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Project Report On

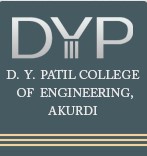
**Virtual Assistant with voice Recognition (VOICIA)**

SUBMITTED BY

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## PROJECT GUIDE

Mr. Ganesh Gosavi Sir



DEPARTMENT Of F.E. DEAN CADEMIC

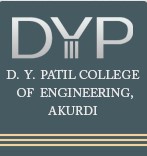
D.Y. PATIL COLLEGE OF ENGINEERING

AKURDI, PUNE–411044 2020-2021

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### DEPARTMENT OF F.E. DEAN ACADEMIC



## CERTIFICATE

This is to certify that

Kunal Awari – F190080054.of First year engineering has completed the project

**Virtual Assistant with voice Recognition(VOICIA)**

Satisfactorily under my guidance and submitted the project report in partial fulfillment of requirement for the first year Engineering course under the Savitribai Phule Pune University during the academic year 2020-2021.

|  |  |
| --- | --- |
| Mr. Ganesh Gosavi Sir | Dr. S.K. Babar |
| Project Guide | Dean Academic |

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**INTRODUCTION TO PROJECT**

The project aims to develop a personal-assistant for Windows-based systems. Voicia draws its inspiration from virtual assistants like Cortana for Windows, and Siri for iOS. It has been designed to provide a user-friendly interface for carrying out a variety of tasks by employing certain well-defined commands . Users can interact with the assistant either through voice commands or using keyboard input.

As a personal assistant, Voicia assists the end-user with day-to-day activities like general human conversation, searching queries in google, searching for videos, retrieving images, live weather conditions, word meanings, searching for medicine details, health recommendations based on symptoms and reminding the user about the scheduled events and tasks

**PROBLEM STATEMENT**

This Software aims at developing a personal assistant for Windows-based systems . The main purpose of the software is to perform the tasks of the user at certain commands, provided in either of the ways, speech. It will ease most of the work of the user as a complete task can be done on a single command. Voicia draws its inspiration from Virtual assistants like Cortana for Windows and Siri for iOS. Users can interact with the assistant either through voice commands or keyboard input.

**OBJECTIVES**

1.Search Engine with voice interactions.

2.Accessing Storage on device.

3.Opening Applications on device.

4.Playing Music with voice interaction.

5.Playing videos with voice interaction.

6. General Conversation with user.

**TOOLS USED**

**1. Py-charm community edition 2021.1.1-**

**PyCharm** is an integrated development environment (IDE) used in computer programming, specifically for the Python language. It is developed by the Czech company JetBrains. **PyCharm** is cross-platform, with Windows, macOS and Linux versions.

* **Written in:** [Python](https://en.wikipedia.org/wiki/Python_(programming_language))
* **Operating system:**[Windows](https://en.wikipedia.org/wiki/Windows), [macOS](https://en.wikipedia.org/wiki/MacOS), [Linux](https://en.wikipedia.org/wiki/Linux)
* **Developer(s):**[JetBrains](https://en.wikipedia.org/wiki/JetBrains)

Graphical user interface, text

Description automatically generated

**2.Tkinter-**

**Tkinter** is **Python's** de-facto standard GUI (Graphical User Interface) package. It is a thin object-oriented layer on top of Tcl /Tk. **Tkinter** is not the only Gui Programming toolkit for **Python**. It is however the most commonly used one. ... Graphical User Interfaces with Tk, a chapter from the **Python** Documentation

* **Written in:** [Python](https://en.wikipedia.org/wiki/Python_(programming_language))
* **Operating system:**[Windows](https://en.wikipedia.org/wiki/Windows), [macOS](https://en.wikipedia.org/wiki/MacOS), [Linux](https://en.wikipedia.org/wiki/Linux)
* **Developer(s):** Fredrik Lundh.

Graphical user interface, website, calendar

Description automatically generated

**MODULES IMPORTED**

* Pyttsx3
* Speech\_Recognition
* Datetime
* Wikipedia
* Webbrowser
* OS
* Pywhatkit
* Pyjokes
* Subprocess
* Random
* **1.pyttsx3 module -**

**pyttsx3** is a text-to-speech conversion library in Python. It is a very easy to use tool which converts the entered text into speech. The **pyttsx3 module** supports two voices first is female and the second is male which is provided by “sapi5” for windows.

* **2**. **Speech Recognition Module-**

**Speech Recognition Module** is a compact and easy-control speaking **recognition** board. This product is a speaker-dependent **Speech** **recognition module**. It supports up to 80 **voice** commands in all.General Output Pins on the board could generate several kinds of waves while corresponding **voice** command was recognized.

* **3. Datetime module**-

**Datetime module** supplies classes to work with date and time. These classes provide a number of functions to deal with dates, times and time intervals. **datetime**  Its a combination of date and time along with the attributes year, month, day, hour, minute, second, microsecond, and tzinfo.

* **4**.**Wikipedia module-**

**Wikipedia** is the largest platform on the internet, which contains tons of **information**. It is an open-source platform which manages by the community of volunteer editors using a **wiki**-based system. This **module** allows us to get and parse the **information** from **Wikipedia**.

* **5. Web-browser module-**

The **web-browser module** provides a high-level interface to allow displaying Web-based documents to users. Under most circumstances, simply calling the open() function from this **module** will do the right thing. If text-mode browsers are used, the calling process will block until the user exits the browser.

* **6.OS module-**

The **OS module** in Python provides a way of using **operating system** dependent functionality. The functions that the **OS module** provides allows you to interface with the underlying **operating system** that Python is running on be that **Windows**, Mac or Linux.

* **7.Pywhatkit module-**

**PyWhatKit** is a Python library for Sending whatsapp message at certain time, it has several other features too

* **8.Pyjokes module-**

To make our project interesting, we can add jokes in our project by using **pjokes module**

* **9.Subprocess module-**

The **subprocess module** present in Python is used to run new applications or programs through Python code by creating new processes. It also helps to obtain the input/output/error pipes as well as the exit codes of various commands.

* **10.Random module-**

The **random module** is a built-in **module** to generate the pseudo-**random** variables. It can be used perform some action **randomly** such as to get a **random** number, selecting a **random** elements from a list, shuffle elements **randomly**, etc.

**FUTURE SCOPE**

The **Virtual Assistant** will continue to play an important role in the development strategy of business because it provides a double-edged solution to improve profitability by effectively lowering cost and increasing revenue through efficiency.

Gartner predicts that, by 2025, 50% of knowledge workers will use a virtual assistant on a daily basis, up from 2% in 2019. By 2023, Gartner predicts that 25% of employee interactions will be voice-based communications.

**REFERENCES**

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2. https://github.com/

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4. <https://docs.python.org/3/tutorial/modules.html>

5. https://www.cuelogic.com/blog/role-of-python-in-artificial-intelligence