

OASIS INFOBYTE INTERNSHIP – PROJECT 1: VOICE ASSISTANT WITH WAKE WORD "HI Nick"

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1. INTERNSHIP & PROJECT OVERVIEW

This project is a part of my Oasis infobyte internship, where I will be completing 5 projects in 5 days.

Project 1 is a fully functional Voice Assistant built using Python, which responds to voice commands after hearing the wake word "Hi Sri". It is designed to interact naturally with the user, process speech input, execute tasks, and reply with spoken output.

The assistant can:

- Greet the user personally by name (Pramoda Palanati)
- Report the current time and date
- Perform Google searches
- Respond to custom queries
- Speak responses using text-to-speech

2. FEATURES

- Wake Word Activation – Starts listening when the user says "Hi Nick".
- Personalized Greeting – Uses my name in responses.
- Time & Date Reporting – Reads out the current time and date.

- Web Search – Opens Google search for a spoken query.
 - Custom Responses – Recognizes specific phrases and answers accordingly.
 - Voice Output – Uses pyttsx3 for text-to-speech.
 - Continuous Listening – Runs until stopped by the user.
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3. TECHNOLOGY STACK

Programming Language: Python 3.10+ Libraries Used:

- speech_recognition → Speech-to-text
 - pyttsx3 → Text-to-speech
 - datetime (built-in) → Date and time operations
 - webbrowser (built-in) → Opening web pages
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4. PROJECT FILES

- assistant.py → Main program file
 - requirements.txt → List of Python libraries
 - README.md → Documentation for GitHub
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5. SETUP & EXECUTION STEPS

Step 1: Install Python (3.10 or above) from the official website.

Step 2: Open VS Code and navigate to the project folder.

Step 3 (Optional): Create a virtual environment

```
python -m venv .venv
```

`.venv\Scripts\activate`

Step 4: Install dependencies

`pip install speechrecognition pytsx3`

Step 5: Ensure a working microphone is connected.

Step 6: Run the program `python assistant.py`

6. COMMANDS & USAGE

Wake Word: "Hi Nick"

Example Commands:

- Hi Nick, what time is it?
- Hi Nick, what is the date today?
- Hi Nick, search Python programming
- Hi Nick, who invented you?

Exit Commands:

- quit
 - exit
 - stop
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7. SAMPLE DEMO FLOW

- Start the program in VS Code or terminal.
- Wait for assistant to say: "Hey sweets, I am Nick and I am ready. Let's crack your stuff."

- Speak the wake word: Hi Nick.
 - Give 2–3 functional commands (time, date, search).
 - Give 1 custom query like "who invented you".
 - End by saying "quit".
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8. FUTURE IMPROVEMENTS

- Add music playback support.
 - Integrate weather API for weather reports.
 - Add note-taking functionality.
 - Connect with smart home devices.
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9. ACKNOWLEDGMENTS

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