

# ONLINE SHOPPING BOT

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## PROJECT REPORT

Git Hub Link: <https://github.com/swathijn/IBMGURUCOOL--ONLINE-SHOPPING-BOT.git>

### 1.Introduction

#### 1.1. Overview

Online shopping plays a great role in the modern business environment. The best option available for the customers in pandemic situations is to use chat bots for online shopping. To support customers in a better way, online shopping bot has opened a door of opportunity and advantage to the firms and customers for having a feel of buying items in a better way. The bot helps to introduce the online shop by listing the items available; it also shows the price of the items and takes order from the customer. If the customer wishes to see the items, the bot also provides the images of the items. This facility ensures the customer sees the products live and gives request to buy items.

#### 1.2 Purpose

The online shop bot can help the customer to see the list of items available, images of the images, price of the items and also accepts order for the items. The purpose of this bot is to save valuable time and money of travel.

### 2 Literature Survey

In this section, we will discuss the existing solutions available for online shopping and the proposed solution to overcome the limitations.

#### 2.1 Existing Problems and Solutions

In the past decade, people use internet as a daily service to access emails, perform online tasks, do shopping, etc. Naturally, people have widely started using internet at shopper stops too. This showed their willingness to do online shopping. This brings huge responsibility on the shop owners to keep up the buyer's faith on the particular website. The most important points that affect the customer attitude towards online shopping are customer convenience, collection of information, social contact, and customer diversity. There are several websites available currently to handle online shopping like Amazon, FlipKart, Big Bazaar, etc. Kotler, (2003) has described the Customer buying method in several sequential steps namely learning, information processing, information searching, evaluating the alternatives, decision making and post purchase behavior. When using such websites usability and trust also plays a major role and these issues to be handled carefully. With all these facilities available, still we could find some gap in existing website based online shopping solutions where the user has

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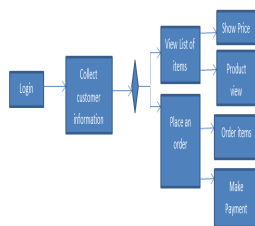
limited freedom to communicate or ask doubts regarding items and get a feel of having a discussion with shoppers. This limitation can be overcome in using chat bot for online shopping.

## 2.2 Proposed Solution

In recent years, many organizations have shown tremendous interest in developing chat bots for online shopping. This chat bots help customers to handle their queries and to provide information on any kind of items requested. The willingness of the customers to use shopping bot also increased enormously due to the interest of shopping using internet in pandemic times.

## 3. Theoretical Analysis

### 3.1 Block diagram



### 3.2 Hardware /software requirements

- Processor: Intel i5
- Memory: 16GB
- System Type: 64 Bit Operating system
- IBM Watson Assistant
- Node RED UI Generator

## 4. Experimental Investigations

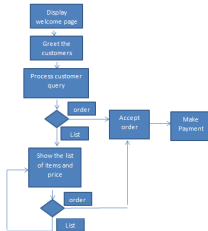
The online shopping bot is developed using IBM Watson. The intents, entities and

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context variable are generated, the json file can downloaded.

## 5. Flow chart



## 6. Result

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The screenshot displays the IBM Watson Assistant Lite web interface. The browser address bar shows the URL: <https://eu-gb.assistant.watson.cloud.ibm.com/eu-gb/cmv1:bluemixpublicconversationeu-gba-2f068a85d4d0d940f1a1a6935...>. The page title is "IBM Watson Assistant Lite" with an "Upgrade" link. The main heading is "Online Shopping Bot" with a subtext: "In today's pandemic situation, our shopping bot helps the people by providing an online option to shop for essentials." Below this, the "Skill" section explains that a dialog skill provides specific responses and offers a "Learn more" link. The "Dialog" section lists the skill "Online shopping store" with details: LANGUAGE: English (US), TRAINED DATA: 7 Intents | 21 Entities | 81 Dialog nodes, VERSION: ---, and DESCRIPTION: ---. It also shows "LINKED ASSISTANTS (1): Online Shopping Bot". The "Integrations" section includes a "Preview link" button and two options: "Add your assistant to your company website" with an "Integrate web chat" link, and "Choose a channel to deploy your assistant" with an "Add integration" link. The Windows taskbar at the bottom shows the search bar, taskbar icons, and system clock indicating 11:02 PM on 10/26/2020.

IBM Watson Assistant Lite Upgrade

## Online Shopping Bot

In today's pandemic situation, our shopping bot helps the people by providing an online option to shop for essentials.

### Skill

A dialog skill provides specific responses you've created. Choose one for your assistant. [Learn more](#)

#### Dialog

Online shopping store
LANGUAGE: English (US)
TRAINED DATA: 7 Intents   21 Entities   81 Dialog nodes
VERSION: ---
DESCRIPTION: ---
VERSION CREATED:
LINKED ASSISTANTS (1): Online Shopping Bot

#### Integrations

[Preview link](#)

Add your assistant to your company website. [Integrate web chat](#)

Choose a channel to deploy your assistant. [Add integration](#)

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The screenshot shows the IBM Watson Assistant Lite interface for an 'Online shopping store' workspace. The interface is divided into two main sections: Intents and Entities.

**Intents Section:**

- Intents (7) ↑**
- Description**
- Modified T1**
- Examples T1**

Intent	Description	Modified T1	Examples T1
#cleaningitems		9 days ago	3
#Dairyproducts		14 days ago	3
#Drinks		9 days ago	4
#Enquiry	This intent helps to provide the list of ite...	a day ago	7
#Greetings	This intent gives a welcome message to t...	16 days ago	5
#order	Takes the order	8 days ago	6
#snacks		9 days ago	4

Showing 1-7 of 7 intents

**Entities Section:**

- Entity (20) ↑**
- Values**
- Modified T1**

Entity	Values	Modified T1
@address	street	a day ago
@biscuits	goodday, salt	7 days ago
@chocolates	5star, dairy milk	a day ago
@cleaningitems	floor cleaner, hand wash, sanitizer	9 days ago
@Dairyproducts	Ghee, Curd, Cheese, Butter, Milk	14 days ago
@drinks	Milkshake, Soft drink, Juice	9 days ago
@email	email	a day ago
@Enquiry	Drinks, catalog, enquire, snacks, items, menu, cleaning items, Dairy products	a day ago
@Greetings	hi, Good Afternoon, Good Morning, Good Evening, hello	16 days ago

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The screenshot displays the IBM Watson Assistant Lite interface, showing two different dialog configurations for an online shopping bot.

**Top Dialog: Online shopping store**

This dialog is configured with a list of entities. The left sidebar shows the navigation menu with 'My entities' selected. The main area displays a table of entities:

Entity	Value	Last Updated
@icecreams	butter scotch, choconut	7 days ago
@items	Sweet, vanilla, Milk, Biscuits, Black Forest, Butter, butter and salt, Butter scotch, ...	a day ago
@juice	Sapota, Pomegranate, Orange	7 days ago
@milkshake	strawberry, Dates, Lichi	7 days ago
@order	order	8 days ago
@pastries	Rainbow, Butter scotch, Black Forest	9 days ago
@payment	card, COD, UPI	8 days ago
@popcorn	Butter and Salt, Caramel	7 days ago
@snacks	Icecreams, Pastries, Biscuits, Chocolates, Sweet, Pop corn	9 days ago
@softdrink	pepsi, sprite, cococola	7 days ago
@thankyou	thanks	a day ago

Showing 1-20 of 20 entities

**Bottom Dialog: #Enquiry**

This dialog is configured with a list of user examples. The left sidebar shows the navigation menu with '#Enquiry' selected. The main area displays a table of user examples:

User Example	Last Updated
I want to see the catalog of items	2 days ago
I wish to see the menu of items available	a day ago
Is dairy products available?	2 days ago
What drinks are available?	2 days ago
What snacks are available?	2 days ago

Showing 1-7 of 7 examples

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The screenshot displays the IBM Watson Assistant Lite web interface. The top navigation bar includes the IBM logo, the text "IBM Watson Assistant Lite", an "Upgrade" button, and a "Learning center" link. The main content area is divided into two sections, each with a title and a "Try it" button.

The first section is titled "#order" and has a "Last updated: 8 days ago" timestamp. It features a "User example" input field with the placeholder text "Type a user example here". Below this is a list of six examples, each with a checkbox and a timestamp:

Example	Timestamp
<input type="checkbox"/> I wish to buy few items	8 days ago
<input type="checkbox"/> I wish to place an order	8 days ago
<input type="checkbox"/> I wish to purchase some items	8 days ago
<input type="checkbox"/> place an order	8 days ago
<input type="checkbox"/> Take order	9 days ago

The second section is titled "@chocloates" and has a "Last updated: a few seconds ago" timestamp. It features a "Name your entity to match the category of values that it will detect." input field. Below this is a "Value" input field with the placeholder text "Type a value" and a "Synonyms" dropdown menu. Below the input fields are two buttons: "Add value" and "Recommend synonyms".

The "Dictionary (2)" tab is selected, showing a list of two values:

Value	Type
<input type="checkbox"/> Sstar	Synonyms
<input type="checkbox"/> dairy milk	Synonyms

The bottom of the interface shows a Windows taskbar with the search bar and several open applications.

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The screenshot displays the IBM Watson Assistant Lite web interface. The browser's address bar shows the URL: <https://eu-gb.assistant.watson.cloud.ibm.com/eu-gb/cmv1/bluemixpublicconversationeu-gba-2f068a85d4d0d940f1a1a6935...>. The interface includes a header with the IBM Watson Assistant Lite logo and an 'Upgrade' button. Below the header, there are two chatbot conversations.

**@Dairyproducts**

Buttons: Add value, Recommend synonyms

Dictionary (5) Annotation (0) Beta

Values (5) ↑	Type
<input type="checkbox"/> Butter	Synonyms
<input type="checkbox"/> Cheese	Synonyms
<input type="checkbox"/> Curd	Synonyms
<input type="checkbox"/> Ghee	Synonyms
<input type="checkbox"/> Milk	Synonyms

Showing 1-5 of 5 values

1 1 of 1 pages

**@Enquiry**

Buttons: Add value, Recommend synonyms

Values (8) ↑	Type
<input type="checkbox"/> catalog	Synonyms
<input type="checkbox"/> cleaning items	Synonyms
<input type="checkbox"/> Dairy products	Synonyms
<input type="checkbox"/> Drinks	Synonyms
<input type="checkbox"/> enquire	Synonyms
<input type="checkbox"/> items	Synonyms
<input type="checkbox"/> menu	Synonyms
<input type="checkbox"/> snacks	Synonyms

Showing 1-8 of 8 values

1 1 of 1 pages



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The image displays two screenshots of the IBM Watson Assistant interface. The top screenshot shows the 'Online shopping store' workspace with a list of dialog nodes on the left: 'Welcome', 'thanks', 'order', and 'Greetings'. Each node has a list of responses and context set information. The bottom screenshot shows a preview chat window titled 'Assistant preview' with a message: 'Hello!!! Welcome to our online shopping store Bot!!!! How would I help you? can you please give your name and mail ID'. Below the message is a text input field with the placeholder 'Type something...'. The interface includes a top navigation bar with 'Intents', 'Entities', 'Dialog', 'Options', 'Analytics', 'Versions', and 'Content Catalog'. The bottom navigation bar includes a search bar and system icons.

Online shopping store

Intents

Entities

Dialog

Options

Analytics

Versions

Content Catalog

Welcome  
welcome  
1 Responses / 0 Context Set / Does not return

thanks  
@thankyou  
1 Responses / 0 Context Set / Does not return

order  
#order || @order:order  
1 Responses / 3 Context Set / 3 Slots / Skip user input / Does...

Greetings  
#Greetings || @Greetings  
6 Responses / 0 Context Set / Does not return

Build your own assistant using  
IBM Watson Assistant

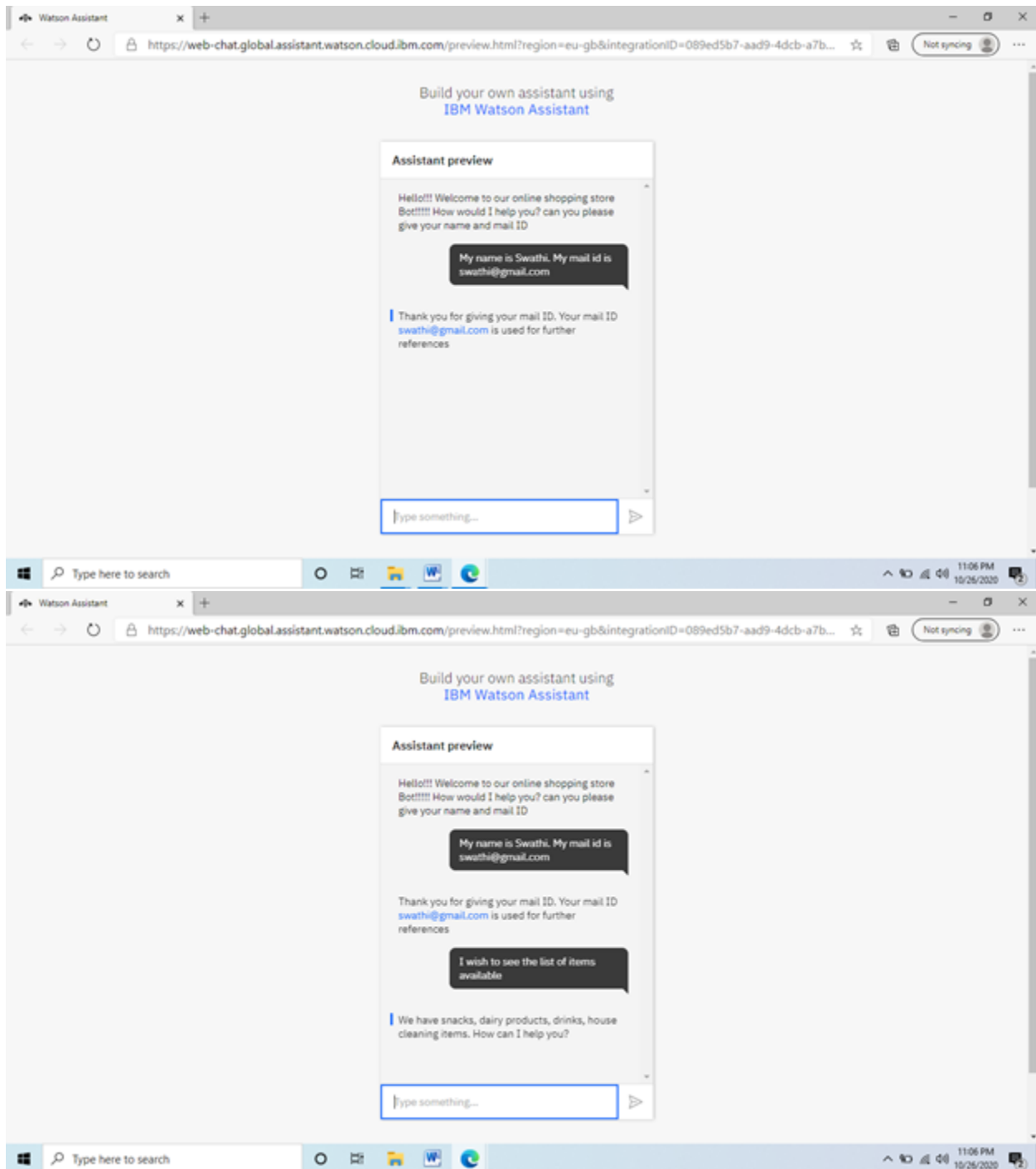
Assistant preview

Hello!!! Welcome to our online shopping store Bot!!!! How would I help you? can you please give your name and mail ID

Type something...

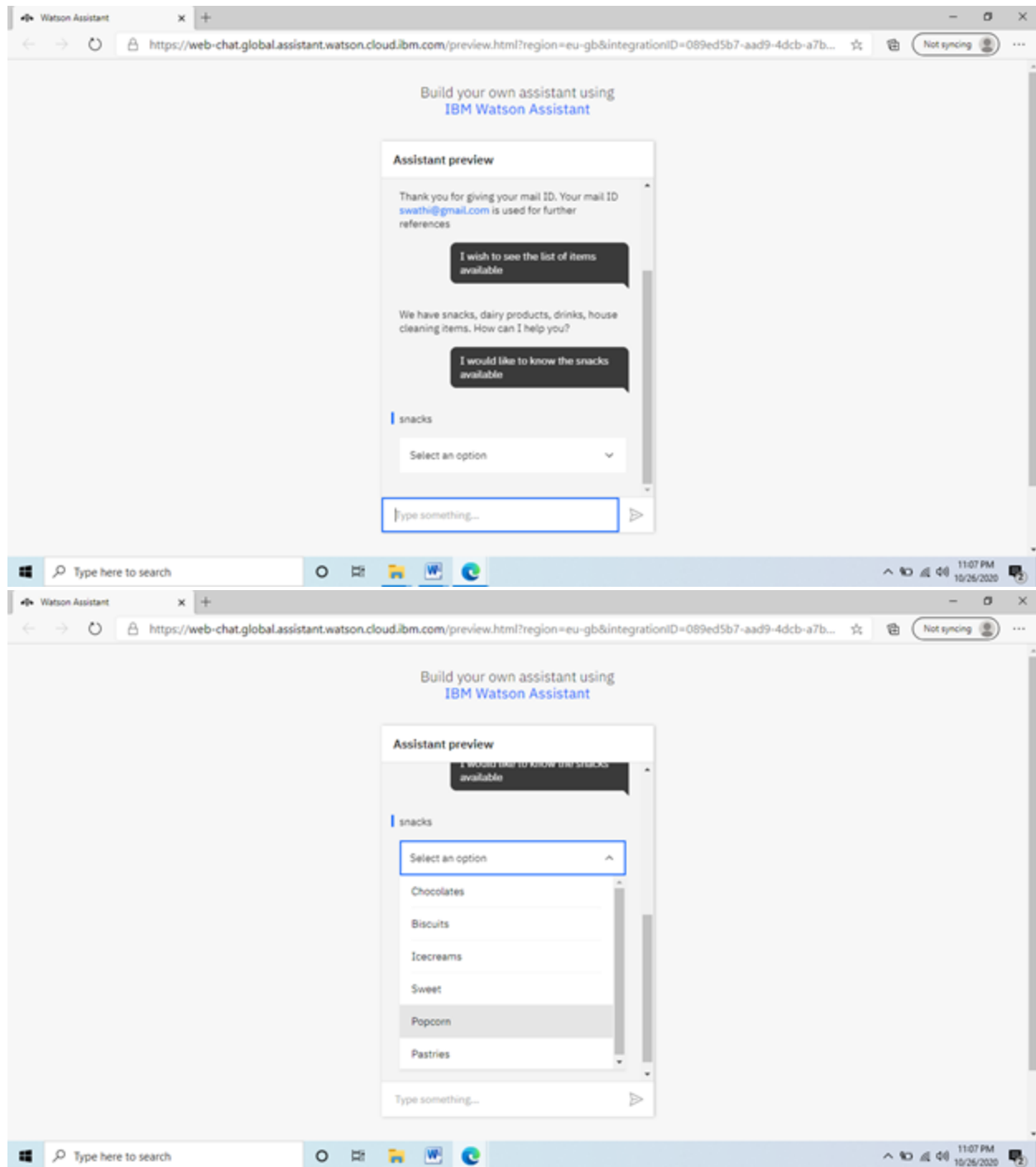
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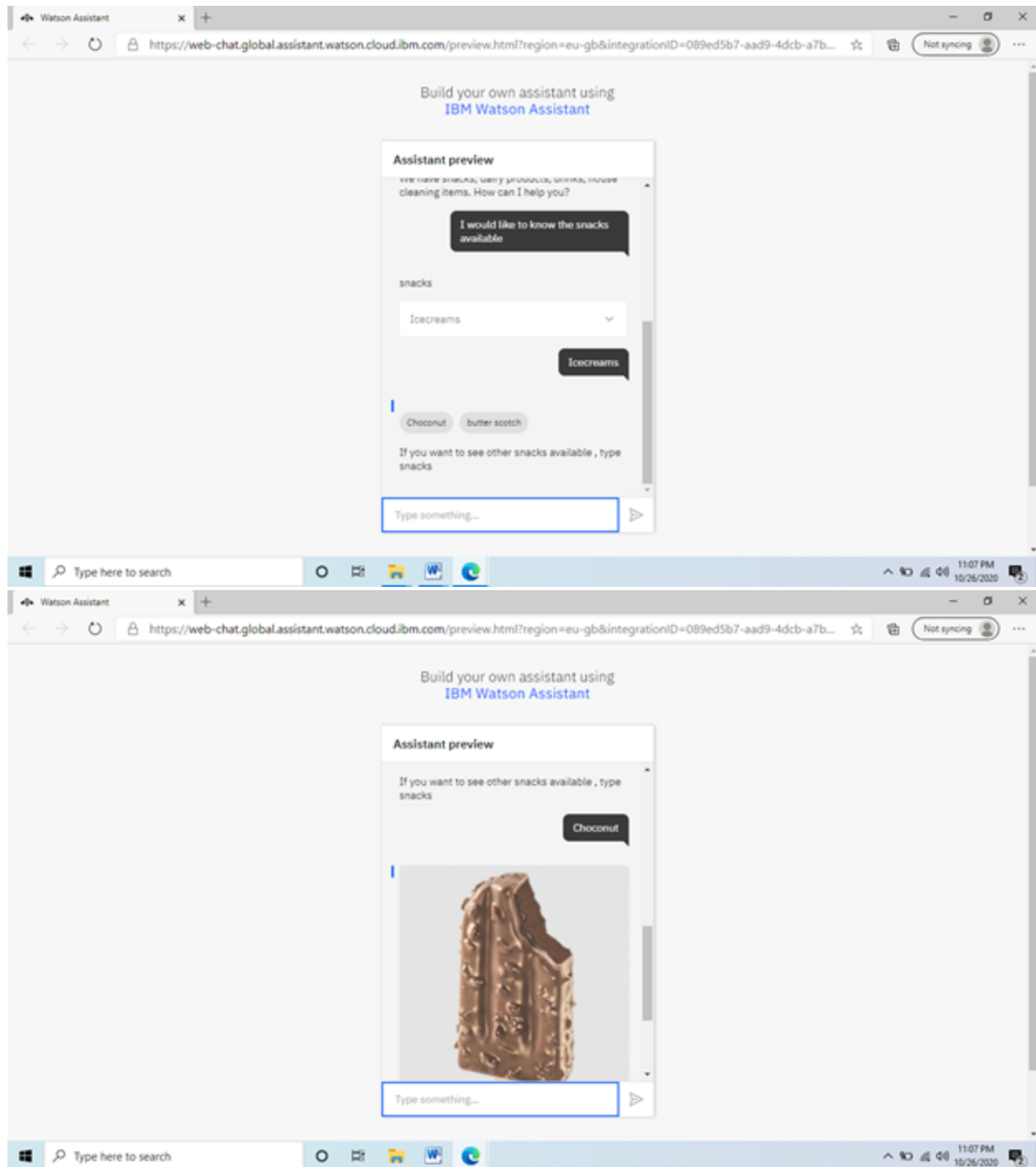
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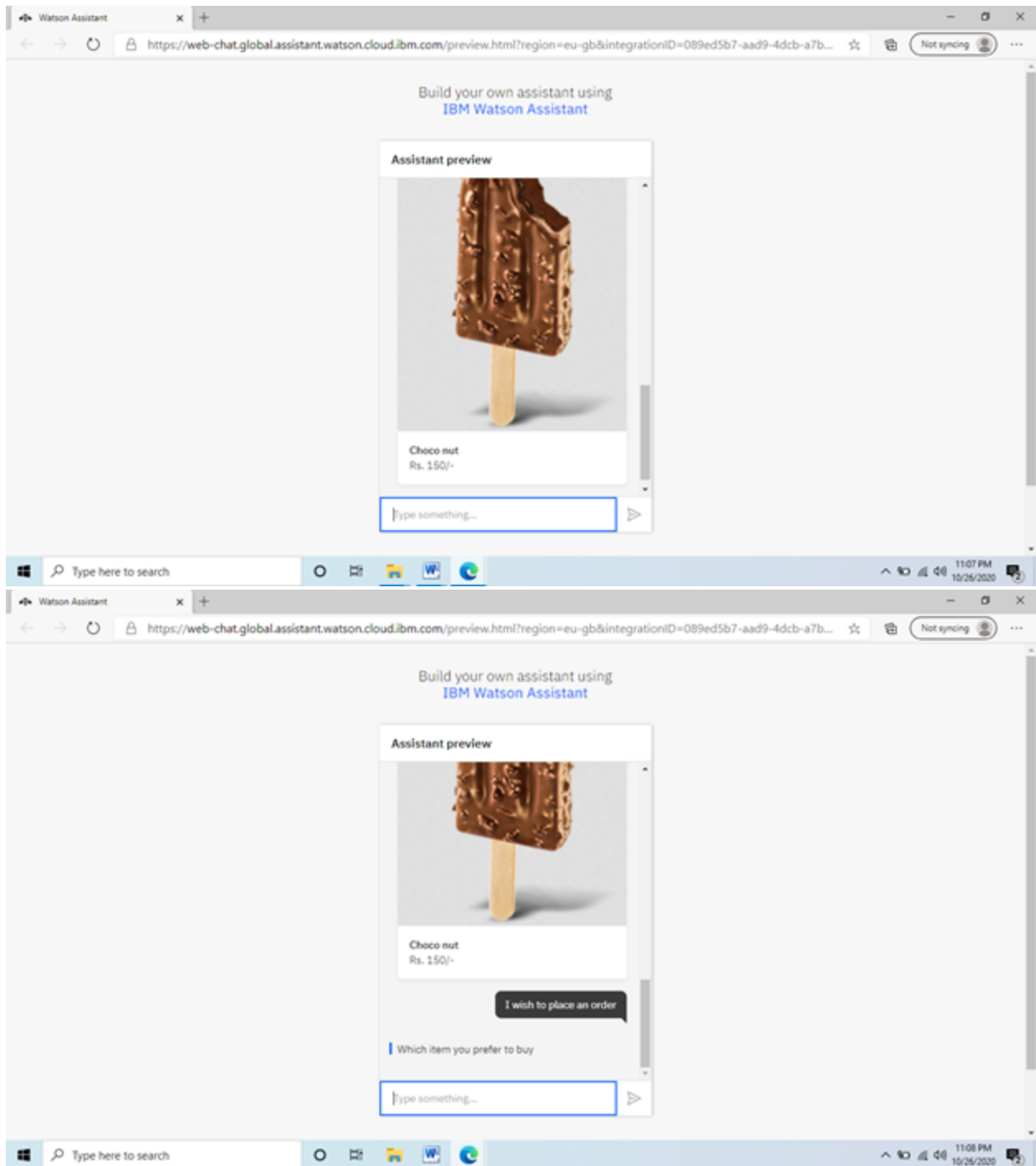
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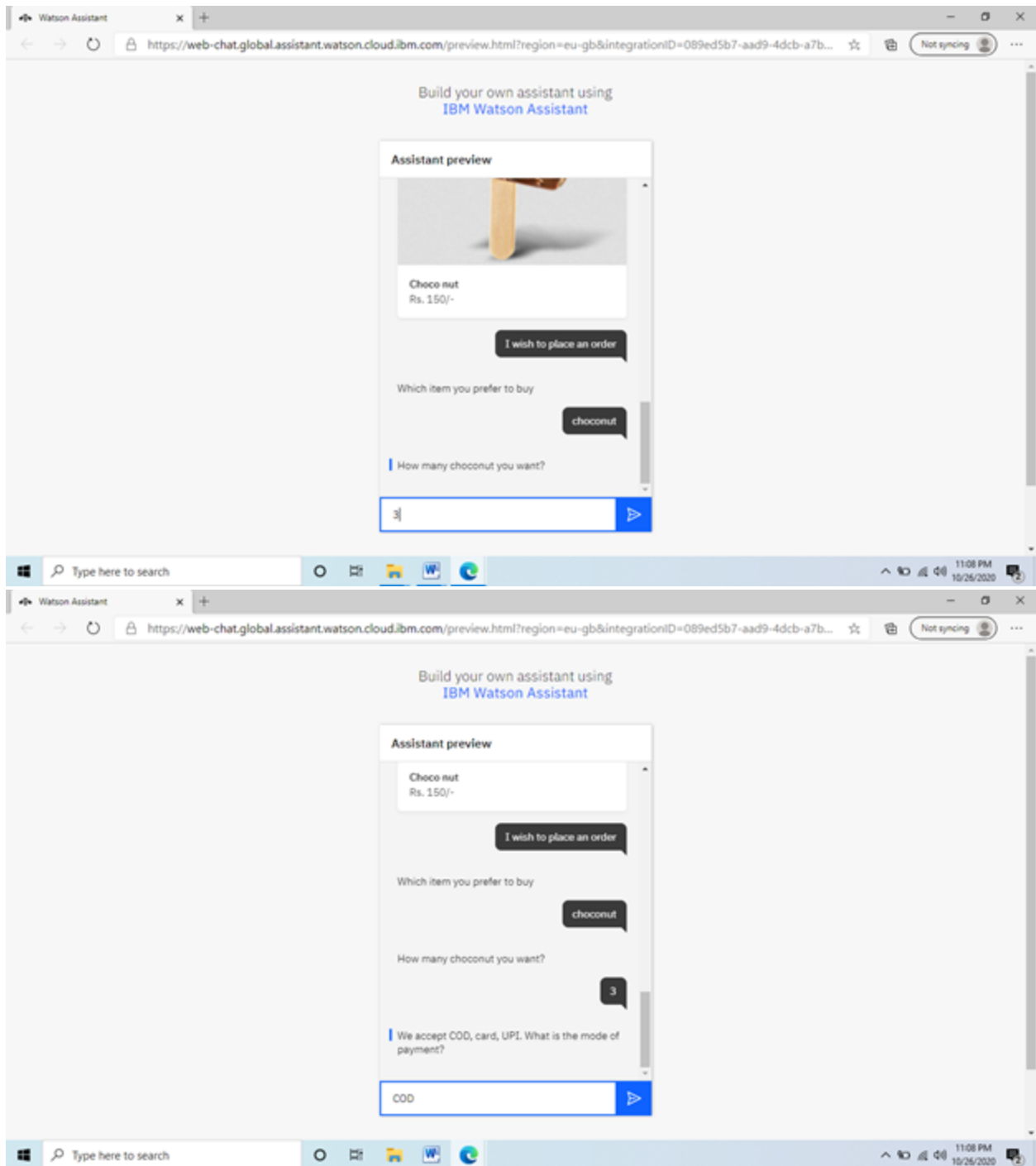
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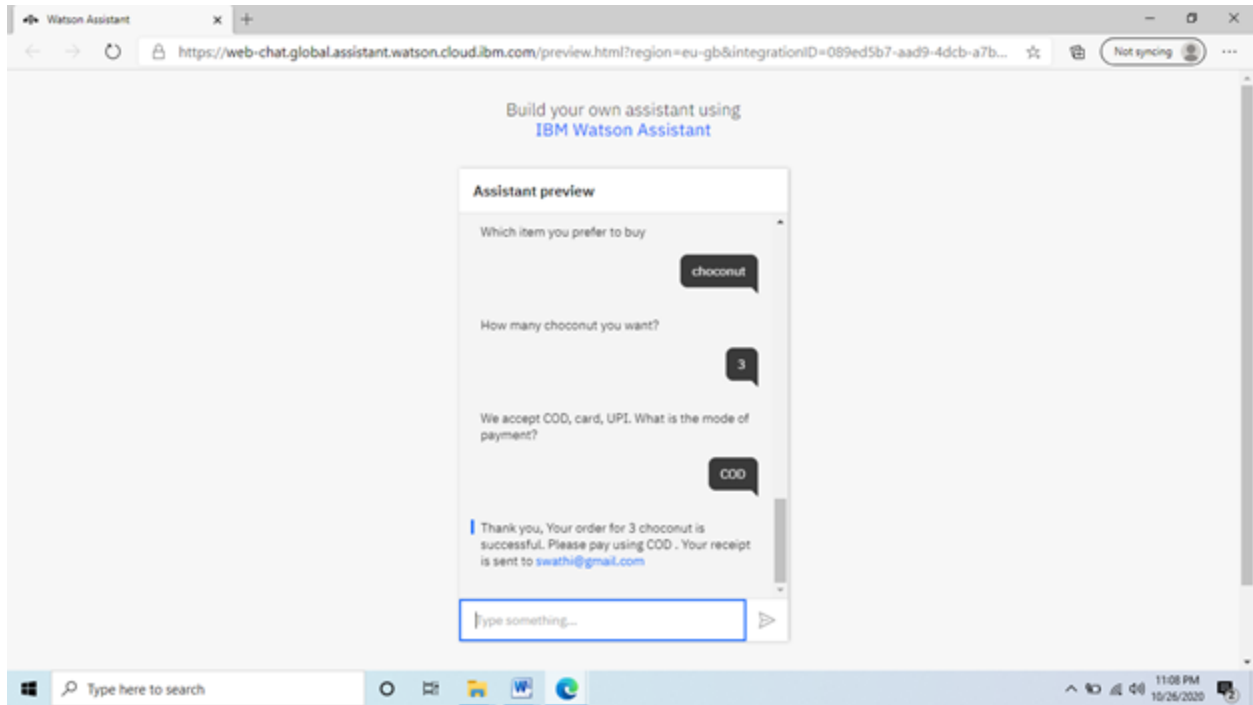
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### Chatbot

Enter your input \*  
items

SUBMIT


CANCEL

you

items

Bot

We have snacks, dairy products,  
drinks, house cleaning items. How  
can I help you?

Welcome



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### Chatbot

Enter your input \*

order items

SUBMIT


CANCEL

you

order items

Bot

Which item you prefer to buy



Welcome

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### Chatbot

Enter your input \*

popcorn

SUBMIT

CANCEL

you

popcorn

Bot

**How many Pop corn you want?**



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### Chatbot

Enter your input \*

4

SUBMIT


CANCEL

you

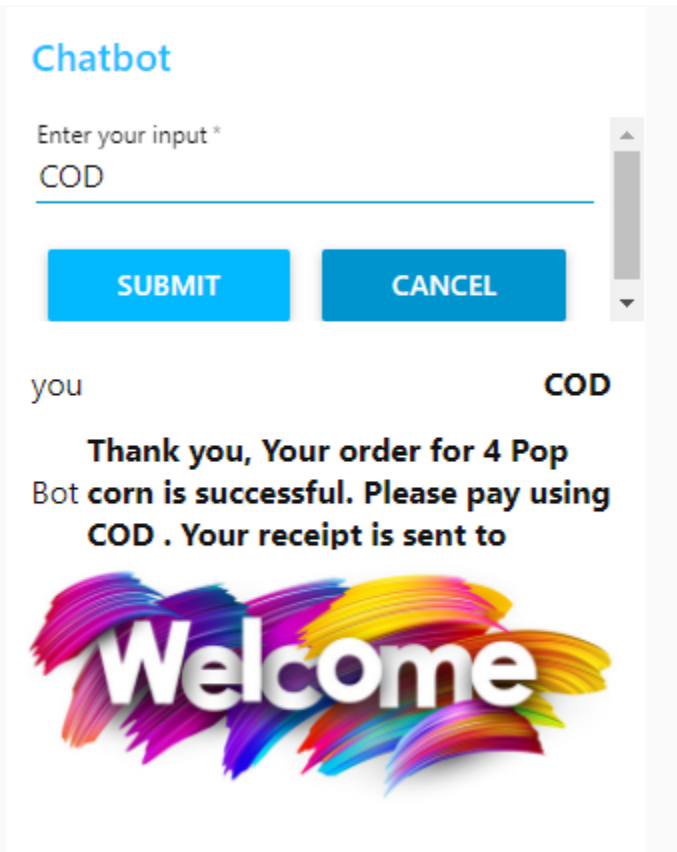
4

Bot

We accept COD, card, UPI. What is the mode of payment?



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The screenshot shows a chatbot interface with a white background. At the top, the word "Chatbot" is written in blue. Below it, there is a text input field with the placeholder "Enter your input \*". The input field contains the text "COD". To the right of the input field is a vertical scrollbar. Below the input field are two blue buttons: "SUBMIT" and "CANCEL". Below the buttons, the text "you" is on the left and "COD" is on the right. In the center, there is a message: "Thank you, Your order for 4 Pop corn is successful. Please pay using COD . Your receipt is sent to". Below the message is a large, colorful graphic with the word "Welcome" in white, stylized letters.

## 7. Advantages and Disadvantages

1. Online shopping bot helps to see the list of items available for purchase.
2. The shopping bot provides the details of the items requested by giving its image and cost.
3. The shopping bot accepts the mail id to send the order receipt.
4. The shopping bot accepts the order by asking the item, quantity and mode of payment.
5. The shopping bot is interactive.
6. The shopping bot is simple.
7. The shopping bot is Usable.
8. The shopping bot is user friendly.
9. The shopping bot is available 24/7
10. The shopping bot is reliable.

## Disadvantages

1. The shopping bot is currently not accepting address in chat bot.

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2. After receiving the receipt, the other interface like email to be used to share the address to the shopper.

### 8. Applications

The online shopping bot can be used for advertisement, recommendation and taking order from the customer when the customer is live in chat bot with the shopper.

### 9. Conclusion

The online shopping bot is the most useful feature for online shoppers to have a satisfied purchase. With all the possible features embedded in bot it can help the customer to have a successful and satisfactory shopping with less money and time.

### 10. Future Scope

- a. The shopping bot can be extended to get reviews
- b. The shopping bot can be added with features like showing offers.
- c. The shopping bot can give recommendations by showing the associated items

### 11. Bibliography

1. Kotler, P., "Marketing Management," 11th edition, Prentice-Hall International Editions, Englewood Cliffs, New Jersey, 2003.
2. <https://web.wechat.com/>
3. IBM Guru cool resources
4. Day 2 Youtube link: <https://youtu.be/tUBJZfnxeTw>

### Appendix

Preview link:

<https://web-chat.global.assistant.watson.cloud.ibm.com/preview.html?region=eu-gb&integrationID=089ed5b7-aad9-4dcb-a7b0-e5346d9c4ca2&serviceInstanceID=1f473695-0000-432a-a37d-723cc7470a89>

Bot json file

[https://drive.google.com/file/d/1HXnxgZNsosjCE\\_3xIJWsK\\_wA6UvNtst0/view?usp=sharing](https://drive.google.com/file/d/1HXnxgZNsosjCE_3xIJWsK_wA6UvNtst0/view?usp=sharing)