

CHATBOT - SHOP FOR ESSENTIALS DURING PANDEMIC

A chatbot is a software application used to conduct an on-line chat conversation via text or text-to-speech, in lieu of providing direct contact with a live human agent. Designed to convincingly simulate the way a human would behave as a conversational partner, chatbot systems typically require continuous tuning and testing, and many in production remain unable to adequately converse or pass the industry standard Turing test. The term "ChatterBot" was originally coined by Michael Mauldin (creator of the first Verbot) in 1994 to describe these conversational programs.

Chatbots are used in dialog systems for various purposes including customer service, request routing, or for information gathering. While some chatbot applications use extensive word-classification processes, natural language processors, and sophisticated AI, others simply scan for general keywords and generate responses using common phrases obtained from an associated library or database.

Most chatbots are accessed on-line via website popups or through virtual assistants. They can be classified into usage categories that include: commerce (e-commerce via chat), education, entertainment, finance, health, news, and productivity.

Services Used:

1. IBM Watson Assistant
2. Node-Red

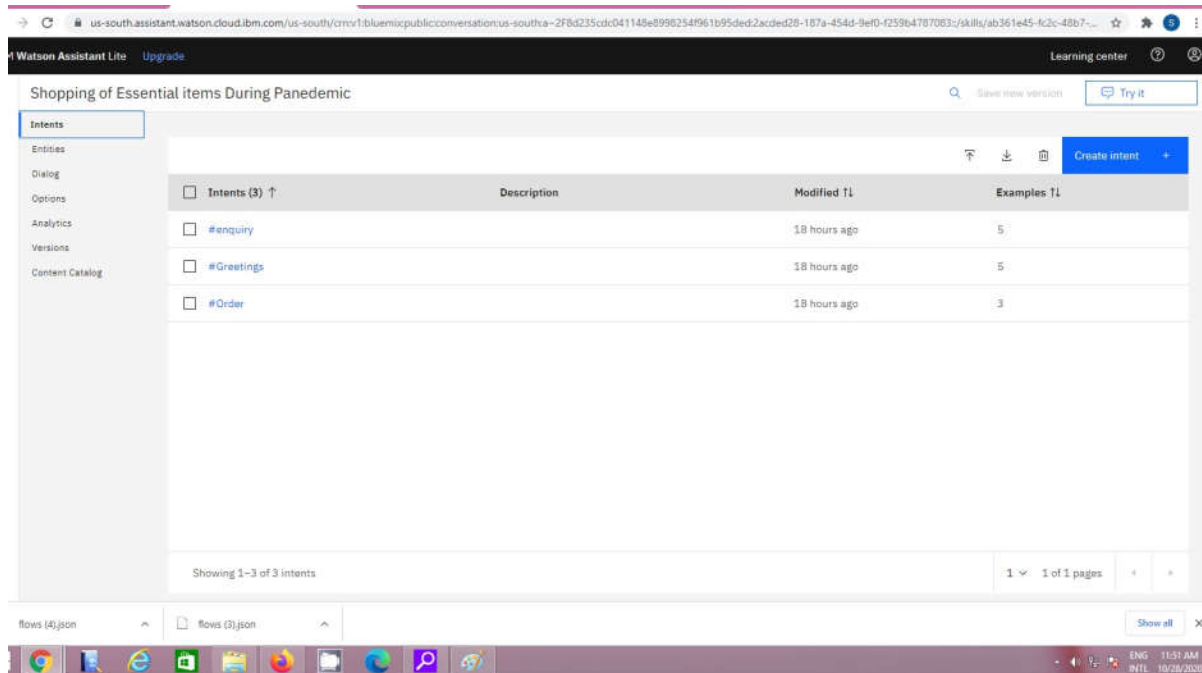
Implementation & Result Screenshot

In IBM Watson Assistant major components to build chatbot are Intent, Entities & Dialogs. There are three intents made in proposed system each of which will separately take care of each goal of bot.

Intents

1. Greetings Intent-: It takes care of initial user responses
2. Enquiry Intent-: It takes care of shopping items enquiry
3. Order Intent-: It takes care of placement of order

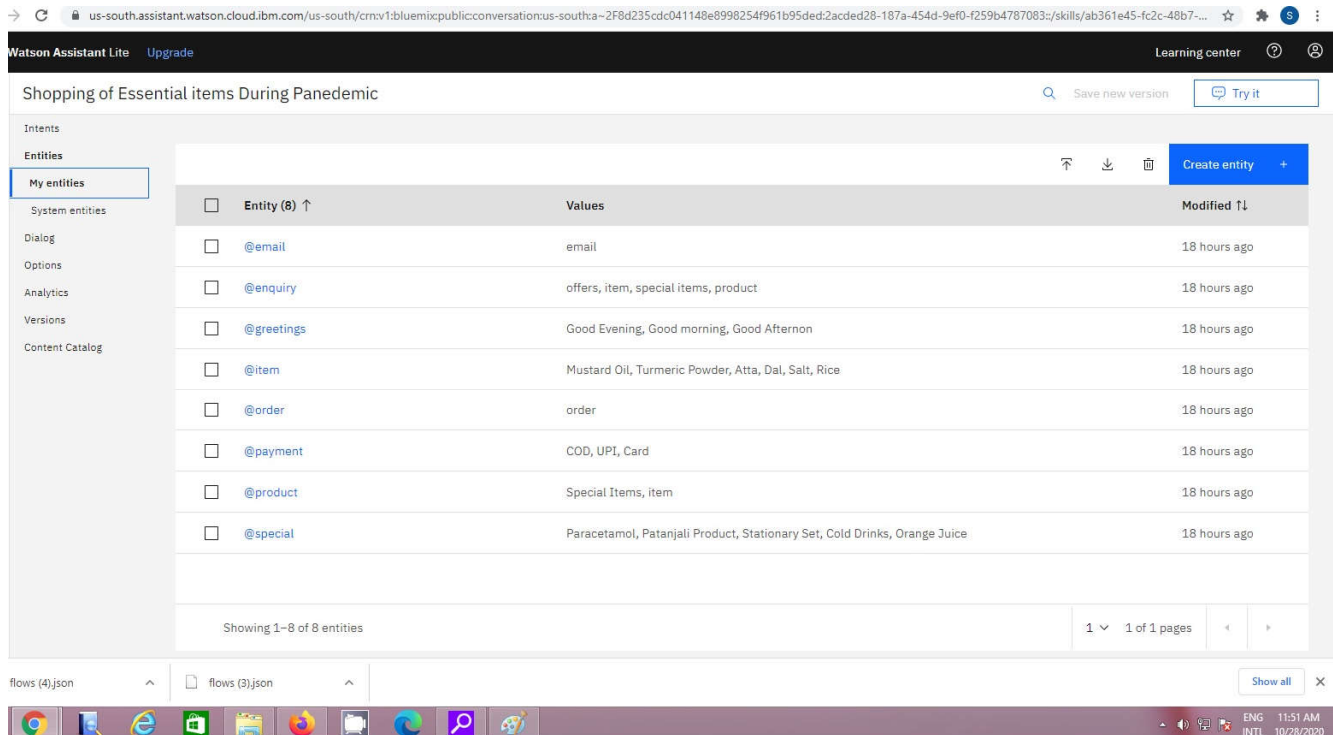
Intents



The screenshot shows the 'Intents' page in the Watson Assistant interface. The page title is 'Shopping of Essential items During Panedemic'. The left sidebar contains a navigation menu with 'Intents' selected. The main area displays a table of intents. The table has columns for 'Intents (3) ↑', 'Description', 'Modified T↓', and 'Examples T↓'. The table lists three intents: '#enquiry', '#Greetings', and '#Order'. Each intent has a checkbox, a description, a modification time of '18 hours ago', and a number of examples (5 for #enquiry and #Greetings, 3 for #Order). A 'Create intent' button is visible in the top right corner. The bottom of the page shows a taskbar with various application icons and a system clock indicating 11:51 AM on 10/28/2020.

Intents (3) ↑	Description	Modified T↓	Examples T↓
<input type="checkbox"/> #enquiry		18 hours ago	5
<input type="checkbox"/> #Greetings		18 hours ago	5
<input type="checkbox"/> #Order		18 hours ago	3

Entities



The screenshot shows the 'Entities' page in the Watson Assistant interface. The page title is 'Shopping of Essential items During Panedemic'. The left sidebar contains a navigation menu with 'Entities' selected. The main area displays a table of entities. The table has columns for 'Entity (8) ↑', 'Values', and 'Modified T↓'. The table lists eight entities: '@email', '@enquiry', '@greetings', '@item', '@order', '@payment', '@product', and '@special'. Each entity has a checkbox, a list of values, and a modification time of '18 hours ago'. A 'Create entity' button is visible in the top right corner. The bottom of the page shows a taskbar with various application icons and a system clock indicating 11:51 AM on 10/28/2020.

Entity (8) ↑	Values	Modified T↓
<input type="checkbox"/> @email	email	18 hours ago
<input type="checkbox"/> @enquiry	offers, item, special items, product	18 hours ago
<input type="checkbox"/> @greetings	Good Evening, Good morning, Good Afternoon	18 hours ago
<input type="checkbox"/> @item	Mustard Oil, Turmeric Powder, Atta, Dal, Salt, Rice	18 hours ago
<input type="checkbox"/> @order	order	18 hours ago
<input type="checkbox"/> @payment	COD, UPI, Card	18 hours ago
<input type="checkbox"/> @product	Special Items, item	18 hours ago
<input type="checkbox"/> @special	Paracetamol, Patanjali Product, Stationary Set, Cold Drinks, Orange Juice	18 hours ago

System Entities

The screenshot shows the IBM Watson Assistant interface for a project titled "Shopping of Essential items During Panedemic". The left sidebar contains a navigation menu with options: Intents, Entities, My entities, Dialog, Options, Analytics, Versions, and Content Catalog. The "System entities" tab is selected under "My entities".

The main area displays a table of prebuilt system entities:

Name (5)	Description	Status
@sys-time	Extracts time mentions (at 10)	Off
@sys-date	Extracts date mentions (Friday)	Off
@sys-currency	Extracts currency values from user examples including the amount and the unit. (20 cents)	Off
@sys-percentage	Extracts amounts from user examples including the number and the % sign. (15%)	Off
@sys-number	Extracts numbers mentioned from user examples as digits or written as numbers. (21)	On

Below the table, there are tabs for "flows (4).json" and "flows (3).json". The bottom status bar shows the language as "ENG" and the date as "10/28/2020".

Dialogues

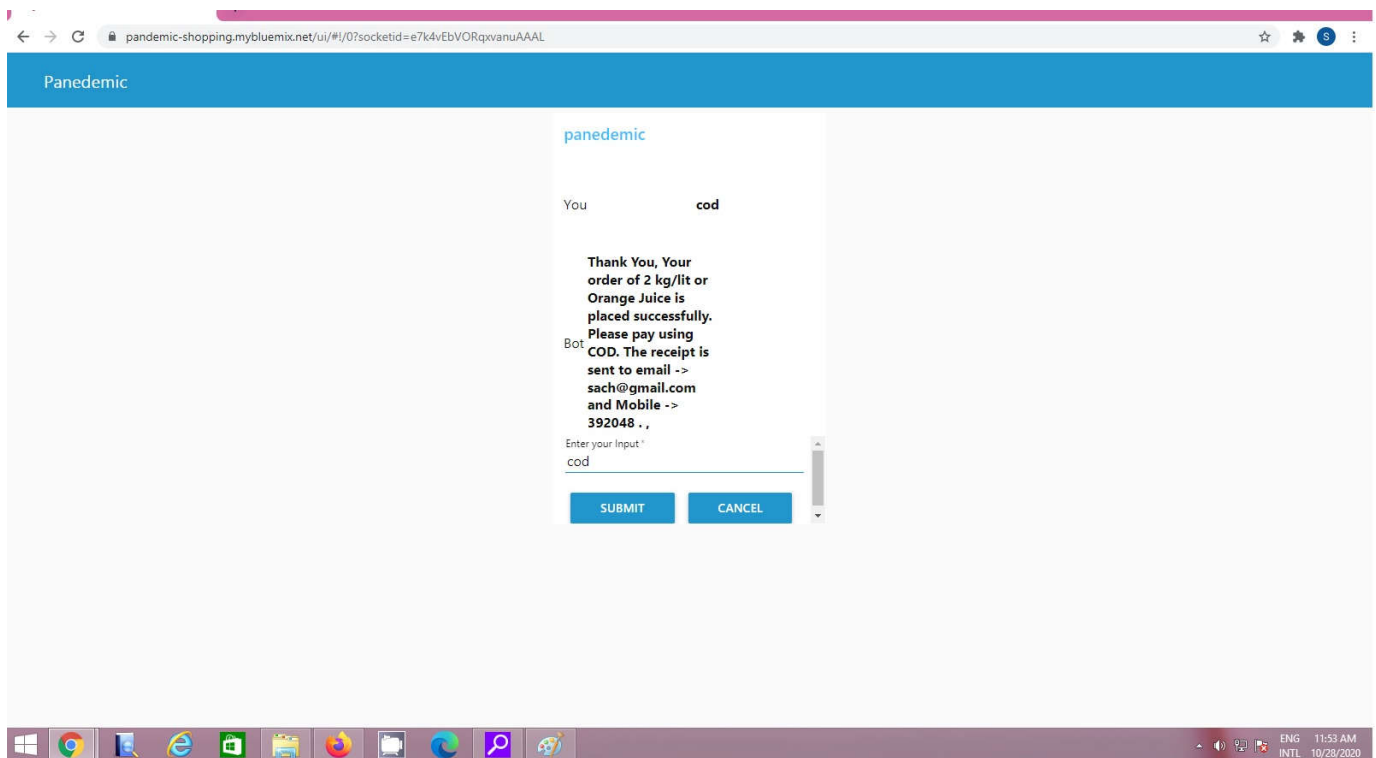
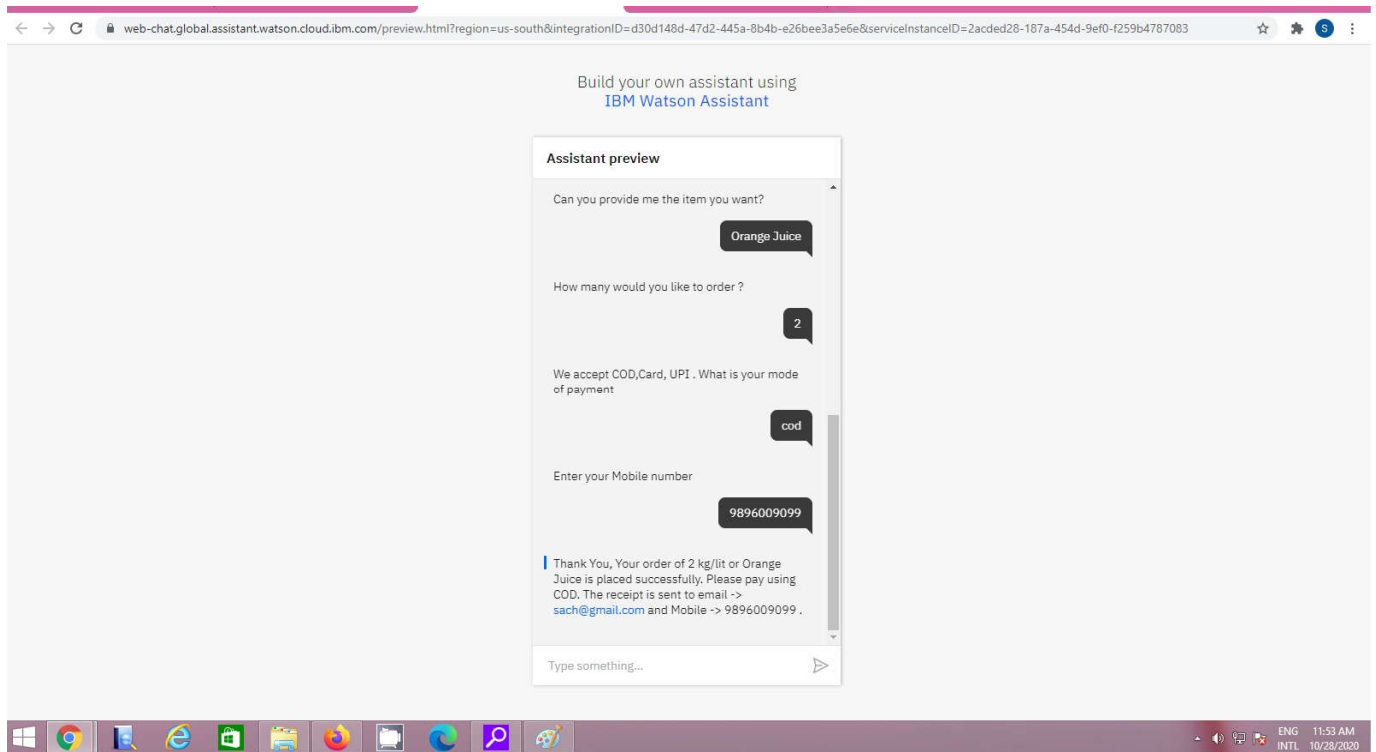
The screenshot shows the IBM Watson Assistant interface for the same project. The left sidebar has the "Dialog" option selected. The main area displays a flowchart of the dialog logic.

At the top, there are buttons: "Add node", "Add child node", and "Add folder". The flowchart consists of several nodes:

- Welcome**: `welcome || @email`, 1 Responses / 0 Context Set / Does not return.
- Greetings**: `#Greetings || @greetings`, 2 Responses / 0 Context Set / Jump to / Does not return.
- enquiry**: `#enquiry || @enquiry`, 4 Responses / 0 Context Set / Returns.
- items**: `@item`, 5 Responses / 0 Context Set / Return allowed.
- Special items**: `@special`, 5 Responses / 0 Context Set / Return allowed.
- order**: `#Order && @order:order`, 1 Responses / 4 Context Set / Skip user input / Retu...

The bottom status bar shows the language as "ENG" and the date as "10/28/2020".

Results and screen shots



Conclusion: This Bot will help users to display list of items and place order.