

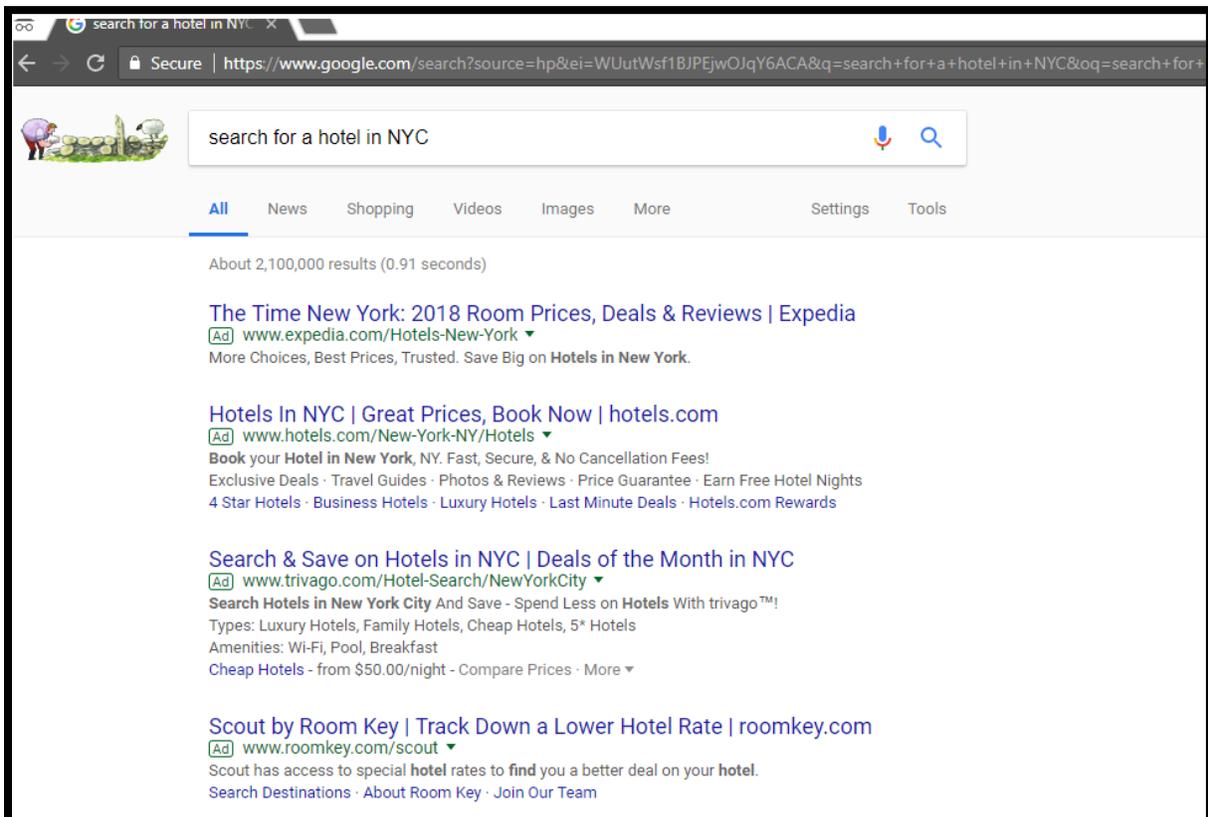
# Chapter 01: Conversational UI is our Future

```
Select Command Prompt
C:\Users\chen>dir *.png
Volume in drive C is Windows
Volume Serial Number is 0A34-C628

Directory of C:\Users\chen
File Not Found

C:\Users\chen>cd Documents
C:\Users\chen\Documents>dir *.png
Volume in drive C is Windows
Volume Serial Number is 0A34-C628

Directory of C:\Users\chen\Documents
2018-01-16 07:43 PM          38,602 1.png
2017-04-19 11:12 AM       105,070 10.png
2017-11-07 08:00 PM       170,779 244ea43d-4bc0-47ba-98a1-8cc828b74cc6.png
2017-04-19 07:00 AM        181,232 9.png
2017-05-19 05:21 AM       128,019 alex-skill-demo.png
2017-05-19 05:20 AM        36,849 alex-skill-demo.png
2017-05-22 11:15 AM       462,272 alex-skill-stock-quote.png
2017-12-25 10:09 AM        16,831 amazon.png
2017-06-14 01:18 PM        25,119 analytics.png
2017-06-05 05:11 PM        61,990 appid.png
2017-11-07 07:01 PM       76,720 b2971541-bc81-43b3-87bd-d2e5a0f77e48.png
2018-01-11 10:33 PM       129,565 banks123_1.png
2018-01-11 10:33 PM        68,603 banks123_2.png
2018-01-11 10:33 PM       79,786 banks123_3.png
```



**KAYAK** Hotels Flights Cars Packages More ▾ Trips My Account

# Search hundreds of travel sites at once.

Round-trip ▾ 1 adult ▾ Economy ▾

✈ San Francisco (SFO) ↔ ✈ To? 📅 Depart < > 📅 Return < > 🔍

**Stay up-to-date**  
Subscribe now and receive the latest travel news.

Your email address

**SIGN UP**

Autosave Document29 - Word

File Home Insert Design Layout References Mailings Review View Help Design Layout Tell me what you want to do

Georgia (Head) 35 Aa Font Paragraph Styles

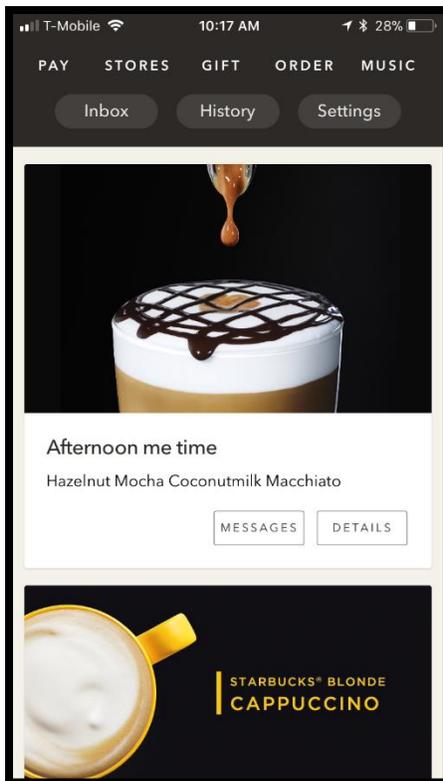
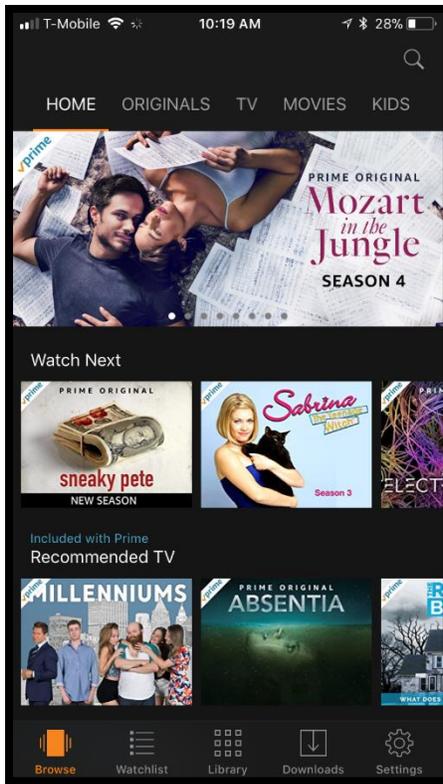
Heading 1

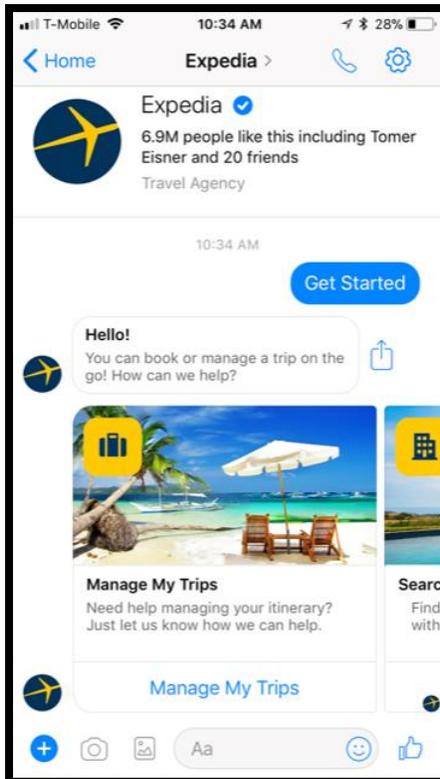
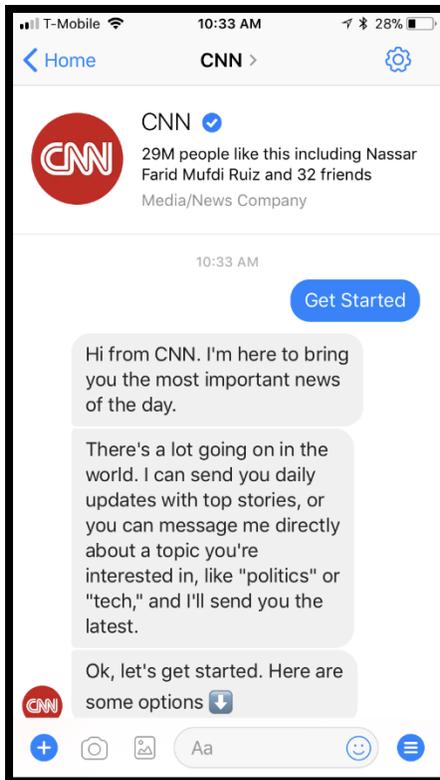
Navigation Search document 🔍

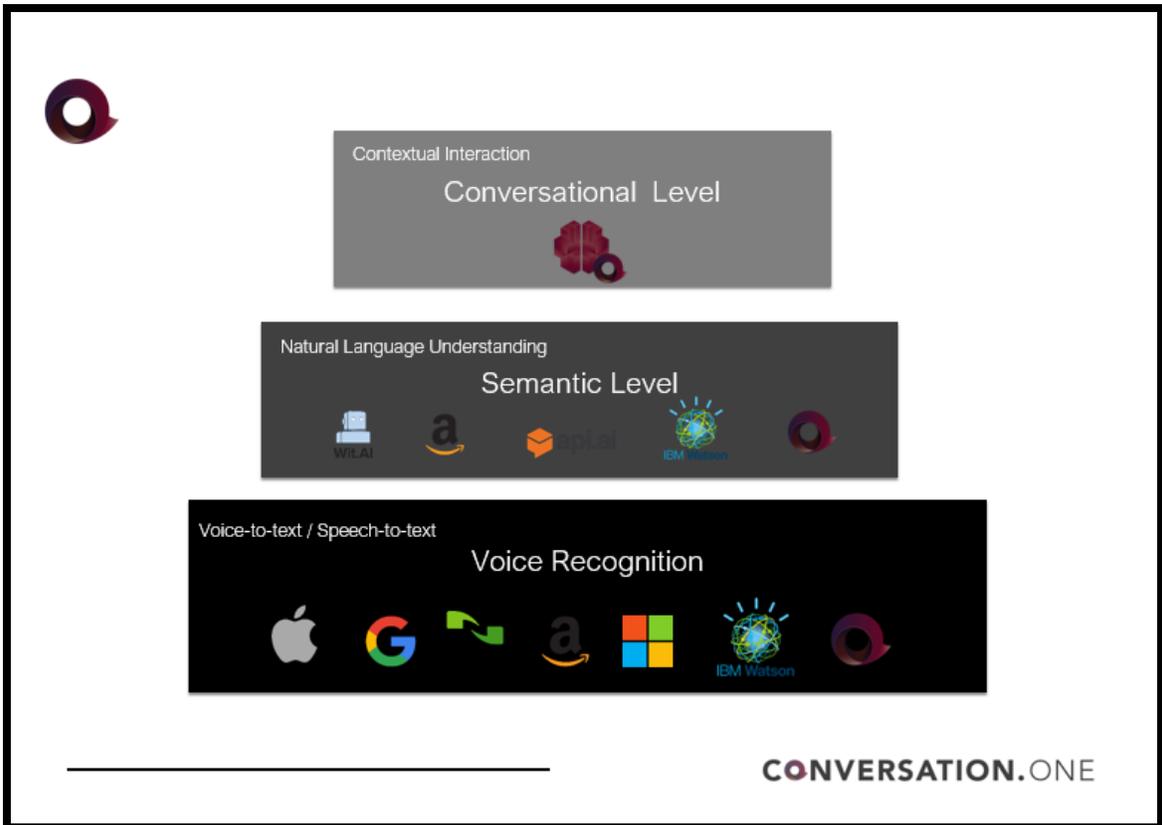
Headings Pages Results

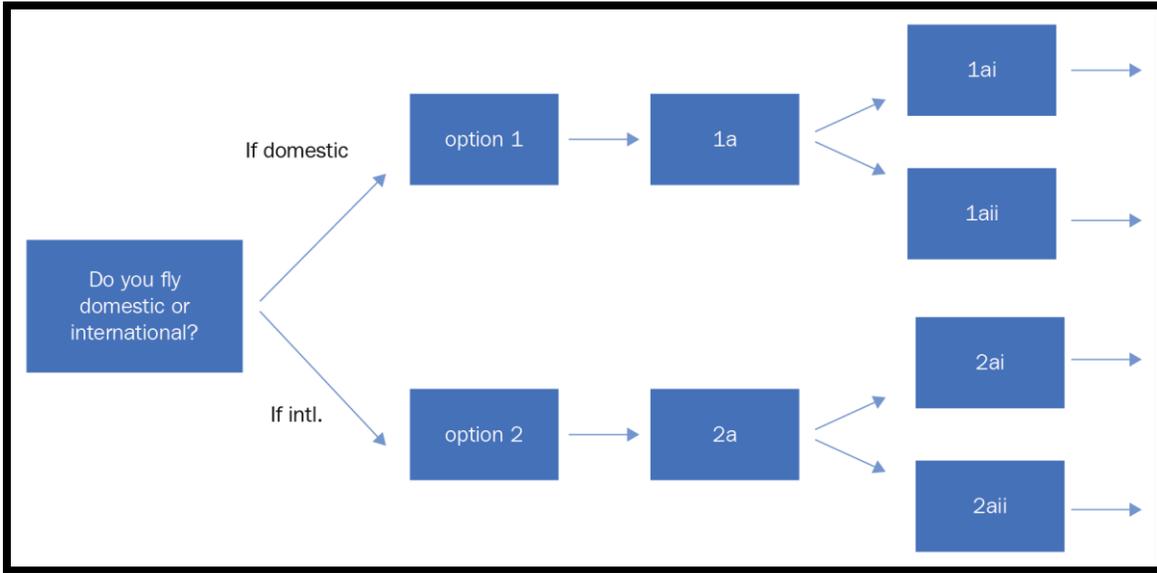
Experience Education Skills

**FIRST NAME LAST NAME**  
Address - Phone  
Email - LinkedIn Profile - Twitter/Blog/Portfolio

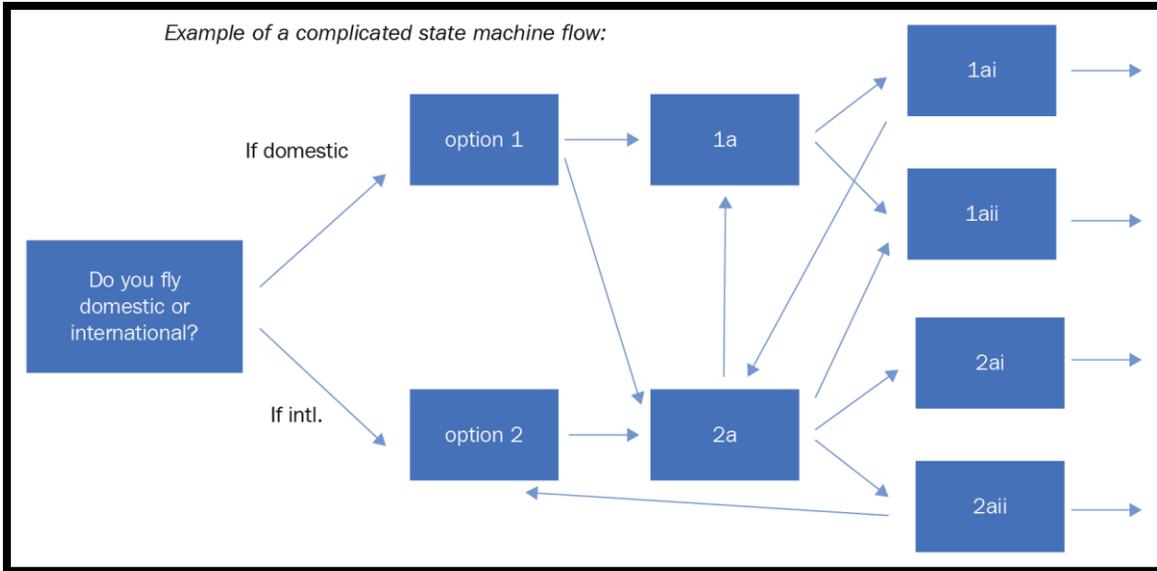


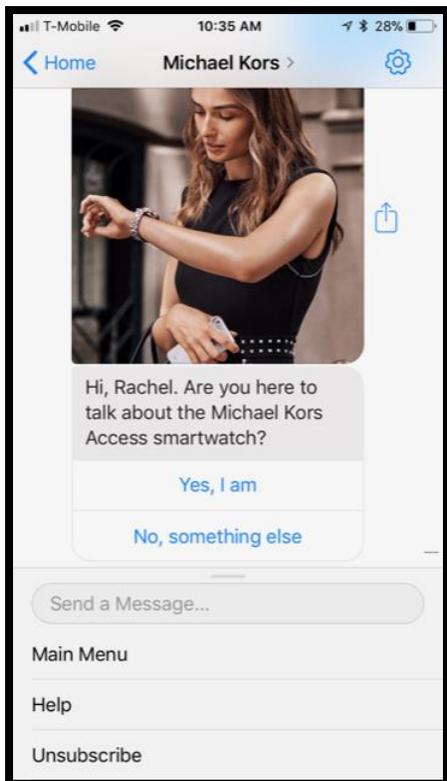
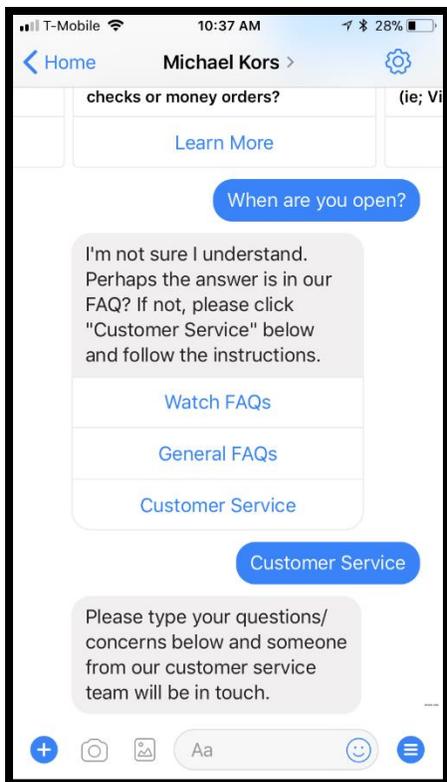


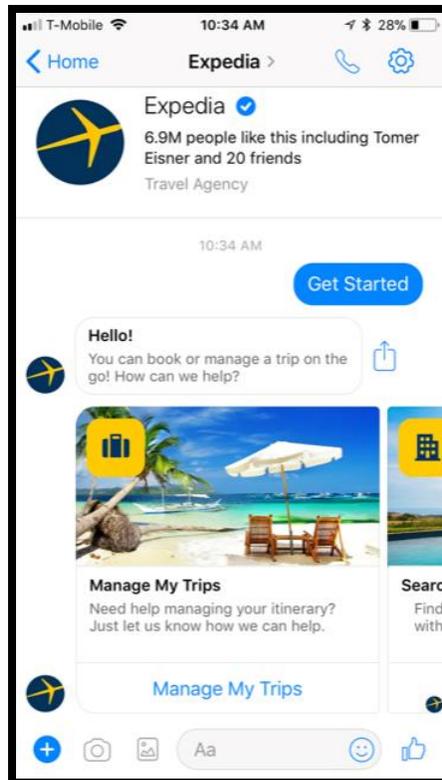




*Example of a complicated state machine flow:*







## Questions & Answers

Alexa, tell me a joke.

Alexa, Wikipedia Abraham Lincoln.

## News, Weather, & Traffic

*Customize these features in the Alexa App.*

Alexa, play my Flash Briefing.

Alexa, what's the weather?

Alexa, how is my commute looking?

## Smart Home

*Control supported smart home devices like Philips Hue lights with Echo Dot. To get started, go to the Alexa App.*

Alexa, dim Hue lights to 30%.

Alexa, turn on the fan.

## Use These Anytime

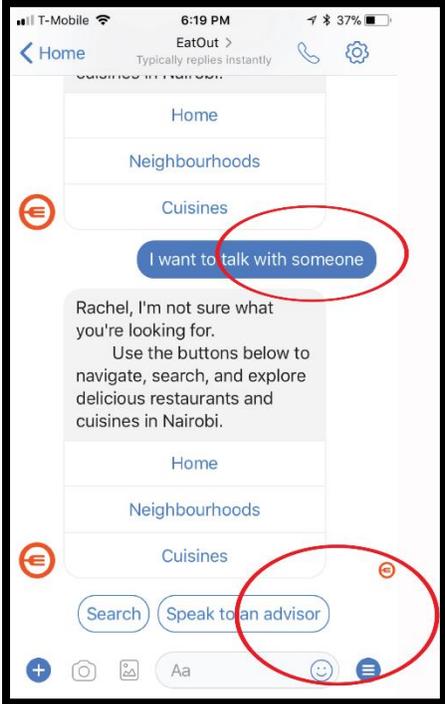
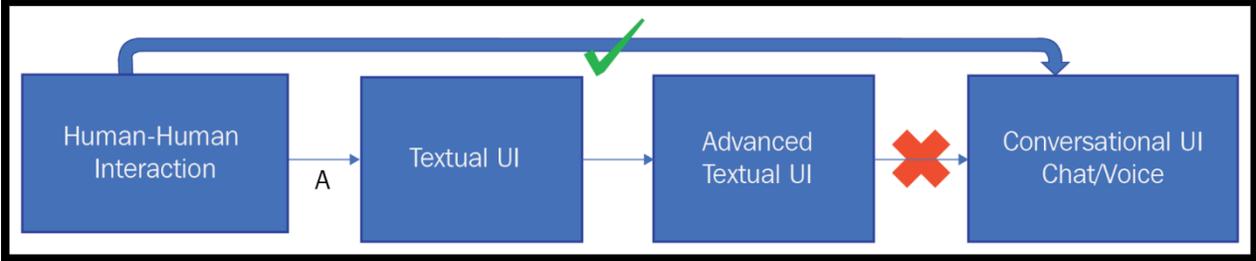
Alexa, pair my Bluetooth.

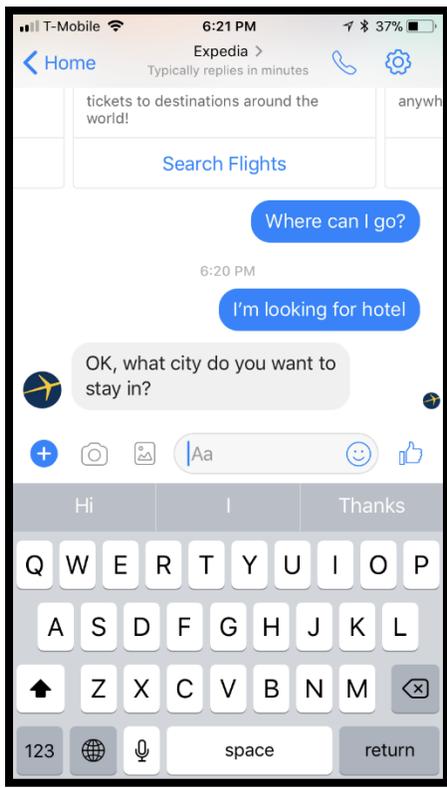
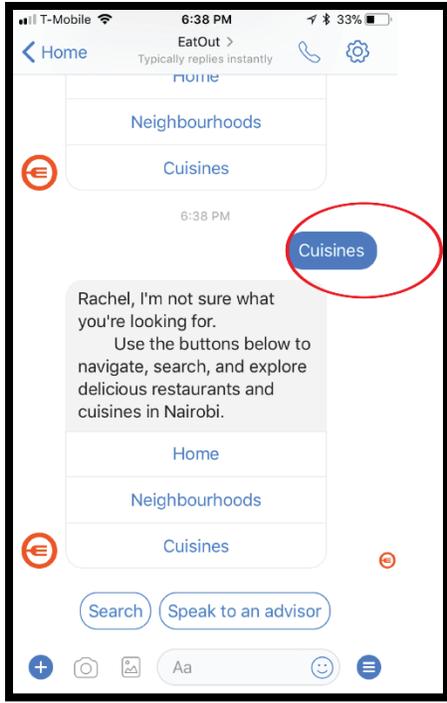
Alexa, stop.

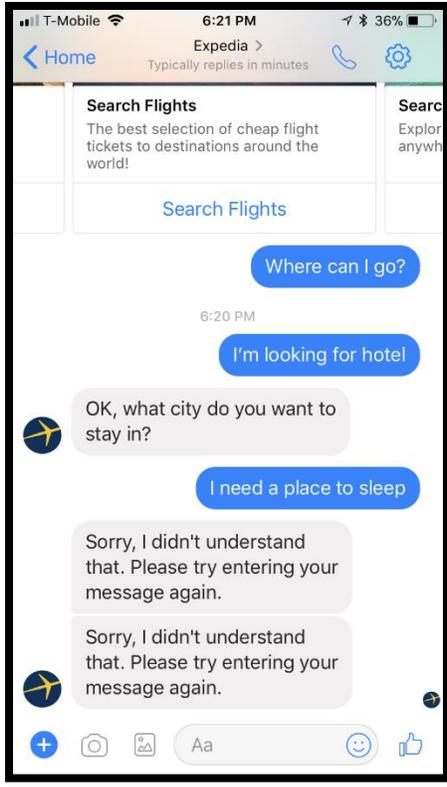
Alexa, volume five. (1-10)

*For more examples, go to Things to Try in the Alexa App.*

# Chapter 02: How Not to Build Your Next Chat and Voicebots







## Chapter 03: Building a Killer Conversational App



*I believe the best ships are friend ships. Let's row.*

Just ask, "Alexa, tell me a friendship story."

### THINGS TO TRY

---

- "Alexa, what's the news?"
- "Alexa, make a donation."  
*Alexa and Amazon Pay make it easy to donate by just using your voice. [Learn more.](#)*
- "Alexa, why is Pluto not a planet?"
- "Alexa, translate 'good morning' in Japanese."
- "Alexa, open TuneIn Live."  
*Listen to home and away games for your favorite sports teams with a free trial of the TuneIn Live skill. [Learn more.](#)*
- "Alexa, what's your favorite word?"
- "Alexa, who's leading the Masters?"
- "Alexa, play 'Your Song' by Lady Gaga."  
*Celebrate Elton John's music with Coldplay, Lady Gaga, and many more, as they reimagine some of his biggest hits. [Learn more.](#)*
- "Alexa, set a sleep timer for ten minutes."  
*When playing music, you can ask Alexa to set a sleep timer so that your music will automatically shut off.*
- "Alexa, who is your favorite poet?"
- "Alexa, tell me a baseball joke."
- "Alexa, read my audiobook."
- "Alexa, teach me something."
- "Alexa, why is water wet?"
- "Alexa, how do I set up calling and messaging?"
- "Alexa, give me a tongue twister."

### MOST REQUESTED

---

- Video game: "Alexa, what is Fortnite Battle Royale?"
- Storytime skill: "Alexa, open Amazon Storytime."
- Store hours: "Alexa, what time does Costco open?"



## Celebrate Black history together

Discover stories and music that helped shape our nation—all from your Google Assistant.\*



### Ask your Google Assistant

What are you doing to honor Black History Month?

Share inspirational Black voices

Play Black Roots of Rock & Roll on Google Play Music

Ready to help, across many devices.



## Spring into action

Tidy up and make way for what matters most with help from your Google Assistant.\*

### Just start with, "Hey Google"

Find a donation drop-off nearby

Remind me to clean the closet tomorrow

Ask Waste Wizard if I can recycle hangers

Ready to help, across many devices.





conversational applicvtyion



All News Videos Images Shopping More Settings Tools

About 1,290,000 results (0.54 seconds)

Showing results for **conversational *application***

No results found for **conversational applicvtyion**

### Building Your First Conversational App – Chatbots Magazine

<https://chatbotsmagazine.com/building-your-first-conversational-app-89afcc579460> ▼

Dec 11, 2017 - In this example, you'll build a basic "what happened today" conversational application that provides a dynamic and personalized response. A conversational app contains intents, entities, and responses that you want to deliver to your user. Intents are the mechanisms that pick up what your user is ...

### 11 Examples of Conversational Commerce and Chatbots

<https://chatbotsmagazine.com/11-examples-of-conversational-commerce-57bb8783d3...> ▼

May 31, 2016 - In our work at ZipfWorks building and scaling intelligent shopping platforms and applications, we pay close attention to emerging trends impacting digital commerce such as chatbots and mobile commerce. As this nascent trend towards a more conversational commerce ecosystem unfolds at a dizzying pace ...

### The Anatomy of a Modern Conversational Application - DZone AI

<https://dzone.com/articles/the-anatomy-of-a-modern-conversational-application> ▼

Oct 27, 2017 - Learn about the stack of a modern conversational application: business logic, context, anthology, natural language understanding, and speech recognition.

### The anatomy of a modern conversational application - Conversation.one

<https://conversation.one/2017/10/25/anatomy-modern-conversational-application/> ▼

Oct 25, 2017 - con-ver-sa-tion. the informal exchange of ideas by spoken words. Underlying every conversational app is the exchange of words – between humans and machines. Today's technology is mature enough to create high-level conversation, using broadly available building blocks.

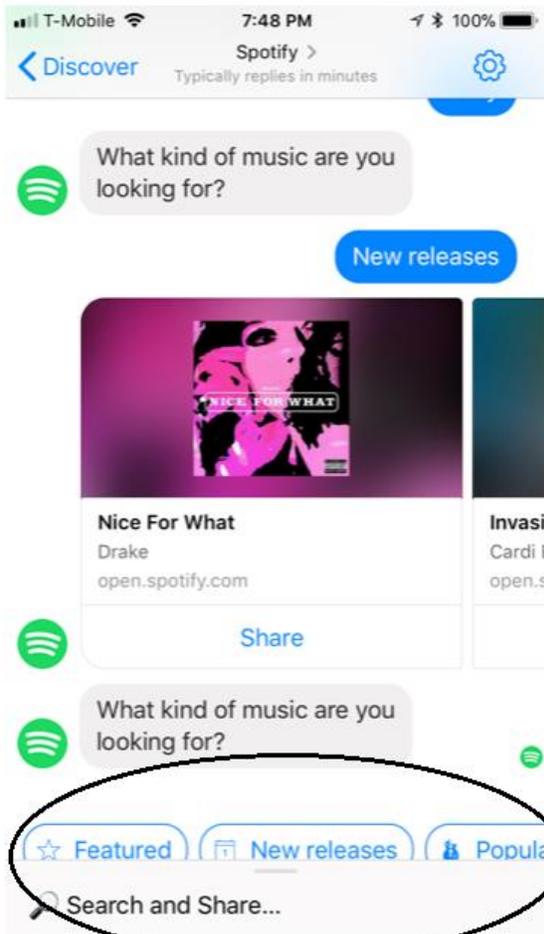
### Building Your First Conversational App - Conversation.one

<https://conversation.one/2017/10/30/building-your-first-conversational-app/> ▼

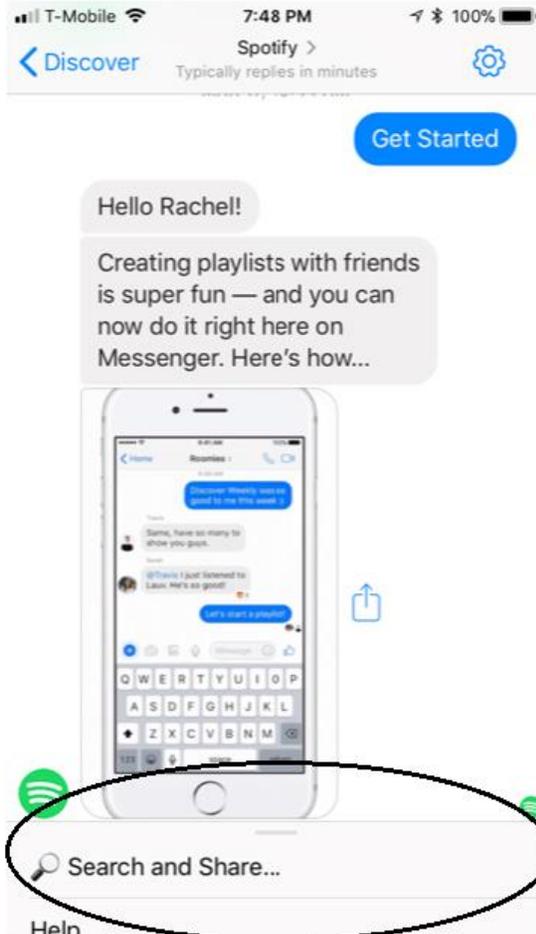
Oct 30, 2017 - In this example, you'll build a basic "what happened today" conversational application that provides simple, built-in responses to user's requests. A conversational app is essentially the container or project and it contains intents, entities, and the responses you want to deliver to your user. Intents are the ...

### Watson Developer Challenge: Conversational Applications: Enable ...

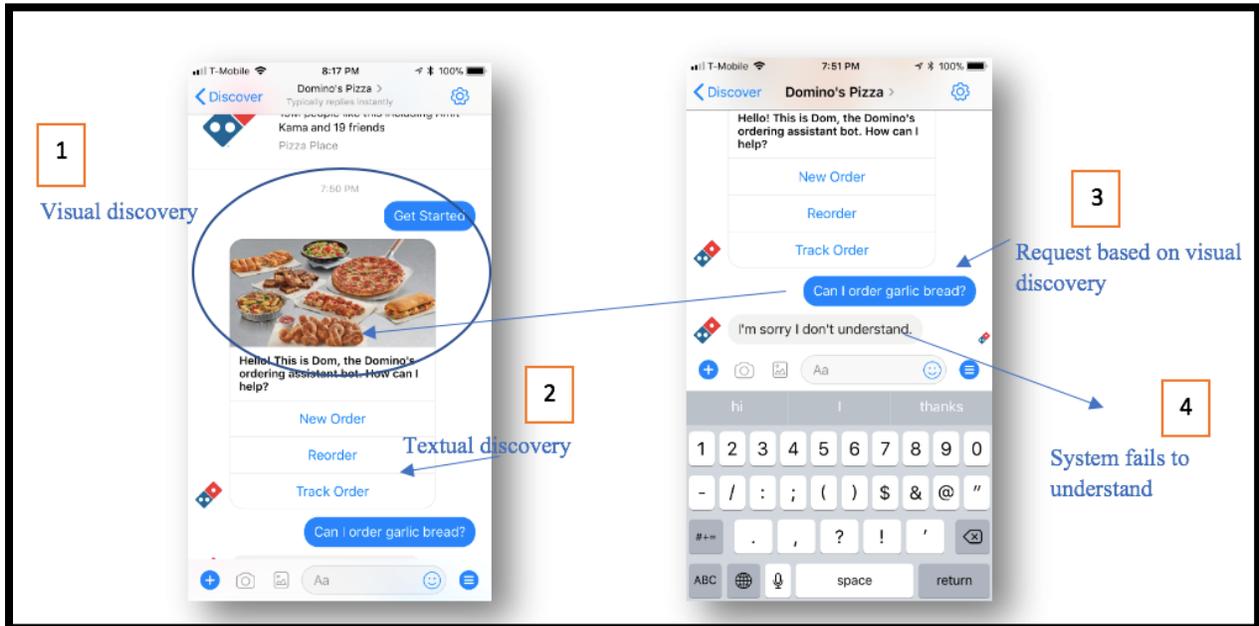
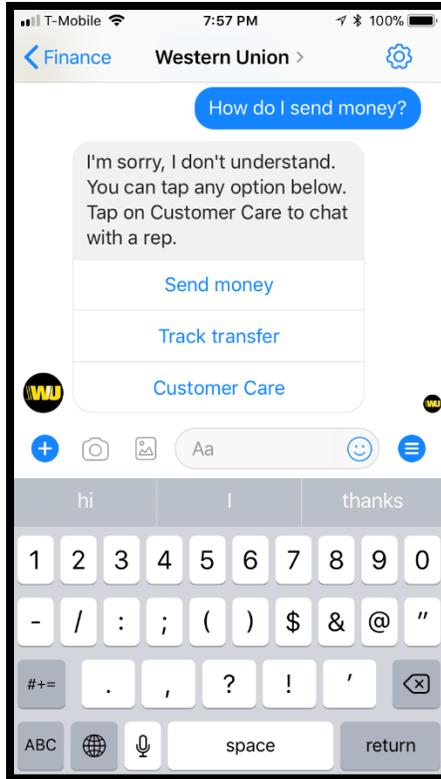
<https://watson-dev-challenge.devpost.com/> ▼

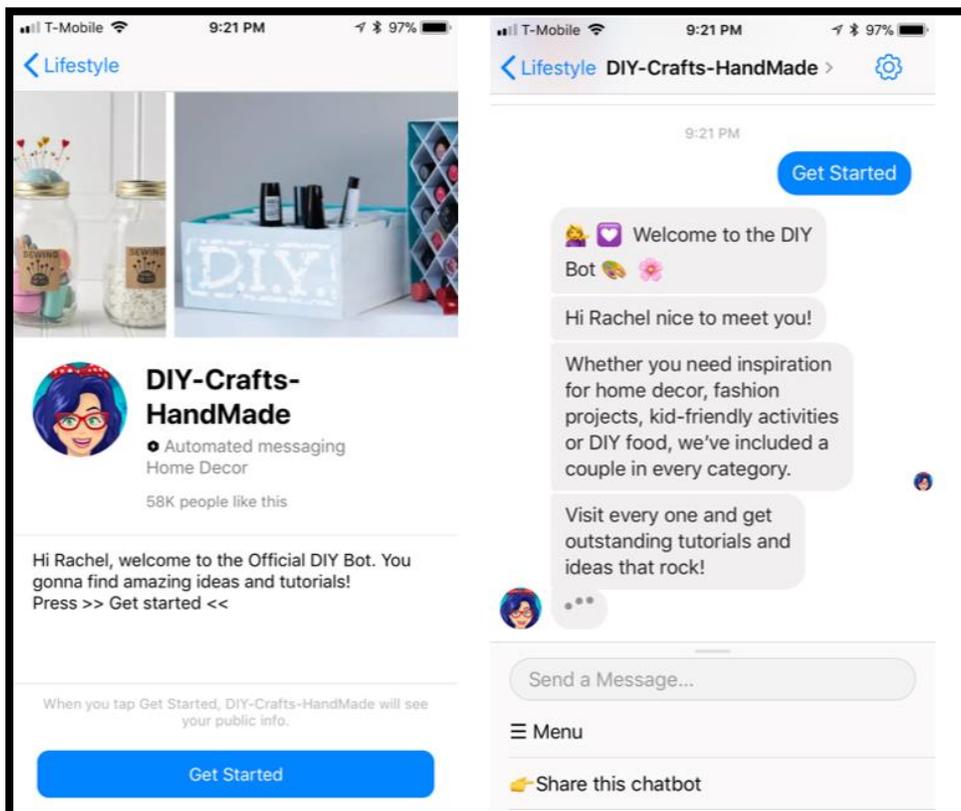
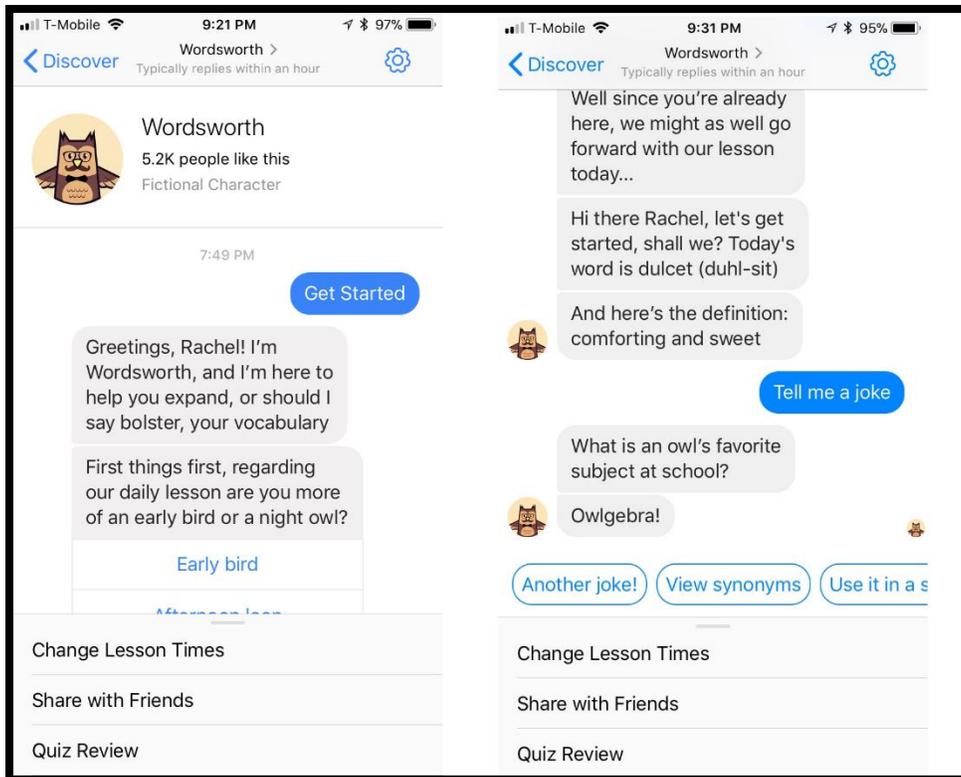


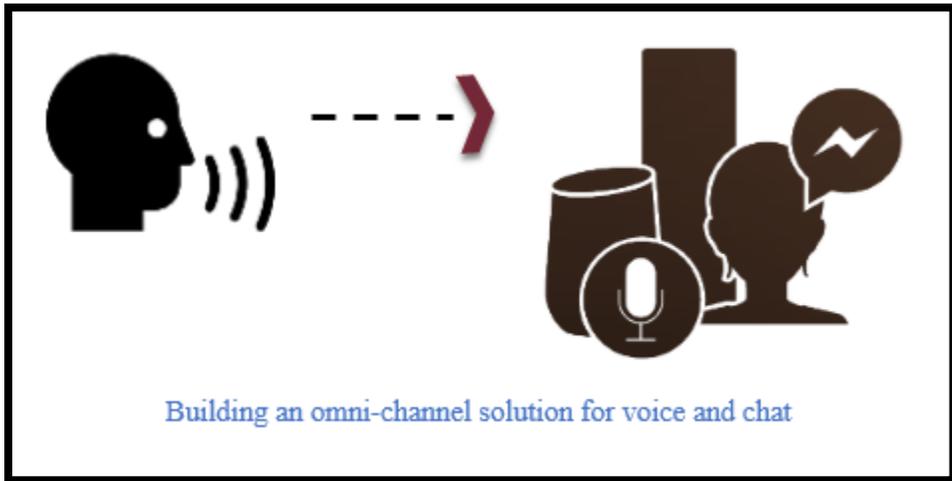
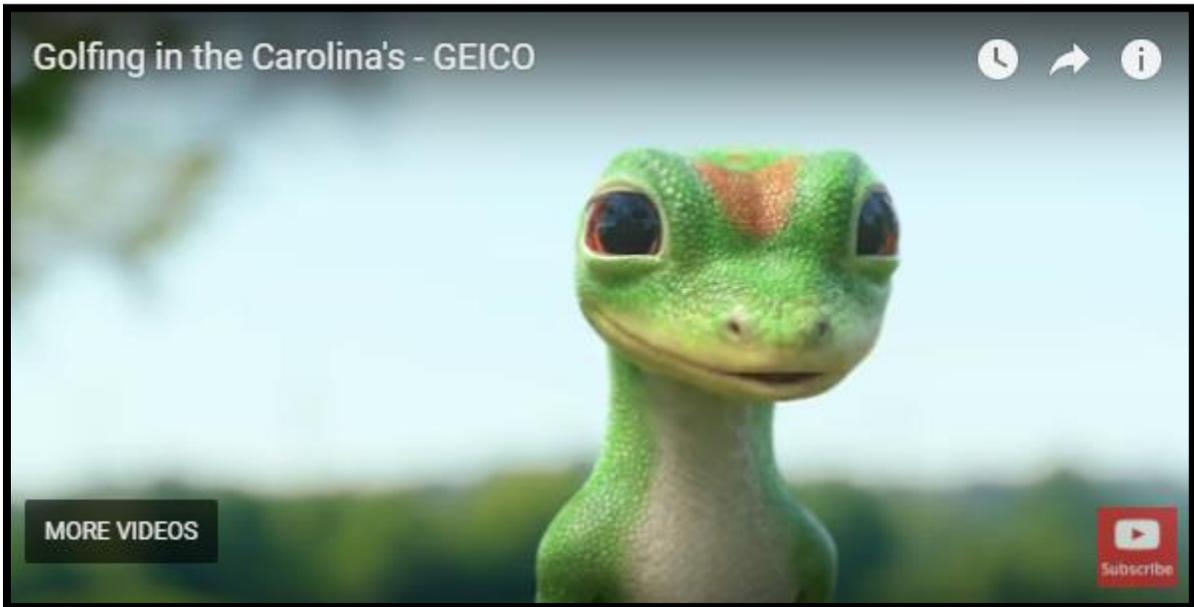
No way to add text - no conversational experience



Help  
Predefined options to choose from





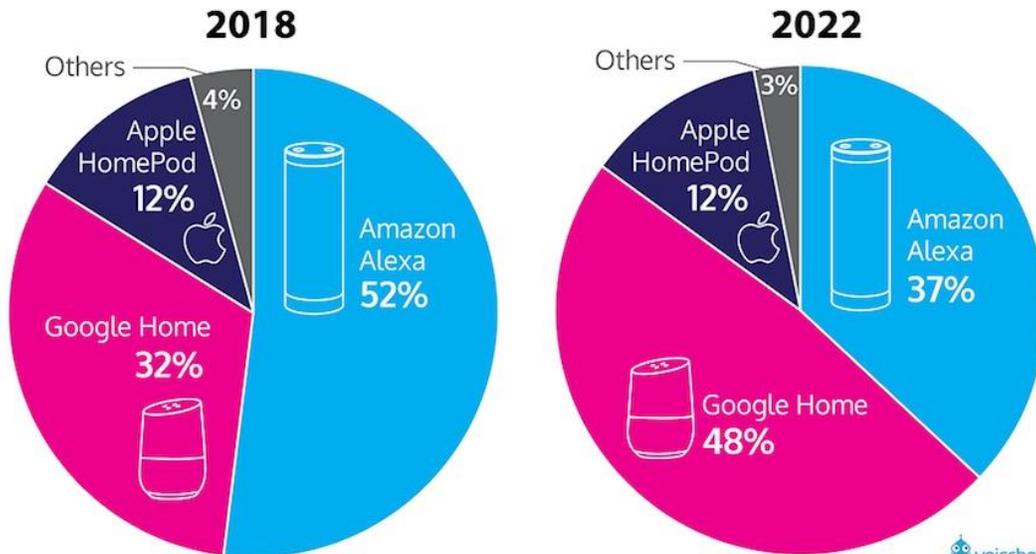


**Chapter 04: Designing for Amazon Alexa and Google Home**





## GLOBAL SMART SPEAKER MARKET SHARE

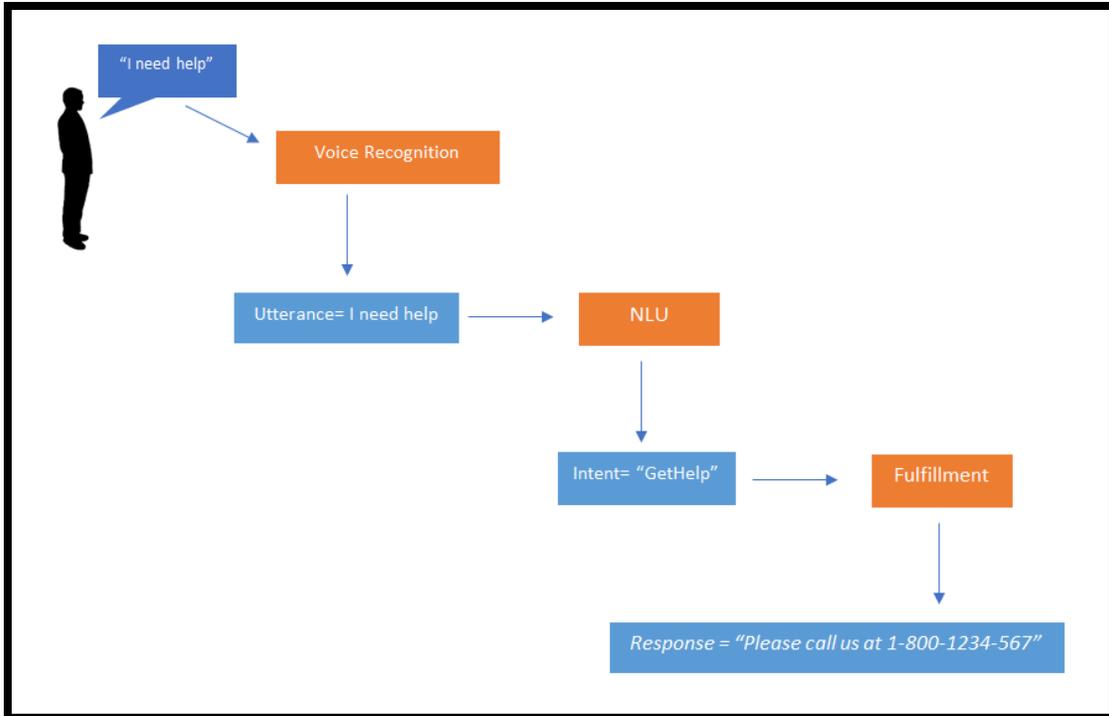


Source: Loup Ventures

voicebot.ai







**amazon**  
Developer

## Sign in

Email (phone for mobile accounts)

Password [Forgot your password?](#)

---

New to Amazon Developer?

[Conditions of Use](#)   [Privacy Notice](#)   [Help](#)

© 1996-2018, Amazon.com, Inc. or its affiliates

This screenshot shows the Alexa Skills console dashboard. At the top right, there is a right-pointing arrow and a blue button labeled "Create Skill" which is circled in black. Below this is a table header with columns: TYPE, MODIFIED, STATUS, and ACTIONS. The main content area features an "Alexa Skills" section with a plus icon and a gear icon. Below the icon, the text reads "Create your first skill or [learn more about Alexa Skills Kit](#)". A blue "Create Skill" button is circled in black. At the bottom center, there is an upward-pointing arrow.

This screenshot shows the "Create a new skill" page in the Alexa Skills console. The top header is dark blue with the Amazon Alexa logo and the text "amazon alexa". The main heading is "Create a new skill". Below this is a horizontal line, followed by the text "Packt Publication" which is underlined. To the right of "Packt Publication" is a large left-pointing arrow. At the bottom, there is a dropdown menu with the text "Skill created will default to [English \(US\)](#)" and a downward-pointing chevron icon.

## Choose a model to add to your skill

There are many ways to start building a skill, you can design your own custom model or start with a pre-built model. Pre-built models are interaction models that contain a package of intents and utterances that you can add to your skill.

 <b>Custom</b> Design a unique experience for your users. A custom model enables you to create all of your skills interactions. <input type="button" value="Unselect"/>	<b>PRE-BUILT MODEL</b>  <b>Flash Briefing</b> Give users control of their news feed. This pre-built model lets users control what they listen to and allows them to search for topics by genres. <input type="button" value="View example phrases"/> <input type="button" value="Select"/>	<b>PRE-BUILT MODEL</b>  <b>Smart Home</b> Gives users control of their smart home devices. This pre-built model lets users turn off the lights and other devices without getting up. <input type="button" value="View example phrases"/> <input type="button" value="Select"/>	<b>PRE-BUILT MODEL</b>  <b>Video</b> Lets users easily find and consume video content. This pre-built model supports content searches and content suggestions. <input type="button" value="View example phrases"/> <input type="button" value="Select"/>
---	--	--	--

## Skill builder checklist

Complete these steps to be able to test your skill using the simulator in the test tab, or with your echo device.

- |                 |  |                                     |
|-----------------|--|-------------------------------------|
| <b>REQUIRED</b> | <b>1. Invocation Name &gt;</b><br>Enter an invocation name for your skill                      | <input checked="" type="checkbox"/> |
| <b>REQUIRED</b> | <b>2. Intents, Samples, and Slots &gt;</b><br>Add at least one intent and one sample utterance | <input checked="" type="checkbox"/> |
| <b>REQUIRED</b> | <b>3. Build Model &gt;</b><br>Successfully build your interaction model                        | <input checked="" type="checkbox"/> |
| <b>REQUIRED</b> | <b>4. Endpoint &gt;</b><br>Set a web service endpoint to handle skill requests                 | <input checked="" type="checkbox"/> |



## Skill Invocation Name

Packt Publication

Invocation name cannot contain upper case characters.



### Invocation name requirements

Your invocation name should be two or more words, and can contain only lower-case alphabetic characters, spaces between words, possessive apostrophes (for example, "sam's science trivia"), or periods used in abbreviations (for example, "a. b. c."). Other characters like numbers must be spelled out. For example, "twenty one".

Invocation names cannot contain any of the Alexa skill launch phrases such as "launch", "ask", "tell", "load", "begin", and "enable". Wake words including "Alexa", "Amazon", "Echo", "Computer", or the words "skill" or "app" are not allowed. [Learn more](#) about invocation names for custom skills.

Changes to your skill's invocation name will not take effect until you have built your skill's interaction model. In order to successfully build, your skill's interaction model must contain an intent with at least one sample utterance. [Learn more](#) about creating interaction models for custom skills.

## Interfaces



Enabling interfaces may add additional required intents to your interaction model.

You will need to BOTH save interface changes and re-build your model for any updates to take effect.

NAME	DESCRIPTION	
Audio Player	The AudioPlayer interface provides directives and requests for streaming audio and monitoring playback progression. <a href="#">Learn more</a> about the Audio Player Interface.	<input checked="" type="checkbox"/>
Display Interface	Echo Show allows skill developers to create skills for Alexa that use both screen and voice interaction. <a href="#">Learn more</a> about the Display Interface.	<input type="checkbox"/>
Video App	The VideoApp interface provides the VideoApp.Launch directive for streaming native video files in Echo Show. <a href="#">Learn more</a> about the VideoApp Interface.	<input type="checkbox"/>

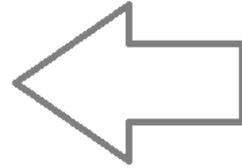
## Add Intent

An intent represents an action that fulfills a user's spoken request. [Learn more](#) about intents.

Create custom intent <sup>?</sup>

order\_books

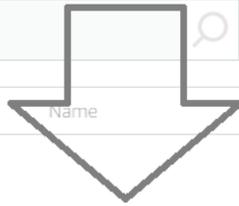
Create custom intent



Use an existing intent from Alexa's built-in library <sup>?</sup>

[Learn more](#) about using built-in intents.

Search built-ins



>	 <b>Books</b> 16 built-ins	Intents asking about books and other written works, such
>	 <b>Calendar</b> 2 built-ins	Intents for asking about calendars and schedules, such as birthdays.

## Intents / order\_books

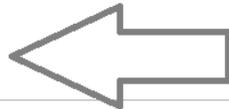
### Sample Utterances (1) <sup>?</sup>

I want to buy a book on bot design

I want to order a book on bot design



### Intent Slots (0) <sup>?</sup>



ORDER <sup>?</sup>

NAME <sup>?</sup>

SLOT TYPE <sup>?</sup>

1

Create a new slot

+

Select a slot type



### Intent Confirmation

Does this intent require confirmation? <sup>?</sup>

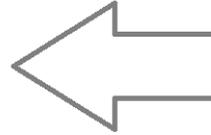


## Add Slot Type

Slot types define how data in an intent slot is recognized and handled. All intent slots must be assigned a slot type. [Learn more](#) about using slot types.

### Create custom slot type <sup>?</sup>

Create custom slot type



### Use an existing slot type from Alexa's built-in library <sup>?</sup>

[Learn more](#) about using built-in slot types.

	Name	Description
>	 <b>List Types</b> 89 built-ins	These slot types each represent a list of items. You can extend these slot types with additional values.
>	 <b>Numbers, Dates, and Times</b> 7 built-ins	These slot types that convert the user's utterance into data types such as numbers and dates.

## Endpoint



The Endpoint will receive POST requests when a user interacts with your Alexa Skill. The request body contains parameters that your service can use to perform logic and generate a JSON-formatted response. [Learn more](#) about Lambda endpoints [here](#). You can host your own HTTPS web service endpoint as long as the service meets the requirements described [here](#).

### Service Endpoint Type

Select how you will host your skill's service endpoint.

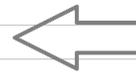
#### AWS Lambda ARN <sup>?</sup> (Recommended)

Your Skill ID <sup>?</sup>

amzn1.ask.skill.31a927d4-0ac6-49ca-bd7f-b59891cecd0e [Copy to Clipboard](#)

Default Region <sup>?</sup>  
(Required)

am.aws.lambda.us-east-1-1679180307287:function:PacktLambda



North America <sup>?</sup>  
(Optional)

am.aws.lambda.us-east-1-<aws\_account\_id>-function:<lambda\_name>

Europe and India <sup>?</sup>  
(Optional)

am.aws.lambda.eu-west-1-<aws\_account\_id>-function:<lambda\_name>

Far East <sup>?</sup>  
(Optional)

am.aws.lambda.ap-northeast-1-<aws\_account\_id>-function:<lambda\_name>

# Account Linking

Do you allow users to create an account or link to an existing account with you?  
[Learn more.](#)



## Security Provider Information

Authorization Grant Type \* ?



Implicit Grant



Auth Code Grant



Authorization URI \* ?

Enter URI...

Access Token URI \* ?

Enter access token URI...

Client ID \* ?

Enter client ID...

Client Secret \* ?

\*\*\*\*\*

Client Authentication Scheme \* ?

HTTP Basic (Recommended)

Scope ?

+ Add scope

Domain List ?

+ Add domain

English (US)

CUSTOM

ACCOUNT LINKING

PERMISSIONS



# Permissions

Request users to access resources and capabilities. ?

Device Address



Full Address ?

Country & Postal Code Only ?

Lists Read ?



Lists Write ?



Alexa Skill Messaging ?

Client Id: : amzn1.application-oa2-client.b0b587ff1fdf4a18be6f8ae49b170a0d

Client Secret: \*\*\*\*\*

## Skill builder checklist

Complete these steps to be able to test your skill using the simulator in the test tab, or with your echo device.

REQUIRED

### 1. Invocation Name >

Enter an invocation name for your skill



REQUIRED

### 2. Intents, Samples, and Slots >

Add at least one intent and one sample utterance



REQUIRED

### 3. Build Model >

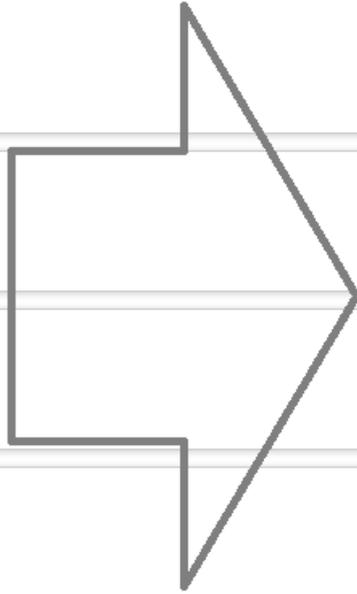
Successfully build your interaction model



REQUIRED

### 4. Endpoint >

Set a web service endpoint to handle skill requests



 amazon alexa

< Your Skills

Build

Test

Launch

Measure

Test is enabled for this skill

Skill I/O

Echo Show Display

Device Log

Alexa Simulator

Manual JSON

Voice & Tone

English (US) ▾

Type or click and hold the mic 

First, open your skill with your invocation name. Then start testing your dialog.

Skill I/O

JSON Input

JSON Output

Skill I/O is only available when you invoke a skill that you created.

amazon alexa

< Your Skills    Packt Publication    Build    Test    **Launch**    Measure

Skill Preview ▼

**English (US)**

Privacy & Compliance

Availability

Submission

## English (US) Store Preview

Tell us how your skill should appear to English (US) customers.

Public Name \* ?

Packt Publication 17/50 characters

One Sentence Description \* ?

Enter a short description (160 character maximum) about your skill... 0/160 characters

Detailed Description \* ?

Enter an engaging description of the skill's purpose, features, and how it works... 0/4,000 characters

Example Phrases \* ?

**Example Phrase 101**  
View samples to help guide you when creating phrases.

> More

1. Enter a sample utterance that will display on the skill detail card.
2. Enter a sample utterance that will display on the skill detail card.

Home

Now Playing

Music, Video, & Books

Lists

Reminders & Alarms

Skills

Smart Home

Things to Try

Settings

Help & Feedback

Not Rachel? Sign out

## Expedia

Expedia Inc.  
Rated: **Guidance Suggested**  
★★★★☆ 36

Share

**ENABLE**  
Account linking required

TRY SAYING

"Alexa, ask Expedia to search for a hotel."

"Alexa, ask Expedia when is my flight?"

"Alexa, ask Expedia to reserve a car."

ABOUT THIS SKILL

Dreaming about your next getaway? Easily check prices on hotels and one-way flights with the Expedia skill for Amazon Alexa.

Already have a reservation? Keep on top of your travel plans with helpful updates, including trip dates, flight status, and more. You can even ask the Expedia skill to add a car rental to an existing flight reservation, check your Expedia+ loyalty points, or get recommendations on what to pack. To start, just link your Expedia account (or create a new one — it's free!).

SUPPORTED LANGUAGES

English (US)

SKILL DETAILS

- Invocation Name: **expedia**
- Rated: **Guidance Suggested**. This skill contains **dynamic content**.
- [Developer Privacy Policy](#)
- [Developer Terms of Use](#)
- This skill requires account linking. If you have multiple profiles in your household, Alexa will only enable and link this skill for the profile that is currently logged in.



## Submission

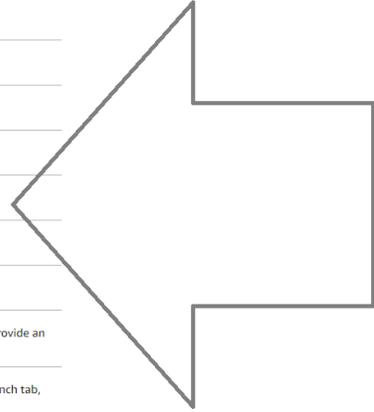
Run a validation check of your entire skill before submitting it to Amazon for certification review.

### Preparation for Submission

Refresh

#### Fixes Required

- A Large Skill Icon is missing for the en\_US locale. In the Launch tab, go to Skill Preview for en\_US to add a large skill icon.
- There's no valid interaction model defined on en\_US. Please go to the Build tab and build your interaction model.
- An Endpoint is missing for your model. Please go to Endpoints under the Build tab to add one or more endpoints.
- The skill Category is missing for the locale. In the Launch tab, go to Skill Preview for to add a skill category.
- The interaction model was not built correctly. Please go to the Build tab and re-build your interaction model.
- A Detailed Description of the skill is missing for the en\_US locale. In the Launch tab, go to Skill Preview for en\_US to add a detailed description.
- A selection is missing for the question 'Does this Alexa skill collect users' personal information?'. In the Launch tab, go to the Privacy & Compliance section to provide an answer.
- The privacy policy URL is missing for the en\_US locale. The privacy policy URL is required for skills that collect user information (e.g. account linking). In the Launch tab, go to Skill Preview for en\_US to add the privacy policy URL.
- A One Sentence Description of the skill is missing for the en\_US locale. In the Launch tab, go to Skill Preview for en\_US to add the skill description.

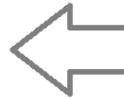


## Submission

Run a validation check of your entire skill before submitting it to Amazon for certification review.

### Preparation for Submission

Refresh



Your skill is ready for submission.

We have checked your skill and it is ready for submission!

Submit for review



Actions on Google

Build apps for the Google Assistant with Actions on Google.

ACTIONS CONSOLE

HOME GUIDES REFERENCE SAMPLES COMMUNITY PROGRAM SUPPORT



## Engage users through the Google Assistant

Build apps for the Google Assistant and reach users through 400M+ devices including smart speakers, phones, cars, TVs, headphones, and more.

Turn your content into an Action

Make content you've already integrated in Google Search (such as AMP news, recipes markup, and podcasts) more discoverable through the Assistant, just by claiming and refining your listing in our directory.

LEARN MORE

Use our vertical-focused programs

Take advantage of solutions such as [smart home](#), [games](#), and other verticals to build your apps, and we'll do the heavy lifting for user interaction and dialog.

Create your app just how you want it

Follow our getting started guide to design and build fully-customizable conversational experiences, using Dialogflow.

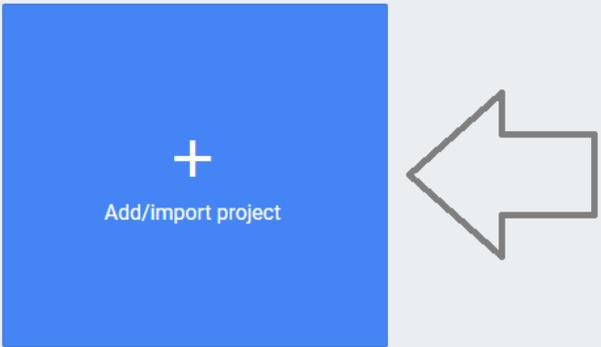
START BUILDING

## Welcome to Actions on Google

Actions on Google is the platform for developers to extend the Google Assistant. Join this emerging ecosystem by developing actions to engage users on Google Home, Pixel, and many other surfaces where the Google Assistant will be available. [Learn more](#)

[Documentation](#) <> [Sample code](#) ≡ [API reference](#) □ [Support](#)

Your projects with an Assistant app



+  
Add/import project

## Welcome to Actions on Google

Actions on Google is the platform for developers to extend the Google Assistant. Join this emerging ecosystem by developing actions to engage users on Google Home, Pixel, and many other surfaces where the Google Assistant will be available. [Learn more](#)

[Documentation](#) <> [Sample code](#) = [API reference](#) [Support](#)

Your projects with an Assistant app

**+**  
Add/import project

### Add project

Project name

Country/region ⓘ  
United States

By proceeding and clicking the button below, you agree to adhere to the [Actions on Google policies](#) and [Terms of Service](#).

Creating this project will also allow you to use Firebase services. You agree that your use of Firebase services will adhere to the applicable [Firebase Terms of Service](#). If you integrate any apps with Firebase on this project, by default, your Firebase Analytics data will enhance other Firebase features and Google products. You can control how your Firebase Analytics data is shared in your Firebase settings at anytime. [Learn more](#)

CANCEL **CREATE PROJECT**

Terms · Privacy Policy

## Welcome to your project, Packt Publication!

Get started on building by choosing a category or skip to choose later

**SKIP**

 <h3>Home control</h3> <ul style="list-style-type: none"><li>Control lighting</li><li>Control appliances &amp; televisions</li><li>Control home security</li></ul>	 <h3>Kids &amp; family</h3> <ul style="list-style-type: none"><li>Tell a story</li><li>Play trivia</li><li>Take a quiz</li></ul>	 <h3>Food &amp; drink</h3> <ul style="list-style-type: none"><li>Find food recipes</li><li>Order food</li><li>Get nutrition facts</li></ul>
 <h3>Business &amp; finance</h3> <ul style="list-style-type: none"><li>Check financial markets</li><li>Get info about businesses</li><li>Check balances</li></ul>	 <h3>Health &amp; fitness</h3> <ul style="list-style-type: none"><li>Get info about health &amp; medicine</li><li>Track exercise</li><li>Diagnose symptoms</li></ul>	 <h3>Social &amp; communication</h3> <ul style="list-style-type: none"><li>Make phone calls</li><li>Manage messages</li><li>Make video calls</li></ul>

Peakt Publication ▾

**Shopping** ⓘ

Manage shopping lists  
Shop groceries  
Check prices

**Business & finance** ⓘ

Check financial markets  
Get info about businesses  
Check balances

**Health & fitness** ⓘ

Get info about health & medicine  
Track exercise  
Diagnose symptoms

**Social & communication** ⓘ

Make phone calls  
Manage messages  
Make video calls

Browse more categories

**Arts & lifestyle** ⓘ

Get info on arts & culture  
Get style recommendations

**Education & reference** ⓘ

Get info on people & history  
Convert units

**Local** ⓘ

Find services and local events  
Check home listings

**Movies, TV & photos** ⓘ

Play videos & TV shows  
Find movies

**Music & audio** ⓘ

Play music & podcasts  
Manage playlists

**News & magazine** ⓘ

Check top news stories  
Read magazines

**Productivity** ⓘ

Manage calendars  
Set alarms

**Sports** ⓘ

Check scores & schedules  
Manage fantasy teams

**Travel & transportation** ⓘ

Get directions & check traffic  
Find transportation

**Weather** ⓘ

Check weather & air quality  
Check wave conditions

More options

**Templates** ⓘ

Get started easily by uploading a Google spreadsheet

**Actions SDK** ⓘ

Use command-line interface tools to create your Actions

**Device registration** ⓘ

Enable Google Assistant for your hardware

🌟 Welcome to your project! This is where you'll be managing your Actions.

English Modify languages

---

**Quick setup** ^

You're almost ready to build your first Action - we just need to set up your invocation first.

→
Decide how your Action is invoked
←

---

**Build your Action** v

Now let's get to work! Follow these steps to build your first Action and test it out in the simulator.

---

**Get ready for deployment** v

Before you create a release, let's check if you have all the information ready.

---

**Release** >

You have not created a release for the current draft.

English Modify languages

### Display name ^

Display name is publicly displayed in the [Actions directory](#). Users **say** or **type** the display name to begin interacting with your Actions. For example, if the display name is **Dr. Music**, users can say "Hey Google, talk to Dr. Music", or type "talk to Dr. Music" to invoke the Actions.



 Click to hear the pronunciation of your name

 Modify the pronunciation if it doesn't sound right

---

### Google Assistant voice ^

Pick the type of voice you would like to use for your Action. This is the voice that users will hear when they interact with your Action from their phone, Google Home or other devices.

Male 1

Male 2

Female 1

Female 2



Overview Actions

SETUP

Invocation

BUILD

 **Actions**  **1**

Theme customization

TEST

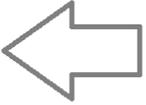
Simulator

DEPLOY

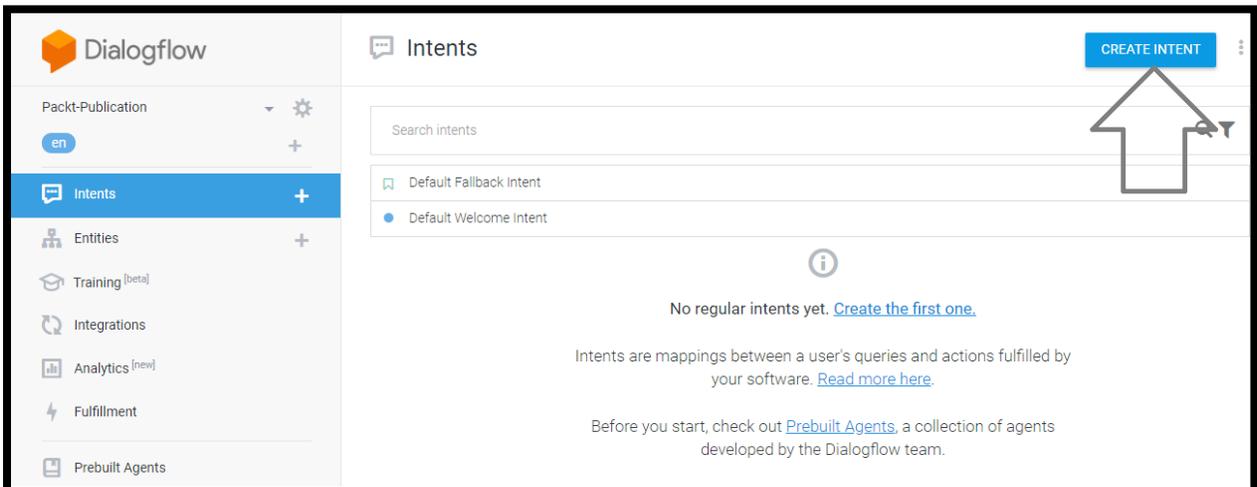
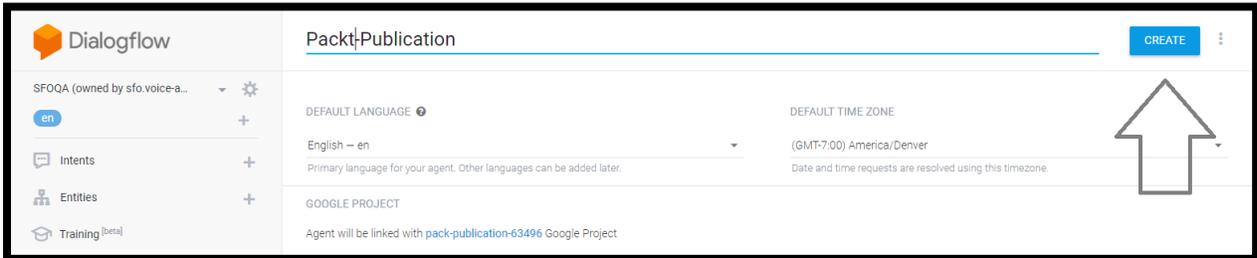
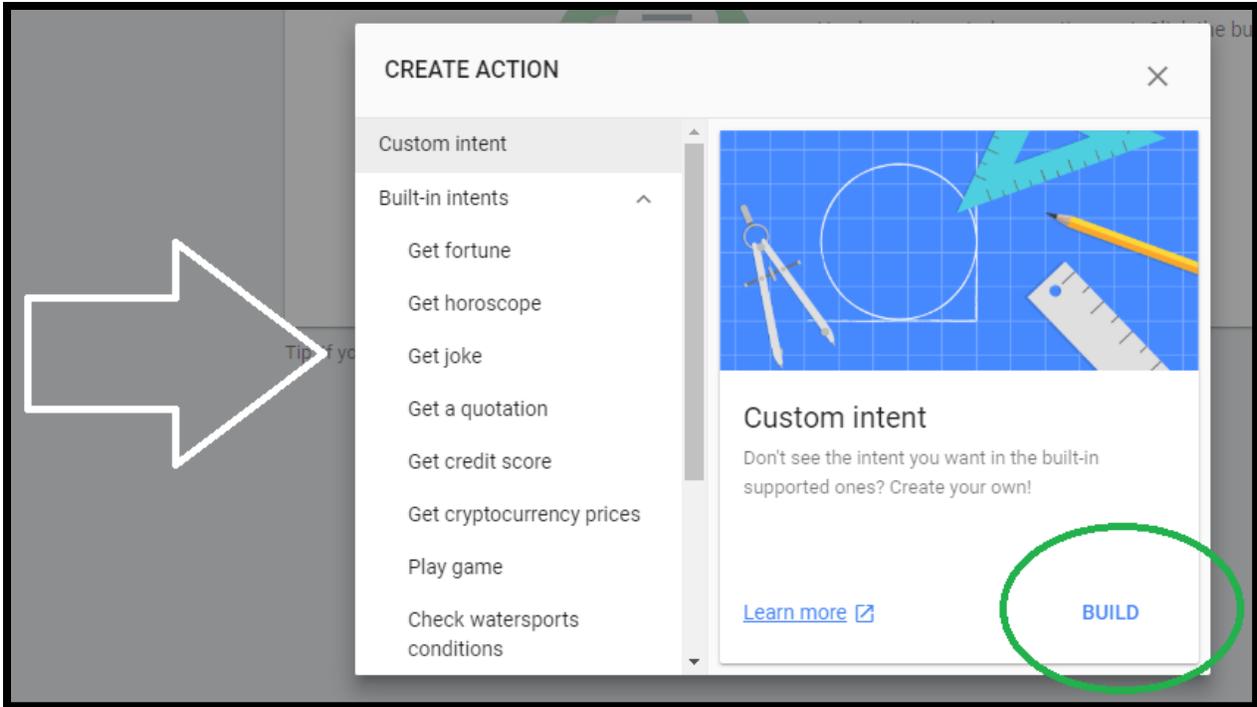


**No Actions yet**

You haven't created any actions yet. Click the button below to add the first one.

[ADD YOUR FIRST ACTION](#)  **2**

Tip: If you don't see the Actions you created, please refresh the page



Orderbooks  SAVE 

Contexts  

Events  

Training phrases  

 **Train the intent with what your users will say**

Provide examples of how users will express their intent in natural language. Adding numerous phrases with different variations and parameters will improve the accuracy of intent matching. [Learn more](#)

[ADD TRAINING PHRASES](#)

Action and parameters  

 **Extract the action and parameters**

Parameters are specific values extracted from a user's request when entities are matched. The values captured by parameters can be used in fulfillment, or in building a response. If you mark parameters as required, Dialogflow will prompt the user if their values were not extracted from their initial request. [Learn more](#)

[ADD PARAMETERS AND ACTION](#)

Responses  

 **Execute and respond to the user**

Respond to your users with a simple message, or build custom rich messages for the integrations you support. [Learn more](#)

[ADD RESPONSE](#)

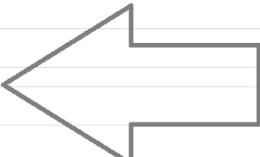
Orderbooks SAVE 

Contexts  

Events  

Training phrases  Search training phrases  

 I would like to order a book on voice 

 I want to order a book on voice design 

Action and parameters  

Responses  

Fulfillment  

Action and parameters ? ∨

---

Responses ? ∧

DEFAULT GOOGLE ASSISTANT +

Text response ? 🗑️

1	You can buy the book in one of our stores
2	You can online the book online
3	Enter a text response variant

ADD RESPONSES

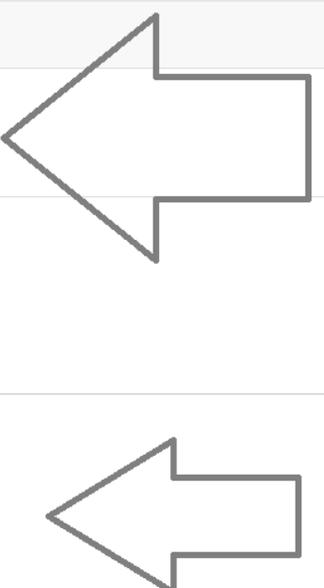
Set this intent as end of conversation ?

---

Fulfillment ? ∧

Enable webhook call for this intent

Enable webhook call for slot filling



## Integrations



**Google Assistant**

Engage users through the Google Assistant App, Google Home and more.

[INTEGRATION SETTINGS](#)

 <p>Web Demo</p> <p><input type="checkbox"/></p>	 <p>Facebook Messenger</p> <p><input type="checkbox"/></p>	 <p>Slack</p> <p><input type="checkbox"/></p>	 <p>Viber</p> <p><input type="checkbox"/></p>
---	---	--	--

Dialogflow

en fr +

Intents +

Entities +

Training [beta]

Integrations

Analytics [new]

Fulfillment

Prebuilt Agents

Small Talk

General Languages ML Settings Export and Import Share

English – en DEFAULT

French – fr + Add locale

Russian – ru

Select Additional Language

Overview

← App information SAVE ?

English

Assistant app name ^

e.g. Dr. Music

Pronunciation ⓘ

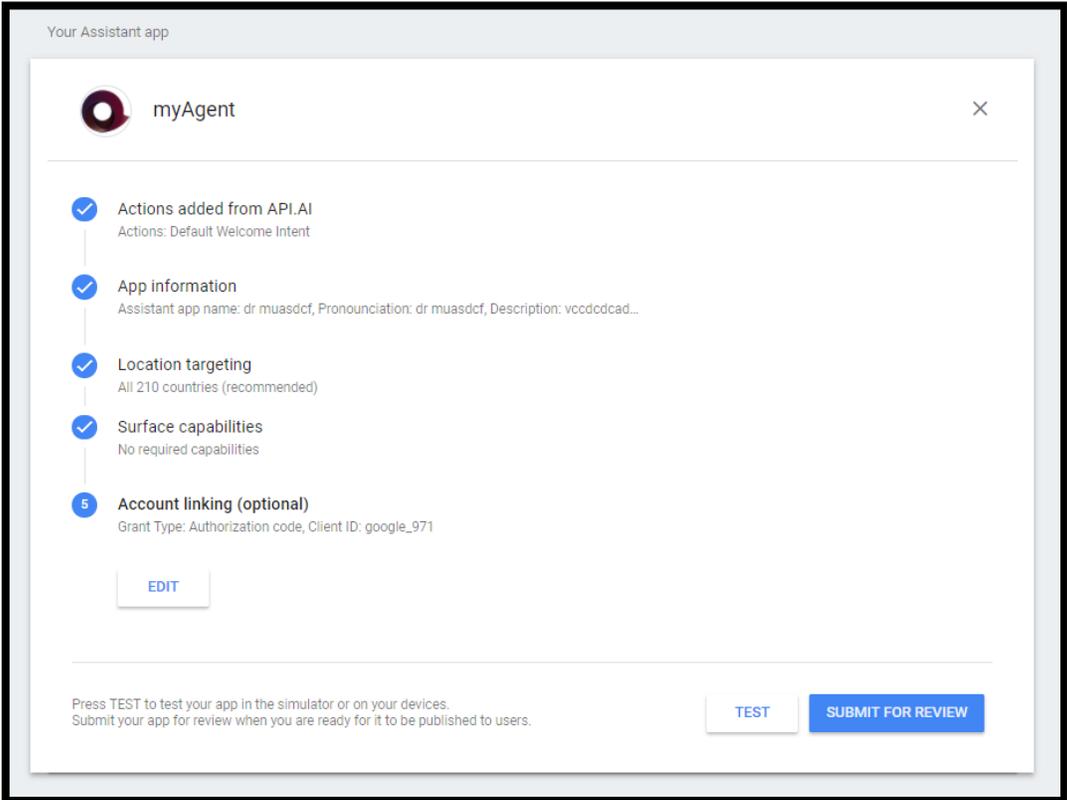
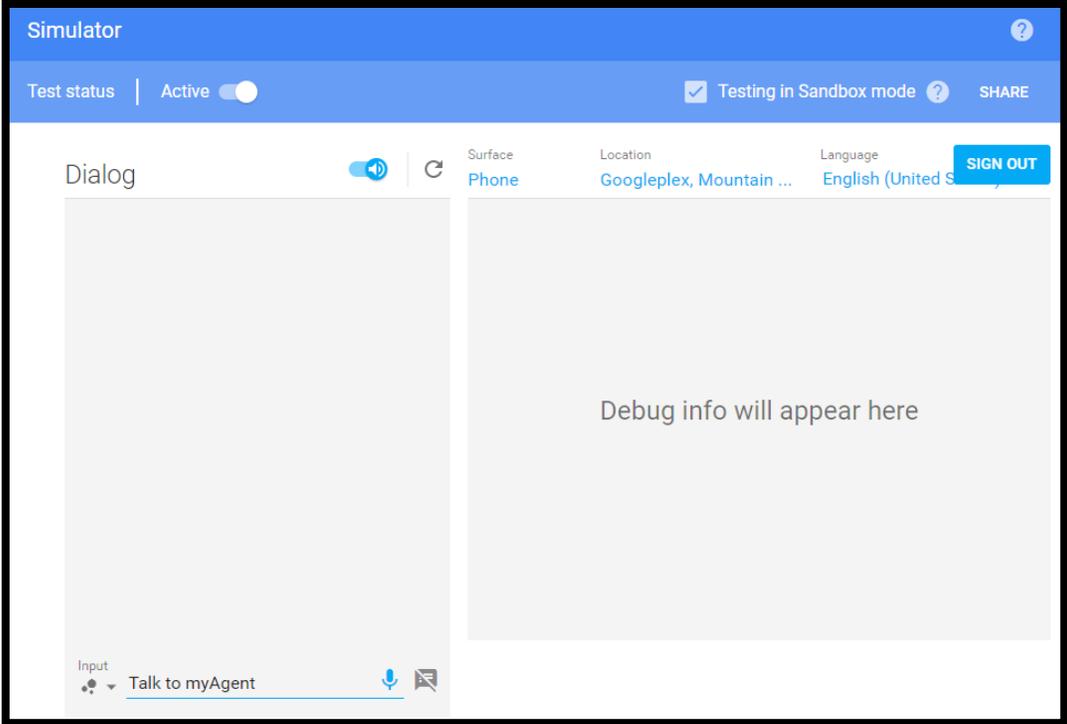
e.g. doctor music

Details You can use this app to ads asdc asd

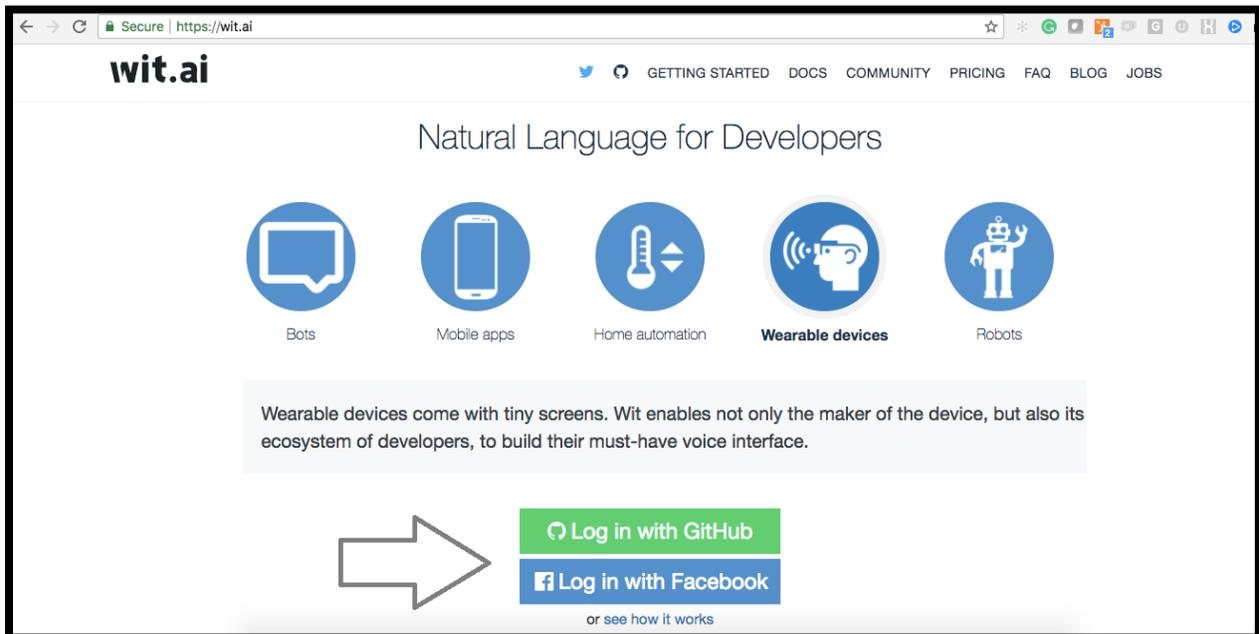
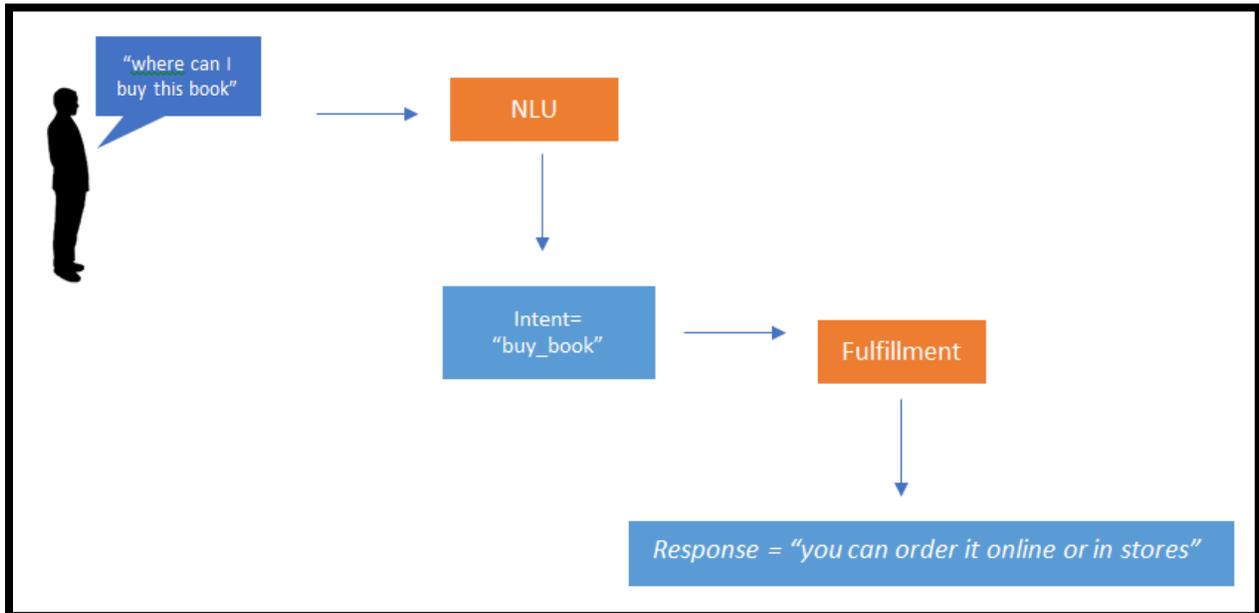
Images Large banner and small logo uploaded

Testing instructions (optional) 111 222

Contact details abc@xyts.com



# Chapter 05: Designing a Facebook Messenger Chatbot



Secure | https://wit.ai/rachelbatish/MyFirstApp/entities

# wit.ai

rachelbatish / MyFirstApp

## Test how your app understands a sentence

You can train your app by adding more examples

1 → Where can i buy a book on bot design?

intent

2 → buy\_book

3 →

Add a new entity

### Your app uses 1 entity

Entity	Description	Values
intent	User-defined entity	buy_book

# wit.ai

rachelbatish / MyFirstApp

## intent

LOOKUP STRATEGIES: **intent** free-text & keywords free-text keywords User-defined entity

### Insights

Validate more expressions to get insights for this entity

### Trait Values

Trait value

buy\_book

Add a new trait

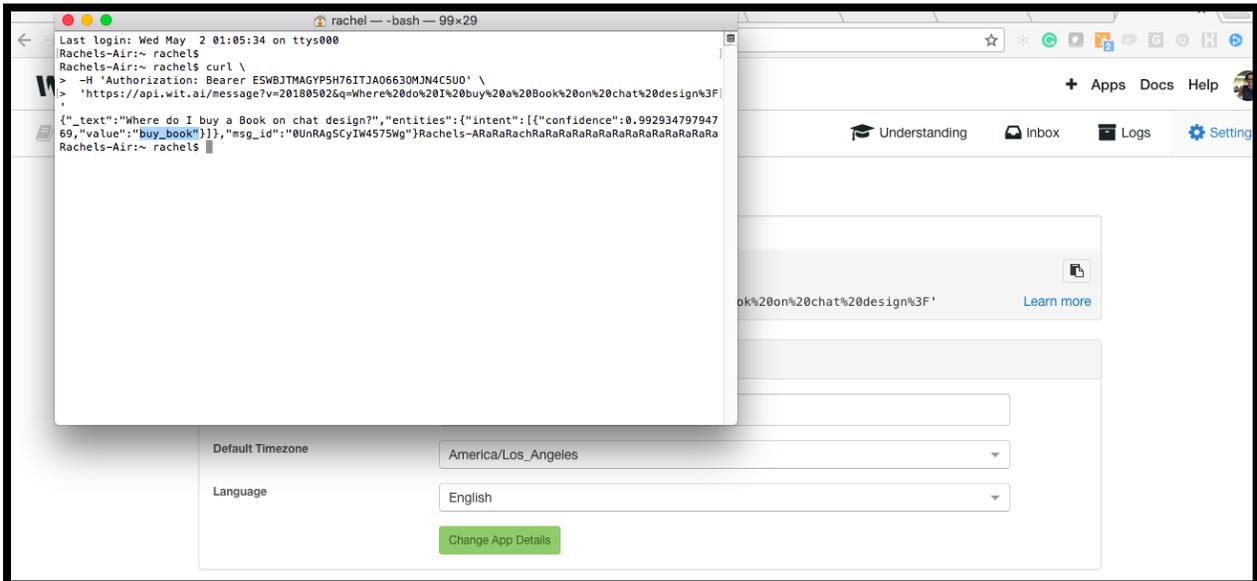
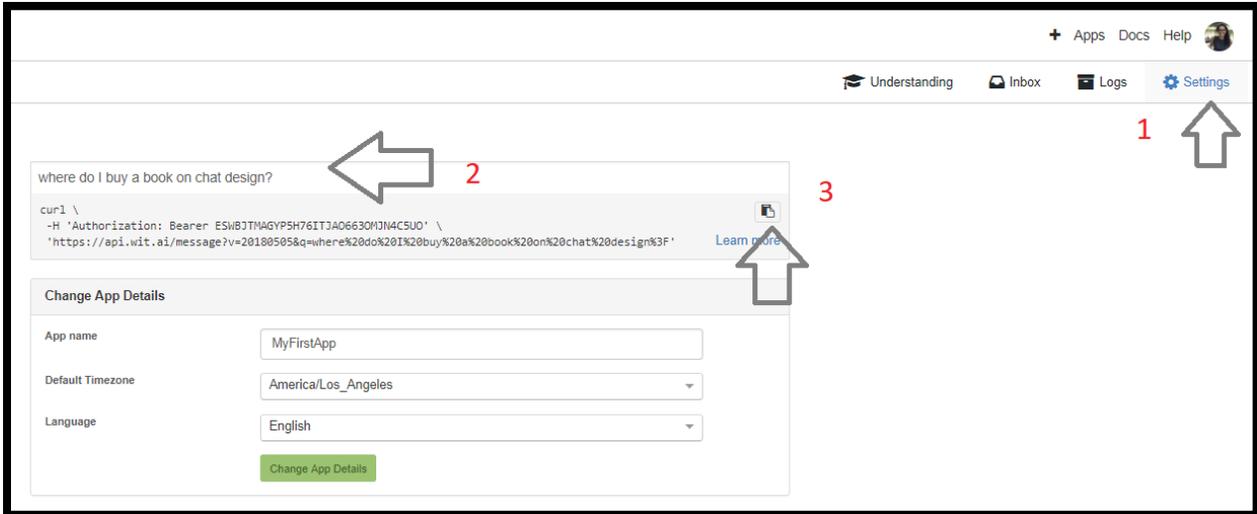
### Expressions

Filter by: All values

Search through your expressions.

Text

- How can I buy a book on voice design?
- where do I get a voicedesign book?
- How can i purchase a nook on voice design?
- where do I buy a book on chat design?
- Where do I buy a Book on chat design?
- where do i buy a book
- how do i buy a book
- where do I buy a design book for bots



wit.ai + Apps Docs Help

rachelbatish / MyFirstApp / Understanding **Inbox** Logs

## Welcome to the inbox, rachelbatish!



Wit allows you to extract relevant pieces of information — or **entities** — from messages your users send you.

In this Inbox, you'll find a sample of past messages you've received to make it easier to start training your app.

To get started, you can update entities from here or refer to our [documentation](#). New messages will be added to the Inbox as you receive them, unless they have already been used to train your app.

Expressions Voice ↻

Where do I buy a Book on chat design?

intent buy\_book 0.993

➔ Add a new entity

➔

wit.ai + Apps Docs Help

rachelbatish / MyFirstApp / Understanding **Inbox** Logs

## Welcome to the inbox, rachelbatish!



Wit allows you to extract relevant pieces of information — or **entities** — from messages your users send you.

In this Inbox, you'll find a sample of past messages you've received to make it easier to start training your app.

To get started, you can update entities from here or refer to our [documentation](#). New messages will be added to the Inbox as you receive them, unless they have already been used to train your app.

Expressions Voice ↻

Where do I buy coffee?

x intent buy\_book 0.972

➔ Add a new entity

buy\_coffee

Create new value "buy\_coffee"

Validate

➔ 2

➔ 1

wit.ai + Apps Docs Help

rachelbatish / MyFirstApp Understanding Inbox Logs

```
where can I buy coffee?
curl \
-H 'Authorization: Bearer ESWBJTMAGYP5H76ITJA06630MJN4C5U0' \
'https://api.wit.ai/message?v=201805056q=where%20can%20I%20buy%20coffee%3F'
```

**Change App Details**

App name:

Default Timezone:

Language:

[Change App Details](#)

**API Details**

You can use the tokens below to start making API requests from your app. Learn more through the [quickstart](#) guide, or [contact us](#) at anytime. We look forward to what you create :)

rachel — bash — 80x24

```
Last login: Sat May 5 10:57:48 on ttys000
Rachels-MacBook-Air:~ rachel$ curl \
> -H 'Authorization: Bearer ESWBJTMAGYP5H76ITJA06630MJN4C5U0' \
> 'https://api.wit.ai/message?v=201805056q=where%20can%20I%20buy%20coffee%3F'
{"_text": "where can I buy coffee?", "entities": [{"intent": {"confidence": 0.59839323520366, "value": "buy_coffee"}}, {"msg_id": "0p2Q56TcdWNLG2ysl"}]}
Rachels-MacBook-Air:~ rachel$
```

wit.ai + Apps Docs Help

Understanding Inbox Logs

```
MJN4C5U0' \
can%20I%20buy%20coffee%3F'
```

**Change App Details**

App name:

Default Timezone:

Language:

[Change App Details](#)

wit.ai

+ Apps Docs Help

rachelbatish / MyFirstApp /

Understanding Inbox Logs Settings



messages your users send you.

In this Inbox, you'll find a sample of past messages you've received to make it easier to start training your app.

To get started, you can update entities from here or refer to our [documentation](#). New messages will be added to the Inbox as you receive them, unless they have already been used to train your app.

Expressions Voice



Your inbox is empty, well done!

facebook for developers

Docs Tools Support My Apps Search developers.facebook.com

Packt-Demo APP ID: 1791737240883487 OFF Status: In Development View Analytics

Dashboard Settings Roles Alerts App Review

PRODUCTS (+)

- Account Kit
- Messenger
- Settings
- Activity Log

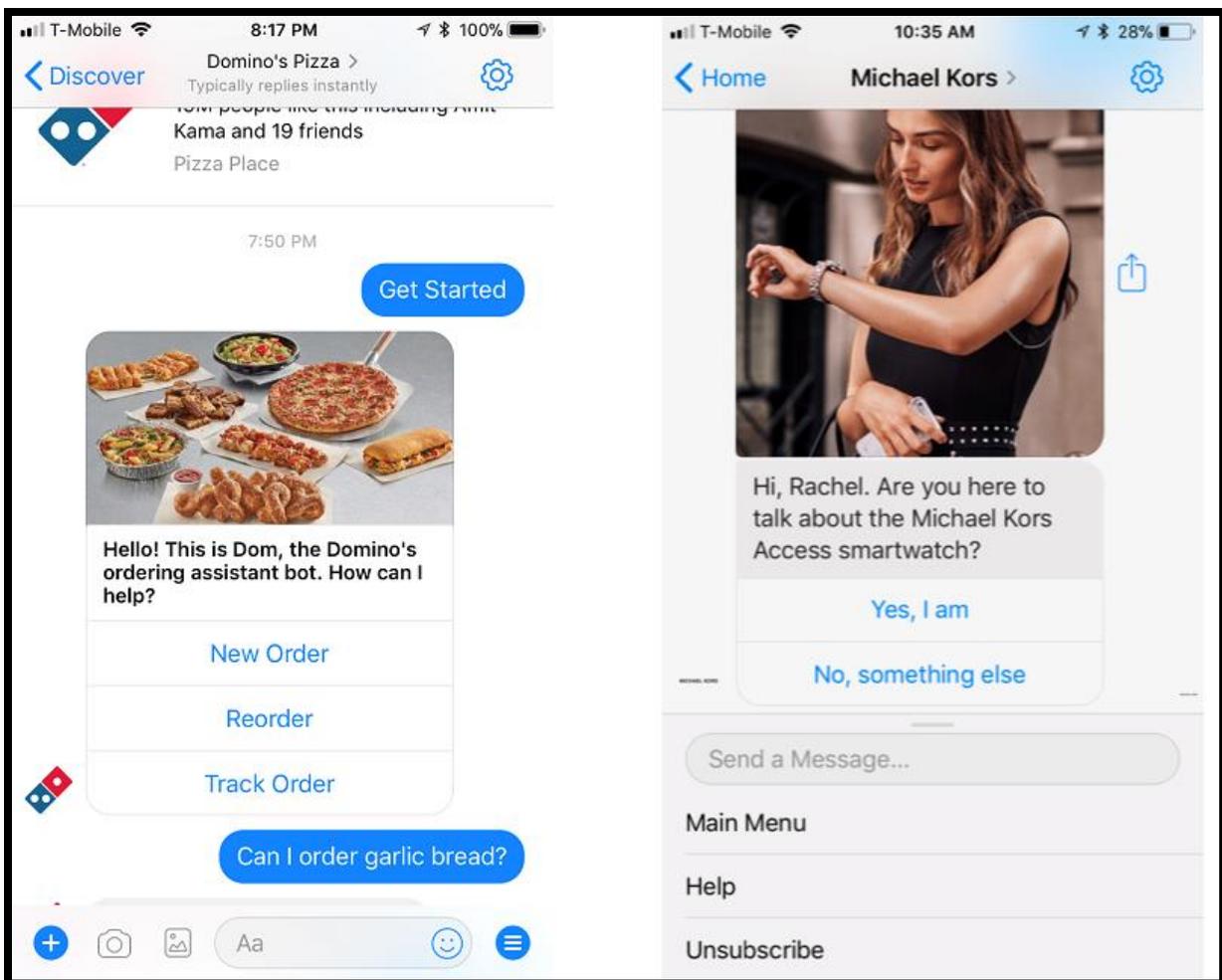
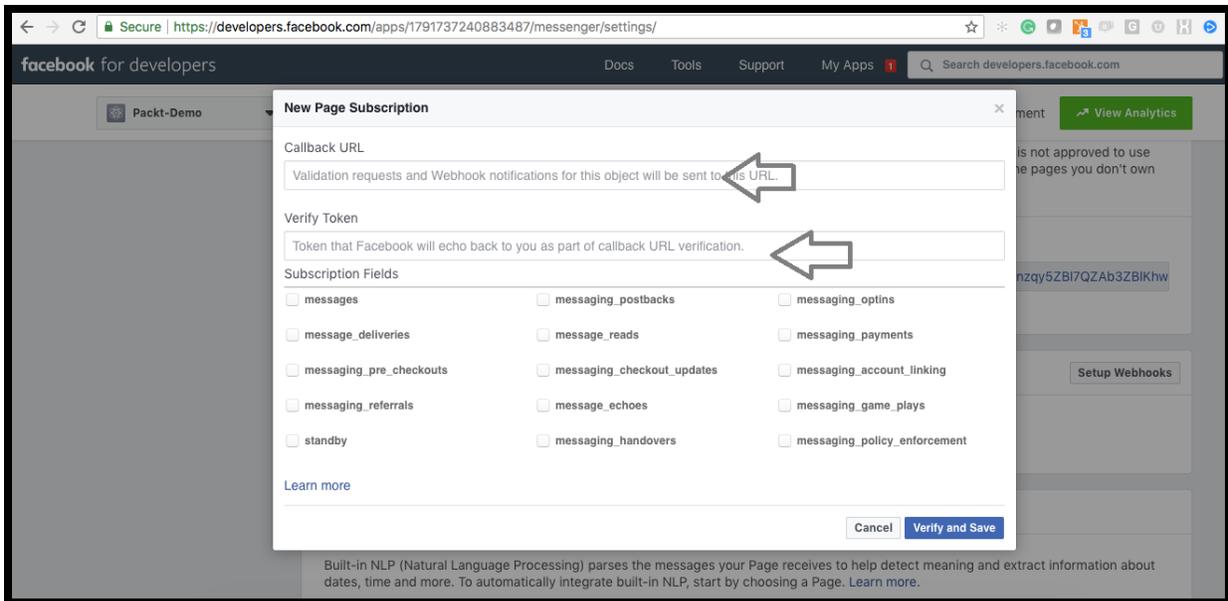
### Token Generation

Page token is required to start using the APIs. This page token will have all messenger permissions even if your app is not approved to use them yet, though in this case you will be able to message only app admins. You can also generate page tokens for the pages you don't own using Facebook Login.

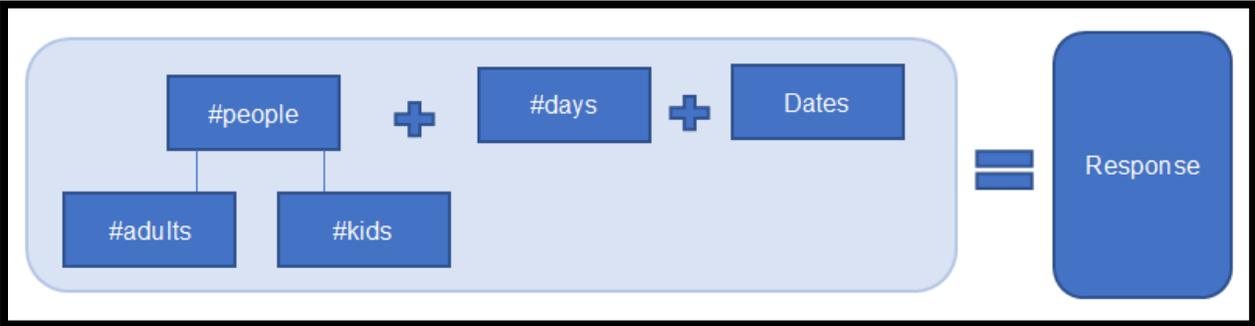
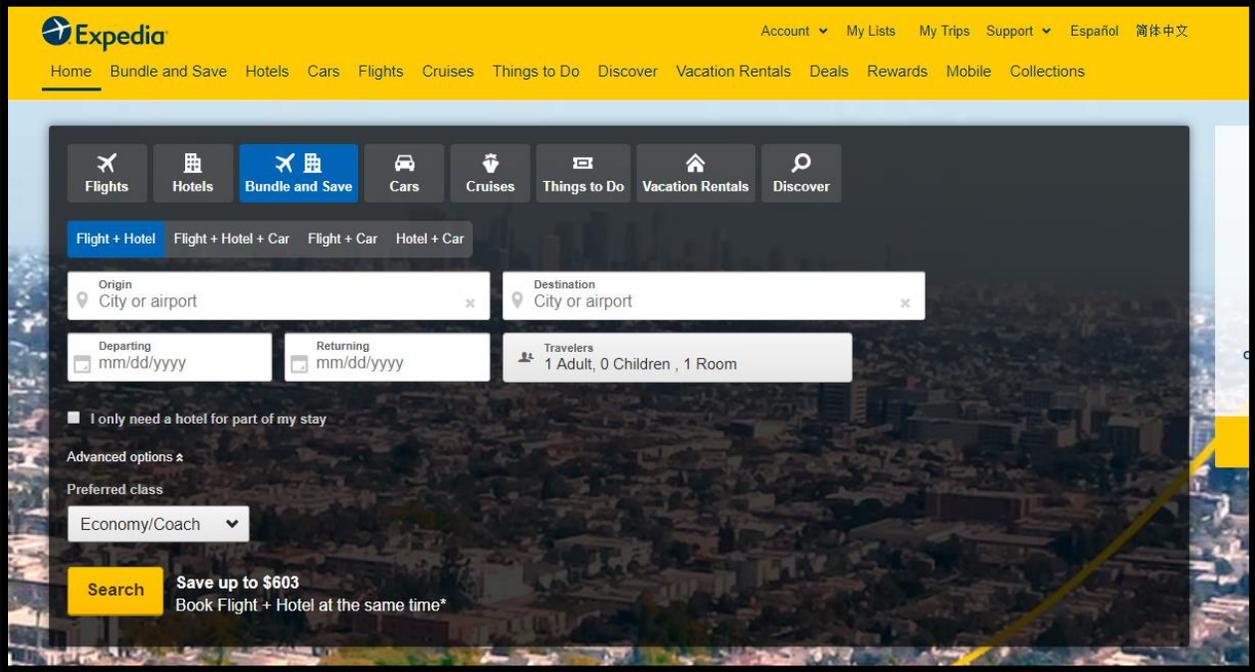
Page	Page Access Token
Select a Page	You must select a Page to generate an access token.
✓ Select a Page	
Packt-Demo	
conversation.one	
Skype Translate Community	
Zuznow	

Setup Webhooks

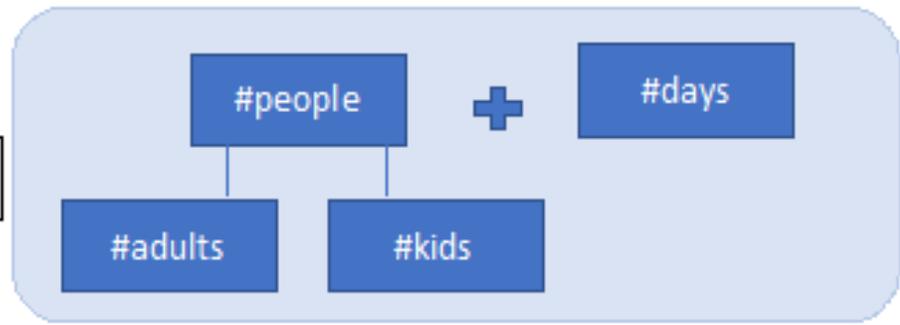
To receive messages and other events sent by Messenger users, the app should enable webhooks integration.



# Chapter 06: Contextual Design – Can We Make a Bot Feel More Human?



1<sup>st</sup> interaction



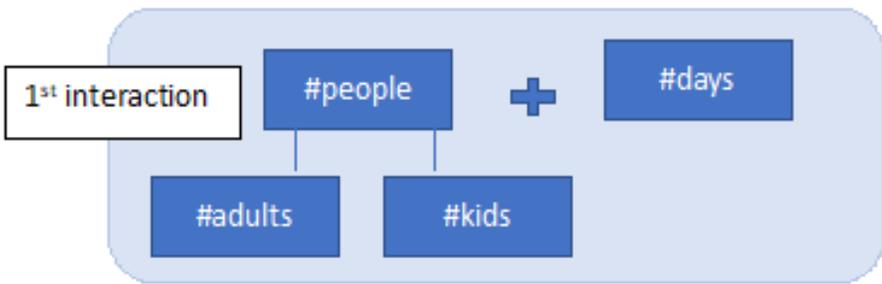
2nd interaction

+

Dates

=

Response



+



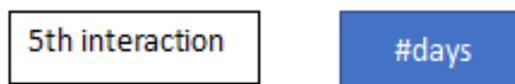
+



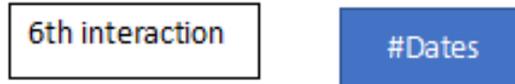
+



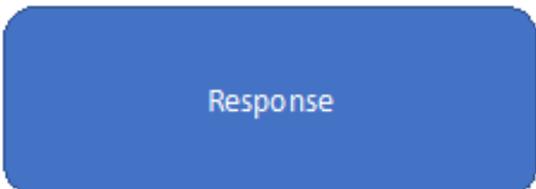
+

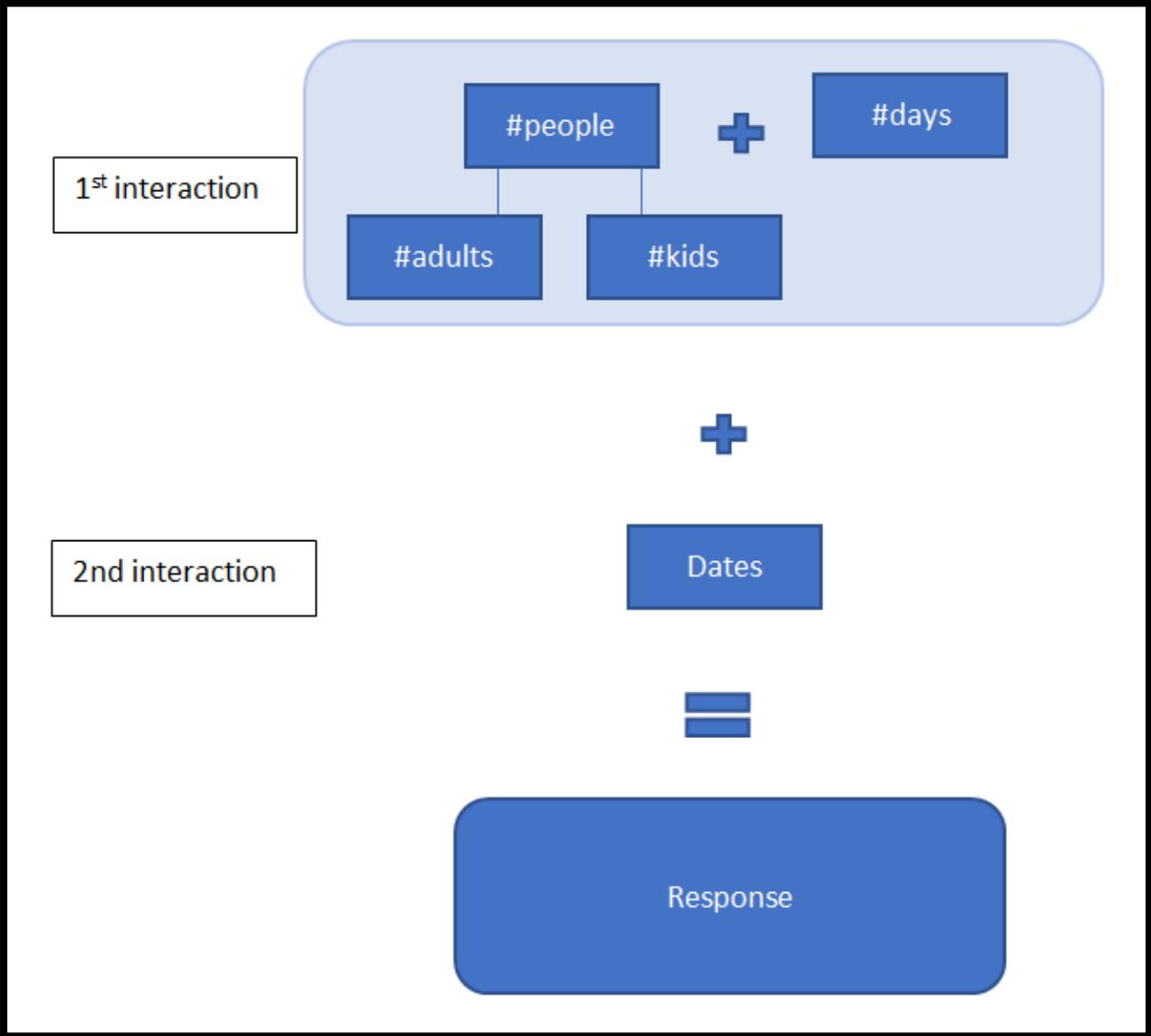


+

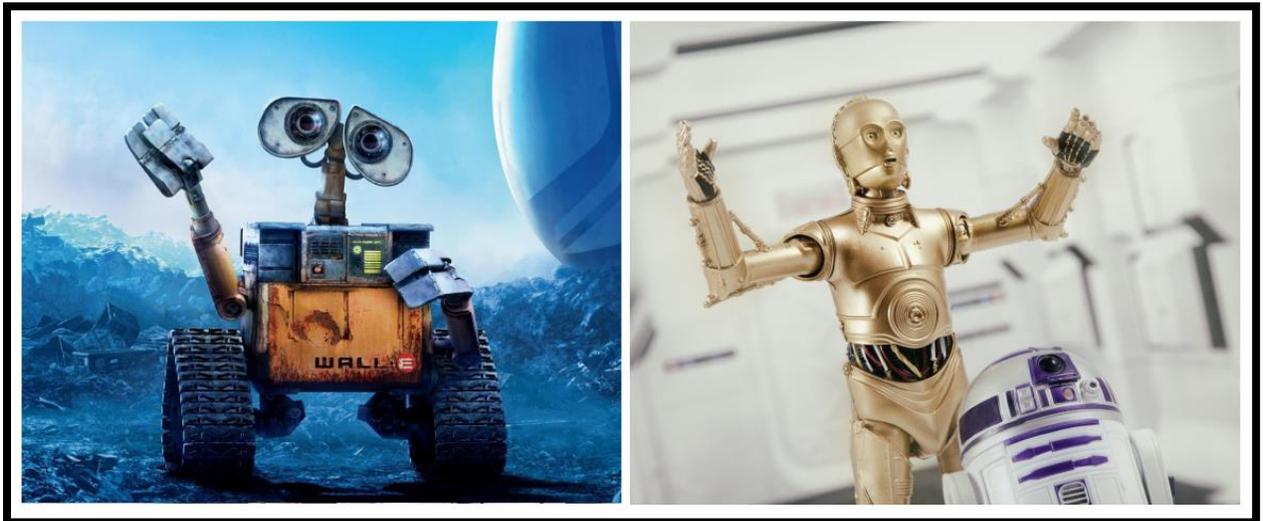
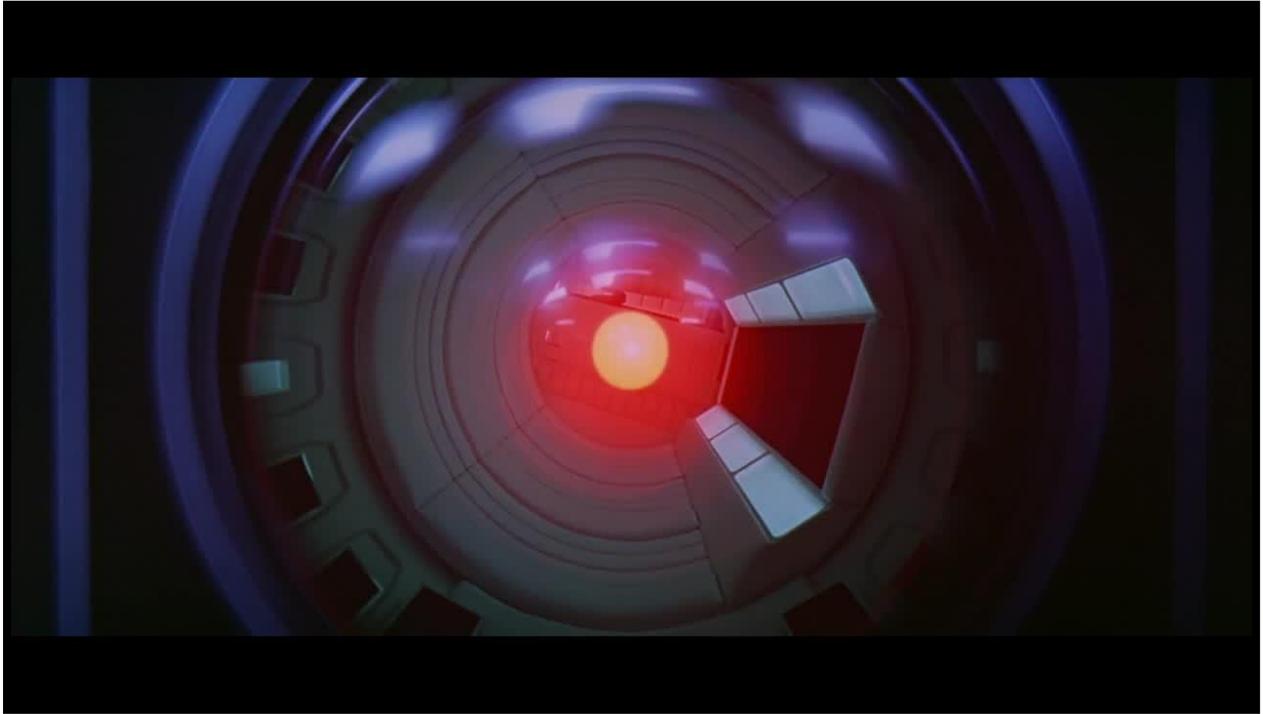


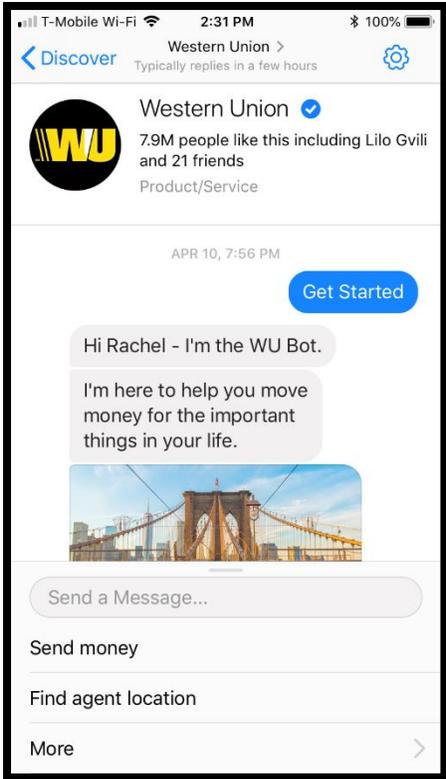
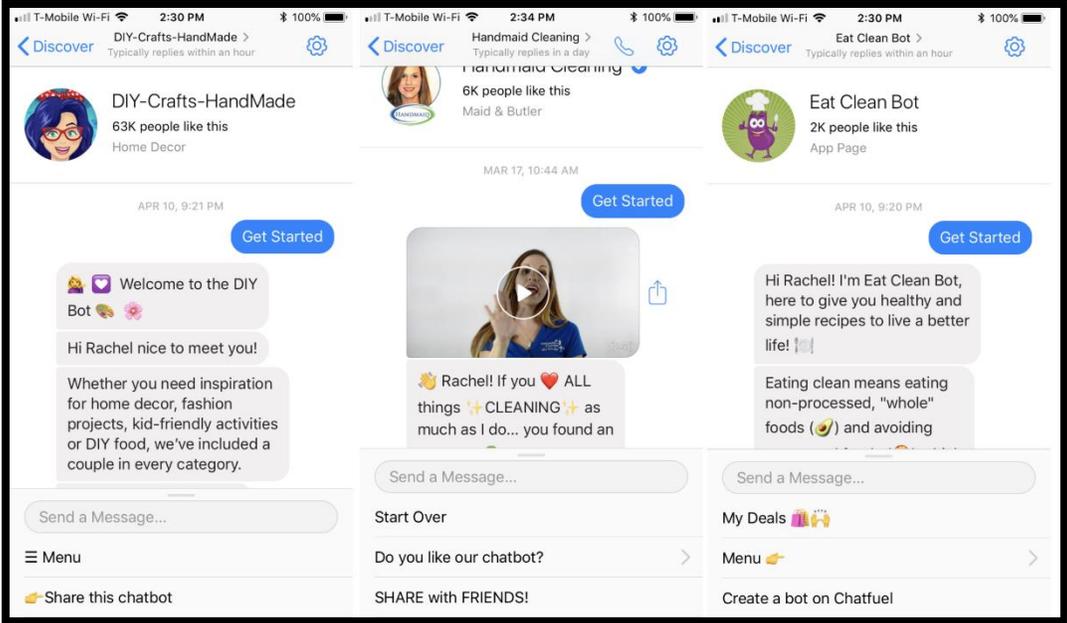
=

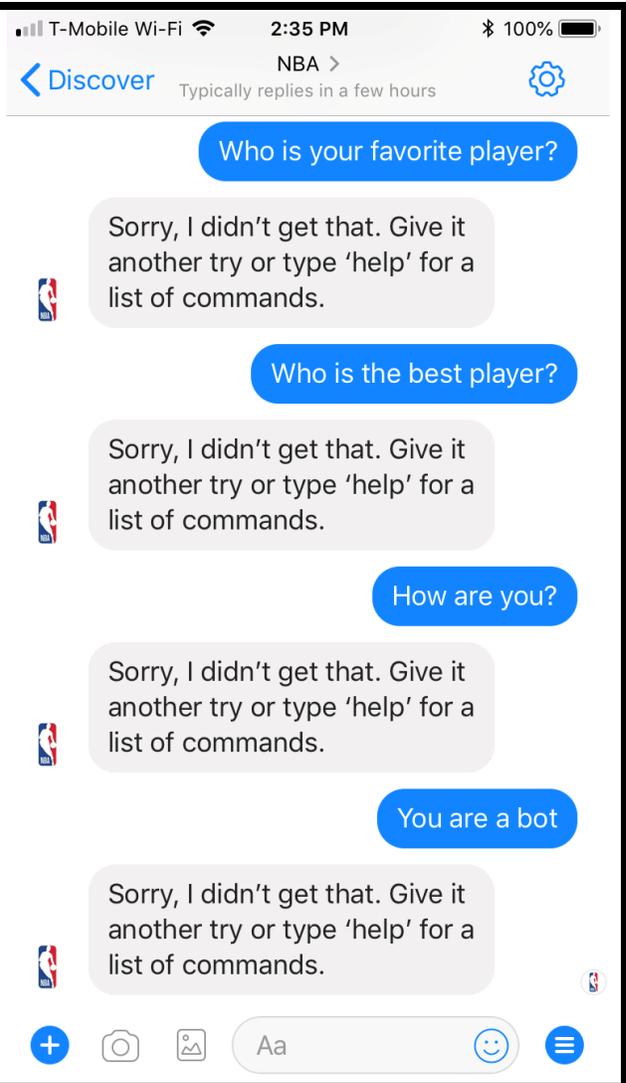
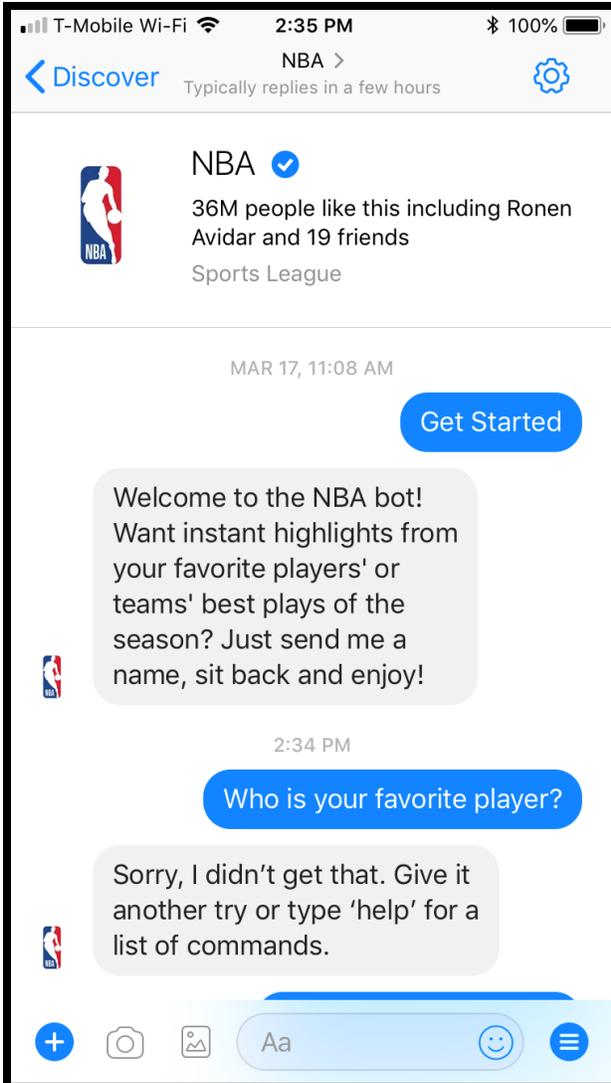


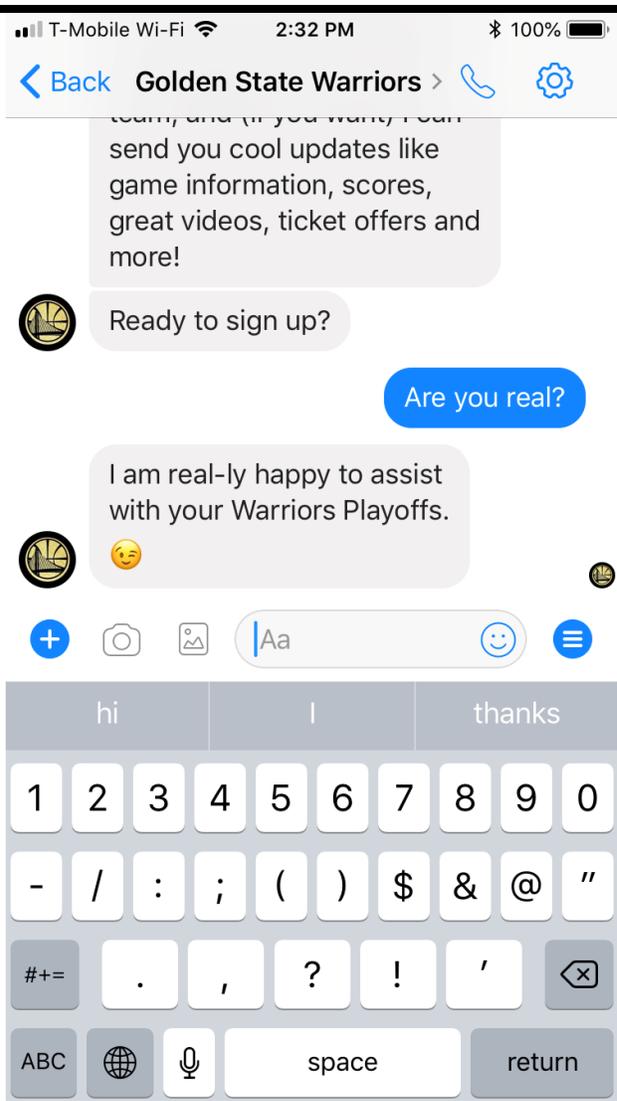
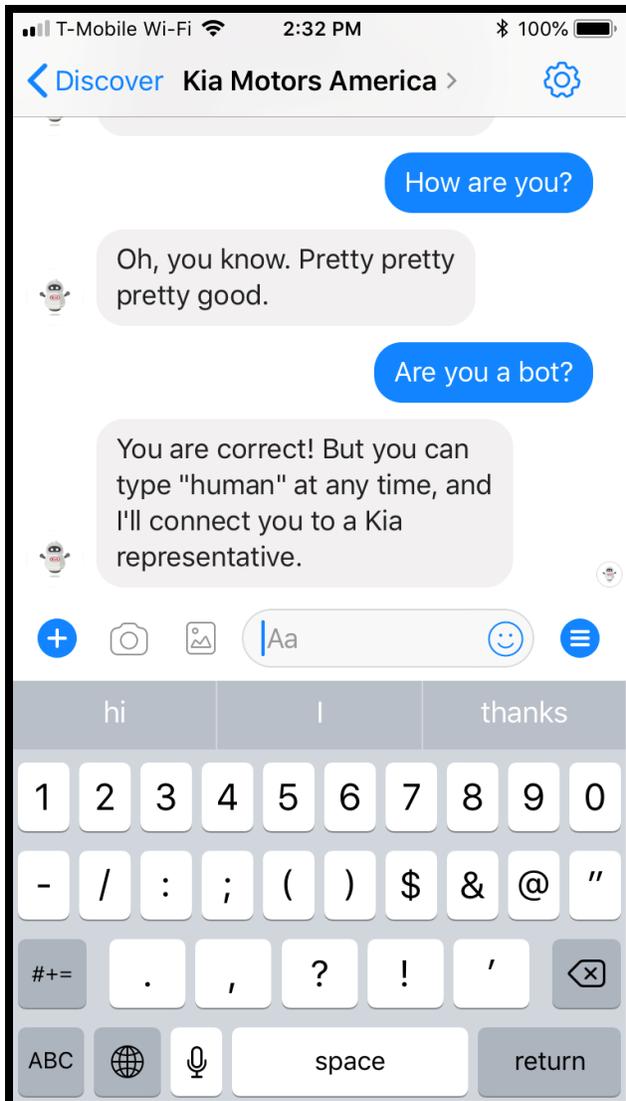


## Chapter 07: Building Personalities – Your Bot Can Be a Better Human









Or just tap below to go to the Main Menu.

 I'm happy if you're happy 😊

3:34 PM

It's my birthday

 Happy birthday, Rachel! 🎉🎈  
💙💛

+ 📷 🖼️ |Aa 😊 ☰

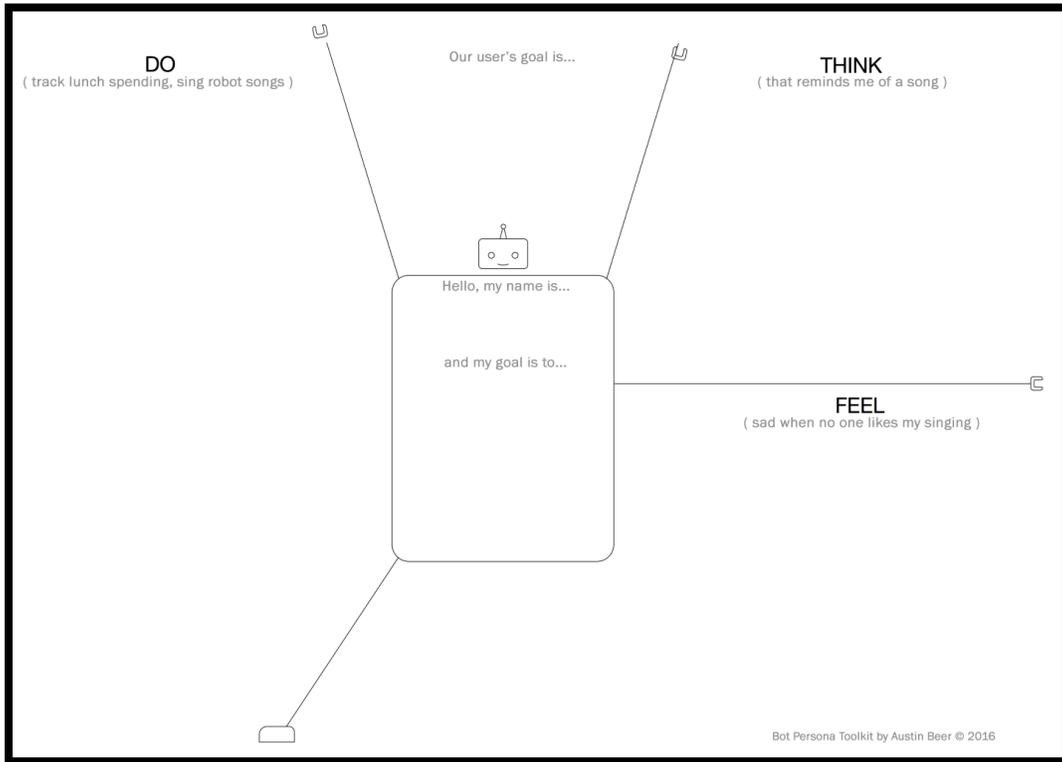
Hi I Thanks

Q W E R T Y U I O P

A S D F G H J K L

↑ Z X C V B N M ↵

123 🌐 🗣️ space return



16Personalities ENGLISH

## YOUR PERSONALITY TYPE IS: PROTAGONIST (ENFJ-A)

*With vision and determination, nothing is impossible.*

**MIND**  
This trait determines how we interact with our environment.

83% EXTRAVERTED	INTROVERTED	17%
-----------------	-------------	-----

**ENERGY**  
This trait shows where we direct our mental energy.

59% INTUITIVE	OBSERVANT	41%
---------------	-----------	-----

**NATURE**  
This trait determines how we make decisions and cope with emotions.

36% THINKING	FEELING	64%
--------------	---------	-----

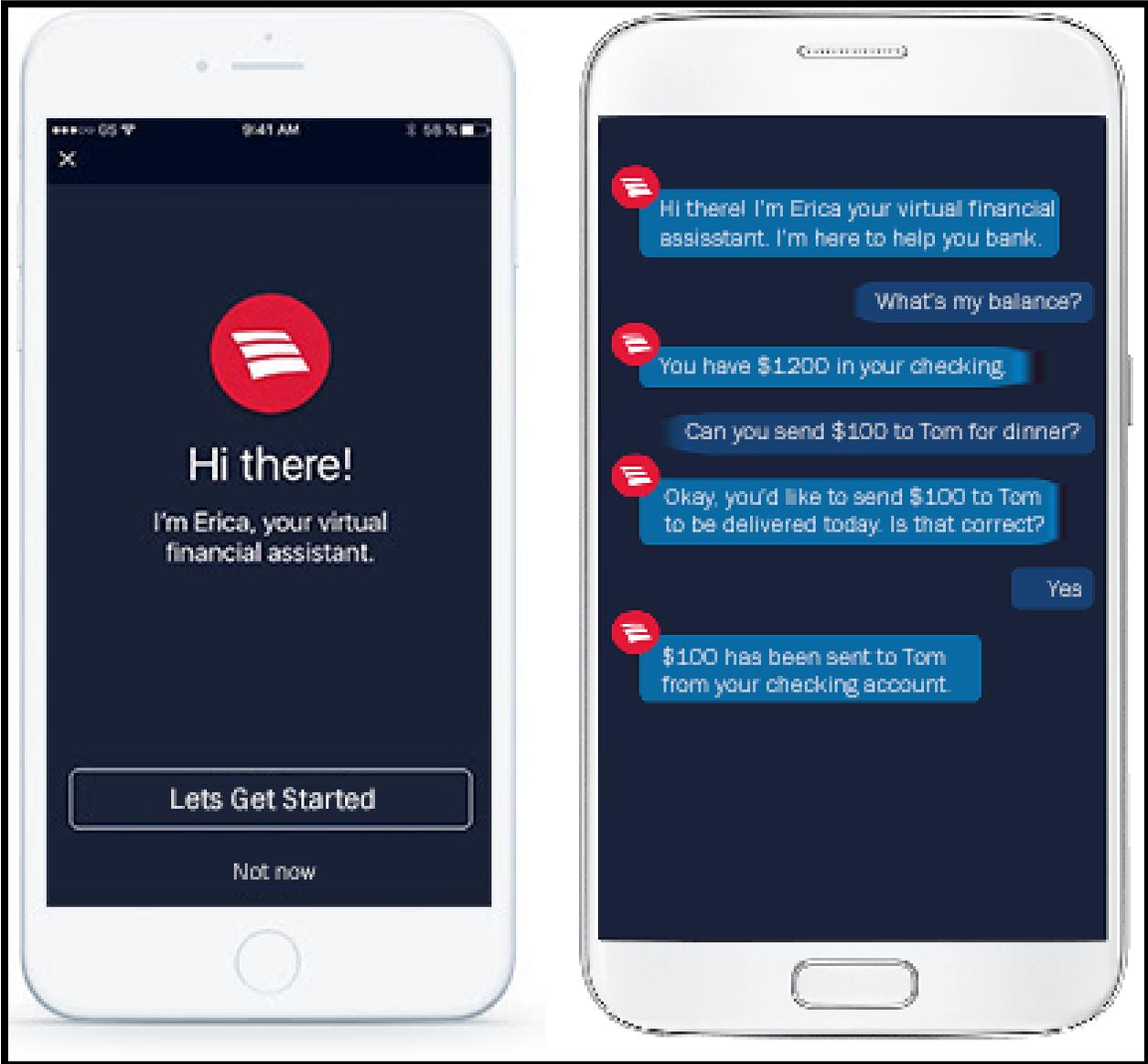
**TACTICS**  
This trait reflects our approach to work, planning and decision-making.

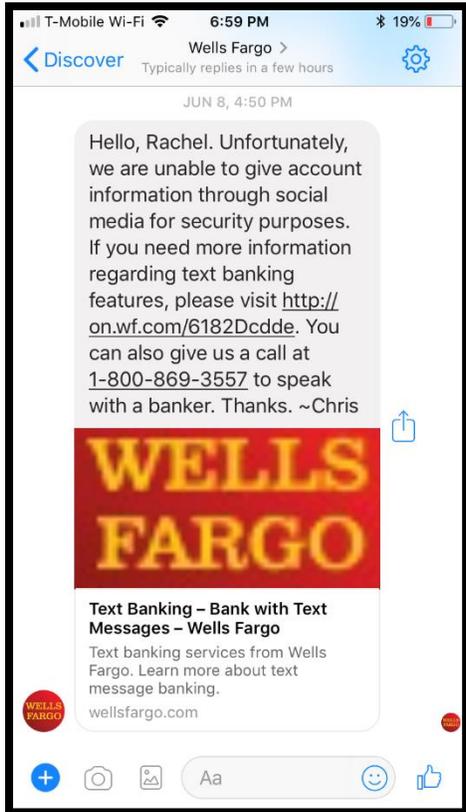
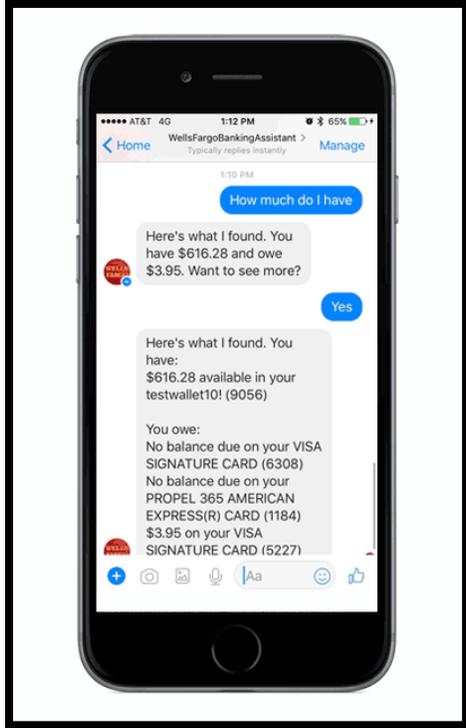
63% JUDGING	PROSPECTING	37%
-------------	-------------	-----

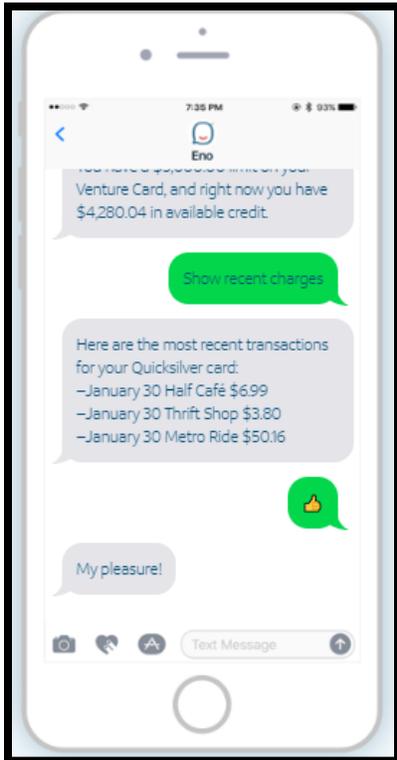
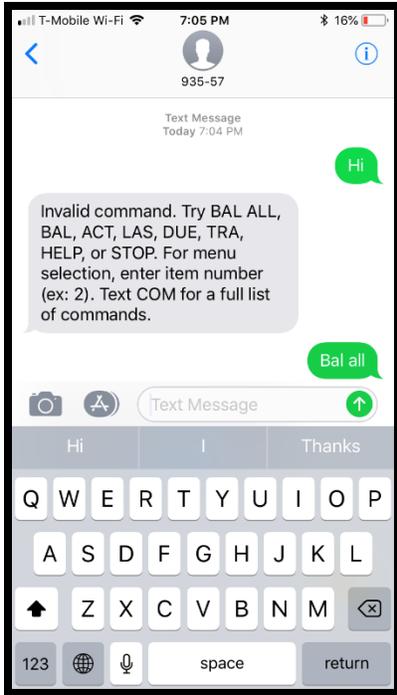
**IDENTITY**  
This trait underpins all others, showing how confident we are in our abilities and decisions.

54% ASSERTIVE	TURBULENT	46%
---------------	-----------	-----

# Chapter 08: A View into Vertical-Specific Bots – Financial Institutions









Ask Amy



Amy at 19:30, Jun 29

Hello! Welcome to HSBC Commercial Banking. I'm Amy, designed to answer your questions. Please ask me something.

**Important notice:**

- Virtual Assistant is an automated service, and therefore cannot answer questions specific to your account.
- Please do NOT disclose any account number, internet username, PIN, password or identity card number in your questions.
- The information you input here will be recorded to ensure the quality of our service.
- Data will be processed and stored by members of the HSBC Group and authorised third parties, which may include

**Frequently Asked Questions**

[FAQ](#) > [Commercial Cards](#) > [Business MasterCard](#)

- > [Where can I check my RewardCash balance?](#)
- > [What are the main features and benefits of the HSBC Business Mastercard?](#)
- > [How can I use the Airport Limousine Service?](#)
- > [What are the benefits](#)

Type your question here

Send

140 characters remaining



Personal Business Commercial

Search

Locations

Sign In

Credit Cards Bank Auto Invest Learn Contact

## “Alexa, ask Capital One, what’s my balance?”

From tracking your spending to making a payment, now you can manage your Capital One accounts through any Amazon Alexa-enabled device, including the new Echo Show. Talk about convenient.

Enable the skill



Manage your Capital One accounts simply using your voice



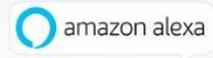
Check Your Balance



Track Your Spending



Pay Your Bill





× Close



How can I help you today?

Welcome back! What can I help you with? Ask me a question or tap one of the popular questions below.

I'd like to pay my bill.

I'd like a quote to replace my vehicle.

I need to change my address.

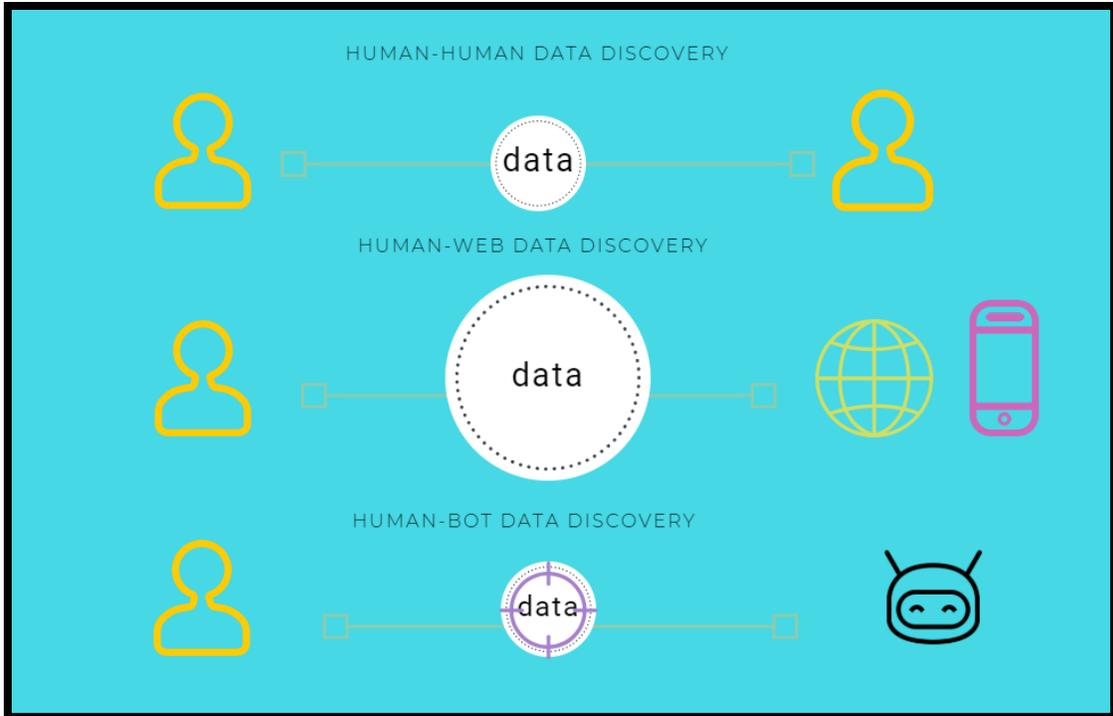


tap to speak

# Chapter 09: Travel and eCommerce Bots – Use Cases and Implementation

The screenshot shows the Amazon.com search results for the query "weights". The search bar at the top contains "weights" and the Amazon Prime logo is visible on the right. The page header includes the delivery location "Sunnyvale 94087" and various navigation links. The search results are categorized under "Sports & Outdoors : Sports & Fitness : Exercise & Fitness : 'weights'". A green circle highlights the text "1-24 of over 20,000 results for". The main content area displays several product listings, including "Quality dumbbells for everyday use" by AmazonBasics, "AmazonBasics Neoprene Dumbbells 2-Pound, Set of 2, Hot Pink", "AmazonBasics 32-Pound Dumbbell Set with Stand", and "AmazonBasics Neoprene Dumbbells 1-Pound, Set of 2, Pink". A "Best Seller" badge is visible on the left side of the product grid. The page also features a "Refine by" section with options like "Subscribe & Save" and "Amazon Prime".

The screenshot shows the Booking.com search results for "New York City". The page header includes the Booking.com logo and navigation links for "Accommodations", "Flights", "Flight + Hotel", "Car Rentals", and "Airport Taxis". The search results are displayed for "New York City" with a "Map View" button. The search criteria include "Destination/Property Name: New York City", "Check-in Date: Saturday, July 14, 2018", "Check-out Date: Tuesday, July 31, 2018", "17-night stay", "2 adults", "No children", and "1 room". A green circle highlights the text "New York City: 122 properties found - including 13 value deals!". The search results are sorted by "Best Properties for...". The first result is "Row NYC at Times Square", which is marked as a "Best seller" and has a "Good 7.1" rating based on 13,688 reviews. The price for 17 nights is listed as "\$3,177". A "See our last available rooms" button is visible at the bottom of the result card.





KAYAK  
1.8M people like this including Dan Feld and 20 friends  
Product/Service

SUN 9:57AM

Get Started



Hi Rachel, welcome to KAYAK!

- Find flights
- Find hotels
- Find things to do



Not sure where or when to go?

- Get travel ideas
- Best time to fly?
- Plan a trip

I want to find a flight

Ok. Where do you want to fly from?

SF

What is your destination?

NY

I did not recognize this location. Here are a couple of suggestions:

- New York, NY
- Nyaung-U, Myanmar
- Nyagan', Khanty-Mans...

[New York](#)

Looking for flights from San Francisco, CA to New York, NY. When do you want to fly out?

Looking for flights from San Francisco, CA to New York, NY. When do you want to fly out?

[tomorrow](#)

Ok. When do you want to fly back to San Francisco?

[next wednesday](#)

04pm Ok. Looking for flights from San Francisco, CA to New York, NY from 7/14 to 7/18 ...

Ok. Looking for flights from San Francisco, CA to New York, NY from 7/14 to 7/18 ...

I found in total 1,062 flights for your dates. Here is a selection of outbound flights:

Best value		#1. Cheapest	
<b>Depart:</b> Sat, Jul 14	Sun, Jul 15	<b>Depart:</b> Sat, Jul 14	Sun, Jul 15
 SFO <b>10:40p</b> — <b>6:52a</b> Economy • 5h 12m • nonstop		 SFO <b>1:00p</b> — <b>12:08a</b> > Economy • 8h 08m • 1 stop in MSP	
\$823+ 19 available return options		\$623+ 24 available return options	
<a href="#">Select</a>		<a href="#">Select</a>	

what's the cheapest option  
I'll take united  
Select

You selected the outbound 10:40p flight from SFO to EWR on United. Here are return flights for your selection:

#1. Cheapest	#2. Cheapest
<b>Return:</b> Wed, Jul 18	<b>Return:</b> Wed, Jul 18
 EWR 10:30a – SFO 1:37p Economy • 6h 07m • nonstop	 EWR 2:20p – SFO 5:27p Economy • 6h 07m • nonstop
Book for \$823 www.kayak.com	Book for \$823 www.kayak.com
<a href="#">More details</a>	<a href="#">More details</a>
<a href="#">\$823 United</a>	<a href="#">\$823 United</a>
<a href="#">Share</a>	<a href="#">Share</a>

10:30

Type a message...

eBay ShopBot  
37K people like this Shopping Service

7:20PM

Get Started

Hi, Rachell  
I'm ShopBot 🤖  
I make finding great deals effortless by doing the work for you.

Since it's getting warm outside, I put together some hot summer gear. Check it out.



**Summer Deals**  
Cool gear at hot prices for warm days

[Shop](#)  
[Share](#)



**That's all for now.**  
Check out all the other collections for more unique finds.

[Go back](#)

But I can also fetch anything else you might want. Send me a message by typing below 🗨️

Which material do you want? Feel free to type your own, too.

I need weights  
steel

Which material do you want? Feel free to type your own, too.

steel

Can't even begin to tell you how much I love tracking down deals for steel set, Yes4All weights for any price. Check these out.



**Top Match** 🔥 18 sold  
\$23.88 - New Weight Dumbbell Set 66 LB Adjustable Cap Gym Barbell Plates Body Wo...  
rover.ebay.com

[View item](#)

[More in Top Match](#)



**Pre-Owned** 🔥  
\$29.93 - Pair of Vintage Bollinger 3 Lb Dumbbell Weights Weight Lifting Unscrewa...  
rover.ebay.com

[View item](#)

[More in Pre-Owned](#)



**Best Value** 🔥 622 sold  
\$48.99 - New Weight Dur Barbell Plates Body Wo...  
rover.ebay.com

What's your price range? (For example, "<\$20," "\$50 to \$75," or ">\$50.")

below 50

I found some for below \$50 that you're going to love. Take a look.



**Top Match** 🔥 18 sold  
\$23.88 - New Weight Dumbbell Set 66 LB Adjustable Cap Gym Barbell Plates Body Wo...  
rover.ebay.com

[View item](#)

[More in Top Match](#)



**Pre-Owned** 🔥  
\$29.93 - Pair of Vintage Bollinger 3 Lb Dumbbell Weights Weight Lifting Unscrewa...  
rover.ebay.com

[View item](#)

[More in Pre-Owned](#)



**Best Value** 🔥 622 sold  
\$48.99 - New Weight Dur Barbell Plates Body Wo...  
rover.ebay.com

Which activity do you have in mind?

Which activity do you have in mind?

fitness

Take a look at what I found for fitness ones.

		
<p>ill Combo Set Exercise</p>	<p><b>Best Value</b> 🔥            \$44.28 - Workout Training Curl Bar Dumbbell Combo Set Exercise Weight Lifting Ho...            rover.ebay.com</p> <p style="text-align: center;"><a href="#">View item</a>  <a href="#">More in Best Value</a></p>	<p><b>Fast Shipping</b> 🔥            \$27.73 - CAP Barbell Color Coated Hex Single Dumbbell 15 lbs. Weight Lighting Eq...            rover.ebay.com</p> <p style="text-align: center;"><a href="#">View item</a>  <a href="#">More in Fast Shippin...</a></p>

Do you like what you see?

		
<p><b>Top Match</b> 🔥            \$44.28 - Workout Training Curl Bar Dumbbell Combo Set Exercise Weight Lifting Ho...            rover.ebay.com</p> <p style="text-align: center;"><a href="#">View item</a>  <a href="#">More in Top Match</a></p>	<p><b>Best Value</b> 🔥            \$44.28 - Workout Training Curl Bar Dumbbell Combo Set Exercise Weight Lifting Ho...            rover.ebay.com</p> <p style="text-align: center;"><a href="#">View item</a>  <a href="#">More in Best Value</a></p>	<p><b>Fast Shipping</b> 🔥            \$27.73 - CAP Barbell Colc Weight Lighting Eq...            rover.ebay.com</p>

[i pick the top match](#)

Awesome! Head on back to the item you're interested in and click on the "view item" button to learn all about it. 😊 ...

[can i purchase it](#)

I'm the bot who finds great deals on anything. Type what you want below or send me a photo and let's start shopping!

[can i buy them here?](#)

I'm the bot who finds great deals on anything. Type what you want below or send me a photo and let's start shopping!

are we still talking about weights?

You've got great taste. Take a look at what



1/7

Workout Training Curl Bar Dumbbell  
Combo Set Exercise Weight Lifting  
Home Gym

**\$44.28**

Shipping: Free based on 95125  
Delivery: Est. July 20  
Condition: New with tags

**Buy**

Item Description

BEST PRICING FREE SHIPPING HIGH QUALITY  
Workout Training Curl Bar Dumbbell Combo  
Set Exercise Weight Lifting Home Gvm

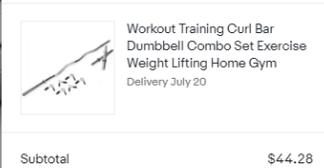
View item  
More in Top Match

Head on back to the item you're interested

Fast Shi  
\$27.73 -  
Weight  
rover.eb

ng, are we still talking about weights?

You've got great taste. Take a look at what



Workout Training Curl Bar  
Dumbbell Combo Set Exercise  
Weight Lifting Home Gym  
Delivery July 20

Subtotal	\$44.28
Shipping	Free
Tax	TBD
<b>Total</b>	<b>TBD</b>

**Ship to**

Full name

Address

View item  
More in Top Match

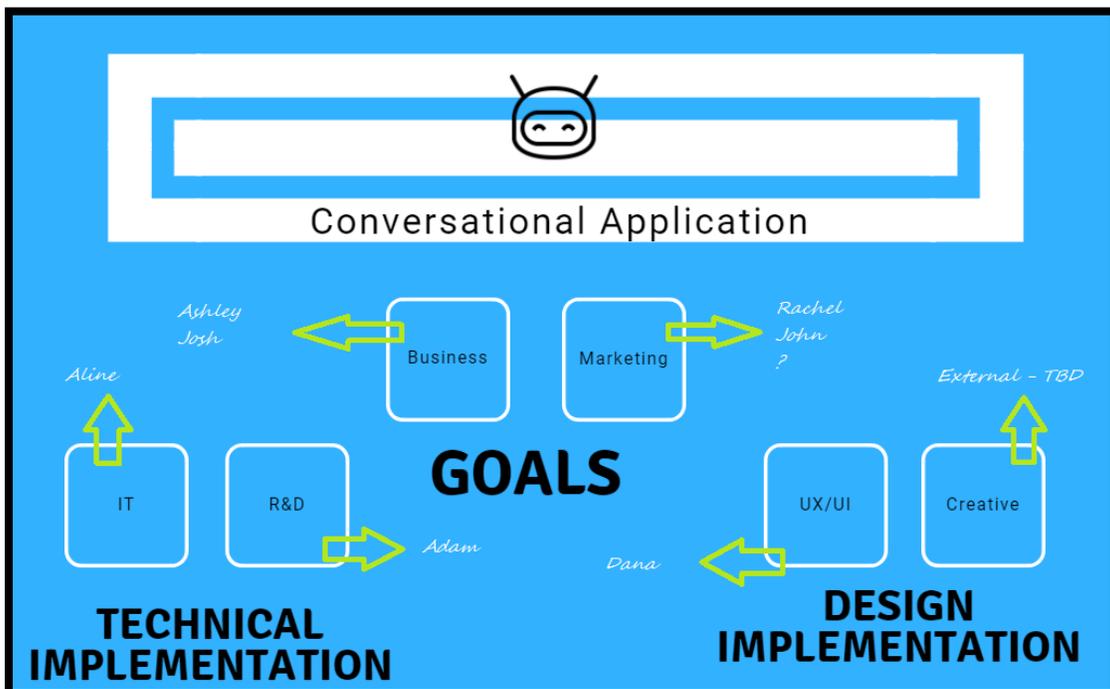
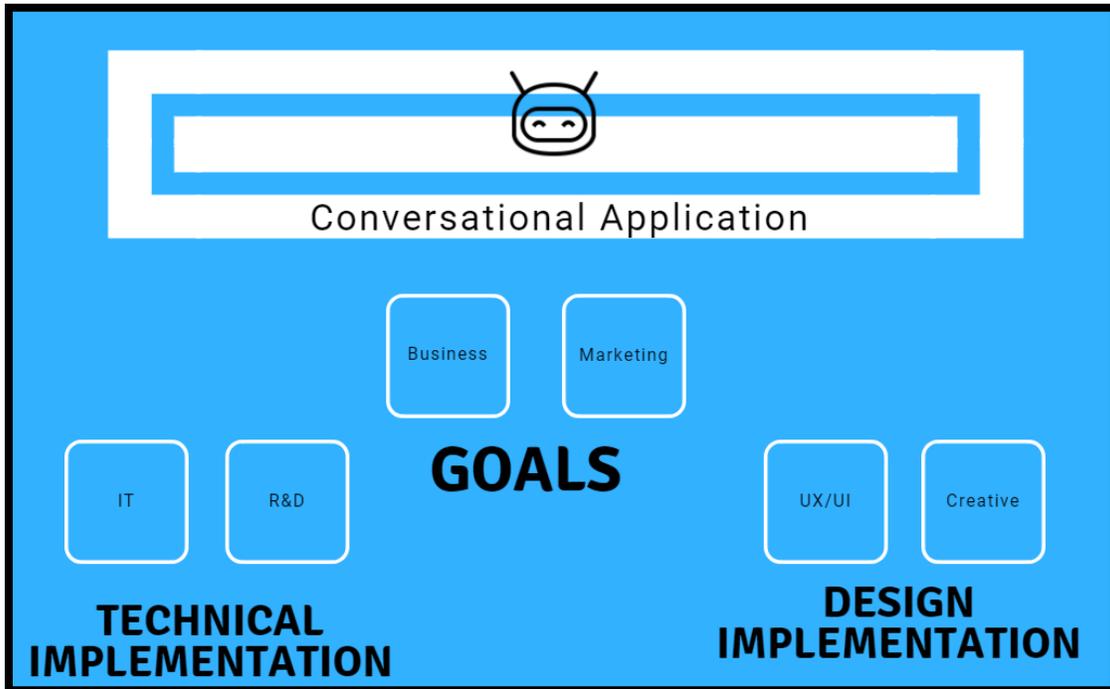
Head on back to the item you're interested

I'll take the CAP B

i pick the top

can i purch

# Chapter 10: Conversational Design Project – A step-by-step Guide





## Conversational Application Project

### DEFINING GOALS



*the goal is to...*

*because...*



*Current solutions:*

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_

*what is missing:*

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_



*The bot will*

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_

## DEVICES AND CHANNELS

### voice

- Phone
- Amazon Alexa
- Google Home
- Voicebot
- \_\_\_\_\_
- \_\_\_\_\_

### chat

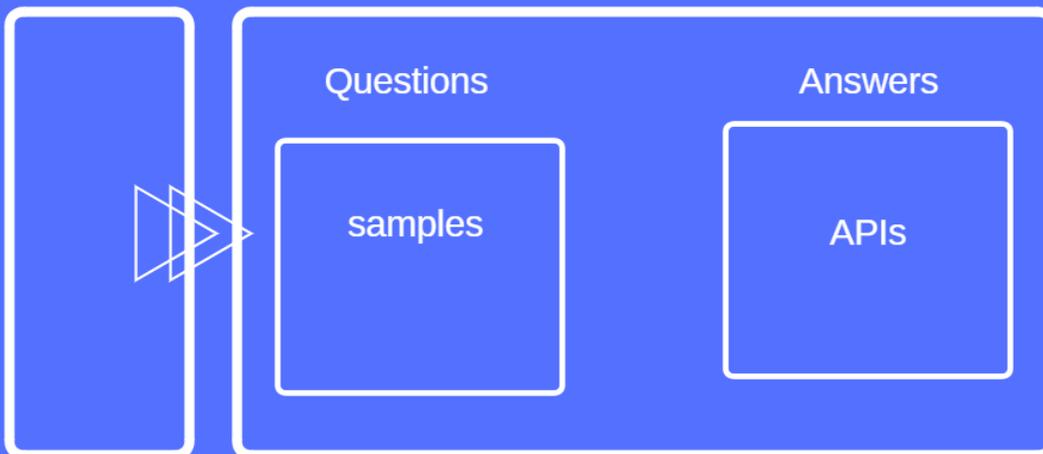
- Chatbot
  - Desktop
  - Mobile
- Texting
- Facebook M. Bot
- \_\_\_\_\_

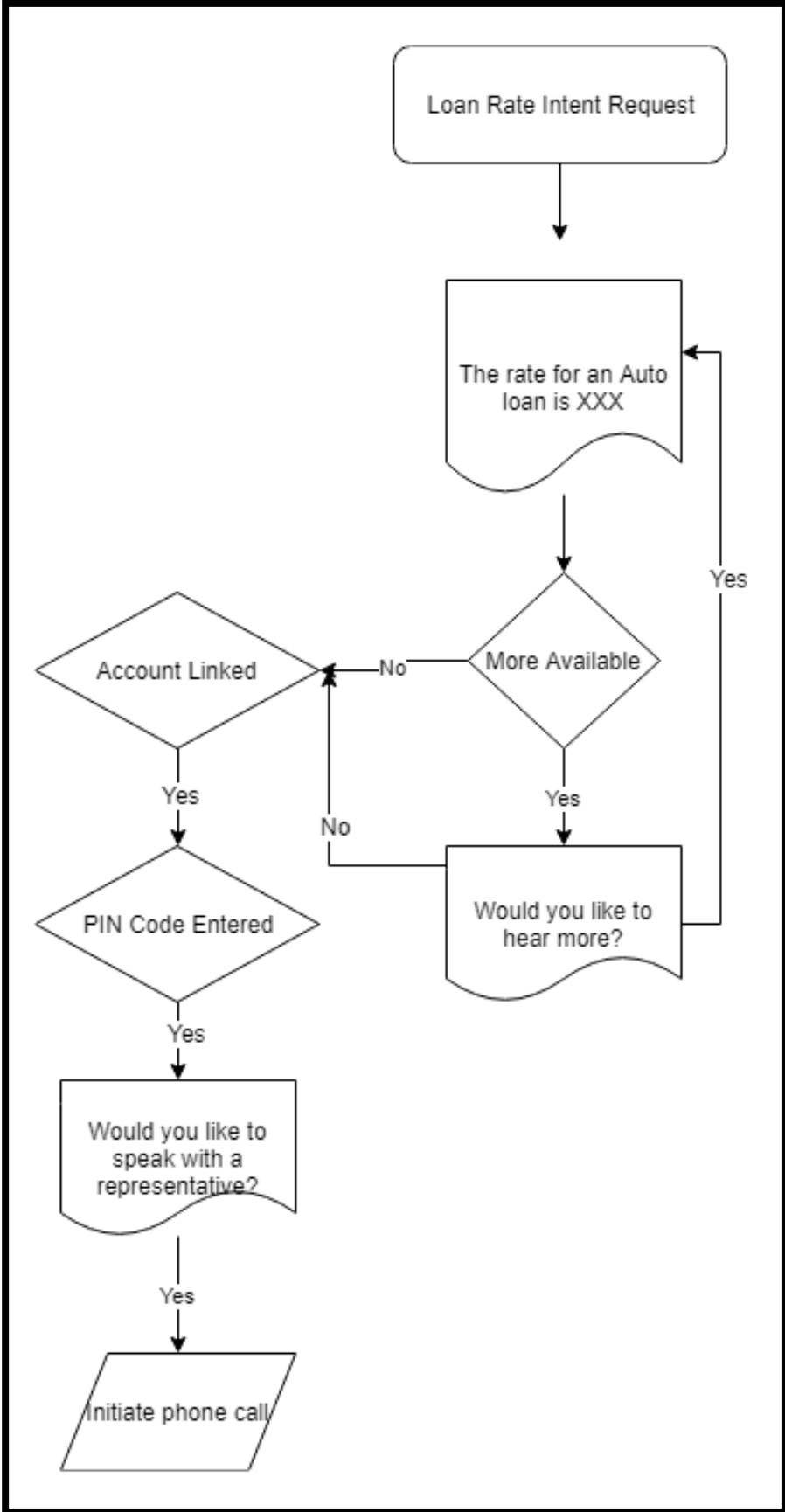


## Building functionality

Use Cases

Conversational Flows







# Conversational Application Design Checklist

1	Define Stakeholders	<input type="checkbox"/>
2	Define Goals	<input type="checkbox"/>
3	Define Target Group	<input type="checkbox"/>
4	Supported Devices	<input type="checkbox"/>
5	Persona	<input type="checkbox"/>
6	Functionality and Use-Cases	<input type="checkbox"/>
7	Development and Testing	<input type="checkbox"/>
8	Deployment and Maintenance	<input type="checkbox"/>

