Project Report

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1. INTRODUCTION

1.1 Overview

Movie Ticketing Bot Powered by IBM Watson Assistant

Category: IBM Cloud Application
Skills Required: IBM Cloud,IBM Watson,Node- RED
Project Description:

- The bot should be in a position to book tickets. 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.

Services Used:

- IBM Watson Assistant
- Node-Red

1.2 PUROSE

What is IBM Watson for Chatbots?

- Using artificial intelligence and natural language processing (NLP), IBM Watson® Assistant provides customers with the best customer experience.
- Remove the frustration of long wait times, tedious searches, and unhelpful chatbots.
- It is a semi-automatic intelligent chatbot. Here we are using chatbot as TICKETING BOT.
- The entire concept concentrates on the bot. not the

- 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.

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.

2.2 **Proposed solution**

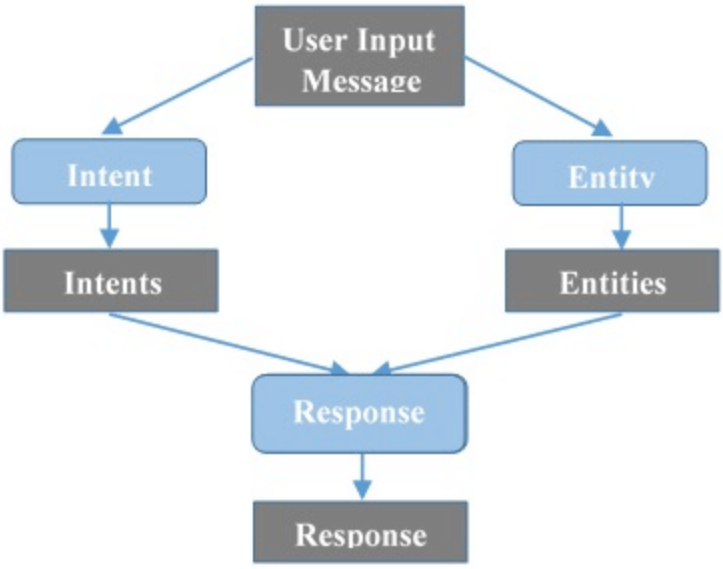
The Suggested Solution is:

- 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.

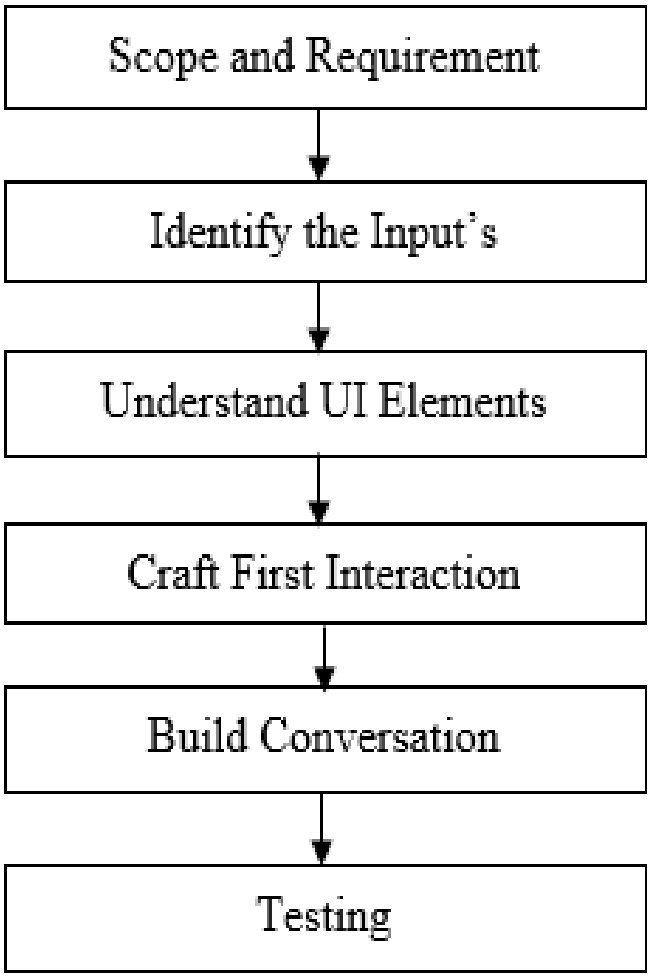
3. THEORITICAL ANALYSIS

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

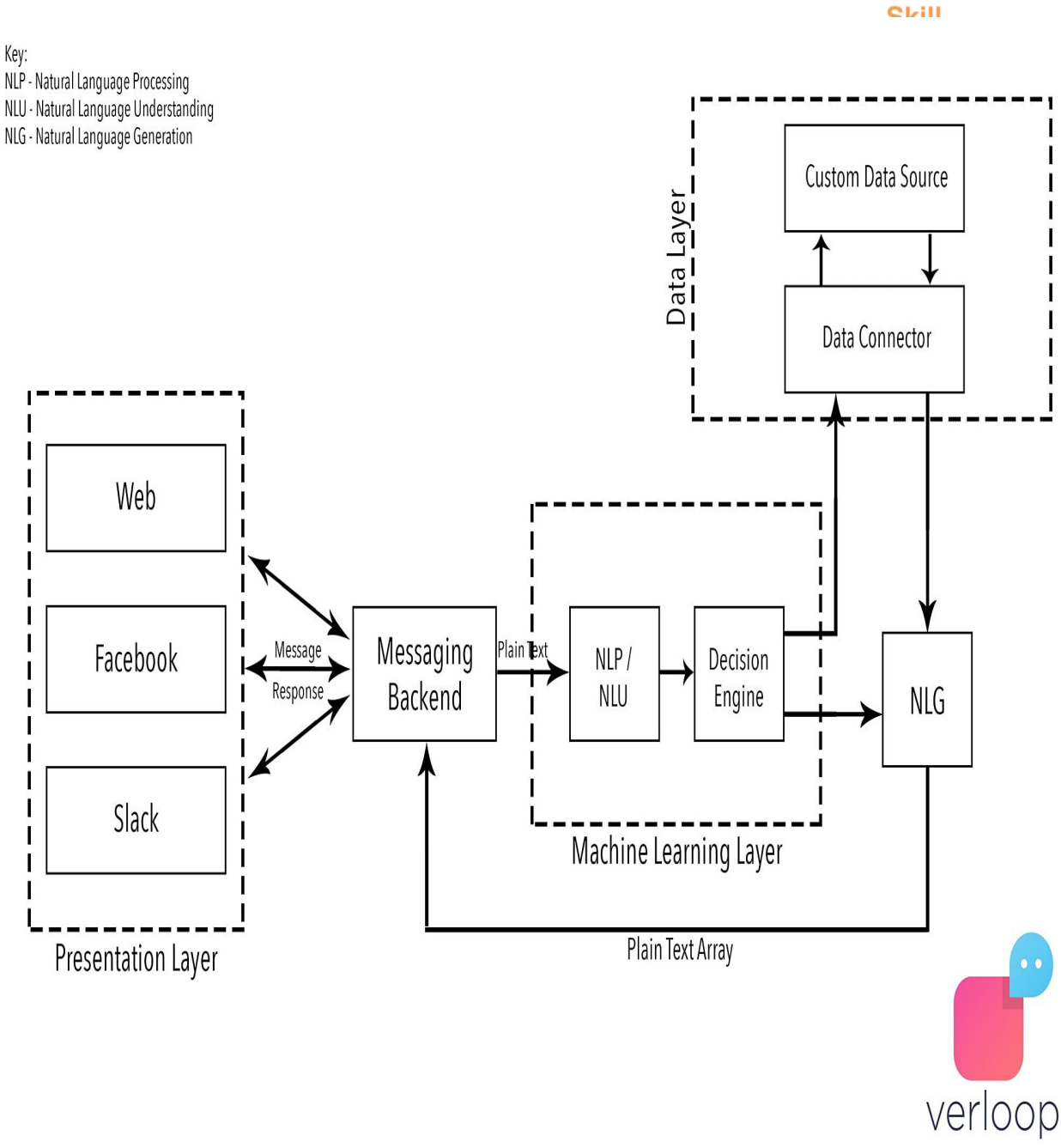
- ➢ Conversation is the runtime architecture that showcases the components that are involved in using a trained and deployed AI conversation system.

- ➢ 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.

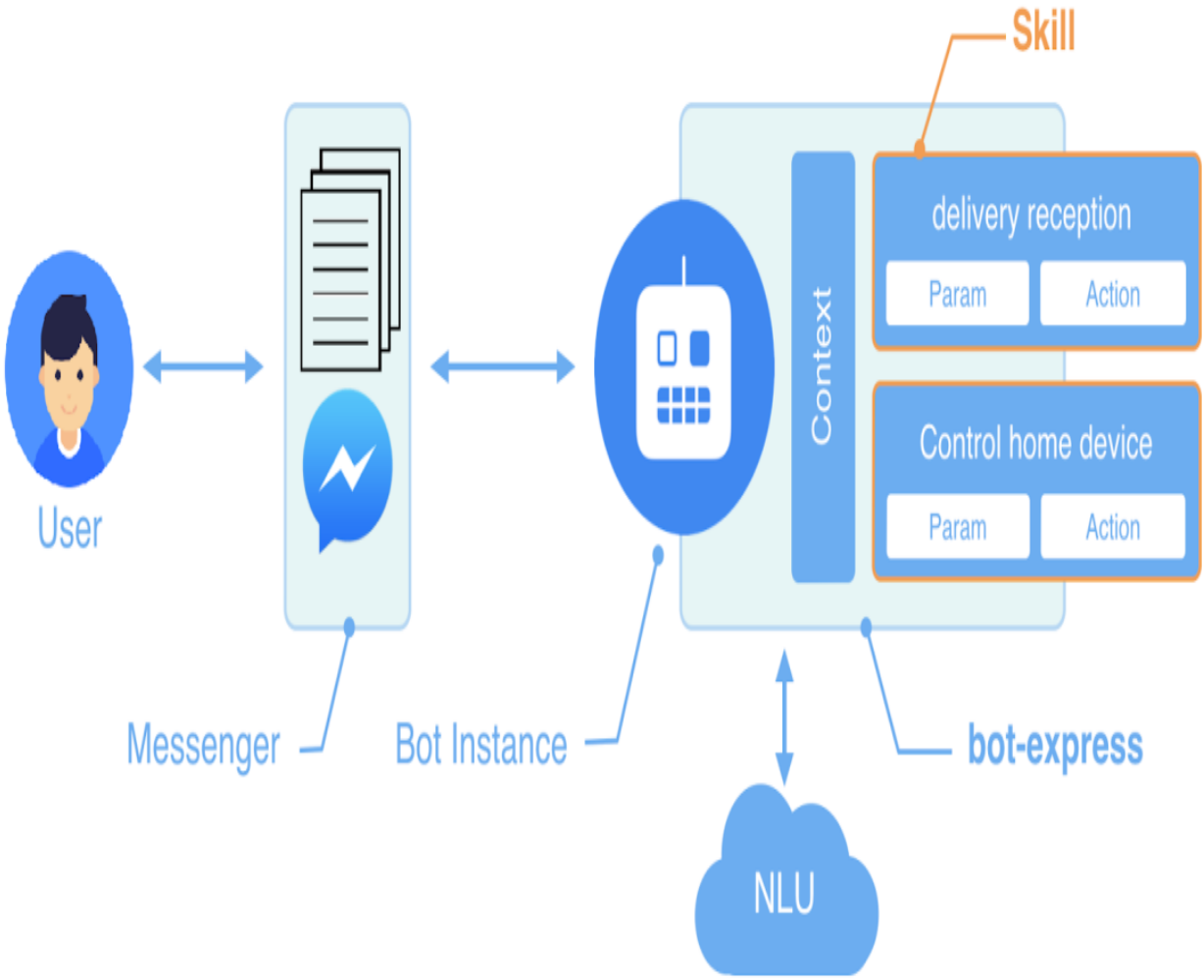
- Identify sources of information for training the AI system.
- Identify the split between evaluation, test, and training data.
- Define and model the intents, entities, and their relationship.
- Train the conversation service.
- Identify and model the test data maps.
- Identify documents and answers for improving the model.

5. FLOWCHART

Diagram showing the control flow of the solution



The Actual Block Diagram of Working Bot



6. RESULT

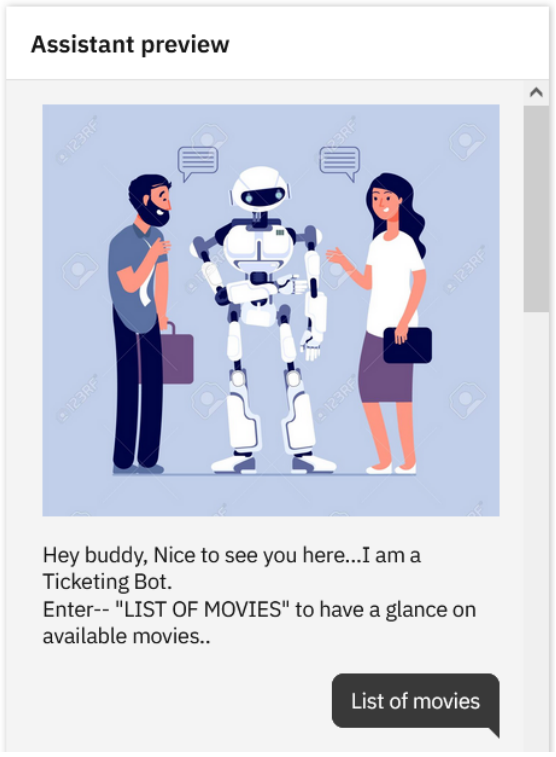
Final findings (Output) of the project .

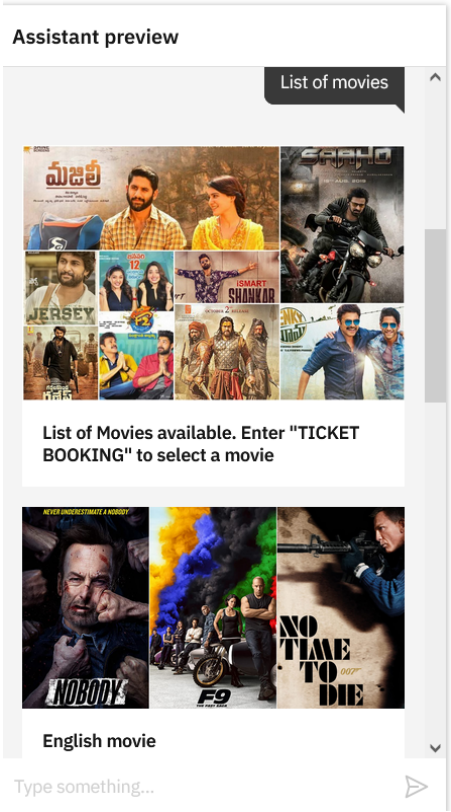
- ➤ The Developed Ticketing bot is a Service,Powered by rules and sometimes artificial intelligence,that one can interect with via a chat interface.
- ➤ The Service could be any number of things,ranging from funtional to fun.

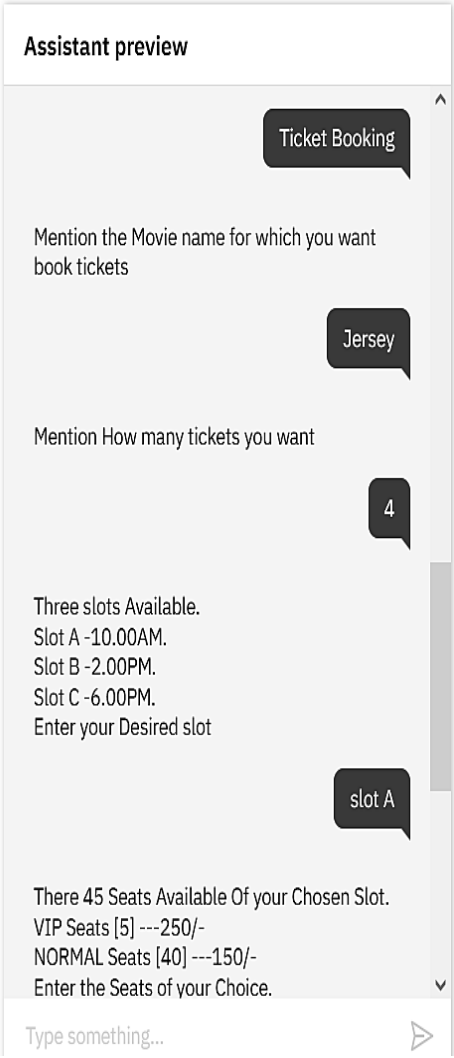
This Bot is Developed with the following Features.

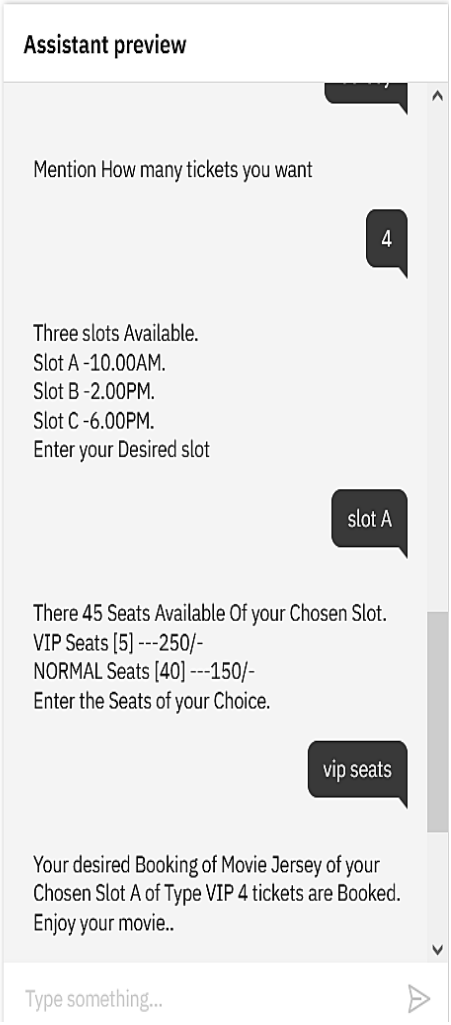
- Can Give the list of movies available
- The Bot Shows the details of movies available in all the theaters
- When a movie is selected the bot will show the availability of tickets and their respective prices.
- With the help of this bot you can book your tickets

SCREEN SHOTS









The above are the Ticketing bot Output Results along with the Screen Shots.

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.
11. Bots interact with customers in natural conversational language.
12. Context Awareness
13. 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 . BIBILOGRAPHY

- 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.

APPENDIX

A. Source Code

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

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