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Designing of Virtual Desktop Assistant using Machine Learning

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Abstract: *The rise of automation, along with increased computational power and improved accessibility to data, has resulted in the birth of the digital assistant market, popularly represented by Apple's Siri, Microsoft's Cortana, Google's Google Assistant. This paper focuses on the design of a Virtual Desktop Assistant (VDA) for accessing the data sources available on the user-generated dated content and providing knowledge from the knowledge database using API. This desktop application acts as a search tool where we have to give voice input and get output through voice and display on the screen. Speech recognition uses methodologies and technologies that enable the recognition and translation of spoken language into text. To identify the spoken words speech recognizer uses Natural Language Processing Algorithm (NLP) which includes Natural Language Understanding (NLU) and Name Entity Recognition (NER) also it undergoes six steps such as Tokenization, Stemming, Lemmatization, POS tags, NER, and Chunking. According to the following voice command, the data get fetched from the respective path and gives output through voice. We already know some voice assistants which are used nowadays. It overcomes drawbacks in the existing system such as Siri, which is not capable of doing work on the desktop application, and Cortana which comes installed with the Windows operating system which is not capable to work in another operating system such as Unix or Ubantu.*

Keywords: Speech recognition, Lemmatization, Stemming, Name Entity Recognition, API.

REFERENCES

[1]. Kishore Kumar R, Ms. J. Jayalakshmi, Karthik Prasanna, "A Python-based Virtual Assistant Using Raspberry Pi for Home Automation", International Journal of Electronics and Communication Engineering (IJE CE), Volume 5, Issue 7, July 2018.
[2]. Dr. Kshama V. Kulhalli, Dr. Kotrappa Sirbi, Mr. Abhijit J. Patankar, "Personal Assistant with Voice Recognition Intelligence", International Journal of Engineering Research and Technology. ISSN 0974- 3154 Volume 10, Number 1 2017.
[3]. Veton Këpuska, "Next-Generation of Virtual Personal Assistant (Microsoft Cortana, Apple Siri, Amazon Alexa and Google 11. Home)", Pycon, Cleveland, 2018.
[4]. www.semanticscholar.org/paper/Speech-Recognition-for-Robotic-Control-Gosavi-Khot/54e5bf6735476d0217367f929d374f8739901e4f