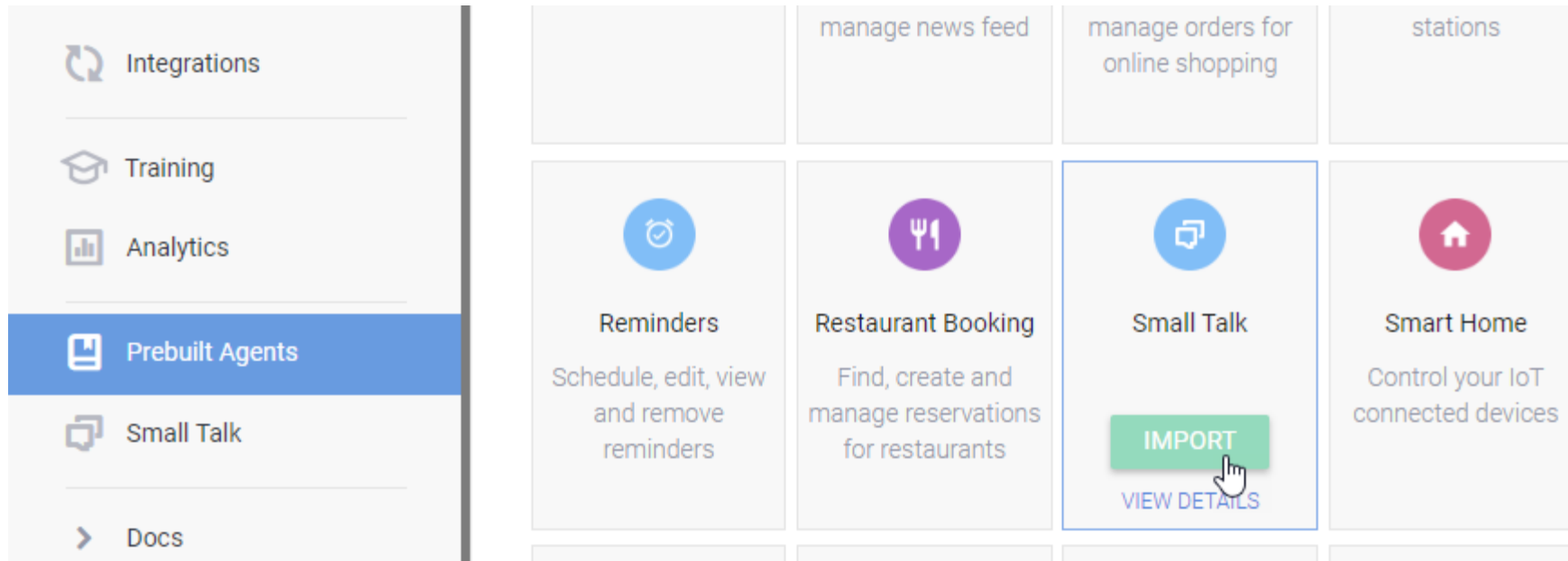


The screenshot shows the Dialogflow 'Create Agent' interface. On the left is a sidebar with the Dialogflow logo and navigation links: '+ Create Agent' (highlighted in blue), 'Docs', 'Forum', 'Support', and 'Account'. The main area is titled 'PersonalityBot' and features a blue 'CREATE' button in the top right corner. Below the title, there are three configuration sections: 'DEFAULT LANGUAGE' (set to 'English — en' with a dropdown arrow and a note: 'Primary language for your agent. Other languages can be added later.'), 'DEFAULT TIME ZONE' (set to '(GMT-5:00) America/New\_York' with a dropdown arrow and a note: 'Date and time requests are resolved using this timezone.'), and 'GOOGLE PROJECT' (set to 'Create a new Google project' with a dropdown arrow and a note: 'Enables Cloud functions, Actions on Google and permissions management.').



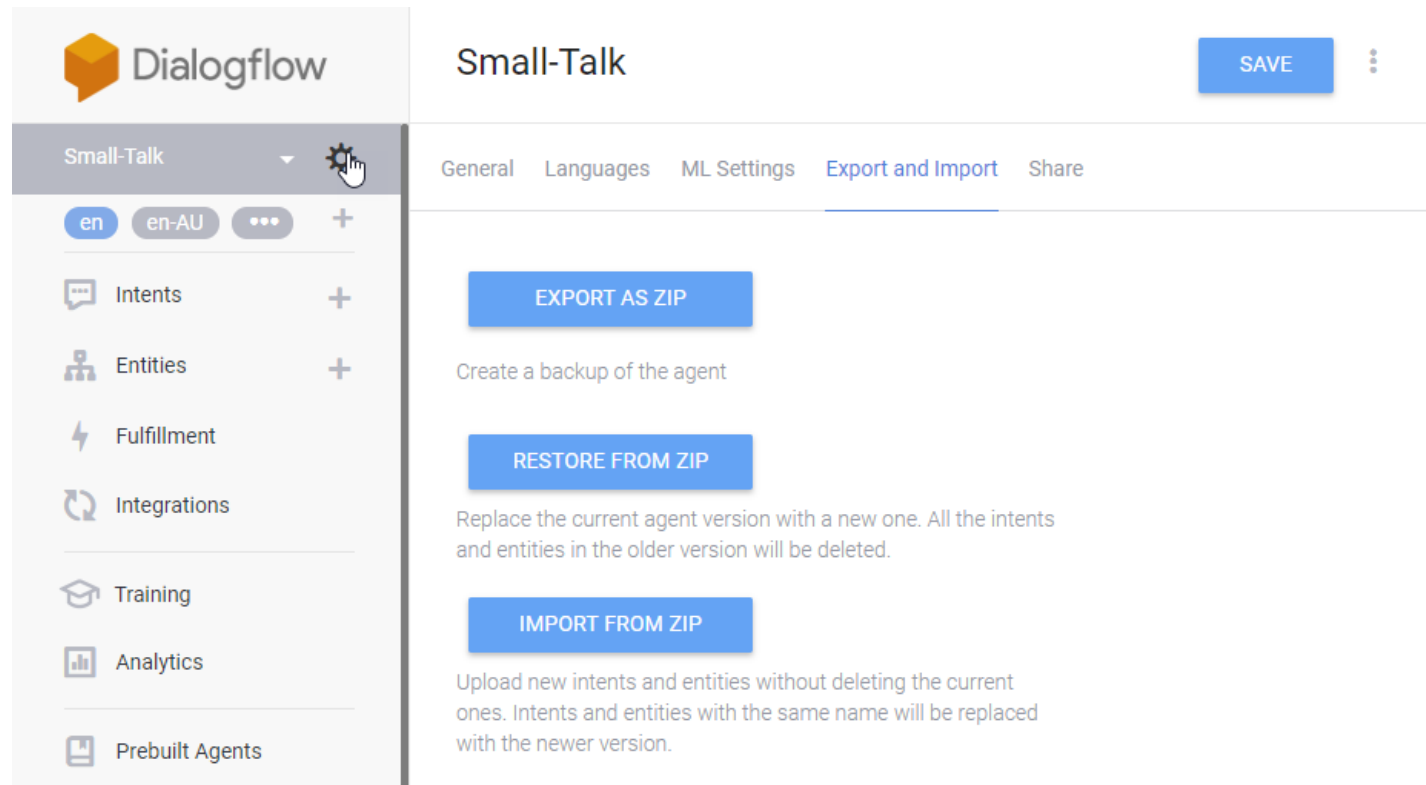
# To add Conversation

- Click on Prebuilt Agents, then select the Small Talk agent and click on the IMPORT button



# Export the Intents and Entities

- Click on the Settings wheel button to the right of the Small-Talk agent then click on the Export and Import tab and click on EXPORT AS ZIP button



# Using the Exported Intents and Entities

- Copy the Small-Talk.zip file to your work folder and unzip it to the Small-Talk folder

- Train it

```
python -m rasa_nlu.train --config config_spacy.json --data Small-Talk --path projects
```

- Test it

```
curl -X POST localhost:5000/parse -d '{"q":"how are you buddy?"}' | python -m json.tool
```