

# Project report on “Movie Ticketing Bot”

Prepared by:

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**Category:** IBM Cloud Application

## **Skills Required:**

ChatBot, IBM Watson Assistant, IBM Nodered

**Problem Statement:** In this project, we will be building a chatbot using Watson assistant. This chat should have the following capabilities:

1. Give the list of Shows available
2. Then it shows the lists of movies available.
3. When a movie is selected the bot should show the availability of tickets .
4. The bot should be in a position to book tickets.

## **Introduction**

In the given problem statement asked to create a Movie ticketing chat bot which is capable of to do following task.

1. Give the list of Shows available
2. Then it shows the lists of movies available.
3. When a movie is selected the bot should show the availability of tickets .
4. The bot should be in a position to book tickets.

**To implement the given problem statement requires two phases such as**

1. Create interactive chat using Watson assistant
2. Create UI using Node RED service

## 1. Create interactive chat bot using Watson assistant:

**The following steps are required to create interactive chat bot in IBM account.**

Step1: Login to IBM account

Step2: Go to CatLog and search for Watson assistant

Step3: Create Watson Assistant Service

Step4: Click on launch Watson assistant

Step5: Create a skill in Watson assistant

Step6: Create intents entities and dialogs

## 2. Create UI using Node RED service

**The following steps are required to create UI using Node-RED service**

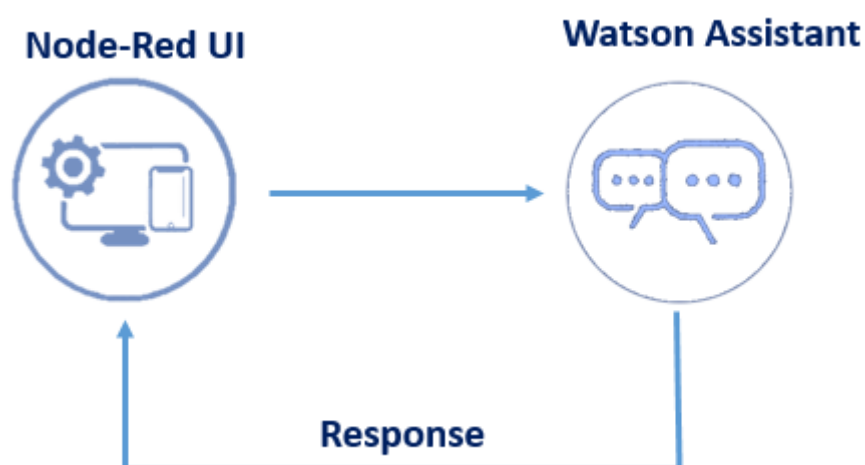
Step1: Get the User input

Step2: Using http request hit the model which is trained

Step3: get response

Step4: Show case it on UI

**Architecture:**



## Services used:

1. IBM Watson Assistant
2. Node-Red

### 1. IBM Watson Assistant:

Watson Assistant is a conversation AI platform that helps you provide customers with fast, straightforward and accurate answers to their questions, across any application, device or channel. By automating responses to common inquiries, Watson Assistant reduces the burden on your agents and the risk of disruption during peak times. This lets your agents focus on complex use cases – not repetitive responses – and helps customers resolve issues day or night.

An assistant helps your customers complete tasks and get information faster. It may clarify requests, search for answers from a knowledge base, and can also direct your customer to a human if needed.

## Intents:

An intent is a collection of user statements that have the same meaning. By creating intents, you train your assistant to understand the variety of ways users express a goal.

10/22/2020 IBM Watson Assistant

IBM Watson Assistant Lite Upgrade

movie ticket Save new version Try it

Intents

Entities			↑ ↓	🗑️	Create intent
Dialog					
Options	<input type="checkbox"/> Intents (3) ↑	Description	Modified ↑↓	Examples ↑↓	
Analytics	<input type="checkbox"/> #Booking		6 days ago	2	
Versions	<input type="checkbox"/> #Enquiry		6 days ago	3	
Content Catalog	<input type="checkbox"/> #Greetings		6 days ago	5	

Showing 1–3 of 3 intents 1 1 of 1 pages

https://eu-gb.assistant.watson.cloud.ibm.com/eu-gb/cm/v1/bluemix/public/conversation/eu-gb:a~2Fa37a0a4a0e2a45a7b422413fa80ff36e:63afb5d-6ce7-48fb-bb04-d55e1dbc5c28:/skills/27f01aa1-5fe2-4cb1-a1d8-2... 1/1

## Entities:

Entities are like noun or keywords. By building out your business terms in entities your assistant can provide targeted responses to queries.

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IBM Watson Assistant

IBM Watson Assistant Lite Upgrade

movie ticket

Save new version Try it

Intents

Entities

My entities

System entities

Dialog

Options

Analytics

Versions

Content Catalog

Entity (7) ↑

Values

Modified ↑↓

☐

@availability

available

33 minutes ago

☐

@booking

book

6 days ago

☐

@email

email

6 days ago

☐

@enquiry

movie, offers, shows

6 days ago

☐

@greetings

Good morning, Good evening

6 days ago

☐

@movies

Frozen II, Moana, Lion King

6 days ago

☐

@payment

COD, UPI, card

6 days ago

Showing 1–7 of 7 entities

1 1 of 1 pages

https://eu-gb.assistant.watson.cloud.ibm.com/eu-gb/cm.v1/bluemix/public/conversation:eu-gb:a~2Fa37a0a4a0e2a45a7b422413fa80ff36e:63afb5d-6ce7-48fb-bb04-d55e1dbc5c28:/skills/2701aa1-5fe2-4cb1-a1d8-2... 1/1

## Dialog:

movie ticket

Intents

Entities

Dialog

Options

Analytics

Versions

Content Catalog

Add node

Add child node

Add folder

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

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

enquiry  
#Enquiry || @enquiry  
2 Responses / 0 Context Set / Does not return

Booking  
#Booking && @booking:book  
1 Responses / 3 Context Set / 3 Slots / Does not return

Anything else  
anything\_else

https://eu-gb.assistant.watson.cloud.ibm.com/eu-gb/cm/v1/bluemix/public/conversation.eu-gb.a~2Fa37a0a4a0e2a45a7b422413fa80ff36e.63afb5d-6ce7-48fb-bb04-d55e1dbc5c28-/skills/27f01aa1-5fe2-4cb1-a1d8-2... 1/1

## Working Movie Ticketing Chat Bot:

movie ticket

Intents

Entities

Dialog

Options

Analytics

Versions

Content Catalog

Save new version

Try it out

Clear

Manage Context 1

Hi

shows

Irrelevant

@enquiry:shows

Morning Show, Matinee Show, Afternoon Show, Night Show

movies

Irrelevant

@enquiry:movie

1. Lion King, 2. Frozen II, 3. Moana

Use the up key for most recent

Enter something to test your assistant

Intents (3)

Intents (3)	Description	Modified	Examples
#Booking		6 days ago	2
#Enquiry		6 days ago	3
#Greetings		6 days ago	5

Showing 1-3 of 3 intents

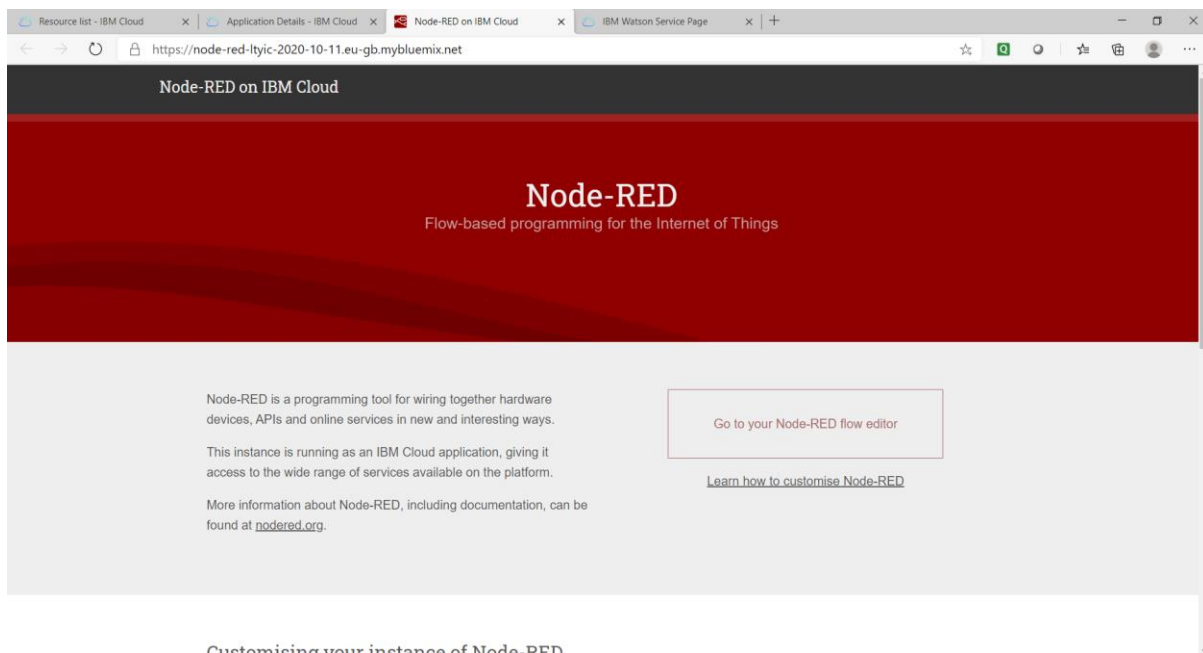
1 1 of 1 pages

https://eu-gb.assistant.watson.cloud.ibm.com/eu-gb/cm/v1/bluemix/public/conversation.eu-gb.a~2Fa37a0a4a0e2a45a7b422413fa80ff36e.63afb5d-6ce7-48fb-bb04-d55e1dbc5c28-/skills/27f01aa1-5fe2-4cb1-a1d8-2... 1/1

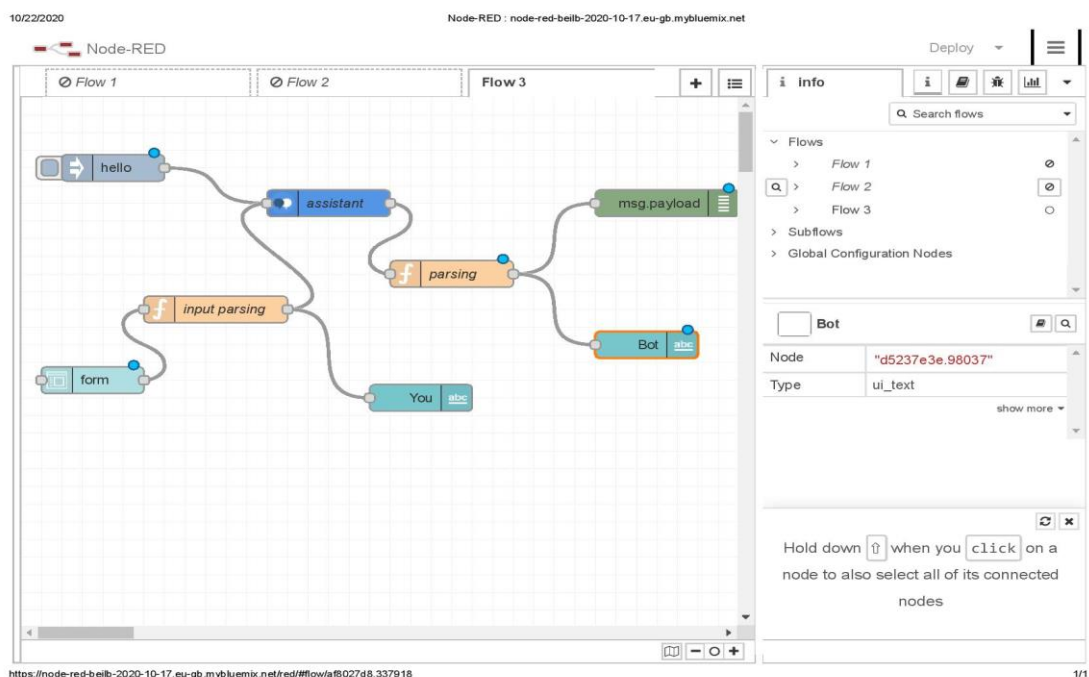
## 2.Node-Red:

**Node-RED** is a flow-based development tool for visual programming developed originally by IBM for wiring together hardware devices, APIs and online services as part of the Internet of Things.

Node-RED provides a web browser-based flow editor, which can be used to create JavaScript functions. Elements of applications can be saved or shared for re-use. The runtime is built on Node.js. The flows created in Node-RED are stored using JSON.



## Node Red Flow for interactive UI development:



## Interactive UI Output:

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movie ticket

Node-RED Dashboard

movie ticket

Enter your input \*

hello

SUBMIT

CANCEL

You **hello**

Bot **Hi**

[https://node-red-beilb-2020-10-17.eu-gb.mybluemix.net/ui/#/IO?socketid=IFJP\\_yqX3OI-qGVAAAn](https://node-red-beilb-2020-10-17.eu-gb.mybluemix.net/ui/#/IO?socketid=IFJP_yqX3OI-qGVAAAn)

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movie ticket

Node-RED Dashboard

movie ticket

Enter your input \*

shows

SUBMIT

CANCEL

You **shows**

Bot **Morning Show, Matinee Show,  
Afternoon Show, Night Show**

[https://node-red-beilb-2020-10-17.eu-gb.mybluemix.net/ui/#/IO?socketid=IFJP\\_yqX3OI-qGVAAAn](https://node-red-beilb-2020-10-17.eu-gb.mybluemix.net/ui/#/IO?socketid=IFJP_yqX3OI-qGVAAAn)

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movie ticket

Node-RED Dashboard

### movie ticket

Enter your input \*

movies

SUBMIT

CANCEL

You **movies**

Bot **1. Lion King, 2. Frozen II, 3. Moana**

[https://node-red-beilb-2020-10-17.eu-gb.mybluemix.net/ui/#/I?socketid=IFJP\\_yqX3OI-qGVAAAn](https://node-red-beilb-2020-10-17.eu-gb.mybluemix.net/ui/#/I?socketid=IFJP_yqX3OI-qGVAAAn)

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10/22/2020

movie ticket

Node-RED Dashboard

### movie ticket

Enter your input \*

available

SUBMIT

CANCEL

You **available**

Bot **Yes**

<https://node-red-beilb-2020-10-17.eu-gb.mybluemix.net/ui/#/I?socketid=FCY53uwBnPWGPXgoAAAr>

1/1



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movie ticket

Node-RED Dashboard

### movie ticket

Enter your input \*

book

SUBMIT

CANCEL

You **book**

Bot **Can you tell me movie name you want to book ticket for**

[https://node-red-beilb-2020-10-17.eu-gb.mybluemix.net/ui/#/I?socketid=IFJP\\_yqX3OI-qGVAAAn](https://node-red-beilb-2020-10-17.eu-gb.mybluemix.net/ui/#/I?socketid=IFJP_yqX3OI-qGVAAAn)

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10/22/2020

movie ticket

Node-RED Dashboard

### movie ticket

Enter your input \*

lion king

SUBMIT

CANCEL

You **lion king**

Bot **How many tickets you want to book**

[https://node-red-beilb-2020-10-17.eu-gb.mybluemix.net/ui/#/I?socketid=IFJP\\_yqX3OI-qGVAAAn](https://node-red-beilb-2020-10-17.eu-gb.mybluemix.net/ui/#/I?socketid=IFJP_yqX3OI-qGVAAAn)

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10/22/2020

Node-RED Dashboard

movie ticket

### movie ticket

Enter your input \*

2

SUBMIT

CANCEL

You 2

Bot **We accept card,UPI,COD how you  
are going to pay**

[https://node-red-beilb-2020-10-17.eu-gb.mybluemix.net/ui/#/I?socketid=IFjP\\_yqX3OI-qGVAAAn](https://node-red-beilb-2020-10-17.eu-gb.mybluemix.net/ui/#/I?socketid=IFjP_yqX3OI-qGVAAAn)

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Node-RED Dashboard

movie ticket

### movie ticket

Enter your input \*

upi

SUBMIT

CANCEL

You upi

Bot **Your booking for 2 of tickets of  
Lion King has been placed please  
pay using UPI Your receipt is sent  
to your email id**

[https://node-red-beilb-2020-10-17.eu-gb.mybluemix.net/ui/#/I?socketid=IFjP\\_yqX3OI-qGVAAAn](https://node-red-beilb-2020-10-17.eu-gb.mybluemix.net/ui/#/I?socketid=IFjP_yqX3OI-qGVAAAn)

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**Conclusion:**

We have successfully implemented the IBM Watson Assistant and Node-Red service in IBM cloud account and developed the Movie Ticketing Chat Bot having following capabilities.

1. Give the list of Shows available
2. Then it shows the lists of movies available.
3. When a movie is selected the bot should show the availability of tickets .
4. The bot should be in a position to book tickets.