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1.INTRODUCTION

1.1 Overview

My project name is Movie Ticketing Bot Powered By IBM Watson Assistant. In this project, we will be building a chatbot using Watson assistant. This chat should have the following capabilities

- Give the list of movies available
- The Bot should be able to show different show timings
- When a movie is selected the bot should show the availability of tickets and their respective prices
- The bot should be in a position to book tickets

The basic skills required for this project is IBM Cloud, IBM Watson and Node-RED and the services used in this project is IBM Watson assistant which is there in IBM Cloud service and Node-Red.

1.2 Purpose

The use of this project is to develop a conversational chatbot about movie tickets booking without help of any person as a employer and a well-designed, easy-to-use, and feature-enriched chatbot platform can streamline customer support operations. This Chatbot uses natural language processing and natural language understanding to learn from every customer conversation and use case, improving with continuous feedback and training.

- Solve common questions with artificial intelligence and response automation, leaving your human agents with time

to focus on tasks that require their attention.

- The long-term idea is to slowly get rid of humans by improving on algorithms and design of the system.
- An intelligent chatbot must be powered by AI/NLP to reply coherent messages at least from the business point of view.
- A response cannot be generated based on a probability that is self-curated and not generated by pattern extraction algorithms, is the proper way to respond.
- The system cannot entirely depend on AIML, but it cannot get rid of AIML.

The use of this project.

The three-vital standard of an insightful TICKETING BOT

- The Project enables Understanding rather than memorization
- The Project enables Ability to handle repetitive queries
- The Project enables Easy and Fast Responses from the bot end.

The primary means of communication with a chatbot is via text.

And *customers* prefer this method. Moreover, The State of Global Customer Service Report 2018 shows that 66% of customers try to use self-service first. And one of the most effective self-service customer support tools that uses texting is a chatbot.

2. LITERATURE SURVEY

2.1 *Existing problem*

☆ The Following are the problems we may encounter

- Problem 1: Misunderstandings. ...
- Problem 2: Double-bookings. ...
- Problem 3: No-shows (and other difficult clients) ...
- Problem 4: Lack of a receptionist. ...
- Problem 5: Lack of a website. ...
- Problem 6: Late-night calls.

A better solution would be to deploy a chatbot on your website and design it to answer basic questions your salespeople get regularly. These can be questions like

- Which movies are playing today?
- Can I get refund to my ticket?
- Which seats are available?

By answering such questions, a chatbot can guide a customer and solve their problem for them. But that's not all. A chatbot can also help the customer take the action they want.

For example, **PVR Cinemas** own one of the largest chains of movie theatres in India. And on their website, you'll find a chatbot that helps visitors quickly book movie tickets, view offers, and leave feedback.

2.2 Proposed solution

The Suggested Solution is:

- All the manual problems can be solved by using the Robot
- In our case the solution developed is Ticketing Bot.
- So simply the Ticketing bot is nothing but
- Using artificial intelligence and natural language processing (NLP), IBM Watson® Assistant provides customers with the best customer experience.
- It is a semi-automatic intelligent chatbot. Here we are using chatbot as TICKETING BOT.

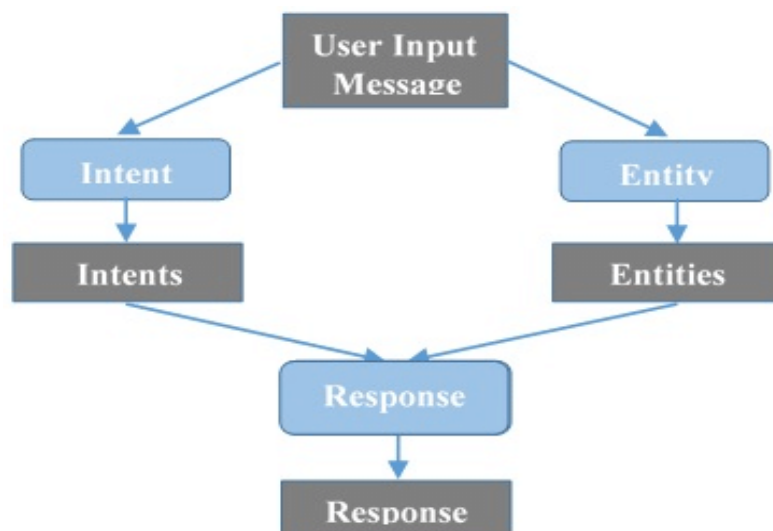
3. THEORITICAL ANALYSIS

3.1 BLOCK DIAGRAM

This Ticketing Bot mainly Work on the following :

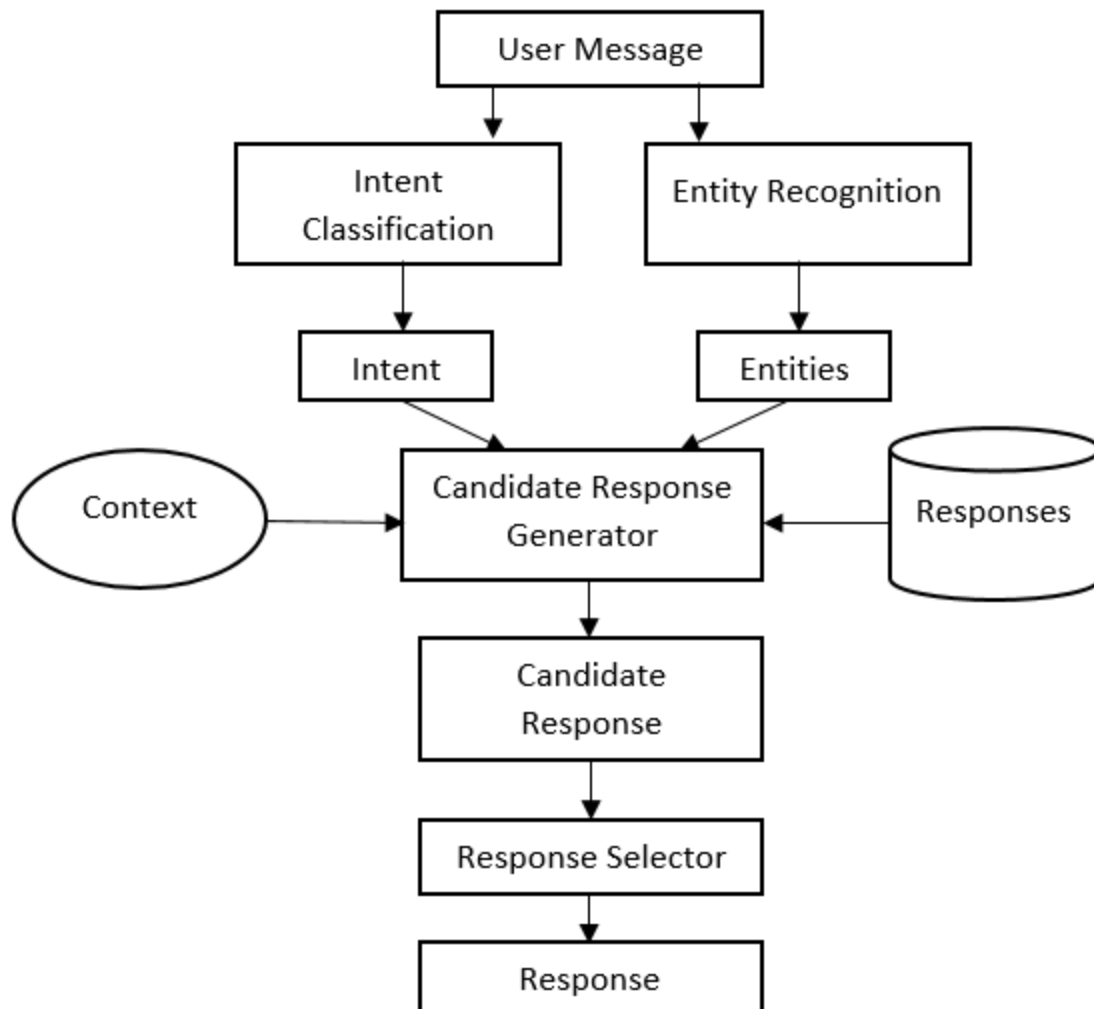
INTENT:Questions from the User.

ENTITY:Keywords in the questions may shooted by user.



DIALOG:Relevant Response from the Bot.

General approach towards Bot:-



3.2 Hardware / Software designing

Watson Assistant has three components in requirements which work together to interact with users;

- The intents.
- The entities
- The dialog

4. EXPERIMENTAL INVESTIGATIONS

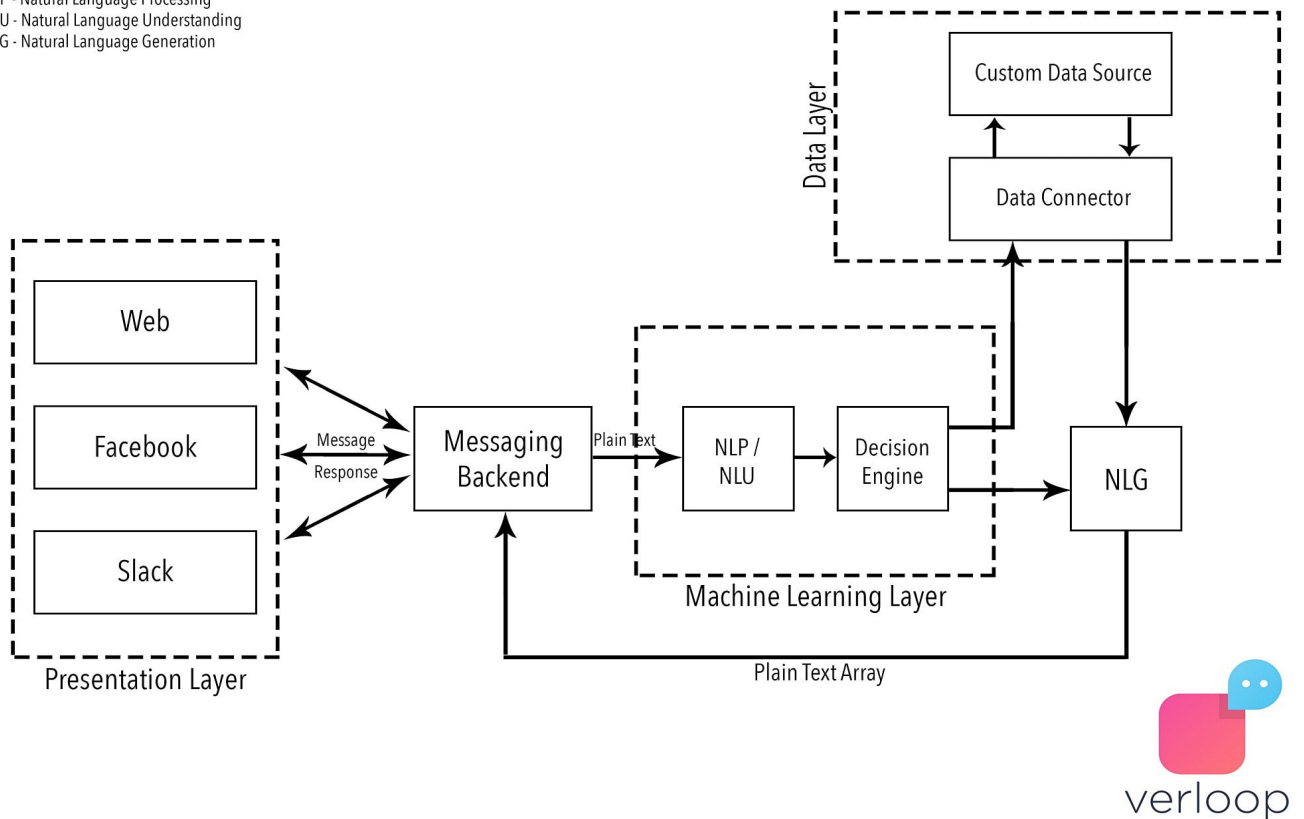
Analysis or the investigation made while working on the solution

- Conversation is the runtime architecture that showcases the components that are involved in using a trained and deployed AI conversation system.
- With the IBM Watson® Assistant service, you can create an application that understands natural-language input and uses machine learning to respond in a way that simulates a conversation between humans.
- Identify sources of information for training the AI system.
- Identify the split between evaluation, test, and training data.
- Define and model the intents, entities, and their relationship.
- Train the conversation service.
- Identify and model the test data maps.
- Identify documents and answers for improving the model.

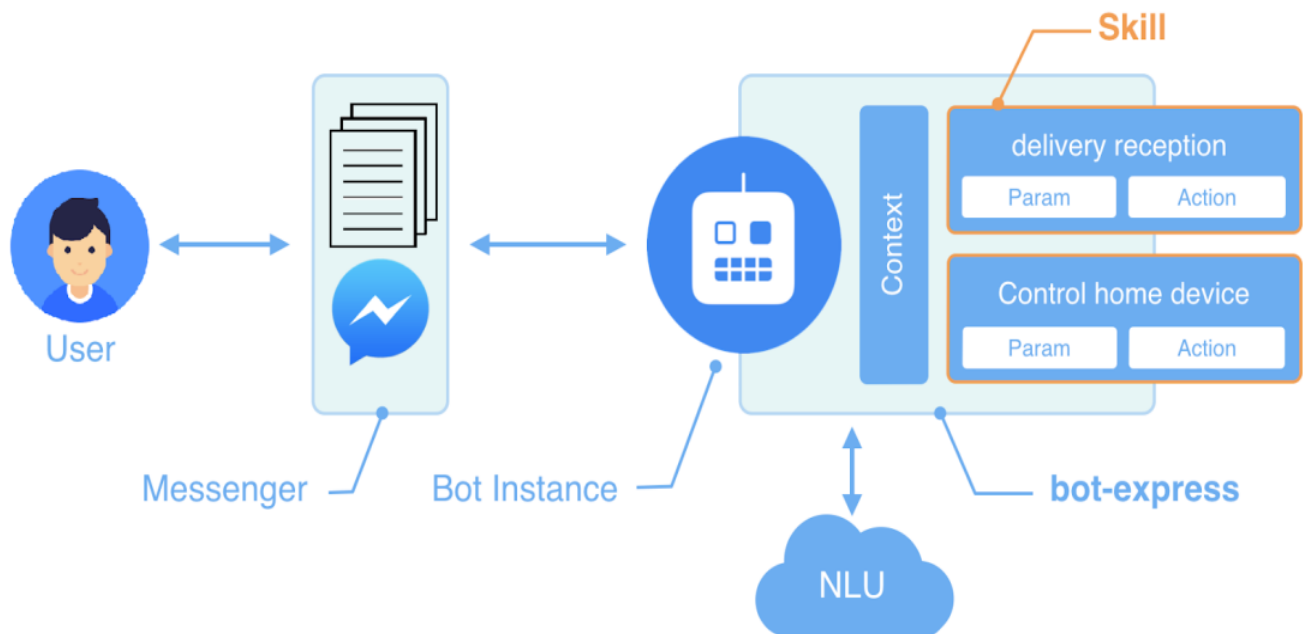
5. FLOWCHART

Diagram showing the control flow of the solution

Key:
 NLP - Natural Language Processing
 NLU - Natural Language Understanding
 NLG - Natural Language Generation



The Actual Block Diagram of Working Bot



6. RESULT

Final findings (Output) of the project .

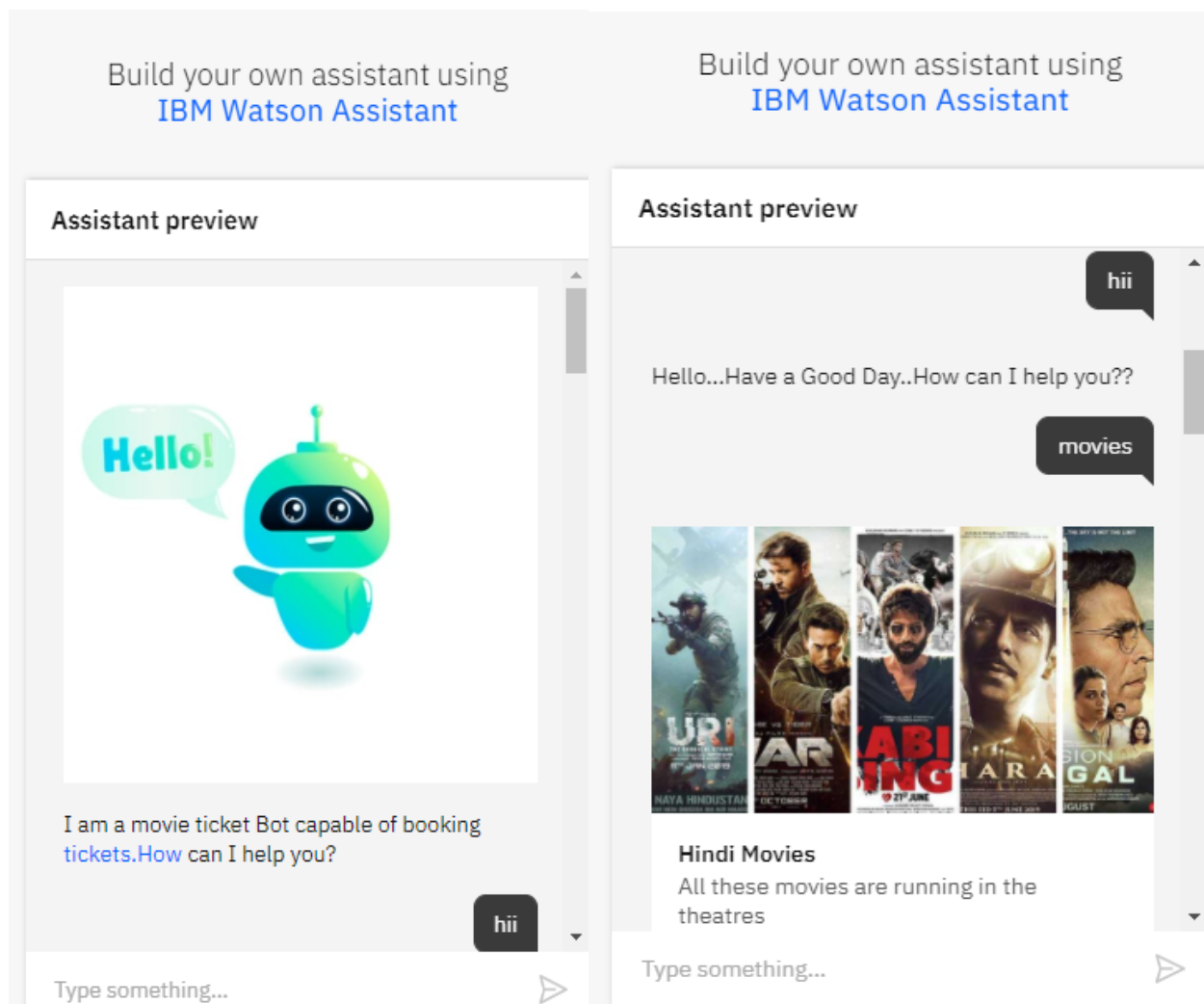
- The Developed Ticketing bot is a Service, Powered by rules and sometimes artificial intelligence, that one can interact with via a chat interface.
- The Service could be any number of things, ranging from functional to fun.

This Bot is Developed with the following Features.

- Can Give the list of movies available
- The Bot Shows the details of movies available in all the theaters
- When a movie is selected the bot will show the availability of tickets and their respective prices.
- With the help of this bot you can book your tickets
- Watson is one of the most preferred platforms when it comes to building AI chatbots. The advantage of Watson is its capability to serve different verticals and manage complex interactions with ease.
- The next phase is to develop the application or microservice that will interact with the Watson Assistant. Implement business logic to handle the context of the interaction and inculcate other components to complement the business requirements.
- We'd all agree that chatbots have been around for some time now. The initial apprehension that people had towards the

usability of chatbots has faded away. Chatbots have become more of a necessity now for companies big and small to scale their customer support and automate lead generation.

SCREEN SHOTS:-



Build your own assistant using
IBM Watson Assistant

Assistant preview



Telugu movies



Type something...

Build your own assistant using
IBM Watson Assistant

Assistant preview



English movies

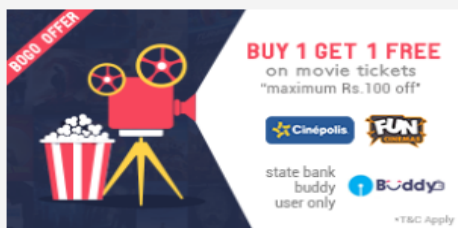
Type something...

Build your own assistant using
IBM Watson Assistant

Assistant preview

DO YOU WANT TO SEE OFFERS TYPE IN
CHAT.....

offers



Offers

IF YOU LIKE THIS OFFER.....??

BOOK THE TICKETS NOW.....

Type something...

Build your own assistant using
IBM Watson Assistant

Assistant preview

book the ticket

enter the movie name you would like to book

batman

Timings are.....Here you Go
MORNING SHOW :----9:40 AM
MATINEE SHOW :----2:10 PM
FIRST SHOW :-----6:30 PM
SECOND SHOW :-----9:45 PM

Enter timings you would like to watch....????

9:45pm

There are only 20 tickets are available for your
selected movie

Type something...

Build your own assistant using
[IBM Watson Assistant](#)

Assistant preview

PREMIUM SEATS :-----₹ 400 each
THE ORCHESTRA:-----₹ 100 each
THE MEZZANINE:-----₹ 200 each
THE BALCONY:-----₹ 300 each

Enter Your Favourite Section.....???

premium

Please enter the number of tickets

4

Please enter the date [YY-MM-DD] format

2021-12-04

| Your Selected Movie the batman with 4 tickets

Type something...

Build your own assistant using
[IBM Watson Assistant](#)

Assistant preview

2021-12-04

| Your Selected Movie the batman with 4 tickets
along with selected premium seats are
reserved at 21:45:00 in 2021-12-04 Day at PVR
CINEMASYou will receive tickets and
location to your mail within 15 min.....



Type something...

These are the resultant outputs for movie ticketing Chatbot development using IBM Watson Assistant.

7 . ADVANTAGES & DISADVANTAGES

ADVANTAGES:

1. A powerful partner for your company
2. They're a selling machine
3. Customer service at any time
4. They help optimize costs
5. They improve customer satisfaction
6. Bots are a lot easier to install than mobile apps and they can save.
7. users the much needed storage space on their smart phones.
8. Bots interact with customers in natural conversational language.
9. Context Awareness
10. Free of cost.

DISADVANTAGES:

1. Chatbots sound too Mechanical
2. Chatbots are not human and so obviously they cannot interact as a human with customers.
3. Can only give answers to problems that they have been programmed with.
4. They cannot answer a customer according to the context and they cannot show any emotions if needed.

8.APPLICATIONS

1. Tidio: Tracking Orders and Saving Carts.
2. Vivibot:Cancer and Mental Health Chatbot That Listen.
3. Globe Telecom: Messenger Bot That Helps Customers.
4. Chirpy Cardinal: Social Chatterbot.
5. LaMDA: Sensible Conversational Chatbot.

9.CONCLUSION

Conclusion summarizing the entire work and findings

- Chatbot in apps are basically an upgrade to a mobile user interface, as they bring the most basic type of human interaction into the digital environment.
- A simpler, faster and more intuitive user interface results in an overall better user experience, which is one of the key factors for mobile growth.

10.FUTURE SCOPE

Enhancements that can be made in the future.

- The future scope is limitless. First there was traditional ticket booking i.e. Window Booking then came a Smart Application i.e. BOOK MY SHOW now came an Automated Way i.e. CHATBOT.
- This movie ticket booking chatbot gives exact time date and location of movie the user wants to watch.

11 . BIBLIOGRAPHY

- Chatbot Evaluation and Database Expansion via Crowdsourcing, Author: Zhou Yu, Ziyu Xu, Alan WBlack.
- Chatbot Using A Knowledge in Database, Authors: Bayu setiaji, Ferry Wahyu Wibowo, Jan. 2016.
- A model of social chatbot, Author: Manuel Gentile, Lucas Weideveld, Frank Dignum, June 2016.

12.APPENDIX

Source Code:

Here is the code for creating child node using JSON editor for deleting context variables

```
{
  "output": {
    "deleted":
    "<?context.remove('movie_name')?><?context.remove('number')?>",
    "generic": [
      {
        "values": [],
        "response_type": "text",
        "selection_policy": "sequential"
      }
    ]
  }
}
```