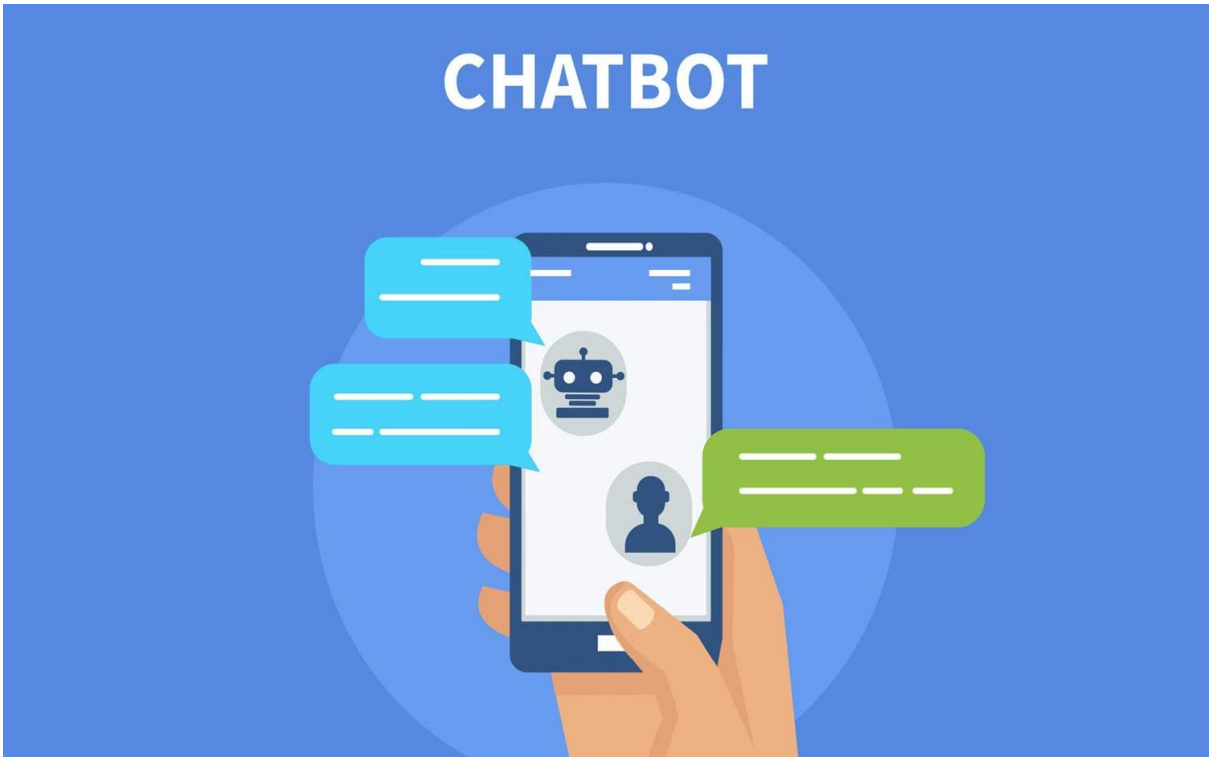
Clothing Store Chatbot



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Introduction:

This chatbot is built keeping in mind the customers of an e-commerce site. It aims at answering the basic queries of a customer such as related to the delivery, availability, etc. It suggests the customers on what to buy for their loved ones depending on the occasion. It also suggests the customers on what type of clothes to be bought for a particular type of season. It is made very user-friendly and also very interactive, it greets the customers with a welcome message and also replies to their goodbye messages. It can be deployed on any clothing site. We have deployed it on a static site and below is the link for the site.
https://clothingstorechatbot.herokuapp.com/

Brief list of type of queries answered by the bot:

- Greeting messages like hey, hello, hi, etc.
- Queries related to delivery info.
- Queries related to shipping charges.
- Queries related to placing an order.
- Queries related to cancellation of the already placed order.
- Queries related to refund of the payment.
- Queries related to method of payment.
- Queries about the bot itself.
- Suggestions on what to buy for their loved ones depending on the occasion.
- Suggestions on what type of clothes to buy depending on the season.
- General suggestions about clothes.
- General Chit-chat messages.
- Goodbye messages like bye, cya, etc.
- Thanking messages like thank you, thanks, tqsm, etc.

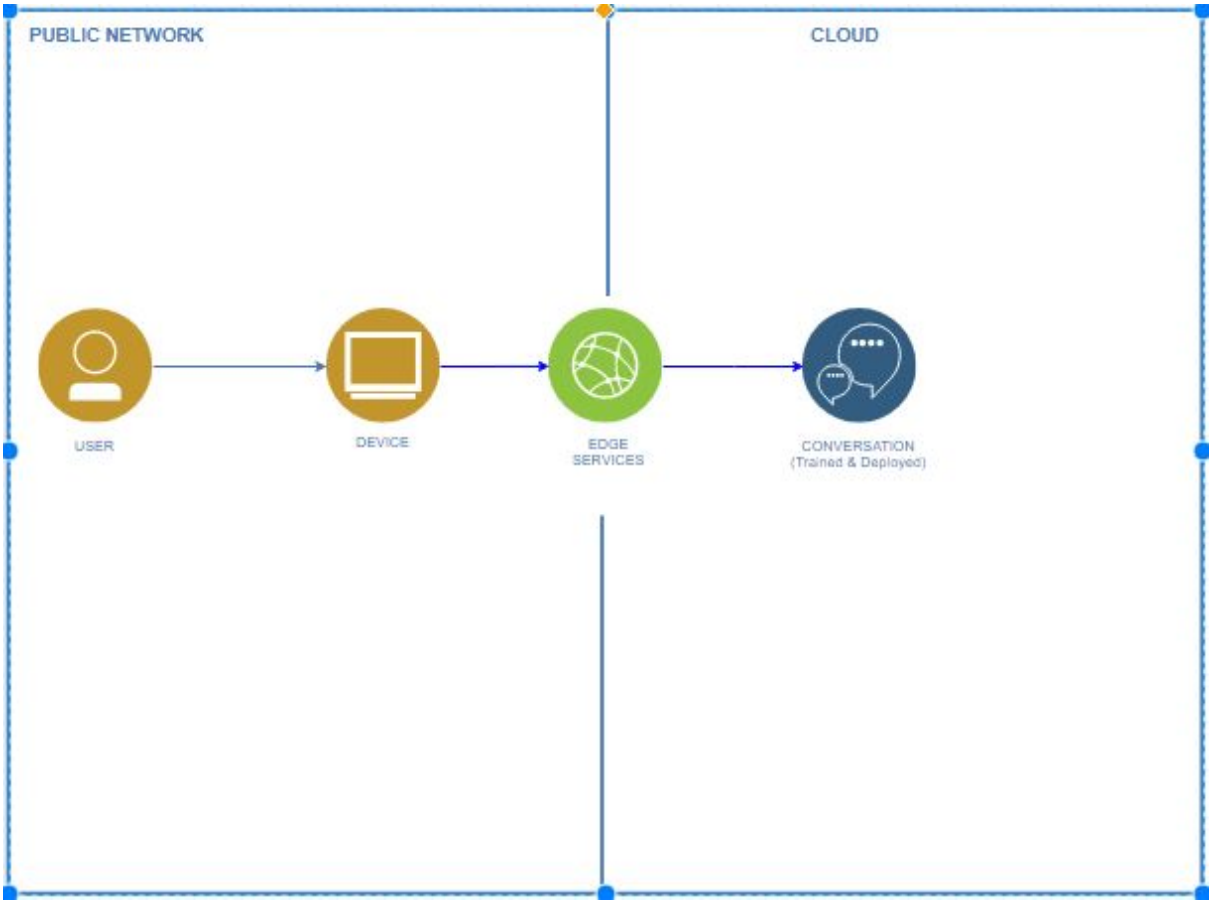
Intents, Entities, and Dialog Flow

Intents: An intent represents the purpose of a user's input. You define an intent for each type of user request you want your application to support. We have around 24 entities in our chatbot, which cover greetings, product info, delivery info, search suggestions, etc.

Entities: An entity represents a term or object that is relevant to your intents and that provides a specific context for an intent. You list the possible values for each entity and synonyms that users might enter. There are around 8 entities in our chatbot which cover brand, type, relation, occasion, etc.

Dialogue Flow: It represents the flow of the conversation in the chatbot. After a user enters some text in the bot section a particular node is identified using the entities found in the text and basing on the node identified the reply is sent from the watson assistant. We have around 15 nodes in the dialogue flow, which in turn have child nodes.

Architecture Diagram



Example queries :

Buy something for myself

Do you have adidas brand clothes? (levi's)

What should I buy for winter? (rainy, summer)

What should I buy for myself?

Want to buy something for my son? (friend, mother, wife, girlfriend, sister, daughter, husband)

do you have cloths in price under 1000?

Do you sell lungi? (leather jackets, sari)

Technologies used :

- Watson Assistant Formerly Watson Conversation

Watson Assistant is a service provided by IBM. It can provide an automated support for your business. It will provide an interface where customers can ask their queries. You can feed data in it and structure the chatbot the way you want to provide the best user experience the customer can have.

- Nodejs

Nodejs is an JavaScript framework used to develop lightweight web applications. Node.js uses an event-driven, non-blocking I/O model that makes it lightweight and efficient.

- EJS (Node Js templating engine)

Ejs is an templating engine used to generate HTML markup with plain javascript.

- Watson-developer-cloud (node-sdk)

Watson-developer-cloud is an node js library to access the service provided by watson in a node project.

Improvements or Further implementation:

Connection to the Database

We can improve the chatbot by connecting it to a database and show the results of suggestions with the links or details of a particular items.

Example: if a user enters a query like

User: I want to buy a red sweater.

Chatbot: sure, we have those available. Here are a few red sweaters.

www.link1.com/sweater1

www.link1.com/sweater2

Here, the chatbot gets the keyword ‘red sweater’ and search it in the database. If it finds the items tagged as ‘red sweater’ it gets the link and display it.

Watson tone analyser

Currently we are using only watson-asistent, but we can use other APIs like watson-tone-analyser to reply according to the mood of the customer.

If the customer is talking in angry tone, the chatbot can reply with more calm tone instead of a standard response.

Text to speech and speech to text support

We can add watson api for text to speech and speech to text for a more comfortable experience for the user.

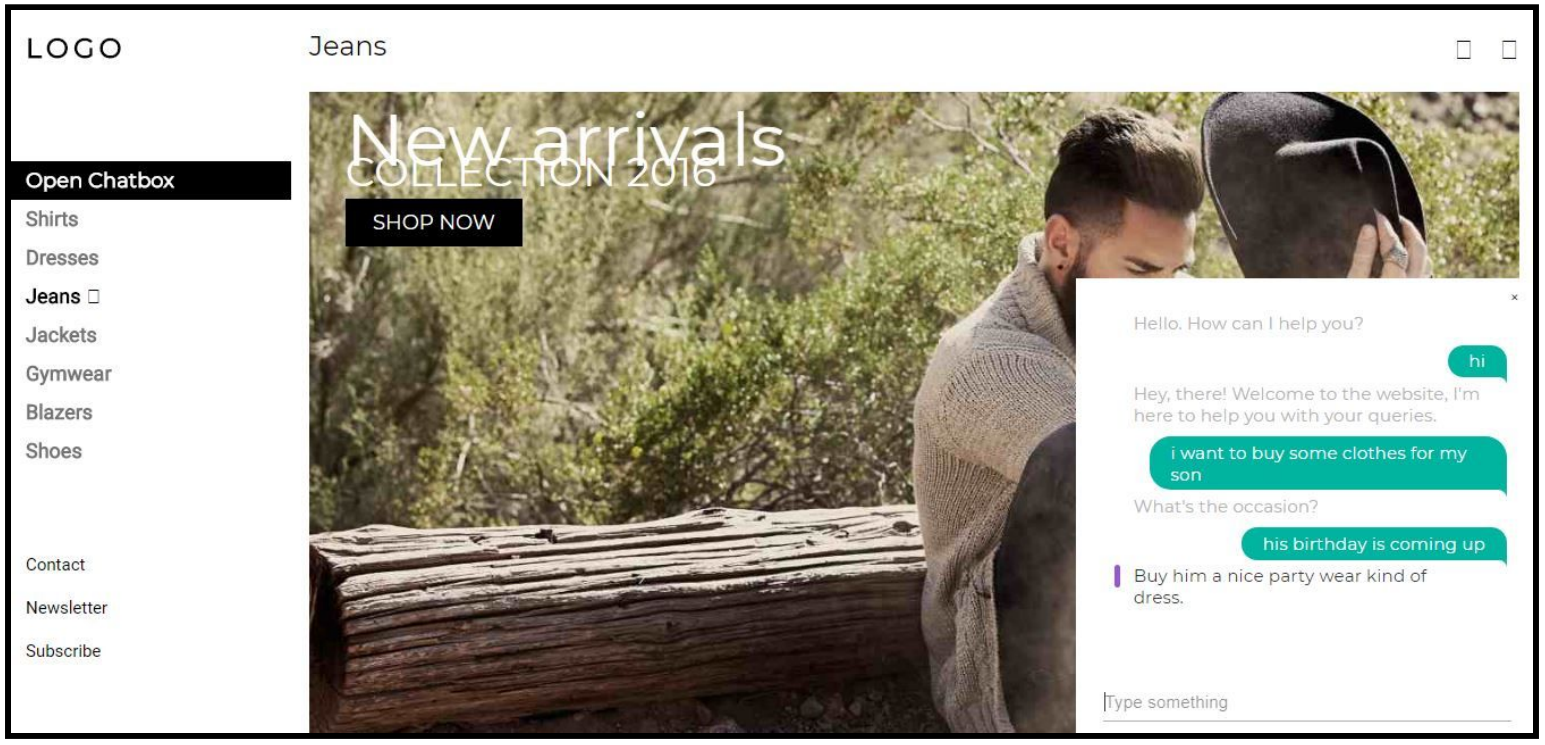
User can then just talk to chatbot and get the desired output.

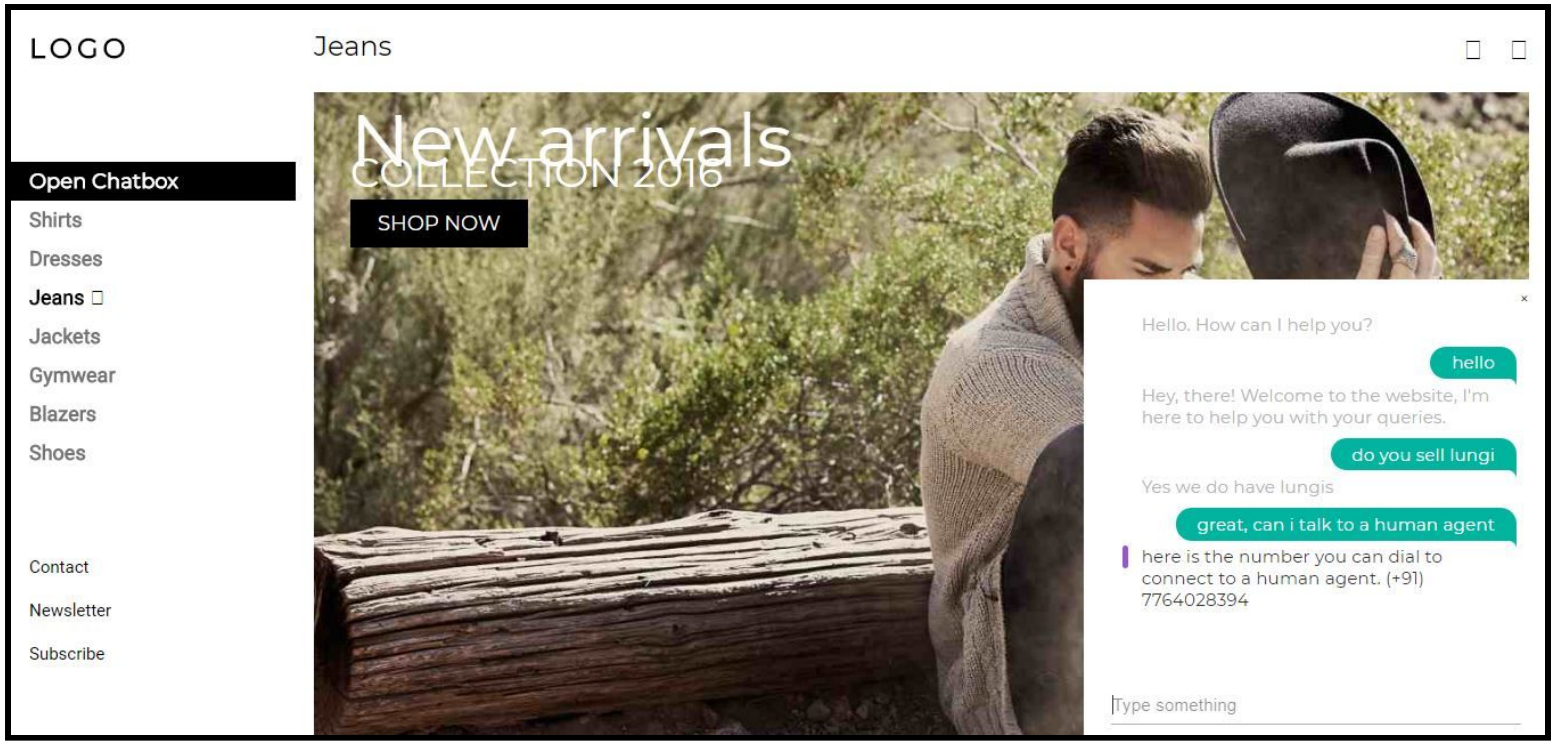
Watson Natural Language Understanding

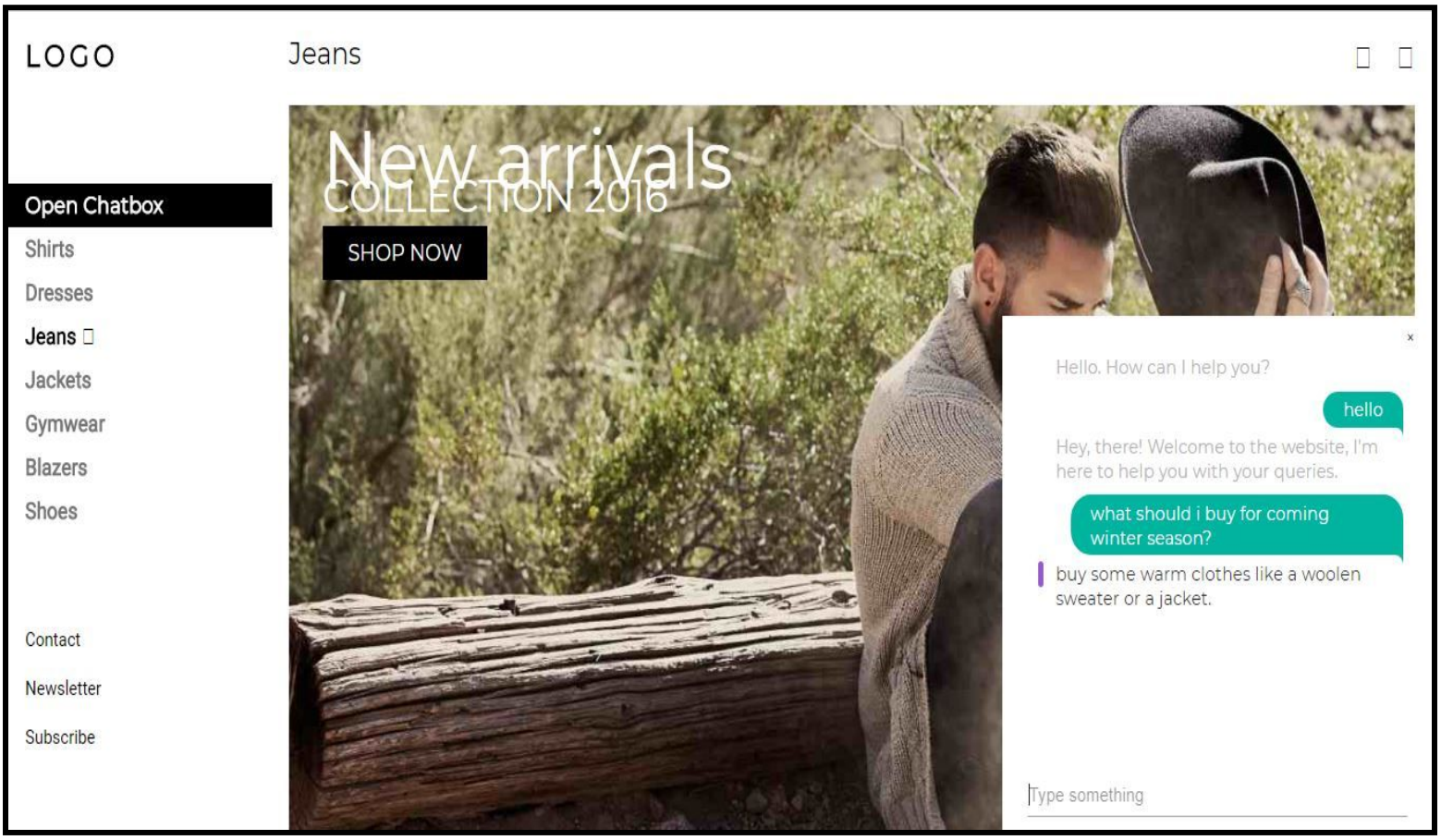
We can even use watson-natural-language-understanding to get the meaning of queries which are not saved in our intents.

Sometimes customers or users will enter a query for which our chatbot won’t have an intent or it will fail to recognize it. For those queries we can use natural language understanding api to get the meaning of sentences and reply appropriately.

Below are few snapshots of the website






LOGO
Jeans
Open Chatbox
Shirts
Dresses
Jeans
Jackets
Gymwear
Blazers
Shoes
Contact
Newsletter
Subscribe
New arrivals
COLLECTION 2016
SHOP NOW
Hello. How can I help you?
hello
Hey, there! Welcome to the website, I'm here to help you with your queries.
what should i buy for coming winter season?
buy some warm clothes like a woolen sweater or a jacket.
Type something