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Sentiment Analysis by Virtual Assistant using Python

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Abstract: *Artificial intelligence (AI)-driven virtual assistants have been increasingly popular in recent years as a means of enhancing user experience and boosting productivity. The popularity of smart speakers and virtual assistants has raised interest in creating voice-based applications that can accomplish a variety of activities and help consumers. This paper details the use of Python programming to create a voice-based virtual assistant. The assistant understands user requests and responds appropriately using machine learning algorithms and natural language processing (NLP) approaches.Speech recognition systems, commonly referred to as Automatic Speech Recognition, or ASR, are essential for enabling users to interact with virtual assistants.The study also examines Python's interoperability with open-source technology and its potential for creating voice-activated virtual assistants. The article also offers a multi-modal strategy to improve user experience, combining voice- and text-based interactions. The research's findings show how successful the Python-based voice-based virtual assistant is and how it has the potential to simplify user activities and boost productivity.The research also looks at the efficiency of various NLP libraries and the possibilities of Python for constructing voice-activated virtual assistants. Home automation, customer service, and healthcare are just a few of the practical uses of the research.*

Keywords: Artificial Intelligence, voice assistant, Desktop Assistant, Python, Text-to-Speech and speech to text , Virtual Assistant..

REFERENCES

[1] Vishal Kumar Dhanraj, Lokesh kriplani, Semal Mahajan, ”Research Paper on Desktop Voice Assistant” International Journal of Research in Engineeringand Science, Volume 10 Issue 2, February 2022.
[2] Prof. Suresh V. Reddy, Chandresh Chhari, Prajwal Wakde, NikhiKamble, ”Review on Personal Desktop Virtual Voice Assistant using Python” International Advanced Research Journal in Science, Engineering and Technology, Vol. 9 Issue 2, February 2022.
[3] Nivedita Singh, Dr. Diwakar Yagyasen, Mr. Surya Vikram Singh, Gaurav Kumar, Harshit Agrawal, ”Voice Assistant Using Python” International Journal of Innovative Research in Technology, Volume 8 Issue 2, July 2021, ISSN: 2349-6002.
[4] Edwin Shabu, Tanmay Bore, Rohit Bhatt, Rajat Singh,”A Literature Review on Smart Assistant” International Research Journal of Engineering and Technology (IRJET), Volume: 08 Issue: 04, April 2021.
[5] A. Sudhakar Reddy M, Vyshnavi, C. Raju Kumar, and Saumya, ”Virtual Assistant using Artificial Intelligence and Python” Journal of Emerging Technologies and Innovative Research (JETIR), Volume 7 Issue 3, March 2020, ISSN-2349-5162.
[6] Dr. Jaydeep Patil, Atharva Shewale, Ekta Bhushan, Alister Fernandes, Rucha Khartadkar, ”A Voice Based Assistant Using Google Dialogflow and Machine Learning” International Journal of Scientific Research in Science and Technology Volume 8 Issue 3, May 2021.
[7] Xin Lei, Andrew Senior, Alexander Gruenstein, Jeffrey Sorensen, “Accurate and compact large vocabulary speech recognition on mobile devices,” in INTERSPEECH. 2013, pp. 662–665, ISCA