iJRASET
International Journal For Research in Applied Science and Engineering Technology



INTERNATIONAL JOURNAL FOR RESEARCH

IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY

Volume: 10 **Issue:** V **Month of publication:** May 2022

DOI: https://doi.org/10.22214/ijraset.2022.42014

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International Journal for Research in Applied Science & Engineering Technology (IJRASET)
ISSN: 2321-9653; IC Value: 45.98; SJ Impact Factor: 7.538
Volume 10 Issue V May 2022- Available at www.ijraset.com

Designing of I – BOT for Stress Relief

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Abstract: ***A Chatbot is a software application used to conduct an online chat conversation via text or text-to- speech, rather of furnishing direct contact with a live human agent. Designed to convincingly pretend the way a human would bear as a conversational mate. In the proposed system, we presented a chatbot that generates a positive response to user queries. The Proposed System is grounded on Artificial Intelligence Chatbot. This chatbot provides a vast intelligent base that can help pretend problem- solving for humans. We can help if the user has any problems or he wants to share something then our chatbot understands their problem and gives a positive reply to them.***

Keywords: Chatbot, Artificial Intelligence, human agent

I. INTRODUCTION

The creation and analysis of intelligent agents (software and machine) are called Artificial Intelligence, or AI. It can be implemented in nearly every sphere of work. Intelligent machines can do numerous tasks – from labor work to sophisticated operations, Prominent trends in this field are human brain stimulation, natural- language processing, neutral working, etc. One of the typical examples of an AI system is a "chatbot". A chatbot is a computer that responds like an intelligent entity when conversed with. The conversation may be through text or voice. Any chatbot program understands one or further human languages through Natural Language Processing. Due to this, the system interprets human language input using information fed to it. A popular illustration of a chatbot is the ALICE Bot (Artificial Linguistic Internet Computer Entity), which utilizes AIML pattern matching ways."Turing test"is one of the most popular measures of intelligence in similar systems. According to it, if a panel of human beings conversing with an unknown reality [1].

When there's no one to talk to or when someone is let interested in talking or communicating with another person, by this also one can be under stress or a mental illness. However, the user can use a chatbot can communicate with the chatbot, If this happens, the user can use a chatbot can communicate with the chatbot. And Chatbot will reply to the user in a positive aspect. Stress is part of being human, and it causes so many depression. Indeed high stress from serious illness, counterblockade, unemployed, or a painful life event may feel down or anxious. Fear and anxiety over your own and your loved ones' health, your financial condition or work, or the loss of support services you calculate on. Habitual health difficulties and mental health illnesses (similar as depression, anxiety, bipolar complaint, or schizophrenia) deteriorate a person's capacity to relate to others by affecting their thinking, feelings, mood, or conduct and serve each day [2]. So for this purpose, we proposed an AI- based chatbot. We created this chatbot using Flutter and Dialogflow Essential. This chatbot provides a vast intelligent base that can help pretend problem- solving for humans. We can help the user if the user has any problems or wants to share something also our chatbot understands their problem and gives a positive reply to them grounded on their input.

II. RELATED STUDY AND LITERATURE SURVEY

Chatbots, or conversational interfaces as they're also known, present a new way for individuals to interact with computer systems. Traditionally, getting a question answered by a software program involved using a search engine, or filling out a form. A chatbot allows a user to simply ask questions in the same manner that they would address a human.

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The most well- known chatbots presently are voice chatbots Alexa and Siri. Still, chatbots are presently being espoused at a high rate on computer chat platforms. The technology at the core of the rise of the chatbot is natural language processing ("NLP"). Recent advances in machine learning have greatly bettered the accuracy and effectiveness of natural language processing, making chatbots a feasible option for numerous associations.

This enhancement in NLP is firing a great deal of fresh exploration which should lead to continued- enhancement in the effectiveness of chatbots in the times to come. the Chatbot has a veritably bright future because in recent times we're going to see that it'll come veritably common as a website [3]. Eliza is the first NLP computer program created by Joseph Weizenbaum in 1964 [32]. Eliza is one of the first chatbot programs that are able of trying the Turing test. Eliza was firstly designed to emulate a psychotherapist. Eliza mimicked the conversation by using pattern matching technique and negotiation methodology that gave the users an vision that ELIZA understood the conversation. Chatbot named PARRY was the coming developed in 1972 by Kenneth Colby [33]. PARRY had a conversational strategy, which was a much more serious and advanced program than ELIZA. PARRY Chatbot was developed to pretend a paranoid individual with internal illness. PARRY was the first Chatbot that passed the Variation of the Turing test.

In recent times, exploration related to chatbot has been increase significantly to grease in several applications (4), (17), [18], [19], [20]. In the paper, we compactly reviewed the conversational system methodologies which would dissect the emotional quotient of the user and try to become their virtual psychiatrist once they began to sputter with the bot. A considerable quantum of work has been done in the field of emotional analysis on the text written by a user in a chatbot [17], [18]. One of the successful chatbots that have been in the market so far is Woebot [9]. Wysa [10], another chatbot analogous to Woebot, seems to be scripted occasionally which might annoy the user. According to Paul [21] and Youper [22], the world 's first- ever emotional health assistant has a mood tracker and helps keep track of the enhancement in one 's emotional and latterly, internal health. According to Marianne [23], Headspace helps manage the stress and anxiety of its users by motivating them to meditate and regular exercises

.

III. PROBLEM STATEMENT

Lots of youthful generations are battling stress and mental illness. According to Association for Medical Education in the Eastern Mediterranean Region (AMEEMR) [27], few nursing scholars observed moderate to high- position stress and postgraduate scholars (i.e. domestic, master's degree scholars) have shown symptoms of stress up to some orthopedic trainees have experienced stress very downward, etc. Apart from daily exercises and yoga, the most effective way to reduce internal illness is that someone should talk to him, but the problem is that if one has no one to talk to also one doesn't want to share his words with anyone. Thus, contemporary youth prefers talking to a machine rather than a human being. This led to the evolution of the idea of a therapeutic chatbot [4].

"Artificial intelligence chatbot is a technology that makes relations between man and machines using natural language possible. A chatbot can give responses to the user based on their Input. Users can share their problems or different effects to the chatbot and grounded on user input chatbot give an applicable response to the user. A chatbot is a conventional agent that's able to communicate with operators by using natural languages. As multitudinous chatbot platforms formerly live, there are still some problems in building data- driven systems because a huge quantum of data is needed for their development [3].

IV. EXISTING SYSTEM

The former chatbot is detecting the user's feelings and gives very little output of its mental illness. You're fine. You need rest In Intelligent chatbot to calculate a total negative percentage grounded on user total input and it gives responses similar as for Zero depression-No remedy demand, for Slightly stressed- Relaxation needed to shed stress, for Largely stressed-Reduce stress in life, for Slightly depressed- Engage in recreational conditioning but not give positive advice or reply to reduce their mental illness [2].

V. PROPOSED SYSTEM

Our design is based on Artificial Intelligence-powered Chatbot. A Flutter is software that provides a user-friendly interface to make the connection easier and more accessible with the internet furnishing valid and dependable web services. We've created a sample chatbot Apk using flutter. Flutter is open source UI software development kit created by Google. It provides an interface. Where user shares their problem with a chatbot. This chatbot provides a vast intelligent base that can help pretend problem- solving for humans. We can help if the user has any problems or he wants to share commodity also our chatbot understands their problem and gives a positive reply to them. Our methodology includes API of Chatbot that will be developed with flutter which covers all the styling corridor and the outrage is used for performing the chatbot. The back- end part will be done with the dart programming language. In this backend, we use Dialogflow essentials to produce an agent and link with Goggle Cloud. It also contains various machine learning algorithms to learn the Chatbot by passing various user's responses and requests.

A. Dataset Description

In this work, we're trying to develop a dataset for user intent discovery in text. We've broken this dataset into different corridor depending on the intent of the user which makes him happy or sad, stressed or depressed some common corridor are examinations, career, health, financial issues, relationship etc.

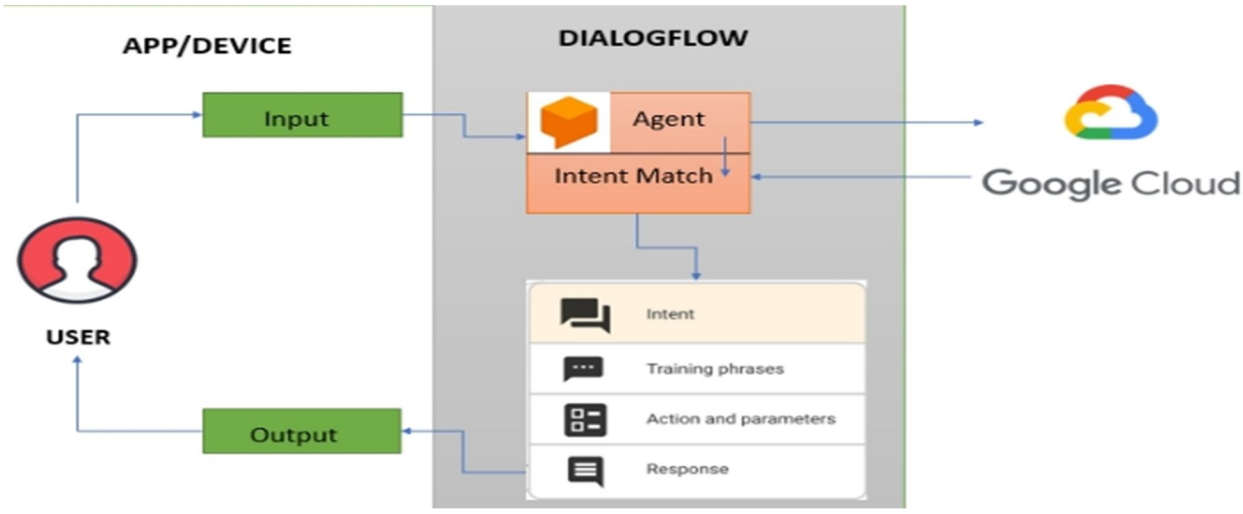


Fig. System Architecture Diagram

In System Architecture Diagram, the user gets input from the App/ Device and also it goes into the Dialogflow agent in Dialogflow Essential. The Dialogflow agent matches the end- user expression to the intent in the agent. The intent contains Training Phrases Action and parameters & Response and eventually, the user gets the output.

B. Agent

A Dialogflow agent is a virtual agent that handles concurrent conversations with your end- users. It's a natural language understanding module that understands the nuances of human language. Dialogflow translates end- user text or audio during a discussion to structured data that your apps and services can understand. You design and make a Dialogflow agent to handle the types of exchanges needed for your system. A Dialogflow agent is analogous to a human call center agent. You train them both to handle anticipated discussion scripts, and your training doesn't need to be overly unequivocal.

C. Intent

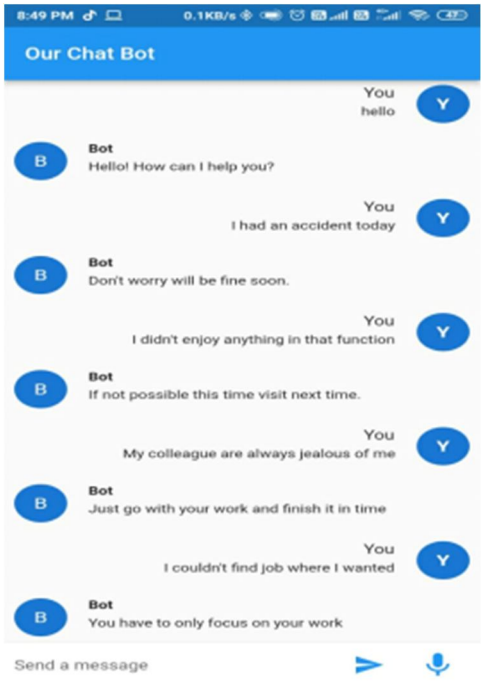
An intent categorizes an end- user intention for one discussion turn. For each agent, you define numerous intents, where your combined intents can handle a complete discussion. When an end- user writes or says commodity, referred to as an end- user expression, Dialogflow matches the end- user expression to the stylish intent in your agent. Matching an intent is also known as intent classification.

A basic intent contains the following

1) *Training Phases:* When an end- user expression resembles one of these expressions, Dialogflow matches the intent. You do not have to define every possible illustration, because Dialogflow's erected-in machine learning expands on your list with other, analogous expressions.
2) *Action:* We define an action for each intent. When an intent is matched, Dialogflow provides the action to our system, and we can use the action to spark certain conduct defined in our system.
3) *Parameters:* When an intent is matched at runtime, Dialogflow provides the uprooted values from the end- user expression as parameters. Each parameter has a type, called the entity type, which dictates exactly how the data is uprooted. Unlike raw end-user input, parameters are structured data that can fluently be used to perform some sense or induce responses.
4) *Responses:* This gives text responses return to the end- user. This provides the end- user with a positive answer. After this user can share further queries.

VI. RESULT

With the help of dataset and Dialogflow essential, the user input works to the user's input in the following manner. When an end-user expression resembles one of these expressions, Dialogflow matches the intent that would lead to an effective and wanted affair..



The User sends their message and then the chatbot detects the intent of the input and also it gives a positive reply based on user intent.

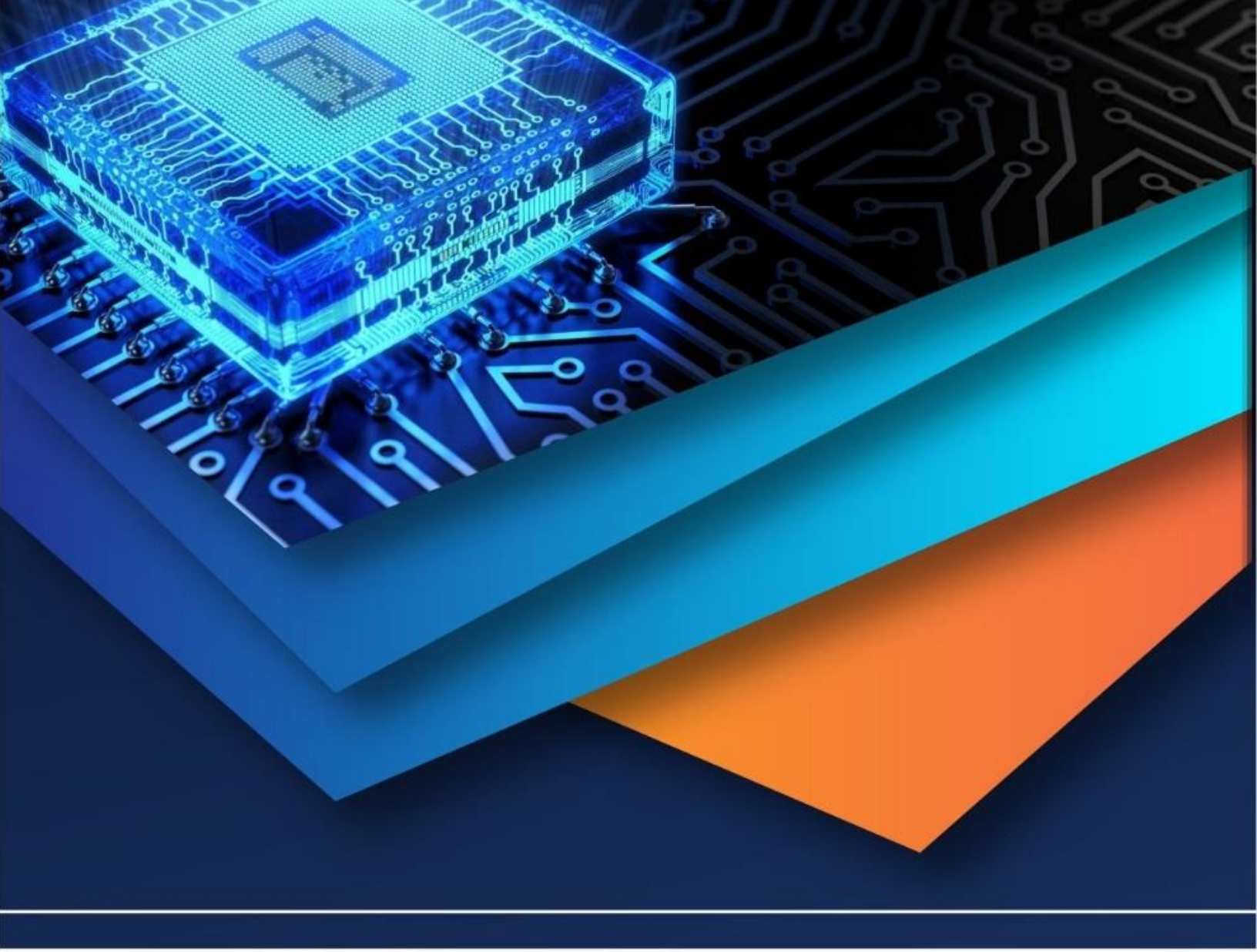
Above fig. is an example of such intent.

VII. CONCLUSION & FUTURE SCOPE

In this design, we proposed a system where the user can ask their queries in textual format to our chatbot system and an applicable response is generated by the chatbot. The proposed methodology classifies the intent of users based on their input queries and gives them a positive response to their queries. In the future, we will increase accuracy for text classification methods. Presently, we've concentrated on minor details of the user as we believe that attending to their queries and easing them from the stress would be the need for further information about the user.

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