

DESKTOP VOICE ASSISTANT

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ABSTRACT

Voice assistants are programs on digital devices that listen and respond to verbal commands. A user can say, "What's the weather?" and the voice assistant will answer with the weather report for that day and location. They could say, "Tell me a story," and the assistant will jump into a tale. The user could even say, "Order my favorite pizza," and dinner will be on its way! Voice assistants are so easy to use that many people forget to stop and WONDER how they work. How do voice assistants understand us? Is it magic? A complex system of codes? An actual person listening on the other end? The answer is less complicated than you might think. The application works like Siri, Google Assistant etc. The U.I of the application is self-explainable and very minimum. It takes voice as input. The system is being designed in such a way that all the services provided by the mobile devices are accessible by the end user on the user's voice commands.

KEYWORDS: Voice Assistant, Python's Speech Recognition, Python text-to-speech library pyttsx3, Python3.8

I. INTRODUCTION

Well, I had the similar thought before I started making my very own "Digital" Personal Assistant. Though it is not as capable and high as like Amazon's Alexa or Google Assistant, Home or Apple's Siri or JARVIS from Iron Man. Nowadays, People are troubled by typing commands into the computer. Be it procrastination or a busy schedule. Typing is a big obsolete process. The solution to this is that we switch over to an assistant which understands us and do the initial work for us. An assistant is the best replacement for typing commands.

It's named as Desktop Voice Assistant NOVA with Voice Recognition Intelligence, which takes the user input in form of user's voice and processes it and return the output in various ways like an action to be performed or the search result is spoken out to the end user.

II. METHODOLOGY

The part where I tell you what are the basic requirement for this project. You'll need **Python 3.6**. We'll be using the pyttsx3 package which is a text-to-speech library for Python. The basic reason why we use this is because it works offline. Another basic requirement of this project will be Python's Speech Recognition library. There are other requirements for the project which are listed below; we'll understand them as we go ahead. Inappropriate college description is also conveyed as all terms and conditions of college are not known to students.

The overall system design consists of following phases:

- (a) Data collection in the form of user's voice
- (b) Voice analysis and conversion to text
- (c) Data storage and processing
- (d) Generating the task to be done from the processed text output



Fig-1

The data flow process in the NOVA takes according to the following diagram:

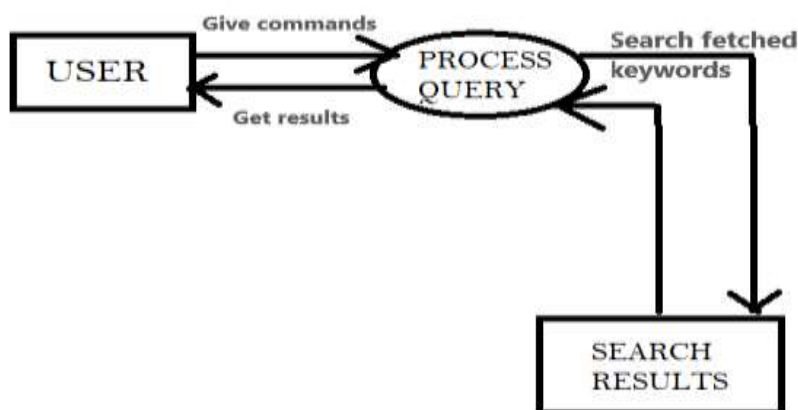


Fig-2

III. RESULTS

Desktop assistant name is **NOVA** and we have developed it under 5000 it will have interface in which there will be two button start and exit. As soon as we start the application are application will tell us to wait till it is open and we have to click start to run the application after running the application are assistant **NOVA** will ask that “how can I help you?”. Then the user has to give the voice command to the assistant.

If the user gives voice command “Describe yourself”, the NOVA results with

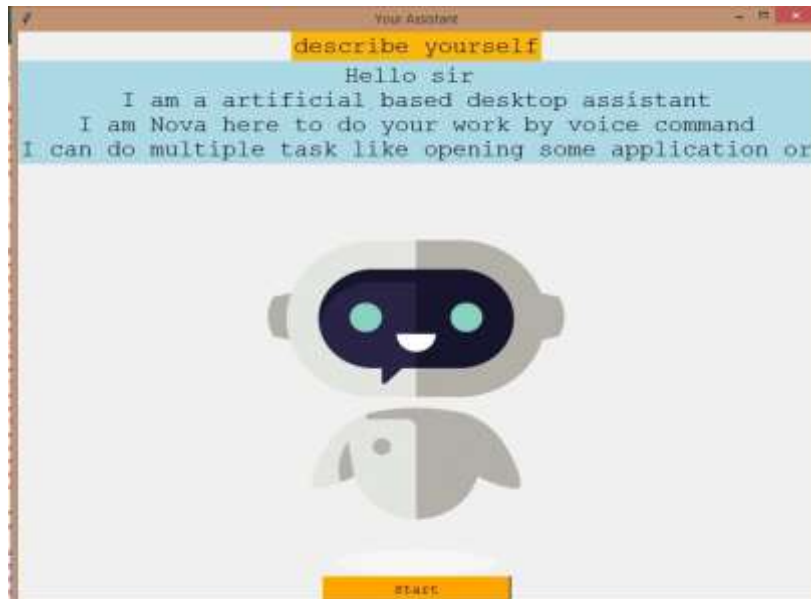


Fig-3

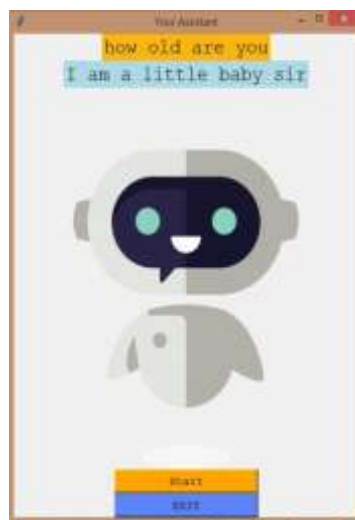


Fig-4

If user gives voice command as “How old are you?”, the NOVA gives results as,

Similarly, the assistant NOVA is able to do the following tasks:

1. Open any website in the browser.
2. Send an email to your contacts.
3. Launch any system application.
4. Tells you present time.
5. Play you a song.
6. Change desktop wallpaper.
7. Tells you latest news.

IV. CONCLUSION

The main aim of the project was to develop an Desktop Assistant that will be used to identify answers related to user submitted questions. To provide with sufficient information that is required by the user. A background research took place, which included an overview of the conversation procedure and any relevant desktop Assistant available. A desktop Assistant already in user were excellent service that is provided. The developed

system is made on python programming language to be more specific Python 3.8. Different libraries were used such as Speech Recognition, Text to Speech convertor, Short Mail Transferring Protocols (SMTP).

It provides information regarding the weather, News, it can play music, it can search for topics on Wikipedia, can setup an alarm, Display the current date and time. User can collect information through this application. It reduces both man power and time. Due to support of NLP user can ask queries in very formal way. No need ask queries in very strict and specific way. The user should aware of general rules of English Language. The goal is to provide people a quick and easy way to have their questions answered.

V. FUTURE SCOPE

Of course, one have to look at the human interaction that humans provide in chat service. This isn't an issue with Desktop Assistants because of the wide range of services it provides and it is available 24*7. It would be wrong to say that Desktop Assistant is evolving. Desktop Assistant are more intelligent. Even there are reports that 80-85% of businesses will be giving out more enhanced Desktop Assistants by 2020.

Natural Language Programming (NLP) helps in giving a raised human involvement, hence making the Desktop Assistants more communicative. Undoubtedly, Desktop Assistants are a great help for e-commerce stores. The goal is to provide people a quick and easy way to have their questions answered. It can also be incorporated with the college's website so that we can give user a better experience. Then users do not want to install this application they can use this application via college website on any system.

ACKNOWLEDGEMENT

We owe a debt of sincere gratitude, and respect to our guide and mentor Ronak Jain, Professor, AITR, Indore for his sagacious guidance, vigilant supervision and valuable critical appreciation throughout this project work.

We express profound gratitude and heartfelt thanks to Dr. Kamal Kumar Sethi, HOD IT, AITR Indore for his support, suggestion and inspiration for carrying out this project. We thank you for the support and guidance received from Dr. S C Sharma, Director, AITR, Indore whenever needed.

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