

# **GuruCool IBM Project**

## **on**

### **Chatbot to shop for Essentials during Pandemic using Watson Assistant**

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## **1. INTRODUCTION**

### **1.1 Overview**

Today, due to the current pandemic of Covid-19, it can be dangerous for individuals to shop for essential items in person. The rules of social distancing for safety of people has led to long queues for shopping essentials and hence has caused a lot of inconvenience. By offering individuals an online alternative to shop for essentials, this project helps to alleviate this issue.

### **1.2 Purpose**

The objective of this project is to make shopping of essential products convenient during the current pandemic situation. For this purpose, Artificial Intelligence based Chatbot is implemented.

## **2. LITERATURE SURVEY**

### **2.1 Existing problem**

Since it is dangerous for individuals to shop for essential items in person because of the coronavirus epidemic, many consumers are turning to E-commerce. Shopping in E-Commerce environment is convenient and is safe as compared to the shopping in a retail shop.

### **2.2 Proposed solution**

One of the solutions to the problem mentioned above is to provide the consumer with an efficient means of interacting and deciding what to buy. Chatbot helps to provide this functionality.

## **3. THEORITICAL ANALYSIS**

### **3.1 Block diagram**

The block diagram/architecture of the Chatbot is as shown in the Figure 1.

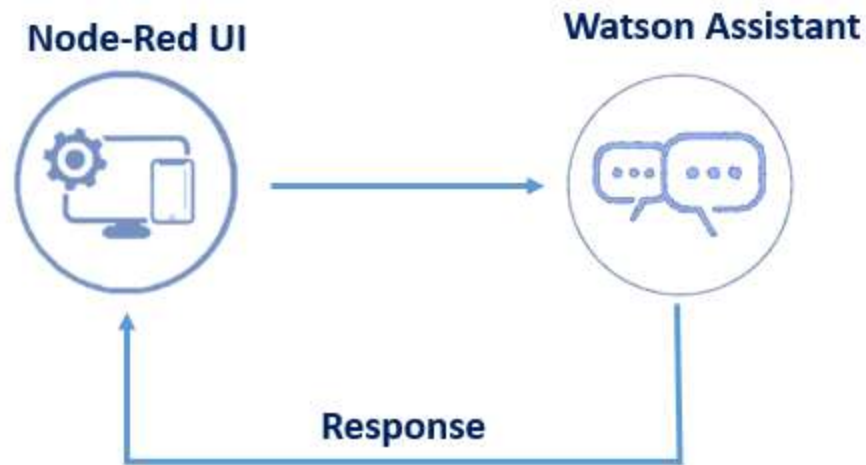


Figure 1: Architecture of Chatbot

As illustrated in figure above, the dialog of messages is implemented using Watson Assistant and Node-Red is used to design the user interface.

### 3.2 Hardware / Software designing

- a) IBM Watson Assistant
- b) Node-Red
- c) IBM cloud

## 4. EXPERIMENTAL INVESTIGATIONS

The Chatbot implemented in this project has the following capabilities:

- i. Accepts and uses details like name, contact number, Email-Id and the items to place the order.
- ii. Provides a list of vegetables and grocery items with their prices.
- iii. Provides the information about any offers or discounts
- iv. Provides FAQs about Covid-19

## 5. FLOWCHART

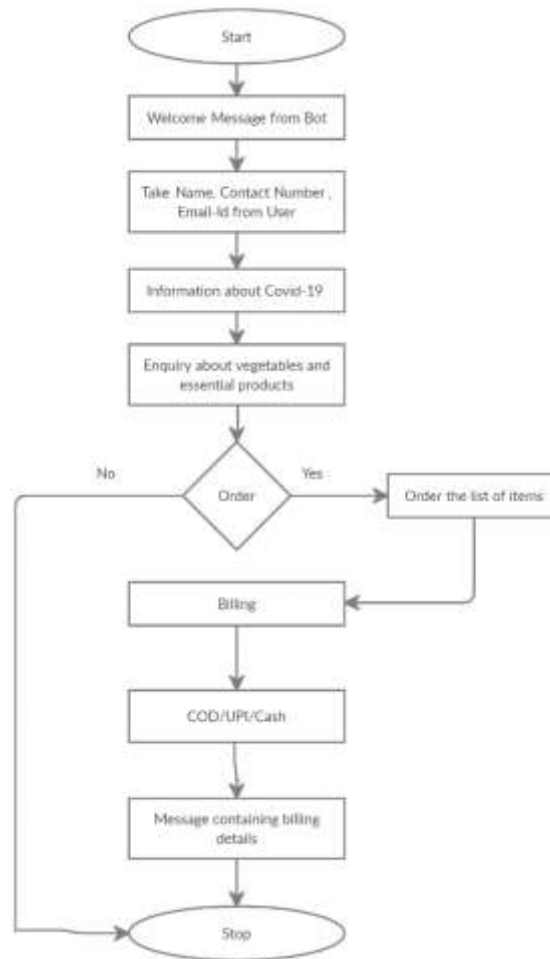


Figure 2: Flowchart of the Chatbot

## 6. RESULT

Assistant preview

I am a Chatbot to help you shop for essentials during pandemic. Please enter your name.

Pankaj

Welcome Pankaj . Please enter your email id.

pankajv@yahoo.com

Thank you for giving your mail id [pankajv@yahoo.com](mailto:pankajv@yahoo.com) .Please enter your contact number.

7894561230

Assistant preview

Thank your for your contact number 7894561230 . Your details have been recorded. We have vegetables and grocery for shopping and also FAQ about COvid-19 for your information. How may I help you?

what are symptoms of coronavirus?

Most common symptoms are fever, dry cough, tiredness.  
Less common symptoms are aches and pains, sore throat, diarrhoea, conjunctivitis, headache, loss of taste or smell,a rash on skin, or discolouration of fingers or toes.

Assistant preview

Most common symptoms are fever, dry cough, tiredness.  
Less common symptoms are aches and pains, sore throat, diarrhoea, conjunctivitis, headache, loss of taste or smell,a rash on skin, or discolouration of fingers or toes.

How to prevent covid?

Clean your hands often.  
Use soap and water, or an alcohol-based hand rub.  
Maintain a safe distance from anyone who is coughing or sneezing.  
Wear a mask when physical distancing is not possible.  
Don't touch your eyes, nose or mouth.  
Cover your nose and mouth with your bent elbow or a tissue when you cough or sneeze.  
Stay home if you feel unwell.  
If you have a fever, cough and difficulty breathing, seek medical attention.

Type something...

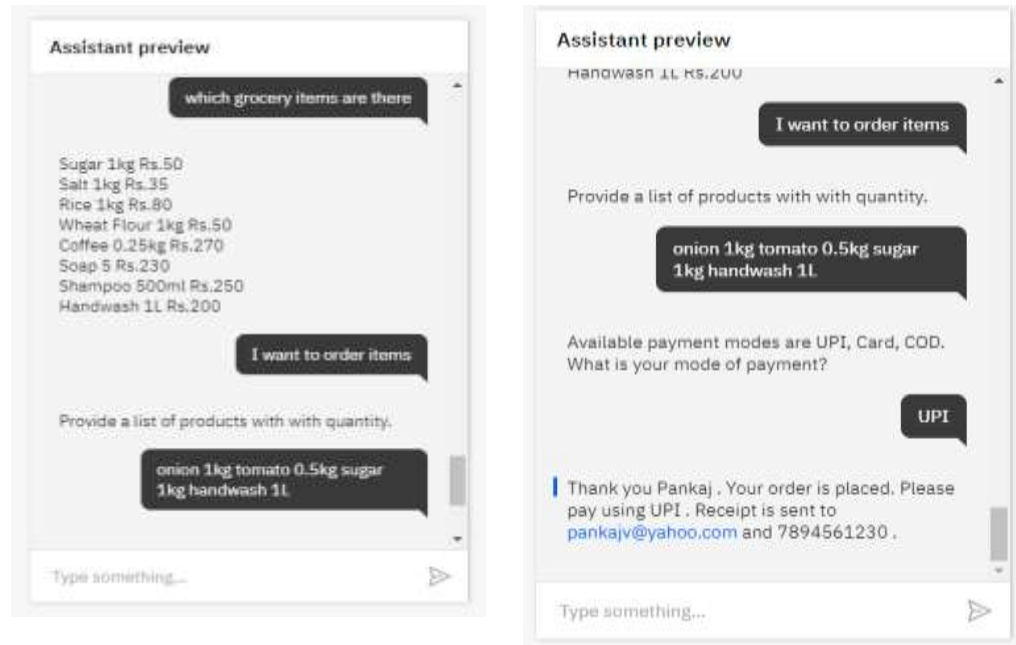
Assistant preview

are there any offers

5% off on vegetables.  
10% off on essential products.

which are the vegetables available?

Potato 1kg Rs.20  
Coriander 0.25kg Rs.30  
Broccoli 0.5kg Rs.180  
Cabbage 1kg Rs.60  
Tomato 1kg Rs.70  
Cauliflower 1kg Rs.90  
Carrot 1 kg Rs.100  
Fenugreek 0.5kg Rs.80  
Onion 1kg Rs.60



## 7. ADVANTAGES & DISADVANTAGES

### Advantages:

- Chat is customized according to individual customer.
- Q&A about Covid-19 is provided.
- Orders are placed

### Disadvantages:

- Complete view of Shopping cart not available
- Billing module to be implemented

## 8. APPLICATIONS

The Chatbot can be used in E-commerce industry to improve shopping experience. Customers can order the goods conveniently from stores.

## **9. CONCLUSION**

Chatbots can be very useful in pandemic situation to order essential products. Chatbot successfully replaces human agent necessary to communicate. The Chatbot implemented in this project is a AI-based simple virtual assistant for shopping for essentials such as vegetables and few grocery items.

## **10. FUTURE SCOPE**

Complete view of Shopping cart can be made available with the total billing amount displayed on screen. Billing module can be implemented with option to link credit/debit card or UPI payment method.