**VirtueQuest Dashboard**

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**Project Description**

This Python project is a simple web dashboard that lets users run different tools like a Python calculator, Wikipedia search, and internet search using DuckDuckGo. It uses the panel library to make an interactive interface. The project safely handles sensitive data like API keys by loading them from a file. Users can type questions or code into the website, and the dashboard shows the answers. The system uses OpenAI's language technology to process inputs and keeps track of the conversation to make the interaction better. If there are any errors, the dashboard will tell the user what went wrong in a clear way. This setup is great for anyone who needs quick access to information or computational tools through a user-friendly web page.

Queries Users can ask are: General Knowledge and Facts, Computational or Mathematical Queries, Programming Help, Advice and Recommendations, Language and Translations, Current Events and News.

**Choice of Tools and APIs**

* We chose Python REPL for on-the-fly Python executions, allowing users to perform computations or script tests directly.
* WikipediaAPIWrapper was integrated to fetch detailed articles and information, providing users with reliable and immediate knowledge.
* DuckDuckGoSearchRun was selected for its privacy-focused search capabilities and API was free, enabling users to conduct broader internet searches without tracking.
* Panel Library: Used for building a responsive and user-friendly GUI.

**Key Decisions**

1. Security: We used environment variables and .env files to manage sensitive data securely, preventing potential data breaches.
2. User Interface: Opted for a simple and intuitive design to accommodate users with varying levels of technical expertise.
3. Error Handling: Implemented robust error handling to ensure system stability and provide clear feedback during failures.

**Ethical Considerations**

* Ensured all external API interactions were compliant with their terms of service, including adherence to GDPR for user data protection

Some Application of the tool :

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