MINI PROJECT SYNOPSIS
ON
“ CHATBOT FOR TRAVEL WEBSITE ”

SUBMITTED BY

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UNDER THE GUIDENCE OF:
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CONTENTS

1.Aim of the Project

The aim of the travel website with chatbot project is to create a user-friendly platform that allows individuals to plan and book their travel experiences with ease. The website will serve as a one-stop-shop for all travel-related needs, offering a wide range of travel options and destinations. The chatbot, integrated with the website, will provide 24/7 support to users, answering their questions, providing recommendations, and assisting with the booking process. The ultimate goal of the project is to provide a seamless, personalized travel experience for users, streamlining the planning and booking process and making it easier for individuals to explore new places and create unforgettable memories.

2.Problem definition

Building a website using a chatbot can be a complex task that requires careful consideration of several factors. Some of the most common challenges faced while building such a website include:

- Integration with existing systems: Integrating the chatbot with the website's existing systems, such as booking engines, payment gateways, and databases, can be a time-consuming and difficult process.

- User experience: Ensuring a seamless and intuitive user experience can be a challenge, particularly when it comes to designing the chatbot's conversation flow and responses.

- Data privacy and security: Protecting sensitive user data is critical, and ensuring that the chatbot is secure and complies with data privacy regulations can be a complex process.

- Scalability: The chatbot must be able to handle large volumes of traffic and requests, and be able to scale as the website grows.

- Integrate Dialogflow with Node.js: Use the Dialogflow API and Node.js client libraries to integrate the bot with Node.js. This can include setting up webhook endpoints to handle user requests and sending requests to the Dialogflow API to retrieve responses.

- Deploy the bot: Host the bot on a suitable platform, such as Heroku or Google Cloud, and configure the necessary infrastructure to handle incoming requests.

- Set up a Dialogflow agent: Create an agent in the Dialogflow console and configure the intents, entities, and responses that the bot will use to interact with users.

3.Solution Strategy

- Define the goals and objectives of the chatbot: It's important to understand what the chatbot is intended to achieve and how it will benefit the
- website and its users.

- Conduct user research: Understanding the needs and expectations of the target audience is crucial for designing an effective and user-friendly chatbot.

- Choose the right platform: There are many platforms available for building chatbots, and choosing the right one depends on the specific requirements of the website.

- Design the conversation flow: The chatbot's conversation flow should be designed to be simple, intuitive, and user-friendly, taking into account the goals and objectives defined in step
- Integrate with existing systems: Integrating the chatbot with the website's existing systems should be a priority, to ensure a seamless user experience and efficient operations.

- Test and refine: Before launching the chatbot, it's important to thoroughly test it and refine it based on user feedback and performance metrics

4. Literature survey

Authors Name, Journal Name, Vol., Year, Page	Title of the Paper	Inference	Research Gap	Relevance with the present work
1.Xu, A., Liu, Z., Guo, Y., Sinha, V., & Akkiraju, R. (2017, May). A new chatbot for customer service on social media. In Proceedings of the 2017 CHI conference on human factors in computing systems (pp. 3506-3510).	A New Chatbot for Customer Service on Social Media	• Chatbot for customer service on social media • integrated system with state-of-the-art deep learning techniques • Results shows system outperforms information retrieval system based onboth human judgments and an automatic evaluation metric	Not made for travel FAQs	Related to chatbot development work
2.Cheng, Y., & Jiang, H. (2022).Customer–brand relationship in the era of artificial intelligence: understanding the role of chatbot marketing efforts. Journal of Product & Brand	Customer–brand relationship in the era of artificial intelligence: understanding the role of chatbot	• (AI)-powered chatbot marketing efforts (CMEs) between brands and their customers • Structural equation modeling is used for data analysis • Results show that interaction,	Not made for travel FAQs	Related to chatbot development work

Management, 31(2), 252-264.	marketing efforts	information, accessibility, entertainment ,customization are important CMEs components.		
3.Ranoliya, B. R., Raghuwanshi, N., & Singh, S. (2017, September). Chatbot for university related FAQs. In 2017 International Conference on Advances in Computing, Communications and Informatics (ICACCI)	Chatbot for university related FAQs	• Chatbot development for university related faq • Artificial Intelligence Markup Language (AIML) and Latent Semantic Analysis (LSA) are used. • used by any University to answer FAQs to curious students in an interactive Fashion	Not made for travel FAQs	Related to chatbot development work
4.Athota, L., Shukla, V. K., Pandey, N., & Rana, A. (2020, June). Chatbot for healthcare system using artificial intelligence. In 2020 8th International conference on reliability, infocom technologies and optimization (trends and future directions)(ICRITO) (pp. 619-622). IEEE.	Chatbot for Healthcare System Using Artificial Intelligence	• Chatbot development for healthcare using AI • N-gram, TF-IDF are used for extracting the keyword from the user query. • Diagnose the disease and provide basic details about the disease before consulting a doctor.	Not made for travel FAQs	Related to chatbot development work

5.Hardware and software requirements:

Hardware:

RAM:- 8 GB

SSD :- 256 GB

Processor:-Intel Pentium i5

Software requirements:-

Dialogflow

Language used -java script

Custom web interface – css ,html

Operating System: - Windows 11

6. Workflow diagram:

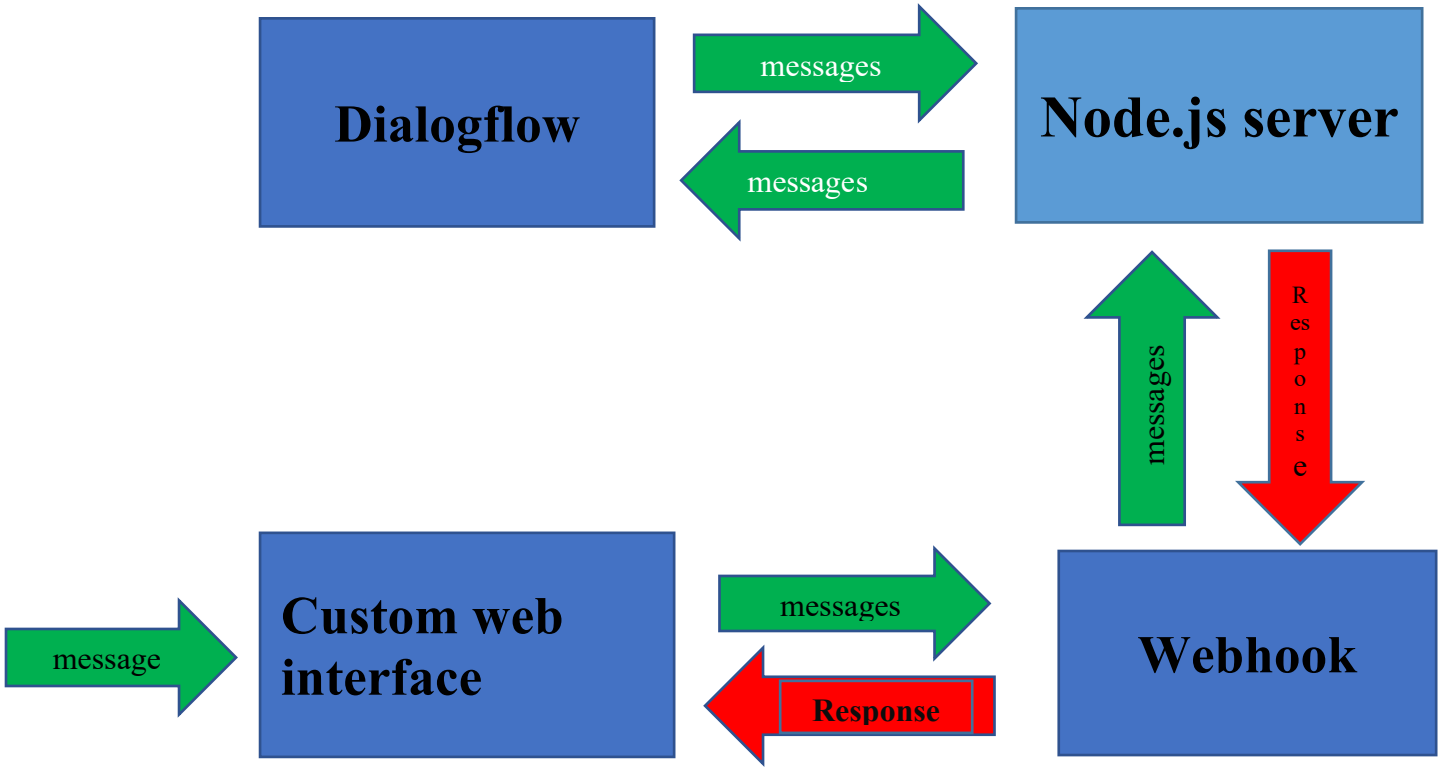
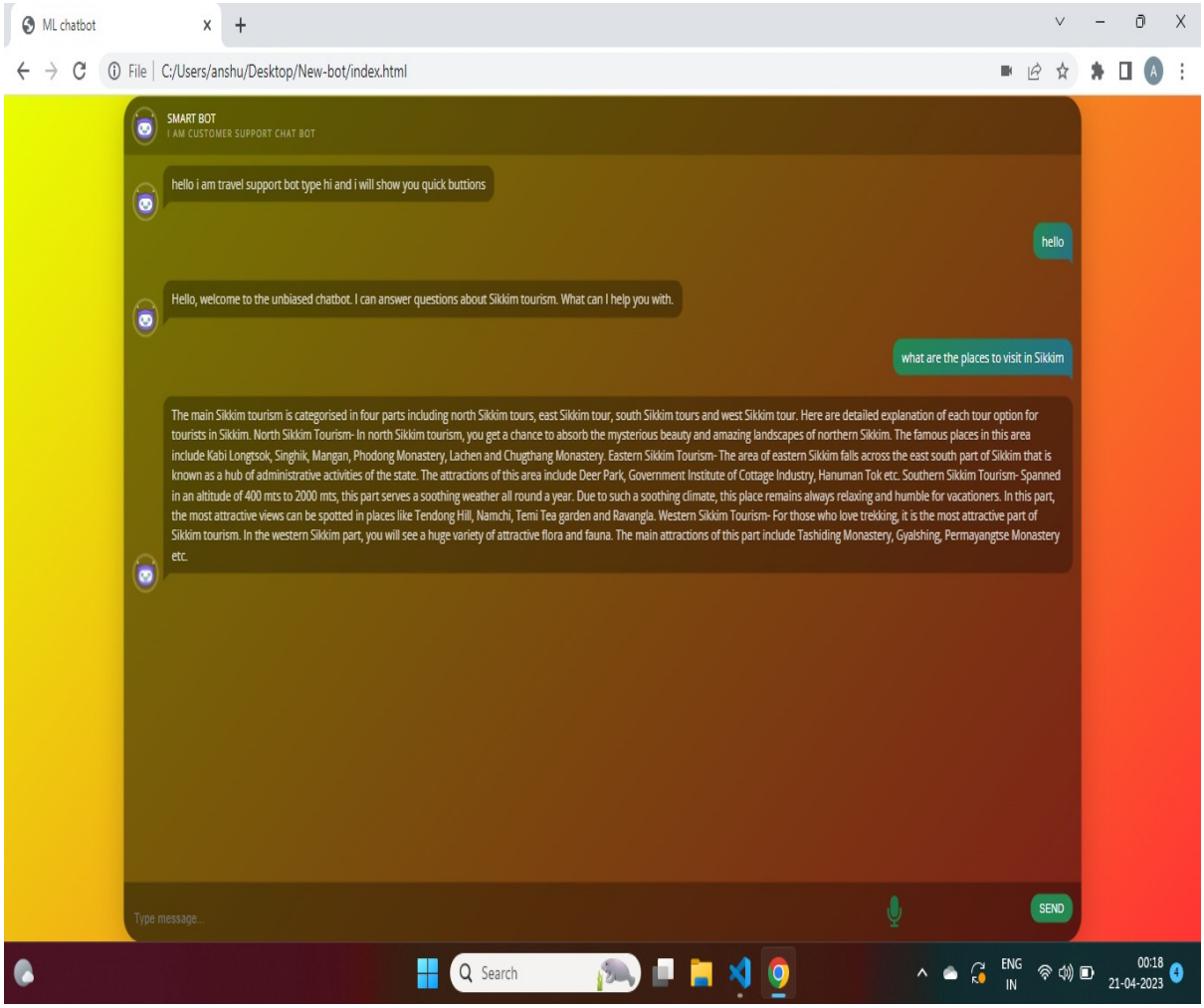


FIG 1: workflow diagram for chatbot development [5]

7.Work done till date

1. Collection of data
2. Connect custom web interface with dialogflow/ have the first conversatin
    i)Dialogflow setup and connect with webhook
3. Teach chatbot to answer some FAQ and test, train the chatbot
4. connect the dialogflow with nodejs server
5. Basic model creation

Fig results:-


ML chatbot
File | C:/Users/anshu/Desktop/New-bot/index.html
SMART BOT
I AM CUSTOMER SUPPORT CHAT BOT
hello i am travel support bot type hi and i will show you quick buttions
hello
Hello, welcome to the unbiased chatbot. I can answer questions about Sikkim tourism. What can I help you with.
what are the places to visit in Sikkim
The main Sikkim tourism is categorised in four parts including north Sikkim tours, east Sikkim tour, south Sikkim tours and west Sikkim tour. Here are detailed explanation of each tour option for tourists in Sikkim. North Sikkim Tourism- In north Sikkim tourism, you get a chance to absorb the mysterious beauty and amazing landscapes of northern Sikkim. The famous places in this area include Kabi Longtsok, Singhik, Mangan, Phodong Monastery, Lachen and Chugthang Monastery. Eastern Sikkim Tourism- The area of eastern Sikkim falls across the east south part of Sikkim that is known as a hub of administrative activities of the state. The attractions of this area include Deer Park, Government Institute of Cottage Industry, Hanuman Tok etc. Southern Sikkim Tourism- Spanned in an altitude of 400 mts to 2000 mts, this part serves a soothing weather all round a year. Due to such a soothing climate, this place remains always relaxing and humble for vacationers. In this part, the most attractive views can be spotted in places like Tendong Hill, Namchi, Temi Tea garden and Ravangla. Western Sikkim Tourism- For those who love trekking, it is the most attractive part of Sikkim tourism. In the western Sikkim part, you will see a huge variety of attractive flora and fauna. The main attractions of this part include Tashiding Monastery, Gyalshing, Permayangtse Monastery etc.
Type message...
SEND
Search
ENG
IN
00:18
21-04-2023

8. WORK TO BE DONE :-

1. Upgrade a chatbot
   i) Using cloud server and node js
2. save and retrieve information into database
3. More data has to be feeded in the dialogflow
4. More requirement to Teach chatbot to answer FAQ and test, train the chatbot
5. sentiment analysis.
6. Voice detection

Gantt Chart

Time	15Jan-31Jan	1Feb - 15Feb	16Feb-28Feb	1Mar-15Mar	16Mar-31 Mar	1 Apr-15Apr	16Apr-30 Apr	1May-15May
Acitity								
Literature Survey								
Basic Model Creation								
Collection of Data								
Training and Testing of Model								
Validation								
Report Writing								

Task Completed

Task Planned

References:

[1] Xu, A., Liu, Z., Guo, Y., Sinha, V., & Akkiraju, R. (2017, May). A new chatbot for customer service on social media. In Proceedings of the 2017 CHI conference on human factors in computing systems (pp. 3506-3510).

[2] Cheng, Y., & Jiang, H. (2022).Customer–brand relationship in the era of artificial intelligence: understanding the role of chatbot marketing efforts. Journal of Product & Brand Management, 31(2), 252-264.

[3] Ranoliya, B. R., Raghuwanshi, N., & Singh, S. (2017, September). Chatbot for university related FAQs. In 2017 International Conference on Advances in Computing, Communications and Informatics (ICACCI)

[4] Athota, L., Shukla, V. K., Pandey, N., & Rana, A. (2020, June). Chatbot for healthcare system using artificial intelligence. In 2020 8th International conference on reliability, infocom technologies and optimization (trends and future directions)(ICRITO) (pp. 619-622). IEEE.

[5] Khan, R., & Das, A. (2018). Build better chatbots. A complete guide to getting started with chatbots.