

# ADVANCE CHATBOT FOR REAL ESTATE COMPANY

Rajat Raj  
MCA Scholar,  
School of CS & IT, Dept. of MCA  
Jain (Deemed-to-be University) - 560069  
Email: rrj775@gmail.com

Dr. Ganesh Dhandapani  
School of CS & IT, Dept. of MCA  
Jain (Deemed-to-be University) - 560069

**Abstract-** With evolution of the AI infrastructure at a rapid rate, it is really helping people improve the quality of their lives with minimal and quality interaction. However the gist is to deal efficiently with user queries that don't necessarily need manual input. It would have been unimaginable to document each and every reply of leads that have ever been dealt with.

With distribution of these chatbots in various sectors like health, marketing and especially real estate industry, it is evident from the statistics the kind of impact and also in the improvement of the quality and efficiency of conversation. Chatbots are good and really good to be useful in the real world. Whether real estate agent or customer, Real Estate negotiations are useful for both of them when it comes to saving time, money and additional resources. When a user arrives on your website, they can quickly have their questions answered in chat conversations. They do not have to wait for someone to come to their aid for answers. More inclusive than any robot saves enough time. Chatbots are no different. As a realtor, you will not waste your time on fruitless questions. Your sales team and you will require a well designed system that serves and operates efficiently. Chatbots operates at a low level, working with each leader who can be powerful in a personal way and keep the information collected in a database.

As an agent of real estate there is definitely much more than just replying to user text and getting user leads. We need to know about the whereabouts of the user, the nature of the requirement, checking the availability in areas by querying through the database and providing them with apt response.

**Keywords-** Chatbots, AI, real estate.

## I. Introduction

Gerty is a dialogflow based agent connected to Nodejs server using node web framework, express js. It is a trained bot that gives response automatically for services like agro, iguard and security services for a real estate company. It has been trained for any query regarding issues based off real estate and solve issues regarding bill or any fault in the services provided by the company. The communication is exchanged using NLP algorithm in the background through dialogflow and the exchange of communication takes place back and forth from the nodejs server to dialogflow and vice versa. As part of creating a chatbot, you process topic-creating data and extract and save the same names for specific topic topics. This data is uploaded to Dialogflow Agent, and articles are uploaded to organizations. Businesses are Dialogflow's way of identifying and extracting useful data from native language inputs. With existing objects, you create targets for your agent that in the user input map in responses. For each purpose, you describe examples of user statements that can create a purpose, what you can take out of a statement, and how you can respond. Dialogflow can connect to external applications for the purpose of using targets using the fulfillment code, which is used as a webhook. During the chat, fulfillment allows you to use information extracted from Dialogflow natural language processing to generate powerful responses or to start an action on your backend. The customers can also query back and forth using webspeech apis recognition so that the bot can hear the voice and recognize it with the help of microphone. After receiving the text back from the agent it uses speech synthesis to provide it with synthetic voice.

Finally, you use a custom interface, which connects to the chatbot using the JavaScript Dialogflow API.

## II. Literature review

[1] UUID: - UUID (Unique Unique Identifier) is a 128-bit number used to uniquely identify a particular object or business on the Internet.

resources is enable within the same way as a talk communication utilized in Internet. Each remote action performed by one user is instantaneously visible in other users'web interfaces. The hardware part includes a mini-computer that executes node.js server and hosts [2] @ google-cloud / dialogflow: - Dialogflow is a natural language understanding platform used to design and integrate chat interface on mobile apps, web applications, devices, bots, voice response systems, and more.

[3] Node.js is an open source, real-time cross-platform platform for developing server programs and communication systems. Node.js applications are JavaScript enabled, and can be run within Node.js running time on OS X, Microsoft Windows, and Linux.

Node.js also provides a rich library of various JavaScript modules that facilitate the development of web applications using Node.js on a large scale.

[4] body-parser The bodyParser object exposes various industries to create middlewares. All middlewares will fill the req.body property with a separate body where the title of the content type request is the type of option, or an empty object ({}). If there was no search body, the Content Type did not match, or an error occurred.

JavaScript is employed in today's web applications as a client script language and on the server side. The JavaScript language supports the Model View Controller (MVC) architecture that maintains a readable code and clearly separates parts of the program code. The subject of this research is to match the favored JavaScript frameworks:

AngularJS, Ember, Knockout, Backbone. All four frameworks are supported MVC or similar architecture. During this paper, the benefits and drawbacks of every framework, the impact on application speed, the ways of testing such JS applications and ways to enhance code security are presented. [5] Node.js has been popularly used for web application development, partially due to its large software ecosystem referred to as NPM (Node Package Manager) packages. When using open-source NPM packages, most developers download prebuilt packages on npmjs.com rather than building those packages from available source, and implicitly trust the downloaded packages. However, it's unknown whether the blindly trusted prebuilt NPM packages are reproducible (i.e., whether there's always a verifiable path from ASCII text file to any published NPM package). Therefore, for this paper, we conducted an empirical study to look at the reproducibility of NPM packages, and to know why some packages aren't reproducible. Using npm successfully is the cornerstone of modern web development, it doesn't matter if it's just about Node.js, as a package manager or a front-end building tool, or as a stream of workflow in other languages and on other platforms.

## III. Problem statement

Even though WebRTC features advanced technologies that enable it to beat many problems and deliver excellent user experiences, subpar networks can still cause call quality impairments because the network's performance can vary widely. Performance problems within the underlying IP transport network, i.e. the agent's end-to-end connection through the general public internet to the PaaS platform.

Software errors within the WebRTC protocol stack running within the agent's browser, i.e. Express is a small and flexible Node.js web application framework that offers a solid set of features for web and mobile applications. With so many ways to use

HTTP and the middleware you have, creating a powerful API is quick and easy.

## DISADVANTAGES OF EXISTIN SYSTEM

### 1. Assemble Customer Information

Chatbots can help you collect valuable data from your customers by contacting them. This includes gaining insight into their careers, their preferences, their problems, and more.

You can filter data to find common questions and understand what information your customers want. Depending on the nature of the problem, you may be able to start making the information more accessible to your website.

Additionally, you can find out what their most common problems are and take steps to resolve them. If you can solve their problems easily, they will be better able to stick to your product.

### 2. Increase Sales

You can use chat conversations to provide immediate support to your potential customers. Once their issues are resolved, they may take action that you want. This could mean an increase in your lead generation, which could translate into more sales.

Additionally, you can use chat conversations to market your latest products and send updates to your customers. It is a customized marketing method as the promotion or update is sent directly to the customer. This can also improve your chances of producing sales as well.

### 3. Available 24/7

One of the great benefits of chatbots is that they are available to your customers day and night. In addition, they are quick to respond to any questions presented to them. This ensures that your customers will always find solutions to their problems, either day or night.

With human customer support, it can be very difficult to fund 24/7. Customers want all their problems solved very quickly. If you do not resolve their issues in time, they can switch to another type of product that offers better customer service.

### 4. Save Money

If you do not use chatbots, you need to pay your customer support team fee every month. This is a recurring cost that can be huge if you have a large staff that responds to customers quickly. As your business grows, these costs will only increase.

Conversely, negotiations may require some significant investment initially financially and on time. However, over time, the chatbot can help you make your customer support activities work.

The chatbot itself can answer all the simple questions, and you can leave out the complex ones of your customer support team. This is one of the best benefits of chatbots.

This not only saves you money but can also help reduce the time consumers spend on simple problems. And reducing staff size can help your organization save money.

## IV. PROPOSED SYSTEM

This paper considers the matter of planning for optimum output utility in a real estate company that can save immense time ,money and the man power required for queries or issue s faced by real estate companies in managing such a wide database and responding to the queries of user and planning the communication efficientlyThe place where it starts to benefit from the real estate industry. Many real estate agents are already interested in using this technology.

Chatbots can do a lot of the work and activities that agents used to do, such as tracking potential customer online, checking and evaluating a potential client and getting information on information.Once the lead has been received and the relevant questions are answered, the new contact may be ready for the agent, who receives an immediate notification of new lead.When you buy or sell homes, most people turn to the Internet, but are reluctant to fill out registration forms. Still, many of them are willing to talk to the chatbot. Chatbots are always online, so, no matter what time of day they find out about the goods for sale, your chatbot can provide the customer with the information they need 24 hours a day, 7 days a week.It is especially useful, when answering a question outside of working hours. A chatbot can solve a visitor's concern, when a real estate agent is not available. Real estate agents can also arrange

responses to interviews to get them to participate the way they want.

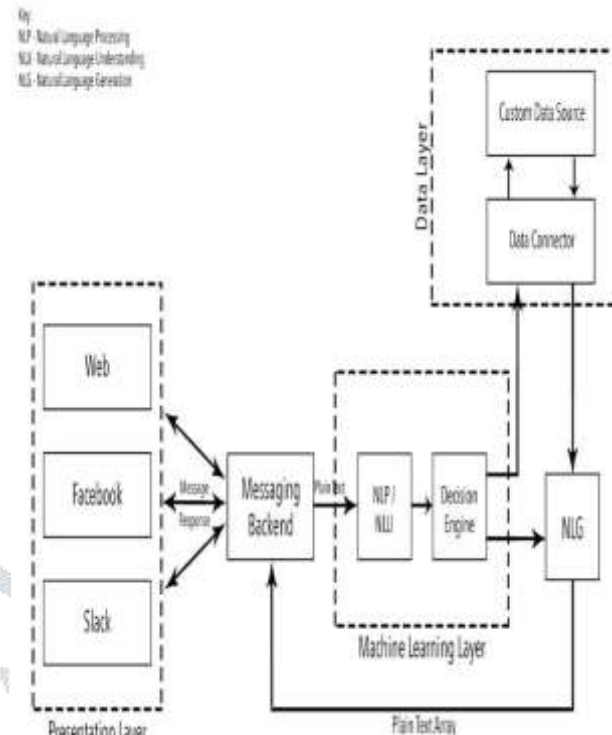
## VI. Flow Chart

### ADVANTAGES OF PROPOSED SYSTEM:

1. The widespread acceptance of chatbot in all industries makes business collaboration great. When faced with a variety of business needs and sophisticated engineering, businesses turn to a pre-chat framework for simple chatbot development. Platforms such as Dialogflow connect multiple artificial intelligence services and promote business automation through convenient social networking sites.

2. Objectives separate the user and realtor intent point during a single thread of chat and chatbot. For example, "There is an issue with security facility provided" or "There is an issue with the bill." Dialogflow developers use built-in machine learning algorithms to analyze users inputs and extract possible data to provide accurate answers. The primary purpose is to create training phrases, actions, parameters, and responses that enable Dialogflow to match patient expressions with the closest goal.

3. Dialogflow (formerly known as API.AI) is a Google-enabled AI chat development framework that is very helpful when looking to build a voice or text bot. It is a natural language processor based on machine learning. Using Dialogflow you can provide a fun and natural chat experience to your customers.



User sends text / voice message to device or application / Device forwards the message to Dialogflow. The message is categorized and associated with a corresponding purpose (Objectives are defined manually by the developer in Dialogflow).

We describe the following actions for each purpose in fulfillment (Webhook). When a specific target is detected by Dialogflow, the webhook will use external APIs to obtain feedback from external data bases. External data bases return the required information to the webhook. Webhook sends the formatted response to the target. Possible data goes to the release of apps / devices. User gets text / picture / voice response and their issues are addressed.

### Conclusion and future Enhancements

Every time a visitor has a chat with a chatbot, important information will be collected. Chatbot has the ability to create a potential client or lead while collecting real estate agent database data. If someone wants to buy or sell goods, your Chatbot will ask for the location you like, the type of house, the number of bathrooms among other things. All of this information can be analyzed by a real estate agent for follow-up or future advertising campaigns. At the end of the interview, Chatbot can also provide details on the availability of a real estate agent who has been given the property concerned and has taken an application to arrange an appointment. Compared to other chat development platforms, Dialogflow has many

advantages. Of course there are also limitations, but it can be easy to choose one of the many types of dialogue development. Where customers may be too busy to see the property in person, property interviews can give interested people a quick visual tour with video or photos, this gives them a clear idea of what the property would look like before planning a site visit. The chatbot can find the most important information needed by an agent and the client gets the answer to their questions. Chatbots can do a job where support and sales teams can't or do not have time to do it, and they are always taking potential customer details.

