

Project Report

on

**Intelligent Customer
Help desk with Smart
Document Understanding**

in

Artificial Intelligence

by

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Intelligent Customer Help Desk with Smart Document Understanding

1.	Introduction	4
	1.1 Overview	4
	1.2 Purpose.....	4
2.	Literature Survey	6
3.	2.1 Existing Problem	6
	2.2 Proposed Solution.....	6
4.	Theoretical Analysis	7
	3.1 Block Diagram	7
	3.2 Hardware /Software Designing.....	7
4.	Experimental Investigations.....	8
5.	Flowchart	11
6.	Result	12
7.	Advantages & Disadvantages.....	16
8.	Applications	17
9.	Conclusion.....	17
10.	Future Scope	17
11.	Bibliography.....	18
	Appendix.....	19
	A. Source Code.....	19

1. Introduction

1.1 Overview

We will build a chatbot that uses various Watson AI Services (Watson Discovery, Watson Assistant, Watson Cloud Functions and Node-Red) to deliver an effective Web based UI through which we can chat with the assistant.

We will integrate the Watson Discovery service with Watson Assistant using webhooks.

- Project Requirements : Node-RED, IBM Cloud, IBM Watson, Node JS
- Functional Requirements : IBM Cloud
- Technical Requirements : AI, ML, Watson AI, Node JS
- Software Requirements : Watson Assistant, Watson Discovery, Watson Cloud Functions, Node-RED
- Project Deliverables : Intelligent Chatbot with Smart Document Understanding
- Project Team : Jasmine Glani Mathias
- Project Duration : 19Days

1.2 Purpose

The typical customer care chatbot can answer simple questions, such as store locations and hours, directions, and maybe even making appointments. When a question falls outside of the scope of the pre- determined question set, the option is typically to tell the customer the question isn't valid or offer to speak to a real person.

In this project, there will be another option. If the customer question is about the operation of a device, the application shall pass the question onto Watson Discovery Service, which has been pre-loaded with the device's owners manual. So now, instead of "Would you like to speak to a customer representative?" we can return relevant sections of the owners manual to help solve our customers' problems. So unless and until customer specifically asks for a customer representative the bot will try to solve all your queries.

To take it a step further, the project shall use the Smart Document Understanding feature of Watson Discovery to train it on what text in the owners manual is important and what is not. This will improve the answers returned from the queries. Then using Watson actions as webhook, Watson Discovery can be integrated with Watson assistant. Finally using Node-Red, Watson assistant can be integrated with a web UI. This UI can then be used to connect with Watson assistant and chat with it.

Scope of Work

- Create a customer care dialog skill in Watson Assistant
- Use Smart Document Understanding to build an enhanced Watson Discovery collection
- Create an IBM Cloud Functions web action that allows Watson Assistant to post queries to WatsonDiscovery
- Build a web application with integration to all these services & deploy the same on IBM CloudPlatform

2. Literature Survey

2.1 Existing Problem

The typical customer care chatbot can answer simple questions, such as store locations and hours, directions, and maybe even making appointments. When a question falls outside of the scope of the pre- determined question set, the option is typically to tell the customer the question isn't valid or offer to speak to a real person.

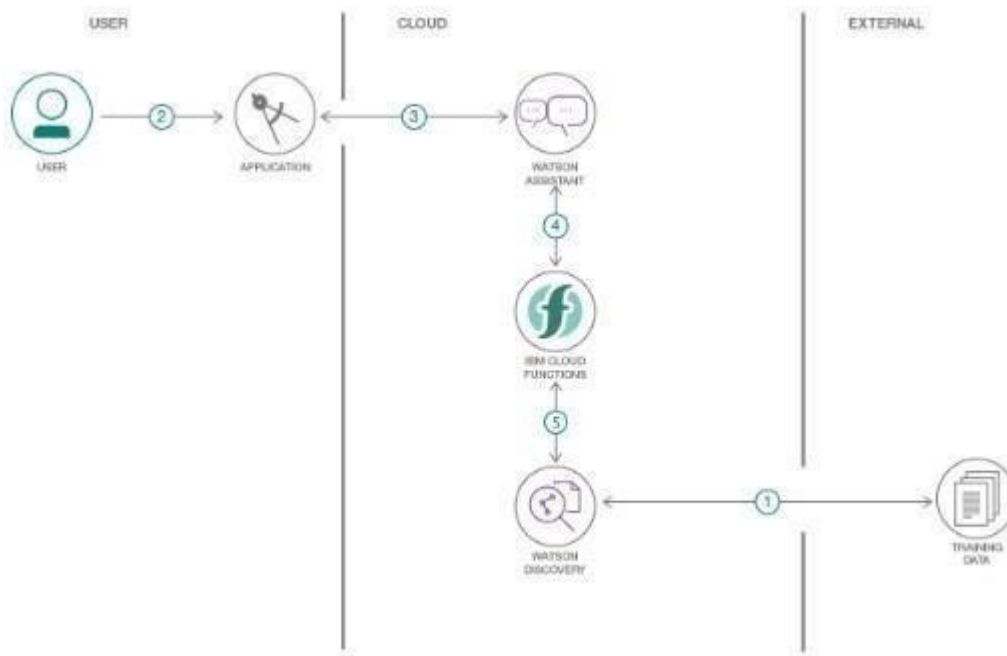
2.2 Proposed Solution

In this project, there will be another option. If the customer question is about the operation of a device, the application shall pass the question onto Watson Discovery Service, which has been pre-loaded with the device's owners manual. So now, instead of "Would you like to speak to a customer representative?" we can return relevant sections of the owners manual to help solve our customers' problems. So unless and until customer specifically asks for a customer representative the bot will try to solve all your queries.

To take it a step further, the project shall use the Smart Document Understanding feature of Watson Discovery to train it on what text in the owners manual is important and what is not. This will improve the answers returned from the queries. Then using Watson actions as webhook, Watson Discovery can be integrated with Watson assistant. Finally using Node-Red, Watson assistant can be integrated with a web UI. This UI can then be used to connect with Watson assistant and chat with it.

3. Theoretical Analysis

3.1 Block / Flow Diagram



3.2 Hardware /Software Designing

1. Create necessary Watson Services.
2. Configure Watson Discovery.
3. Create Watson Cloud Functions Action.
4. Configure Watson Assistant.
5. Integrate Watson Discovery with Watson Assistant using webhook.
6. Build Node-RED flow to integrate Watson Assistant and Web Dashboard.

4. Experimental Investigation

The screenshot shows a web browser with two tabs: 'Student Dashboard' and 'Node-RED Dashboard'. The address bar displays the URL: `node-red-vmuln.eu-gb.mybluemix.net/ui/#/1?socketid=lrDgfPTnlhqdXjPUAACH`. The browser interface includes a 'Paused' button and a hamburger menu icon. The main content area has a blue header with the text 'CUSTOMERCARE' and a hamburger menu icon. Below the header, a chatbot interface is displayed. The chatbot is titled 'CHATBOT' and contains a form with the label 'form' and the instruction 'Enter the input *'. The input field contains the text 'hii'. Below the input field are two buttons: 'SUBMIT' and 'CANCEL'. The message history shows a conversation where the user (labeled 'You') says 'hii' and the bot (labeled 'bot') responds with 'hello...'.

The screenshot shows the same web browser interface as the first image. The chatbot interface is titled 'CHATBOT' and contains a form with the label 'form' and the instruction 'Enter the input *'. The input field contains the text 'how to configure remainders and alerts'. Below the input field are two buttons: 'SUBMIT' and 'CANCEL'. The message history shows a conversation where the user (labeled 'You') says 'how to configure remainders and alerts' and the bot (labeled 'bot') responds with a detailed instruction: "Select Main Menu > Reminders & Alerts > Preferences 2. Configure each reminder/alert setting as required. On Web: 1. Select Reminders & Alerts tile. 2. Select Preferences. 3. Configure each reminder/alert setting as required."

Student Dashboard x Node-RED Dashboard x +

node-red-vmuln.eu-gb.mybluemix.net/ui/#/1?socketid=lrDgFPtNlhqdXjPUAACh

CUSTOMERCARE

CHATBOT

form

Enter the input *

how to customize the brightness of your ecobee3 screen

SUBMIT CANCEL

You ^{bot} how to customize the brightness of your ecobee3 screen

"You can customize the brightness of your ecobee3's screen. The brightness for both the active and standby screens can be configured independently. You can also configure the screen to automatically sleep (i.e. turn off) whenever your ecobee3 enters the Sleep activity period."

Student Dashboard x Node-RED Dashboard x +

node-red-vmuln.eu-gb.mybluemix.net/ui/#/1?socketid=lrDgFPtNlhqdXjPUAACh

CUSTOMERCARE

CHATBOT

form

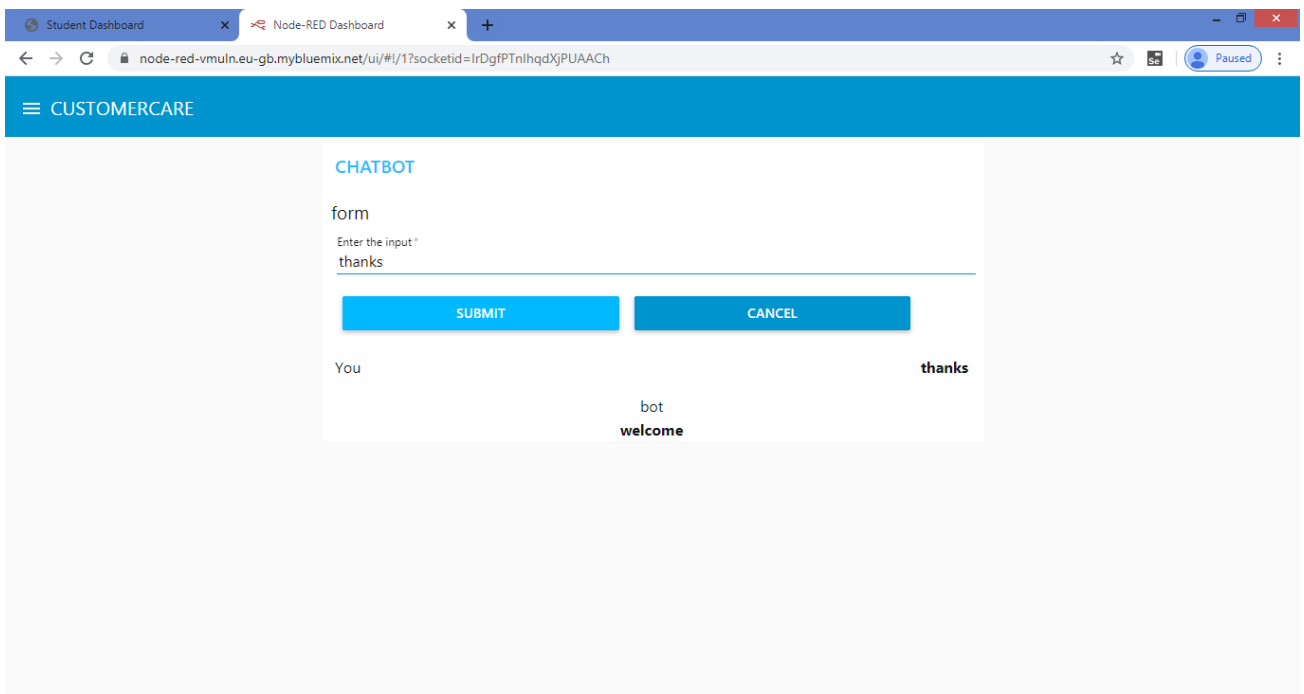
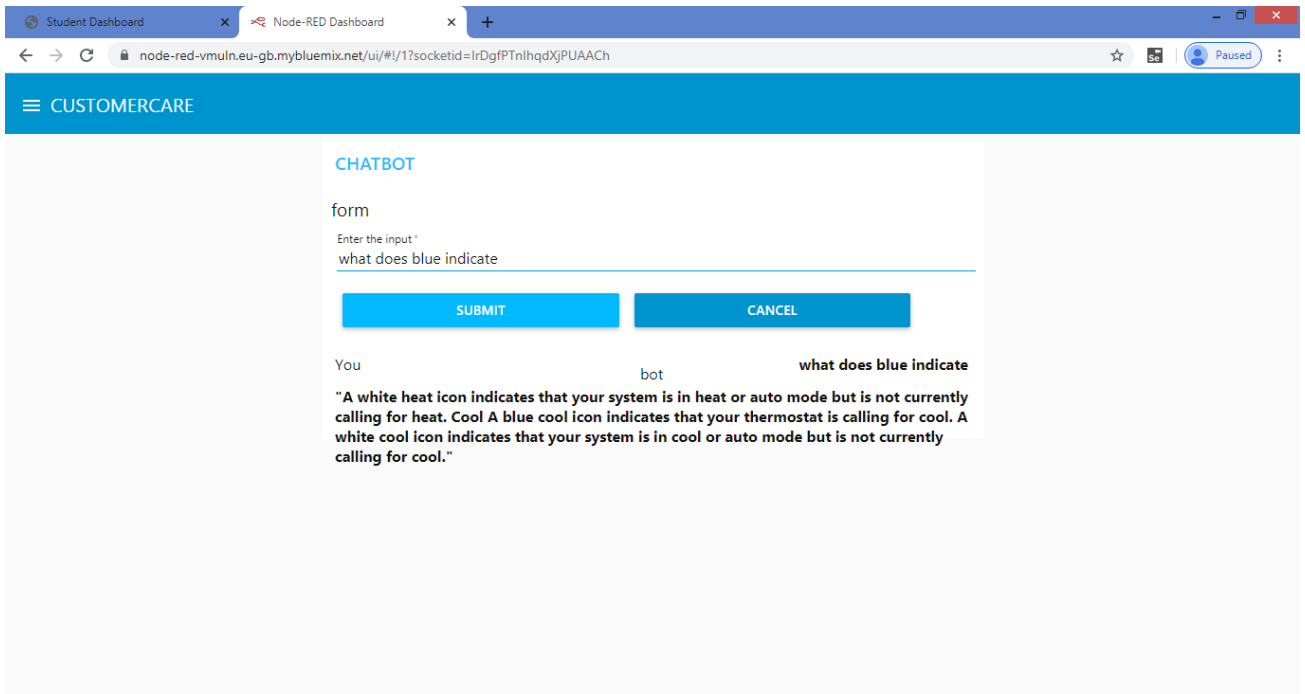
Enter the input *

how to maintain sufficient indoor air quality

SUBMIT CANCEL

You ^{bot} how to maintain sufficient indoor air quality

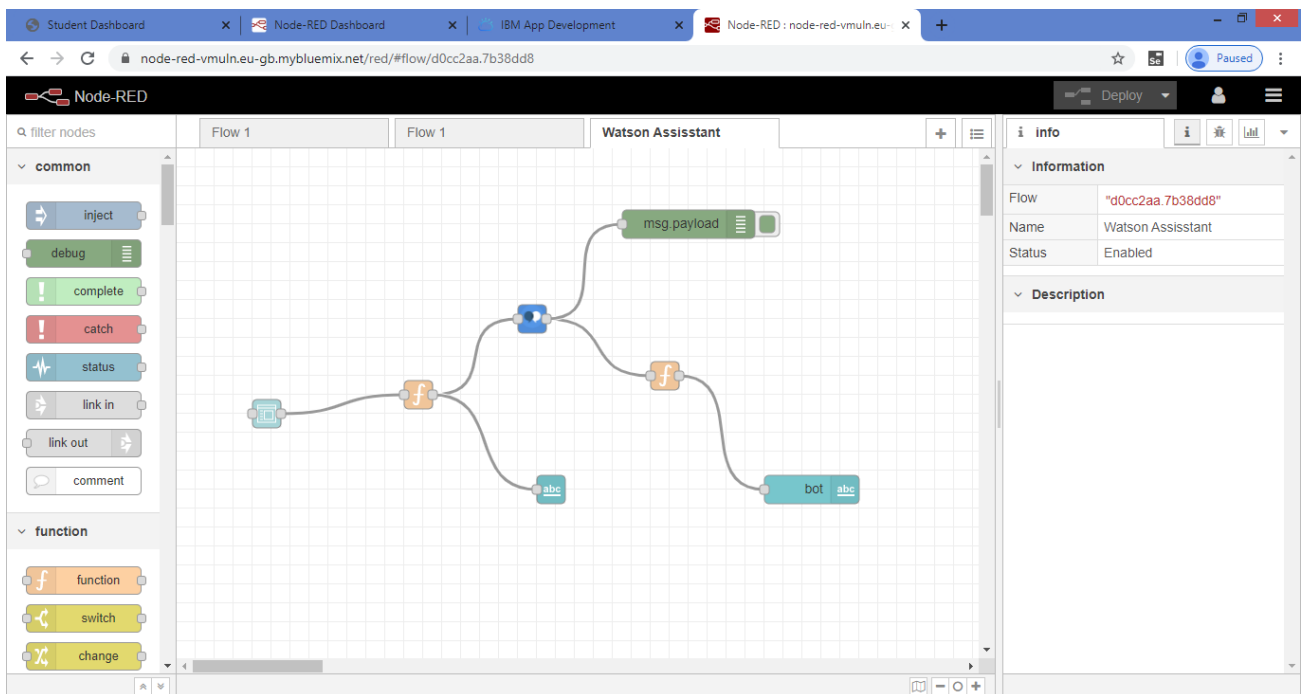
"The amount of indoor air required to maintain sufficient indoor air quality depends on how big your house is, how many people live there, and the capacity of your ventilation device. You should consult with a local contractor who can guide you on how often you should be running your ventilation device."



5. Flowchart

Insert the following nodes into the flow in Node-RED.

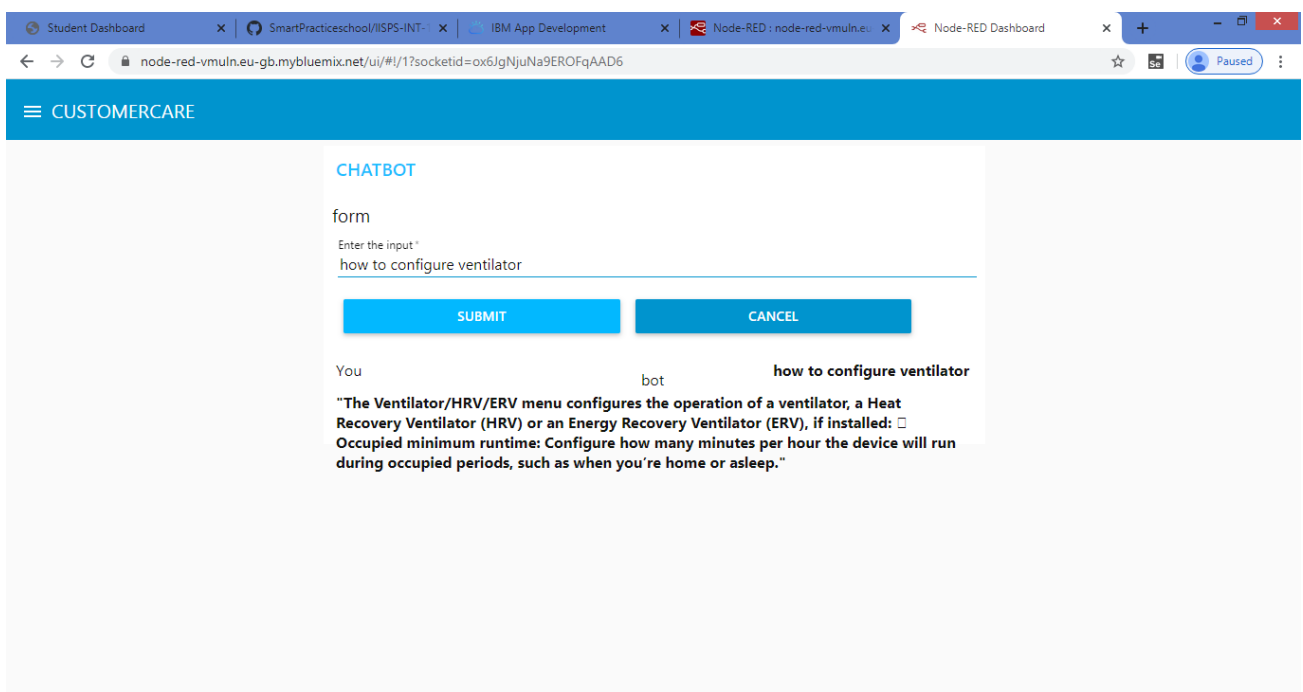
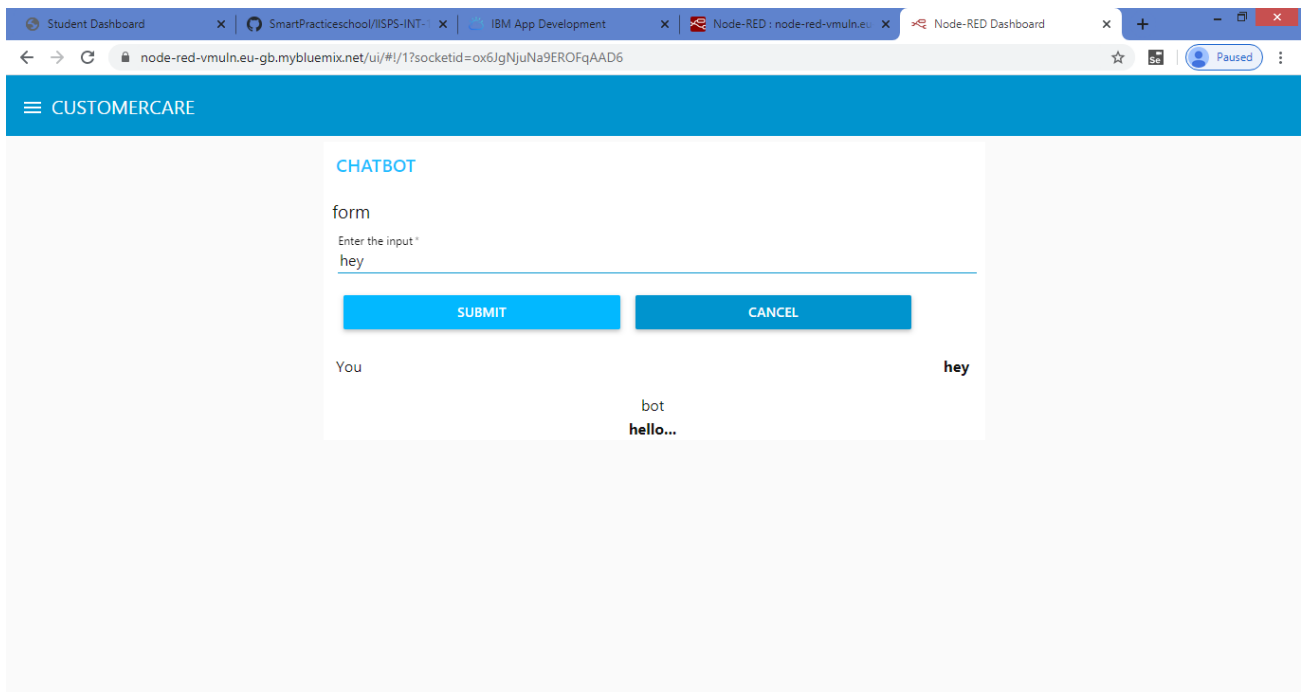
- Debug
- ui_Form
- ui_Text
- ui_Button
- Function
- Assistant

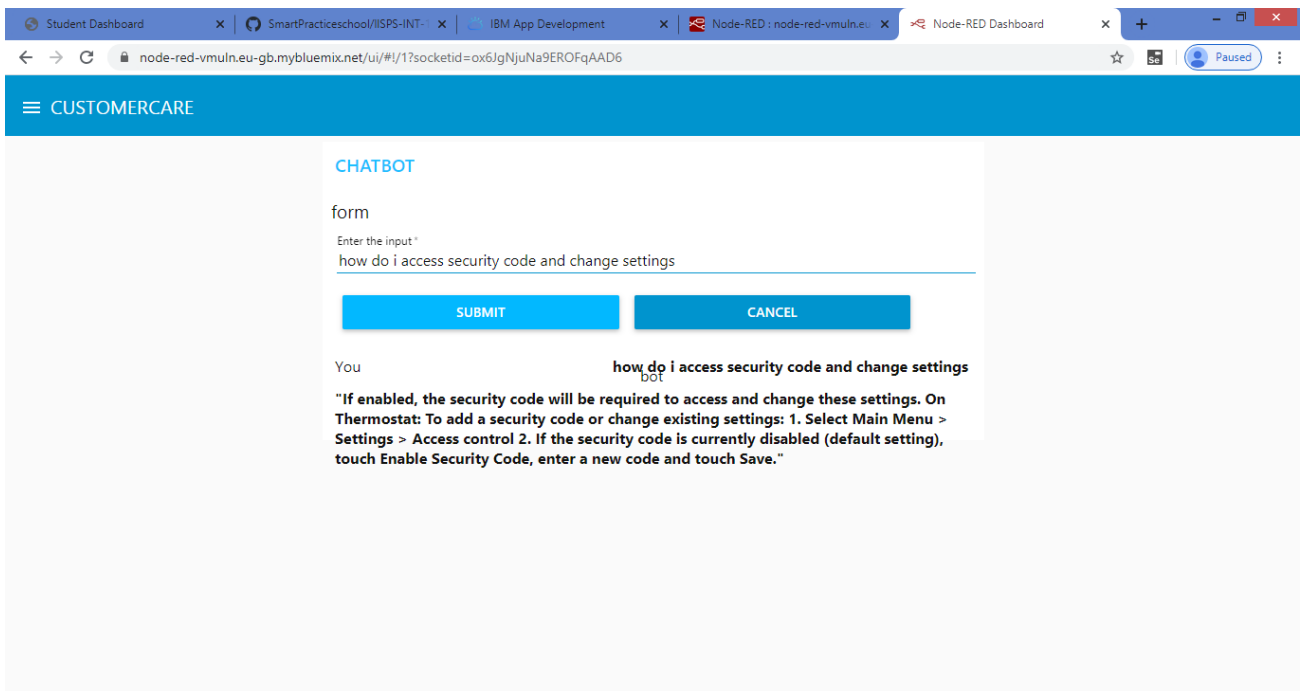
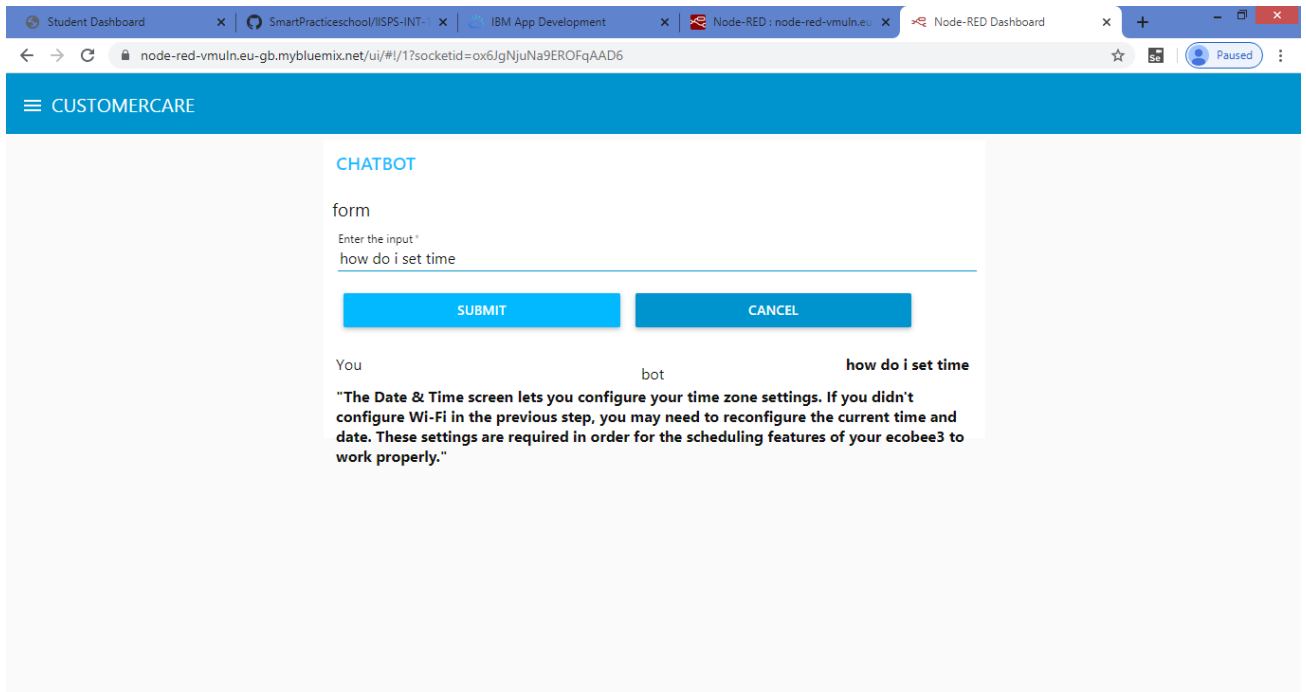


6. Result

Web based UI was developed by integrating all the services using NODE-RED.

URL for UI Dashboard <https://node-red-vmuln.eu-gb.mybluemix.net/ui/>





Student Dashboard x SmartPracticeschool/IIIPS-INT- x IBM App Development x Node-RED : node-red-vmuln.e... x Node-RED Dashboard x + -

node-red-vmuln.eu-gb.mybluemix.net/ui/#/1?socketid=ox6JgNjuNa9EROFqAAD6 ☆ Paused

≡ CUSTOMERCARE

CHATBOT

form

Enter the input *

how to customize the brightness of your ecobee3 screen

SUBMIT CANCEL

You **how to customize the brightness of your ecobee3 screen** bot

"You can customize the brightness of your ecobee3's screen. The brightness for both the active and standby screens can be configured independently. You can also configure the screen to automatically sleep (i.e. turn off) whenever your ecobee3 enters the Sleep activity period."

Student Dashboard x SmartPracticeschool/IIIPS-INT- x IBM App Development x Node-RED : node-red-vmuln.e... x Node-RED Dashboard x + -

node-red-vmuln.eu-gb.mybluemix.net/ui/#/1?socketid=ox6JgNjuNa9EROFqAAD6 ☆ Paused

≡ CUSTOMERCARE

CHATBOT

form

Enter the input *

how to maintain sufficient indoor air quality

SUBMIT CANCEL

You **how to maintain sufficient indoor air quality** bot

"The amount of indoor air required to maintain sufficient indoor air quality depends on how big your house is, how many people live there, and the capacity of your ventilation device. You should consult with a local contractor who can guide you on how often you should be running your ventilation device."

Student Dashboard x SmartPracticeschool/ISPS-INT- x IBM App Development x Node-RED : node-red-vmuln.eu x Node-RED Dashboard x

node-red-vmuln.eu-gb.mybluemix.net/ui/#/1?socketid=ox6JgNjuNa9EROFqAAD6

CUSTOMERCARE

CHATBOT

form

Enter the input*

what does blue indicate

SUBMIT CANCEL

You bot what does blue indicate

"A white heat icon indicates that your system is in heat or auto mode but is not currently calling for heat. Cool A blue cool icon indicates that your thermostat is calling for cool. A white cool icon indicates that your system is in cool or auto mode but is not currently calling for cool."

Student Dashboard x SmartPracticeschool/ISPS-INT- x IBM App Development x Node-RED : node-red-vmuln.eu x Node-RED Dashboard x

node-red-vmuln.eu-gb.mybluemix.net/ui/#/1?socketid=ox6JgNjuNa9EROFqAAD6

CUSTOMERCARE

CHATBOT

form

Enter the input*

thanks for the information

SUBMIT CANCEL

You bot thanks for the information

bot
welcome

7. Advantages & Disadvantages

Advantages

1. Reduces Man Power
2. Cost Efficient
3. Less and less calls will be diverted to Customer Representatives.

Disadvantages

1. Sometimes it can mislead customers as it tries to search irrelevant information in the manual.
2. It may also give same answers to different queries.

8. Applications

1. This chatbot can be deployed to various websites as it can solve a lot of basic questions.
2. It can be used to deploy as Customer Helpdesk for small scale products as their manual usually has the solution for the user's problems.

9. Conclusion

An Intelligent Customer Helpdesk Chatbot was created using various Watson services like Watson Discovery, Watson Assistant, Watson Cloud Functions and Node-RED.

10. Future Scope

In the future, various other Watson services like Text-To-Speech and Speech-To-Text can be integrated in the chatbot. This can make the chatbot Hands-free.

11. Bibliography

1. Node-RED Starter Application :
<https://developer.ibm.com/tutorials/how-to-create-a-node-red-starter-application/>
2. Build your own AI assistant : _ _
<https://www.youtube.com/watch?v=hitUOFNne14>
3. Howtouse Watson Assistant with Webhooks: _ _
<https://www.youtube.com/embed/5z3i5IsBVnk>
4. Watson Discovery : <https://developer.ibm.com/articles/introduction-watson-discovery/>

Appendix

A. Source Code

Node-RED Flow code

```
[{"id":"d0cc2aa.7b38dd8","type":"tab","label":"Watson Assistant","disabled":false,"info":""},{ "id":"d28fbde2.01349","type":"watson-conversation-v1","z":"d0cc2aa.7b38dd8","name":"Assistant","workspaceid":"2c6dcb63-e75e-40f0-a70a-d778734e20ae","multiuser":false,"context":true,"empty-payload":false,"service-endpoint":"https://api.eu-gb.assistant.watson.cloud.ibm.com/instances/0ebe7676-99e6-4746-8865-e402a345b249","timeout":"","optout-learning":false,"x":375,"y":180,"wires":[["5a1ddeaa.c8b31","c82dfe80.746c8"]], "l":false},{ "id":"1fd2b4f0.ae9c3b","type":"function","z":"d0cc2aa.7b38dd8","name":"F1","func":"msg.payload = msg.payload.text; \nreturn msg;","outputs":1,"noerr":0,"x":255,"y":260,"wires":[["d28fbde2.01349","68a89e45.6e17a"]], "l":false},{ "id":"10de05bb.f5f62a","type":"ui_form","z":"d0cc2aa.7b38dd8","name":"","label":"form","group":"98dc448a.a0d2c8","order":1,"width":0,"height":0,"options":[{"label":"Enter the input","value":"text","type":"text","required":true,"rows":null},"formValue":{"text":"","payload":"","submit":"submit","cancel":"cancel","topic":"","x":95,"y":280,"wires":[["1fd2b4f0.ae9c3b"]], "l":false},{ "id":"5a1ddeaa.c8b31","type":"function","z":"d0cc2aa.7b38dd8","name":"F2","func":"if(msg.payload.output.error){\nmsg.payload = \"please rephrase\";\nreturn msg;\n}\nmsg.payload = msg.payload.output.text[0];\nreturn msg;","outputs":1,"noerr":0,"x":515,"y":240,"wires":[["e09b69a4.7bc4a8"]], "l":false},{ "id":"68a89e45.6e17a","type":"ui_text","z":"d0cc2aa.7b38dd8","group":"98dc448a.a0d2c8","order":3,"width":0,"height":0,"name":"","label":"You","format":"{{msg.payload}}","layout":"row-spread","x":395,"y":360,"wires":[], "l":false},{ "id":"e09b69a4.7bc4a8","type":"ui_text","z":"d0cc2aa.7b38dd8","group":"98dc448a.a0d2c8","order":6,"width":0,"height":0,"name":"","label":"bot","format":"{{msg.payload}}","layout":"col-center","x":670,"y":360,"wires":[], "l":false},{ "id":"c82dfe80.746c8","type":"debug","z":"d0cc2aa.7b38dd8","name":"","active":true,"tosidebar":true,"console":false,"tostatus":false,"complete":"false","x":540,"y":80,"wires":[], "l":false},{ "id":"98dc448a.a0d2c8","type":"ui_group","z":"","name":"CHATBOT","tab":"baba0a5f.1ad358","order":1,"disp":true,"width":13,"collapse":false},{ "id":"baba0a5f.1ad358","type":"ui_tab","z":"","name":"CUSTOMERCARE","icon":"","disabled":false,"hidden":false}]
```

Watson Cloud Function Action Code

```
/**
 *
 * @param {object} params
 * @param {string} params.iam_apikey
 * @param {string} params.url
 * @param {string} params.username
 * @param {string} params.password
 * @param {string} params.environment_id
 * @param {string} params.collection_id
 * @param {string} params.configuration_id
 * @param {string} params.input
 *
 * @return {object}
 */

const assert = require('assert');
const DiscoveryV1 = require('watson-developer-cloud/discovery/v1');

/**
 *
 * main() will be run when you invoke this action
 *
 * @param Cloud Functions actions accept a single parameter, which must be a
JSON object.
 *
 * @return The output of this action, which must be a JSON object.
 */
function main(params) {
  return new Promise(function (resolve, reject) {

    let discovery;

    if (params.iam_apikey){
      discovery = new DiscoveryV1({
        'iam_apikey': params.iam_apikey,
        'url': params.url,
        'version': '2019-03-25'
      });
    }
  });
}
```

```

    }
    else {
      discovery = new DiscoveryV1({
        'username': params.username,
        'password': params.password,
        'url': params.url,
        'version': '2019-03-25'
      });
    }

    discovery.query({
      'environment_id': params.environment_id,
      'collection_id': params.collection_id,
      'natural_language_query': params.input,
      'passages': true,
      'count': 3,
      'passages_count': 3
    }, function(err, data) {
      if (err) {
        return reject(err);
      }
      return resolve(data);
    });
  });
}

```

Customer Care Sample Skill Assistant Code

```

{
  "intents": [
    {
      "intent": "Goodbye",
      "examples": [
        {
          "text": "good bye"
        },
        {
          "text": "bye"
        },
        {
          "text": "arrivederci"
        },

```

```

{
  "text": "ciao"
},
{
  "text": "so long"
},
{
  "text": "see ya"
}
],
"description": ""
},
{
  "intent": "Cancel",
  "examples": [
    {
      "text": "forget it"
    },
    {
      "text": "don't want a table anymore anymore"
    },
    {
      "text": "cancel the request"
    },
    {
      "text": "i changed my mind"
    },
    {
      "text": "nevermind"
    },
    {
      "text": "never mind"
    },
    {
      "text": "cancel that"
    }
  ],
  "description": ""
},
{
  "intent": "hello",
  "examples": [

```

```

{
  "text": "hii"
},
{
  "text": "hey"
},
{
  "text": "hello"
}
],
"description": ""
},
{
  "intent": "Customer_Care_Store_Hours",
  "examples": [
    {
      "text": "Can you tell me how late the stores are open till?"
    },
    {
      "text": "How early do you open?"
    },
    {
      "text": "Is the branch open now?"
    },
    {
      "text": "will you be open Memorial day"
    },
    {
      "text": "store open hours?"
    },
    {
      "text": "store open"
    },
    {
      "text": "will you open for christmas"
    },
    {
      "text": "What time do stores close?"
    },
    {
      "text": "what are your hours"
    },
  ],

```

```

{
  "text": "What are the business hours of the store nearest to me?"
},
{
  "text": "What are the hours of operation?"
},
{
  "text": "What time does the central manchester store shut on a saturday?"
},
{
  "text": "What time is your store open on saturday?"
},
{
  "text": "What are the saturday opening times for the local store?"
},
{
  "text": "Find business hours"
},
{
  "text": "What time are you closing today?"
},
{
  "text": "What are your hours?"
},
{
  "text": "how late are you open tonight"
},
{
  "text": "how late are you open"
},
{
  "text": "Are you open on Sunday"
},
{
  "text": "What time do you close today"
},
{
  "text": "what time do you close on Sunday"
},
{
  "text": "What time do you open on Saturdays"
},

```



```
{
  "text": "Hours of operation"
},
{
  "text": "What time do you close"
},
{
  "text": "when do you close"
},
{
  "text": "What are ur opening hours?"
},
{
  "text": "Are the stores open early?"
},
{
  "text": "store open now"
},
{
  "text": "open hours store"
},
{
  "text": "how late are you there"
},
{
  "text": "when does the store close"
},
{
  "text": "when do your stores open"
},
{
  "text": "store hours"
},
{
  "text": "Are you closed new Year's eve"
},
{
  "text": "when can i visit your store"
},
{
  "text": "store hrs"
},
}
```

```

{
  "text": "What is the opening time for the washington store?",
},
{
  "text": "Are you closing early today",
},
{
  "text": "How early do you open on Saturdays",
},
{
  "text": "Are you open during thanksgiving?",
},
{
  "text": "are stores open on sunday",
},
{
  "text": "how late y'all stay up till",
},
{
  "text": "will you open on christmas",
},
{
  "text": "At what hour can I swing by?",
},
{
  "text": "Are you open on bank holidays?",
},
{
  "text": "Does the store in the city center opens till 8pm on weekends?",
},
{
  "text": "How long are you open?",
},
{
  "text": "Are you open on sundays, and if so what are the hours?"
}
],
"description": "Find business hours"
},
{
  "intent": "Customer_Care_Store_Location",
  "examples": [

```

```
{
  "text": "how do i get to your place"
},
{
  "text": "What is the store near my zip code?"
},
{
  "text": "is the nearest branch?"
},
{
  "text": "what is the address"
},
{
  "text": "What is the closest store to my address?"
},
{
  "text": "Looking for a location"
},
{
  "text": "I want to know about a store"
},
{
  "text": "where are you"
},
{
  "text": "I need help with find a store"
},
{
  "text": "Find store"
},
{
  "text": "I'd like to go to a store"
},
{
  "text": "Where are you located?"
},
{
  "text": "Go to your company"
},
{
  "text": "how do i get to your business"
},
}
```

```

{
  "text": "Where is?"
},
{
  "text": "where are you located"
},
{
  "text": "you give me directions"
},
{
  "text": "location please"
},
{
  "text": "how do i find you"
},
{
  "text": "what's your location"
},
{
  "text": "give me directions"
},
{
  "text": "please suggest route from times square"
},
{
  "text": "which cross streets are you on"
},
{
  "text": "how can i get to you from grand central"
},
{
  "text": "Where is your office?"
}
],
"description": ""
},
{
  "intent": "General_Connect_to_Agent",
  "examples": [
    {
      "text": "Please connect me to a live agent"
    }
  ]
}

```

```
{
  "text": "Operator please"
},
{
  "text": "Please assist me to get to an agent"
},
{
  "text": "Need help from human"
},
{
  "text": "I would like to speak to someone"
},
{
  "text": "I would like to speak to a human"
},
{
  "text": "I want an agent to help me"
},
{
  "text": "I want agent"
},
{
  "text": "I want a manager"
},
{
  "text": "I don't want to talk to you"
},
{
  "text": "I need to speak to a representative. How would I go about doing so?"
},
{
  "text": "Is there anyone there I can actually talk to for real?"
},
{
  "text": "I don't want to talk to a bot"
},
{
  "text": "Do not want a robot?"
},
{
  "text": "How can I skip the recorded menu and go straight to a live person?"
},
}
```

```

{
  "text": "Hi can you transfer me"
},
{
  "text": "Customer service representative please"
},
{
  "text": "Could you please transfer me to your master?"
},
{
  "text": "Can you assist me to connect to an agent?"
},
{
  "text": "Contact person"
},
{
  "text": "Connect me to a live operator please."
},
{
  "text": "Can you connect me with a real person?"
},
{
  "text": "Can I talk to someone?"
},
{
  "text": "Can I speak to a human please?"
},
{
  "text": "Can I speak with somebody?"
},
{
  "text": "Can I speak to an advisor?"
},
{
  "text": "Can I speak to a live person?"
},
{
  "text": "Can I connect to an agent?"
},
{
  "text": "get me a person"
},

```

```
{
  "text": "Send me to an agent"
},
{
  "text": "I don't want to speak with a robot"
},
{
  "text": "Where is the closest agent?"
},
{
  "text": "Yes, take me to a real person"
},
{
  "text": "Agent help"
},
{
  "text": "Call agent"
},
{
  "text": "talk to a human"
},
{
  "text": "A real agent, please"
},
{
  "text": "dont want to talk to a computer"
},
{
  "text": "I want to talk to the manager"
},
{
  "text": "I want to speak to a human"
},
{
  "text": "call the manager"
},
{
  "text": "Pls connect"
},
{
  "text": "Put me through to someone"
},
}
```

```

{
  "text": "representative"
},
{
  "text": "want to speak to a person"
},
{
  "text": "I want to talk to a person"
},
{
  "text": "Please let me talk to a human being"
}
],
"description": "Request a human agent"
},
{
  "intent": "Thanks",
  "examples": [
    {
      "text": "thanks"
    },
    {
      "text": "welcome"
    },
    {
      "text": "Thank you"
    },
    {
      "text": "many thanks"
    },
    {
      "text": "much appreciated"
    },
    {
      "text": "i appreciate it"
    },
    {
      "text": "thx"
    },
    {
      "text": "thank you very much"
    }
  ]
},

```



```
{
  "text": "that's nice of you"
},
{
  "text": "Hello"
},
{
  "text": "What's new?"
},
{
  "text": "Who is this?"
},
{
  "text": "How are you today?"
},
{
  "text": "You there"
},
{
  "text": "How is it going?"
},
{
  "text": "hi"
},
{
  "text": "Hey you"
},
{
  "text": "Looking good eve"
},
{
  "text": "Good day"
},
{
  "text": "hiya"
},

```

```
{
  "text": "How r u?"
},
{
  "text": "How are things going?"
},
{
  "text": "How have you been?"
},
{
  "text": "Hello Agent"
},
{
  "text": "yo"
},
{
  "text": "Good evening"
},
{
  "text": "Hey there all"
},
{
  "text": "Hey twin"
},
{
  "text": "Good to see you"
},
{
  "text": "Good morning"
},
{
  "text": "Greetings"
},
{
  "text": "What's up?"
},
{
  "text": "Have you been well?"
},
{
  "text": "Hello I am looking for some help here"
},
}
```

```

{
  "text": "Hey how are you doing"
},
{
  "text": "Hey there"
},
{
  "text": "Ok take me back"
},
{
  "text": "Hi there"
},
{
  "text": "Hi advisor"
}
],
"description": ""
},
{
  "intent": "Customer_Care_Appointments",
  "examples": [
    {
      "text": "can i book for tonight"
    },
    {
      "text": "are you available on tuesday"
    },
    {
      "text": "Can I book an in person session"
    },
    {
      "text": "Want to change my visit"
    },
    {
      "text": "Store appointment"
    },
    {
      "text": "Make an appointment"
    },
    {
      "text": "When can I meet with one of your employees at your store?"
    }
  ]
}

```

```

{
  "text": "i'd like to come in for an appointment"
},
{
  "text": "prefer a face to face visit"
},
{
  "text": "Could I speak to someone in the store next tuesday?"
},
{
  "text": "I would like to make an appointment to visit the nearest store to my
location"
},
{
  "text": "I would like to discuss my situation face to face"
},
{
  "text": "I want to talk in person with someone about my case"
},
{
  "text": "meet in store"
},
{
  "text": "Set up an appt"
},
{
  "text": "What time can I meet the staff?"
},
{
  "text": "i'd like to make an appointment"
},
{
  "text": "you make an appointment for me"
},
{
  "text": "can i make an appointment"
},
{
  "text": "do you have availability next week"
}
],
"description": "Schedule or manage an in-store appointment"

```

```

},
{
  "intent": "Product_Information",
  "examples": [
    {
      "text": "how do i configure thermostat?"
    },
    {
      "text": "how to maintain sufficient indoor air quality"
    },
    {
      "text": "how to customize the brightness of your ecobee3 screen"
    },
    {
      "text": "how to configure the reminders and alerts"
    },
    {
      "text": "how do i turn on heater"
    },
    {
      "text": "how do i configure standby screen"
    },
    {
      "text": "how do i configure wifi"
    },
    {
      "text": "how do i set time"
    },
    {
      "text": "how to i configure the ventilator/HRV/ERV menu"
    },
    {
      "text": "what does blue indicate"
    },
    {
      "text": "how do i access security code and change the settings"
    }
  ],
  "description": ""
},
{
  "intent": "Help",

```

```

"examples": [
  {
    "text": "what can i do"
  },
  {
    "text": "help me"
  },
  {
    "text": "what can i say"
  },
  {
    "text": "i need assistance"
  },
  {
    "text": "help me decide"
  },
  {
    "text": "help"
  },
  {
    "text": "can you assist me"
  },
  {
    "text": "can you help"
  }
],
"description": "Ask for help"
},
"entities": [],
"metadata": {
  "api_version": {
    "major_version": "v2",
    "minor_version": "2018-11-08"
  }
},
"webhooks": [
  {
    "url": "https://eu-gb.functions.cloud.ibm.com/api/v1/web/si05202000167%40smartinternz.com_dev/default/assistantenhanced.json",
    "name": "main_webhook",

```

```

    "headers": []
  },
  ],
  "dialog_nodes": [
    {
      "type": "response_condition",
      "output": {
        "text": {
          "values": [
            "\"<?$webhook_result_1.passages[0].passage_text?>\""
          ],
          "selection_policy": "sequential"
        }
      },
      "parent": "node_10_1591247851369",
      "conditions": "$webhook_result_1",
      "dialog_node": "response_8_1591247926074"
    },
    {
      "type": "standard",
      "title": "thanks",
      "output": {
        "generic": [
          {
            "values": [
              {
                "text": "welcome"
              }
            ],
            "response_type": "text",
            "selection_policy": "sequential"
          }
        ]
      },
      "conditions": "#Thanks",
      "dialog_node": "node_2_1591332846719",
      "previous_sibling": "node_10_1591332884891"
    },
    {
      "type": "standard",
      "title": "Ask About Product",
      "actions": [

```

```
{
  "name": "main_webhook",
  "type": "webhook",
  "parameters": {
    "input": "<?input_text?>"
  },
  "result_variable": "webhook_result_1"
},
{
  "metadata": {
    "_customization": {
      "mcr": true
    }
  },
  "conditions": "#Product_Information",
  "dialog_node": "node_10_1591247851369",
  "previous_sibling": "node_10_1591261669197"
},
{
  "type": "standard",
  "title": "Anything else",
  "output": {
    "generic": [
      {
        "values": [
          {
            "text": "I didn't understand. You can try rephrasing."
          },
          {
            "text": "Can you reword your statement? I'm not understanding."
          },
          {
            "text": "I didn't get your meaning."
          }
        ]
      },
      {
        "response_type": "text",
        "selection_policy": "sequential"
      }
    ]
  },
  "conditions": "anything_else",
  "dialog_node": "Anything else",
}
```



```

    "previous_sibling": "node_10_1591247851369",
    "disambiguation_opt_out": true
  },
  {
    "type": "standard",
    "title": "hello",
    "output": {
      "generic": [
        {
          "values": [
            {
              "text": "hello..."
            }
          ],
          "response_type": "text",
          "selection_policy": "sequential"
        }
      ]
    },
    "conditions": "#hello",
    "dialog_node": "node_10_1591261669197",
    "previous_sibling": "node_2_1591332846719"
  },
  {
    "type": "standard",
    "title": "bye",
    "output": {
      "generic": [
        {
          "values": [
            {
              "text": "Good Bye...."
            }
          ],
          "response_type": "text",
          "selection_policy": "sequential"
        }
      ]
    },
    "conditions": "#Goodbye",
    "dialog_node": "node_10_1591332884891",
    "previous_sibling": "Welcome"
  }

```

```

},
{
  "type": "standard",
  "title": "Welcome",
  "output": {
    "generic": [
      {
        "values": [
          {
            "text": "Hello. How can I help you?"
          }
        ],
        "response_type": "text",
        "selection_policy": "sequential"
      }
    ]
  },
  "conditions": "welcome",
  "dialog_node": "Welcome"
}
],
"counterexamples": [],
"system_settings": {
  "off_topic": {
    "enabled": true
  },
  "disambiguation": {
    "prompt": "Did you mean:",
    "enabled": true,
    "randomize": true,
    "max_suggestions": 5,
    "suggestion_text_policy": "title",
    "none_of_the_above_prompt": "None of the above"
  },
  "system_entities": {
    "enabled": true
  },
  "human_agent_assist": {
    "prompt": "Did you mean:"
  },
  "spelling_auto_correct": true
},

```

```
"learning_opt_out": false,  
"name": "Customer Care Sample Skill",  
"language": "en",  
"description": ""  
}
```