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JARVIS AI

PERSONAL ASSISTANT

JARVIS helps you to complete your daily task automatically though one command. Jarvis AI Assistant is a sophisticated virtual assistant designed to streamline daily tasks and enhance user productivity.

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**Project Report: Jarvis AI Assistant**

**1. Introduction:**

The Jarvis AI Assistant project is a comprehensive artificial intelligence system designed to serve as a personal assistant for various tasks. Developed using Python on Windows 10 platform with the PyCharm IDE, the project leverages several modules, including os, pyaudio, speechrecognition, wikipedia, News API, and SMTP server for email automation.

**2. Objectives:**

The primary objectives of the Jarvis AI Assistant project are to create a versatile and user-friendly system capable of performing the following tasks:

* Open applications on command
* Play music
* Open websites
* Retrieve information from Wikipedia
* Provide news updates using the News API
* Automate email sending through an SMTP server

**3. Technology Stack:**

* Python: The core programming language for developing the AI functionalities.
* PyCharm IDE: Used for coding, debugging, and testing the project.
* Modules:
* os: To interact with the operating system for application manipulation.
* pyaudio and speechrecognition: To enable speech recognition capabilities.
* wikipedia: For fetching information from Wikipedia.
* News API: To provide real-time news updates.
* SMTP server: For automating the process of sending emails.

**4. Implementation:**

4.1 Speech Recognition:

Utilizing the pyaudio and speechrecognition modules, Jarvis is capable of understanding and interpreting user commands through voice input.

4.2 Application Manipulation:

The os module is employed to open applications specified by the user. For example, Jarvis can open a web browser, text editor, or any other application as per user command.

4.3 Media Playback:

Jarvis has the ability to play music on demand, enhancing the user experience with entertainment features.

4.4 Web Interaction:

The system can open websites as per the user's request, expanding its utility to web-based tasks.

4.5 Wikipedia Integration:

The wikipedia module is utilized to fetch information from Wikipedia, enabling the assistant to answer queries and provide relevant information.

4.6 News Updates:

Integrating the News API, Jarvis keeps the user informed by delivering real-time news updates on a variety of topics.

4.7 Email Automation:

Jarvis includes an SMTP server implementation, allowing users to send emails automatically. This feature is particularly useful for time-sensitive communications.

**5. Future Enhancements:**

* Integration of additional modules for extended functionality.
* Natural Language Processing (NLP) improvements for better understanding of user commands.
* Enhancements to the user interface for a more intuitive interaction.
* Support for multi-user profiles with personalized settings.

**6. Conclusion:**

The Jarvis AI Assistant project successfully achieves its objectives by providing a versatile, voice-activated assistant capable of handling a variety of tasks. The integration of modules like speech recognition, Wikipedia, News API, and SMTP server enhances its utility, making it a valuable tool for users in various contexts.

**7. Acknowledgments:**

I would like to express my gratitude to the developers of the open-source modules used in this project, as well as the support from the Python community. Special thanks to [University Name] for providing the opportunity to work on this innovative project.

**8. References:**

* Python Documentation: https://www.python.org/doc/
* PyCharm Documentation: https://www.jetbrains.com/pycharm/documentation/
* News API Documentation: https://newsapi.org/docs/endpoints/everything
* SpeechRecognition Documentation: https://pypi.org/project/SpeechRecognition/
* Wikipedia Module Documentation: https://pypi.org/project/wikipedia/