

AL HEALTH CARE CHAT BOT

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ABSTRACT

With the increasing population of India and a rise in birth rates coupled with advancements in the medical field leading to a decrease in death rates, there is a concerning shortage of doctors to adequately serve the growing population. This issue becomes apparent when visiting government hospitals in cities, where the limited availability of doctors is a major cause of inadequate treatment and, in some cases, even resulting in patient deaths.

Furthermore, doctors, being human, are prone to making mistakes in providing accurate treatments, which can also lead to patient fatalities. To address such situations, the development of an intelligent and smart chatbot that can offer advice to both doctors and patients becomes crucial, potentially saving the lives of hundreds of people. Virtual assistants, including chatbots, have the potential to assist patients and healthcare providers with various medical-related tasks. Chatbots are computer programs designed to

engage in conversations with individuals, offering assistance through text messages, applications, or instant messaging. These bots can identify symptoms and provide diagnoses based on specific symptoms, as well as recommend appropriate doctors for prompt responses. While chatbots are already extensively employed in other industries such as retail to enhance processes, their integration into healthcare services can prove invaluable.

Keywords: Intelligent chatbot, Virtual assistants, medical-related tasks, Diagnosis, health service.

INTRODUCTION

1.1 OBJECTIVE OF PROJECT:

The objective of developing a Health-Care Chat Bot using Support Vector Machines (SVM) and Decision Tree algorithms is to provide an intelligent and interactive conversational system that can assist users in addressing their health-related queries and concerns. The chat bot will leverage the capabilities of both SVM and Decision Tree algorithms to enhance its performance and accuracy in understanding user inputs and providing relevant and reliable responses.

1.2 PROBLEM STATEMENT:

Develop an AI-powered healthcare chatbot website using Django to enhance patient engagement and streamline healthcare inquiries. The chatbot will provide users with personalized health information, appointment scheduling assistance, and general medical advice. By leveraging natural language processing, the chatbot aims to improve user experience, facilitate health-related conversations, and contribute to efficient healthcare communication. This project addresses the need for accessible, intelligent healthcare support, fostering a more responsive and patient-centric approach in the digital landscape.

1.3 MOTIVATION:

An AI healthcare chatbot website with Django is an exciting endeavor that holds immense potential. Your innovative project has the power to revolutionize healthcare accessibility, providing users with instant support and information. By leveraging Django's robust framework, you're not just building a website; you're crafting a digital ally that can enhance patient experiences, streamline communication, and contribute to a healthier, more connected world. Your dedication to this transformative initiative is a step toward a future where technology

empowers and transforms healthcare interactions. Keep pushing boundaries; your impact is boundless.

1.4 SCOPE:

Create an AI healthcare chatbot website using Django to enhance patient engagement and provide instant medical assistance. The chatbot will offer personalized health advice, answer queries, schedule appointments, and streamline communication. Integrating machine learning enables continuous improvement in diagnosis accuracy. This web platform aims to improve healthcare accessibility, reduce response times, and offer a user-friendly experience, contributing to more efficient and patient-centric healthcare services.

1.5 PROJECT INTRODUCTION:

Nowadays, chatbots are becoming increasingly prevalent in various industries, such as IRCTC, banks, and online travel companies like Make My Trip. With the ongoing trend of digitalization, the demand for chatbots in the market continues to grow. One of the main reasons behind the need for medical chatbots in the healthcare industry is the rising population in India and the scarcity of doctors to cater to the needs of this growing population. Additionally, even

doctors can make mistakes when diagnosing patients, potentially endangering their lives. For instance, Mohammed Benaziza, a renowned bodybuilder in the 1990s, tragically died due to Hypokalaemia (high potassium level) in his body. He experienced body cramps as a result of this excess potassium, but doctors mistakenly concluded that he was potassium deficient and administered additional potassium, leading to the cramps spreading to his heart and causing his death. There have been other cases where doctors have made errors as well. To prevent such scenarios, medical chatbots are essential as they can provide guidance to doctors in critical cases. Their application is not limited to doctors alone; they can also be used by the general public in emergencies, where they can provide guidance on initial treatments. Furthermore, if an individual is suffering from a particular disease, the chatbot can assess the type of disease by asking a few questions. Additionally, it can provide information on precautions and remedies that should be taken.