

help*shift*

Competitive Analysis

Chatbots

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The Goal

Key Goal



The market has several **broad, general purpose, AI NLP** chatbot platforms. Through this project, we aim to prove that Helpshift's narrow, differentiated approach is **working**, and possibly **better**.

The Script

The Scenario

A customer has to edit the details of an online order.

For the purposes of this use case, this includes the shipment date, delivery address, and shipping method.

Support Bot: How can we help?

helpshift

Change order

Great! Would you like to change your drop-off date and time, location, or shipping method?

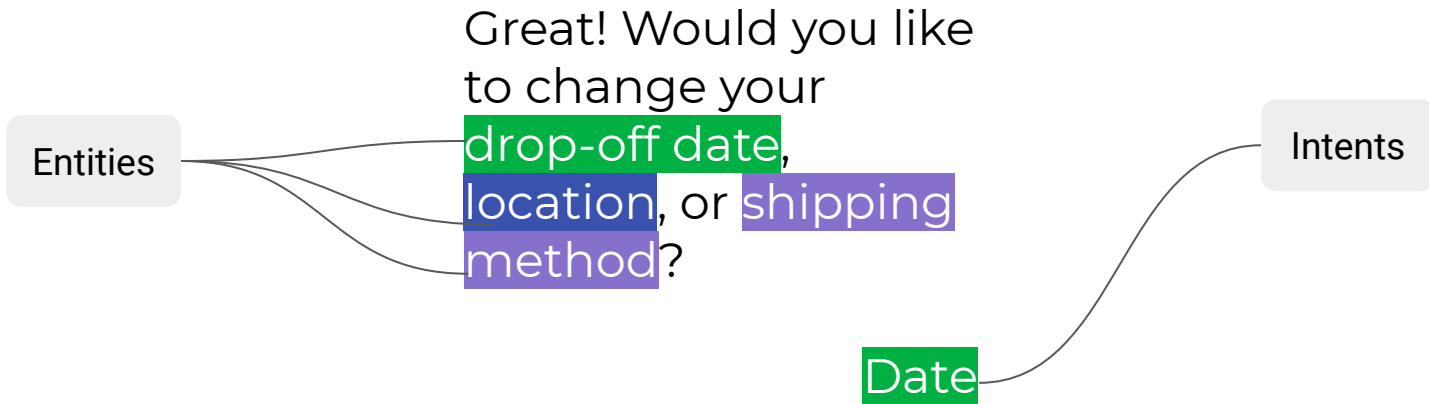
Date and time

Your current shipment is scheduled to arrive on Thursday, July 25, at 3:30pm. What date and time works better for you?

Wednesday 3:00

Great! Your shipment has

Converting a Script to a Bot



Iterations of the Script

Version 1

“Change order” vs
“Reschedule order”

Only accounts for time
as an edit option

Uses option pills

Version 2

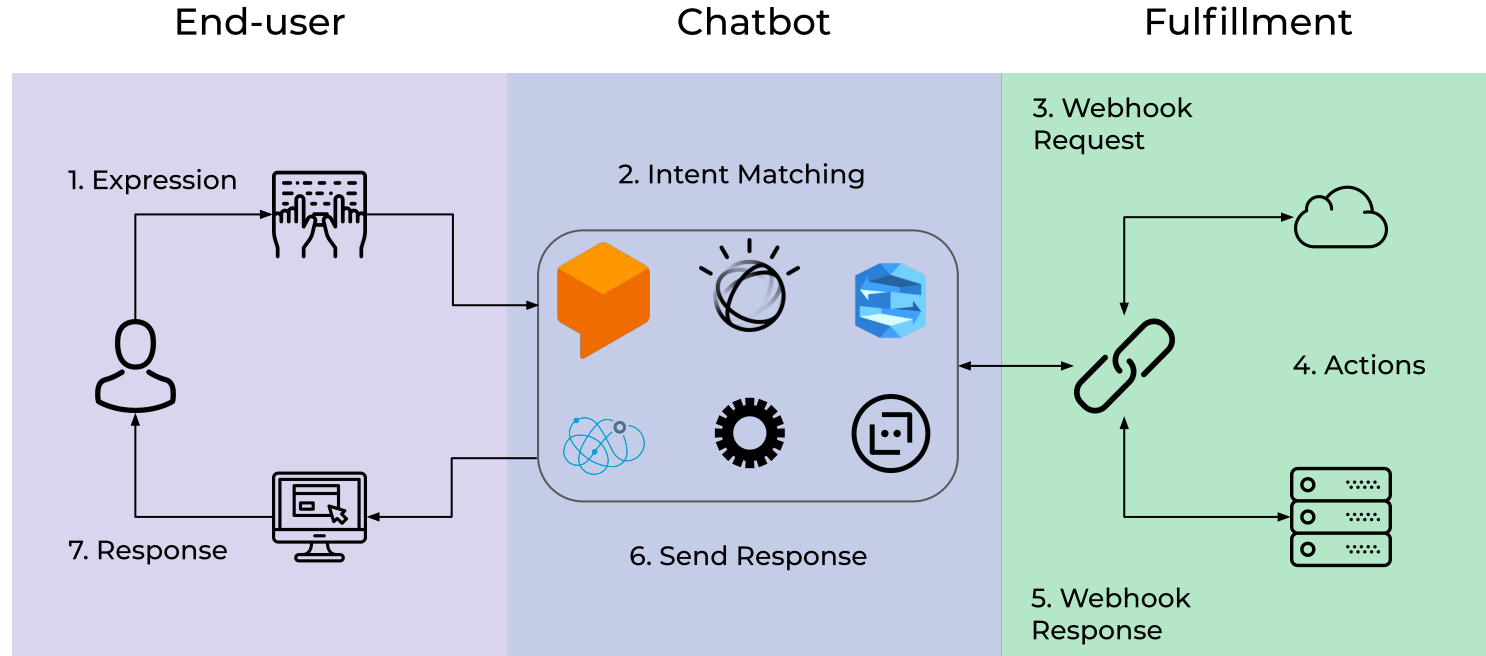
“Change order” vs
“Cancel order”

Considers time,
location, and shipping
method changes

Formatted for
conversational AI

The Bot

Chatbot Processing Flow



Evaluation Criteria

The Criteria

Technical

Technical Features
Programming
Languages
Integrations

Customer


Languages Offered
Licensing Options

Miscellaneous

Channels
Clients/Apps
My Bot

Overall Analysis

Overall Analysis

	Programming Language Integration	Supported Languages	Third Party Integration	Target Use Case
 Dialogflow	●	●	●	Mid-level B2C Bots + Virtual Assistants
 Watson™	●	●	●	Virtual Assistants + Bots Compatible with IBM
 amazon LEX	●	●	●	Previews + Mockups
 einstein	●	●	●	B2C Bots
 LIVEPERSON	●	●	●	B2C Bots + Support
 Microsoft Bot Framework	●	●	●	Enterprise Bots + Virtual Assistants

The Goal

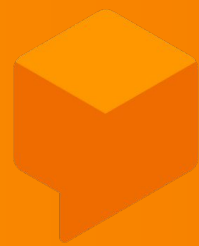
The Script

The Bot

Evaluation Criteria

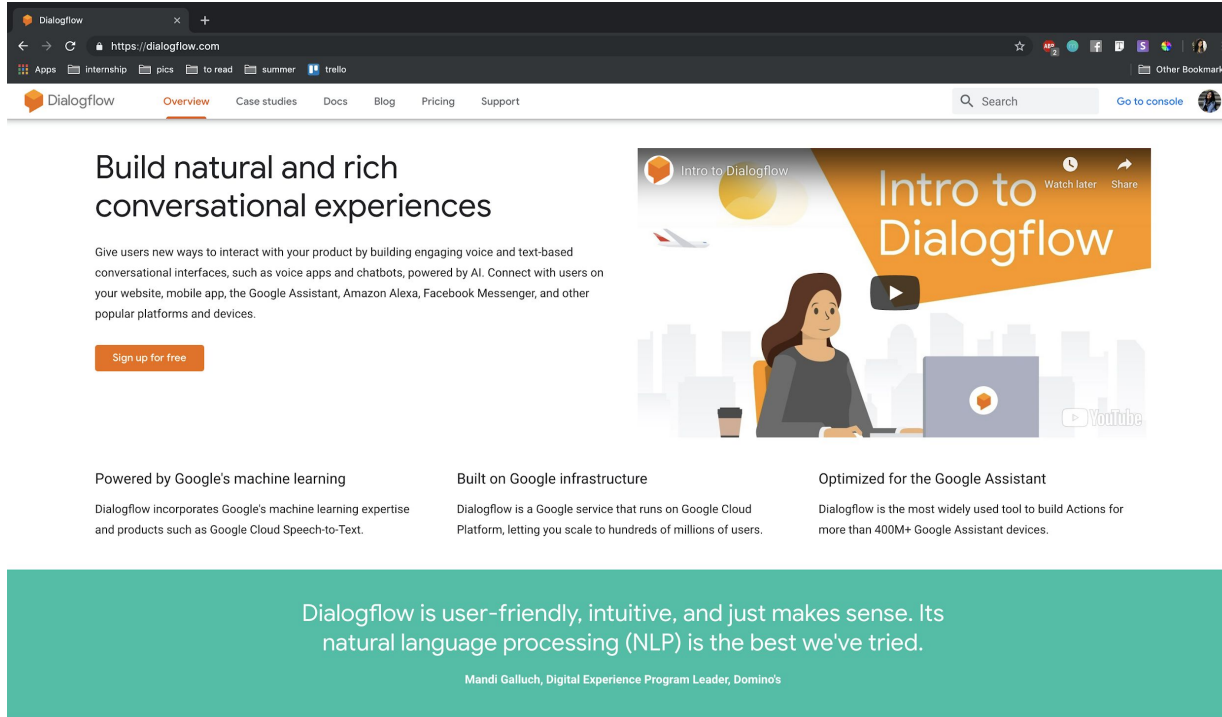
Analysis

Final Thoughts



Dialogflow

Demo: Google Dialogflow



The screenshot shows the Google Dialogflow website. The browser address bar displays 'https://dialogflow.com'. The website header includes the Dialogflow logo, navigation links (Overview, Case studies, Docs, Blog, Pricing, Support), a search bar, and a 'Go to console' button. The main content area features a large heading 'Build natural and rich conversational experiences' followed by a paragraph about building voice and text-based interfaces. A 'Sign up for free' button is present. To the right is a video player titled 'Intro to Dialogflow' showing a woman at a laptop. Below the main text are three columns: 'Powered by Google's machine learning', 'Built on Google infrastructure', and 'Optimized for the Google Assistant'. A teal banner at the bottom contains a quote from Mandi Galluch.

Build natural and rich conversational experiences

Give users new ways to interact with your product by building engaging voice and text-based conversational interfaces, such as voice apps and chatbots, powered by AI. Connect with users on your website, mobile app, the Google Assistant, Amazon Alexa, Facebook Messenger, and other popular platforms and devices.

[Sign up for free](#)

Powered by Google's machine learning
Dialogflow incorporates Google's machine learning expertise and products such as Google Cloud Speech-to-Text.

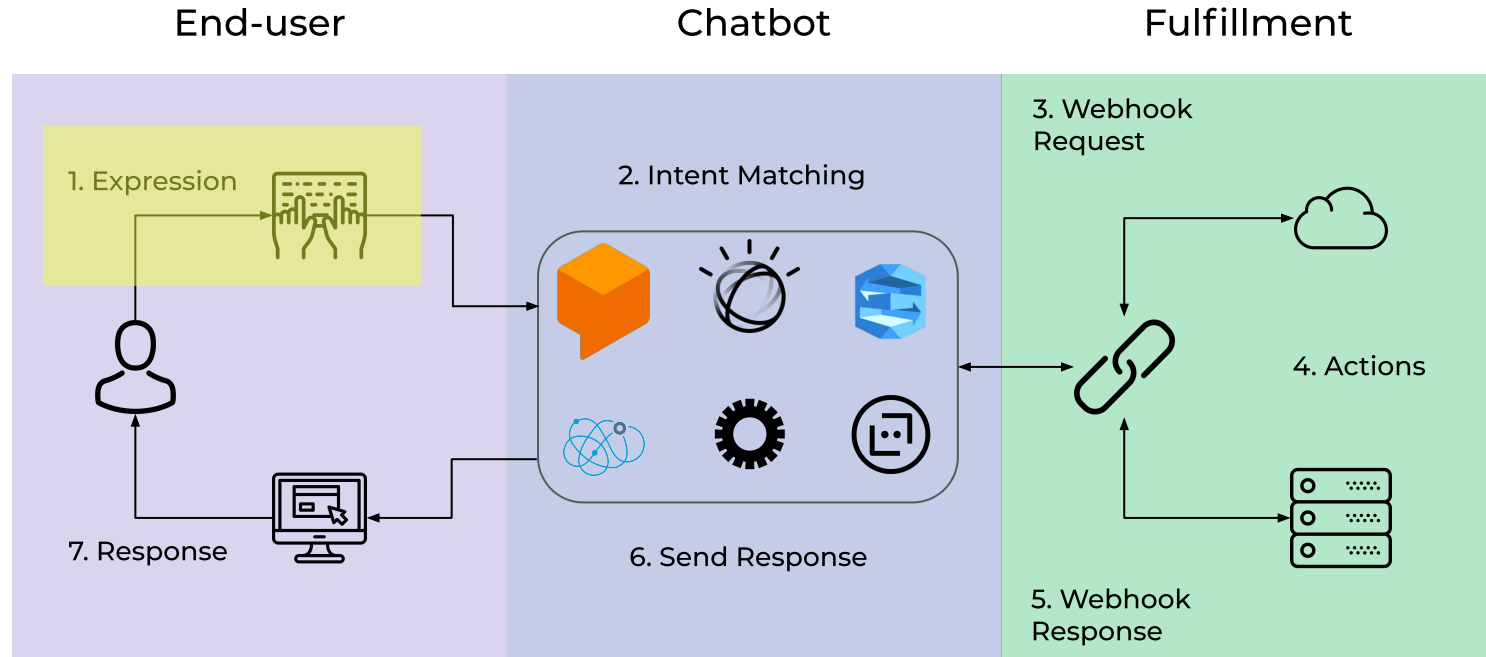
Built on Google infrastructure
Dialogflow is a Google service that runs on Google Cloud Platform, letting you scale to hundreds of millions of users.

Optimized for the Google Assistant
Dialogflow is the most widely used tool to build Actions for more than 400M+ Google Assistant devices.

Dialogflow is user-friendly, intuitive, and just makes sense. Its natural language processing (NLP) is the best we've tried.

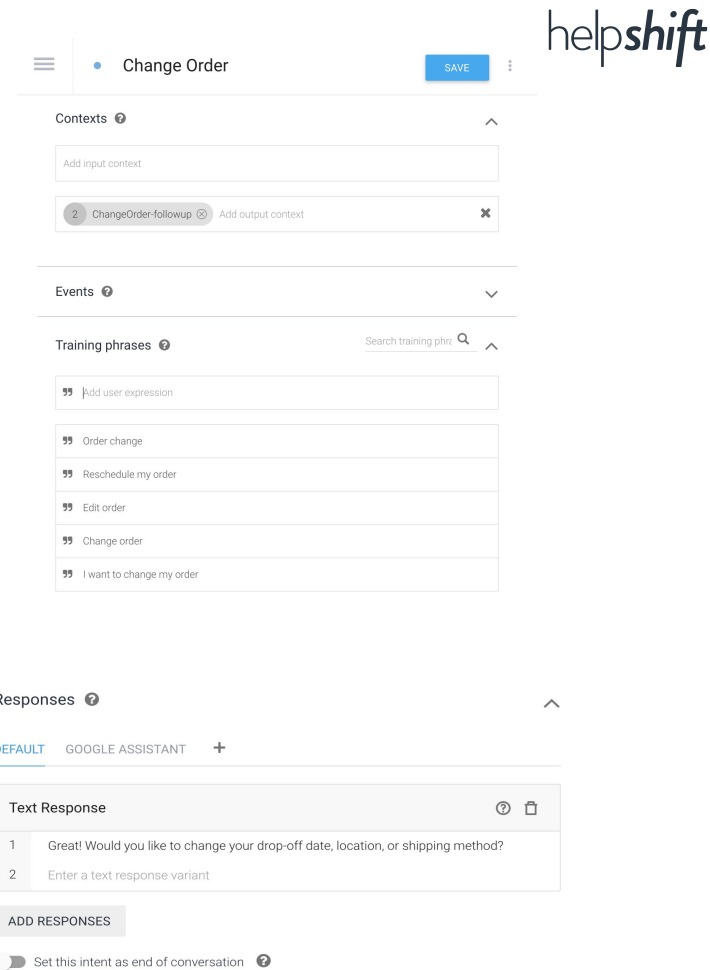
Mandi Galluch, Digital Experience Program Leader, Domino's

Chatbot Processing Flow



Intent Creation

1. Add training phrases
2. Add text responses



The screenshot displays the 'Change Order' intent creation page in the helpshift interface. At the top right is the 'helpshift' logo. The page title 'Change Order' is centered at the top, with a 'SAVE' button to its right. Below the title, there are three main sections: 'Contexts', 'Events', and 'Training phrases'. The 'Contexts' section contains an 'Add input context' field and a list with one item: '2 ChangeOrder-followup'. The 'Events' section is currently collapsed. The 'Training phrases' section has a search bar and a list of phrases: 'Add user expression', 'Order change', 'Reschedule my order', 'Edit order', 'Change order', and 'I want to change my order'. Below these sections is the 'Responses' section, which is also collapsed. When expanded, it shows a 'Text Response' table with two rows: '1 Great! Would you like to change your drop-off date, location, or shipping method?' and '2 Enter a text response variant'. There is an 'ADD RESPONSES' button and a toggle switch labeled 'Set this intent as end of conversation'.

helpshift

Change Order

SAVE

Contexts

Add input context

2 ChangeOrder-followup

Events

Training phrases

Search training phrase

Add user expression

Order change

Reschedule my order

Edit order

Change order

I want to change my order

Responses

DEFAULT GOOGLE ASSISTANT +

Text Response




1	Great! Would you like to change your drop-off date, location, or shipping method?
2	Enter a text response variant


ADD RESPONSES

☐ Set this intent as end of conversation

Entity Creation

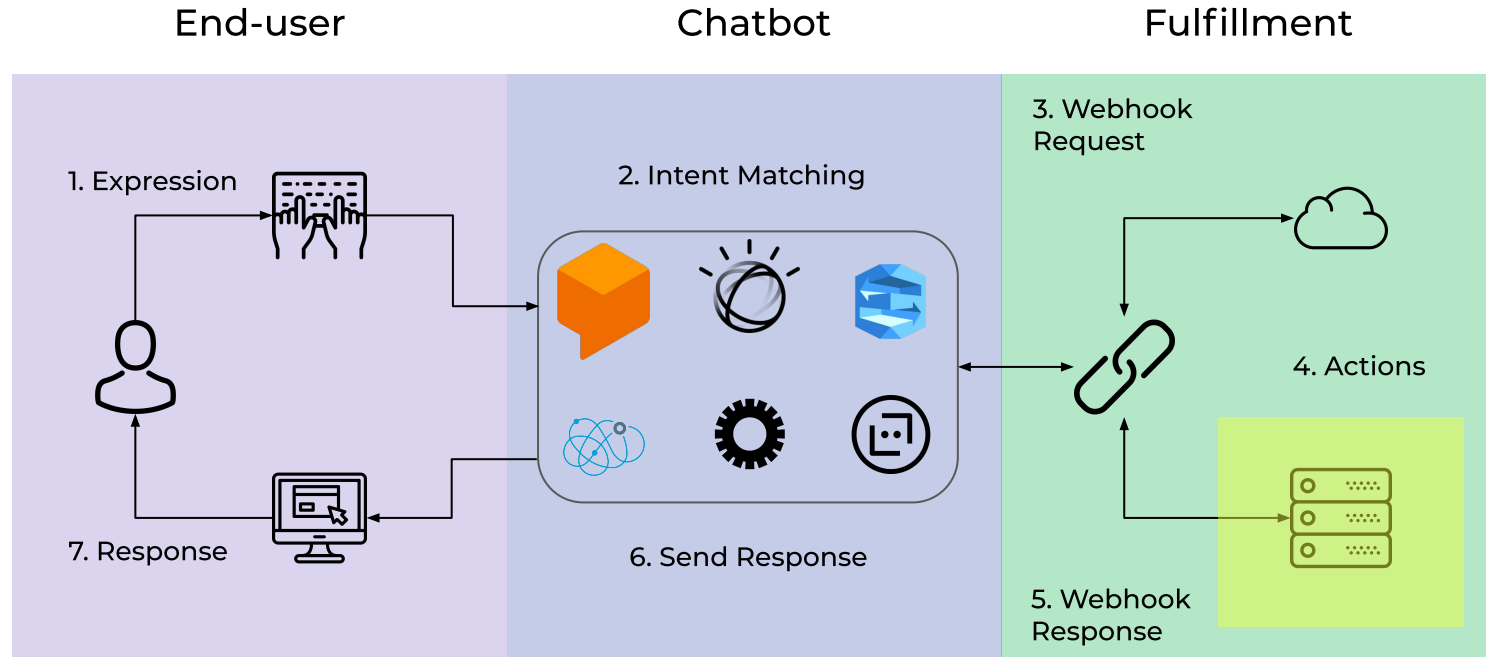
1. Add terms
2. Define their synonyms

Shipping

☒ Define synonyms  ☐ Allow automated expansion

Express	Express Critical, Same day, Same-day
One Day	1 Day, Next Day, Next-Day, One-Day
Shipping	Delivery method
Standard	Normal, Standard
Three Day	3 Day, Three Day, Three-Day
Two Day	2 Day, Two-Day
Click here to edit entry	

Chatbot Processing Flow



Database Creation

1. Create cluster
2. Create database and collection
3. Populate the database

Orders.OrderDetails

COLLECTION SIZE: 1.72KB TOTAL DOCUMENTS: 10 INDEXES TOTAL SIZE: 36KB

Find Indexes Aggregation

INSERT DOCUMENT

FILTER {"filter":"example"}

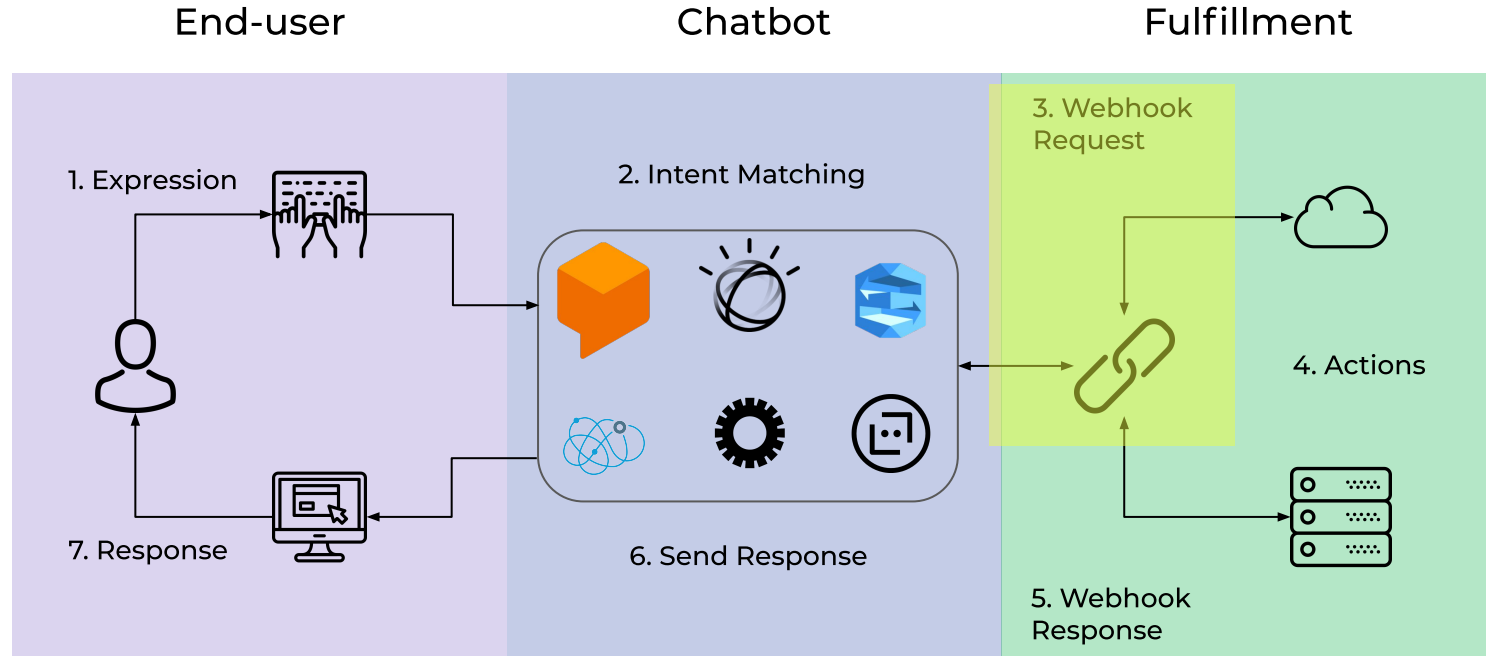
Find Reset

QUERY RESULTS 1-10 OF 10

```
_id: ObjectId("5d460f5a1c9d44000b8da6c")
username: "harrypotter"
orderid: 10000
deliverydate: 2019-07-29T07:00:00.000+00:00
shippingaddress: "343 Sansome Street, San Francisco, CA, 94104"
shippingmethod: "One day"
```

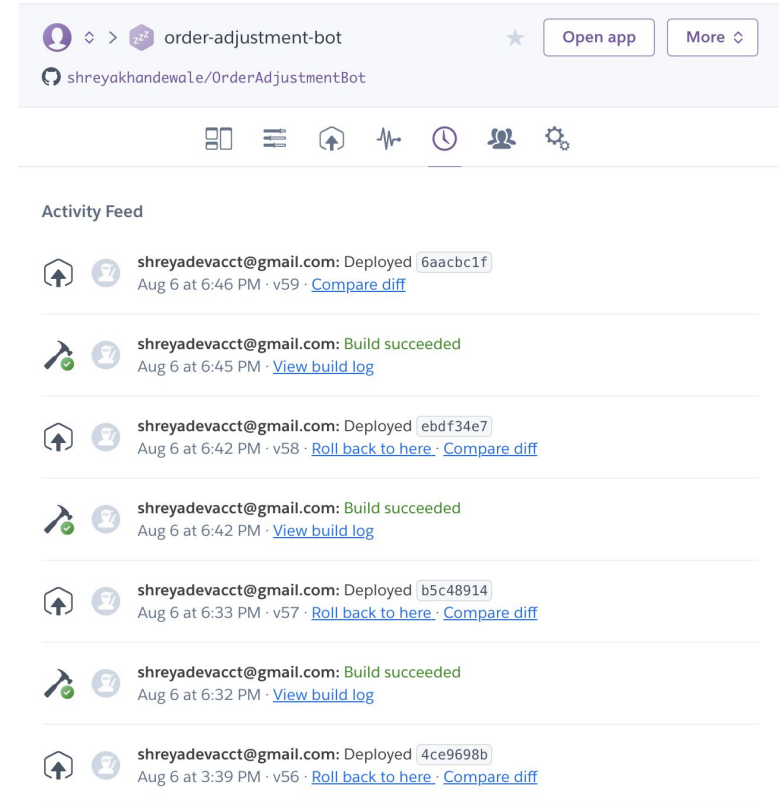
```
_id: ObjectId("5d4610411c9d44000b8da6d")
username: "harrypotter"
orderid: 10001
deliverydate: 2019-08-03T07:00:00.000+00:00
shippingaddress: "170 O'Farrell St, San Francisco, CA 94102"
shippingmethod: "One day"
```

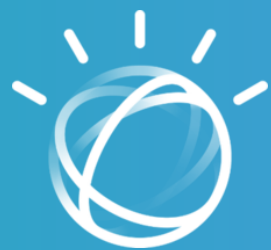
Chatbot Processing Flow



Webhook Creation

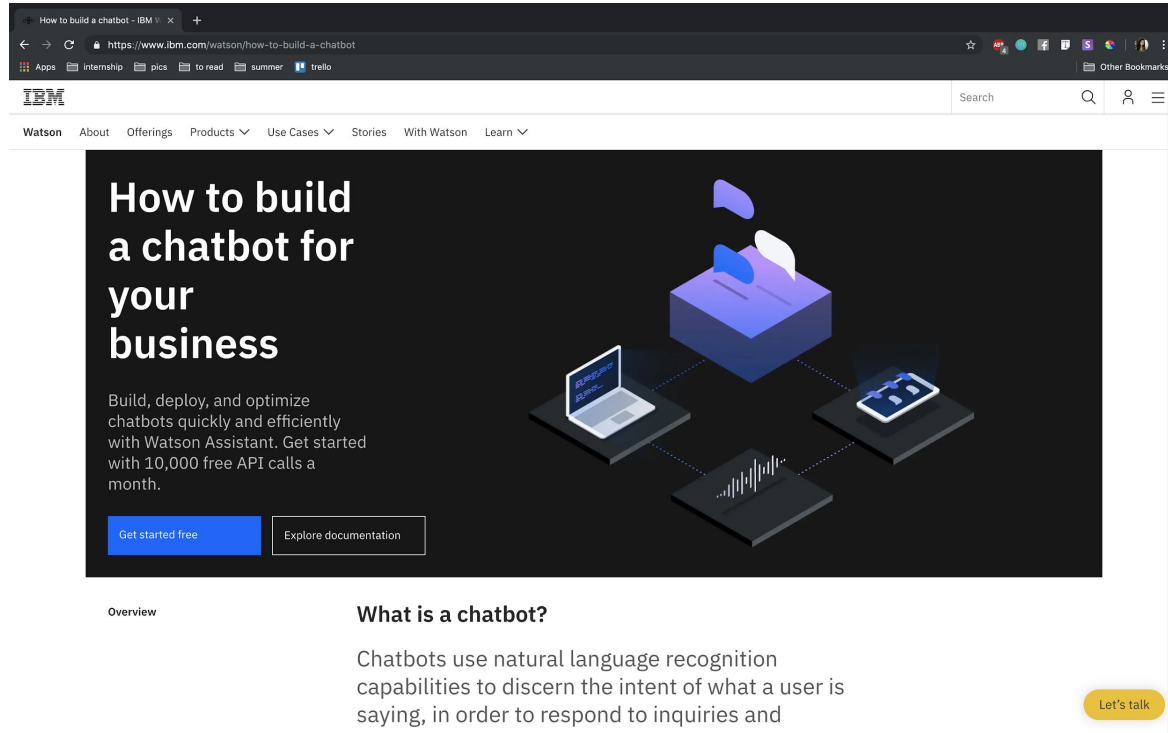
1. Upload code to Heroku
2. Deploy code
3. Make sure code works :(
4. Upload and deploy again





Watson™

Demo: IBM Watson



The screenshot shows a web browser window with the URL <https://www.ibm.com/watson/how-to-build-a-chatbot>. The page features the IBM logo and a navigation bar with links: Watson, About, Offerings, Products, Use Cases, Stories, With Watson, and Learn. The main content area has a dark background with the heading "How to build a chatbot for your business". Below the heading, it says: "Build, deploy, and optimize chatbots quickly and efficiently with Watson Assistant. Get started with 10,000 free API calls a month." There are two buttons: "Get started free" and "Explore documentation". To the right of the text is a 3D illustration of a blue box with a white document icon, connected by dashed lines to a laptop, a smartphone, and a server rack. Below the main content, there is a section titled "What is a chatbot?" with the text: "Chatbots use natural language recognition capabilities to discern the intent of what a user is saying, in order to respond to inquiries and". A yellow button labeled "Let's talk" is in the bottom right corner.

How to build a chatbot for your business

Build, deploy, and optimize chatbots quickly and efficiently with Watson Assistant. Get started with 10,000 free API calls a month.

[Get started free](#) [Explore documentation](#)

Overview

What is a chatbot?

Chatbots use natural language recognition capabilities to discern the intent of what a user is saying, in order to respond to inquiries and

[Let's talk](#)

Intent Creation

1. Add training phrases

[<](#) **#change_order**

Intent name
Name your intent to match a customer's question or goal. For example, #pay_bill or #open_account.


Description (optional)


Add user example


Add example


Show recommendations


☐ **User examples (5)** ▼

☐ Can I change my order? 

☐ Change order 

☐ edit order 

☐ I want to add something to my order 

☐ reschedule order 

Entity Creation

1. Add terms
2. Define their synonyms

[←](#) | @shipping

Entity name
Name your entity, for example @account_type or @credit_card.

Value name

Synonyms ▼

Synonyms

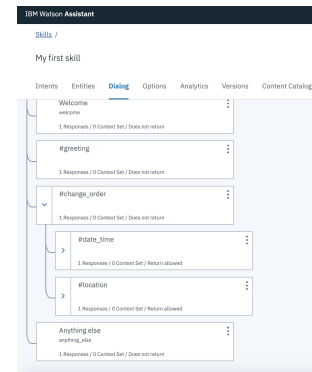
Dictionary

Annotation BETA

<input type="checkbox"/> Entity values (6) ▼	Type	
<input type="checkbox"/> expedited	Synonyms	fast, quick
<input type="checkbox"/> express	Synonyms	express critical, same day, same-d...
<input type="checkbox"/> one day	Synonyms	1 day, next day, next-day, one-d...
<input type="checkbox"/> standard	Synonyms	normal
<input type="checkbox"/> three day	Synonyms	3 day, three-d...
<input type="checkbox"/> two day	Synonyms	2 day, two-d...

Dialog Creation

1. Add intents
2. Add bot response to each intent

[Customize](#)

If assistant recognizes:

#change_order

Then respond with

Text

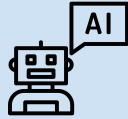
Great! Would you like to change your drop-off date and time, location, or shipping method?

Enter response variation

Response variations are set to **sequential**. Set to [random](#)
[Learn more](#)

Final Thoughts

Key Takeaways



Simple and Quick Setup

Very easy to get a bot's pre-trained front end up and running



Exhaustive Bot Training

Bots require at least 50 - 100 training phrases and intents for base-line training



Getting your hands dirty

Most bots required some technical knowledge or background on my part

Personal Takeaways



A Better Understanding of AI

How the technology works and how these platforms work



A Newfound Appreciation

It took me a lot of effort to get the Dialogflow bot up and running

Acknowledgements