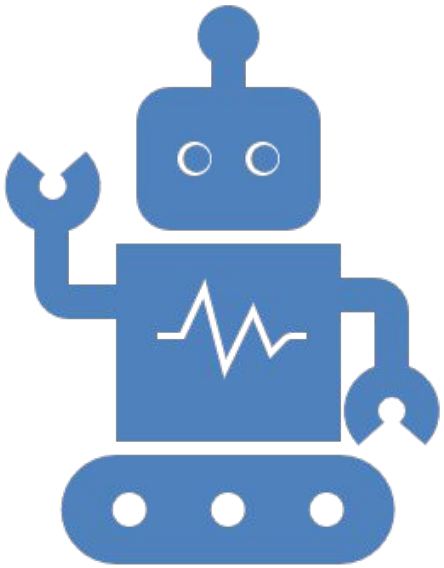
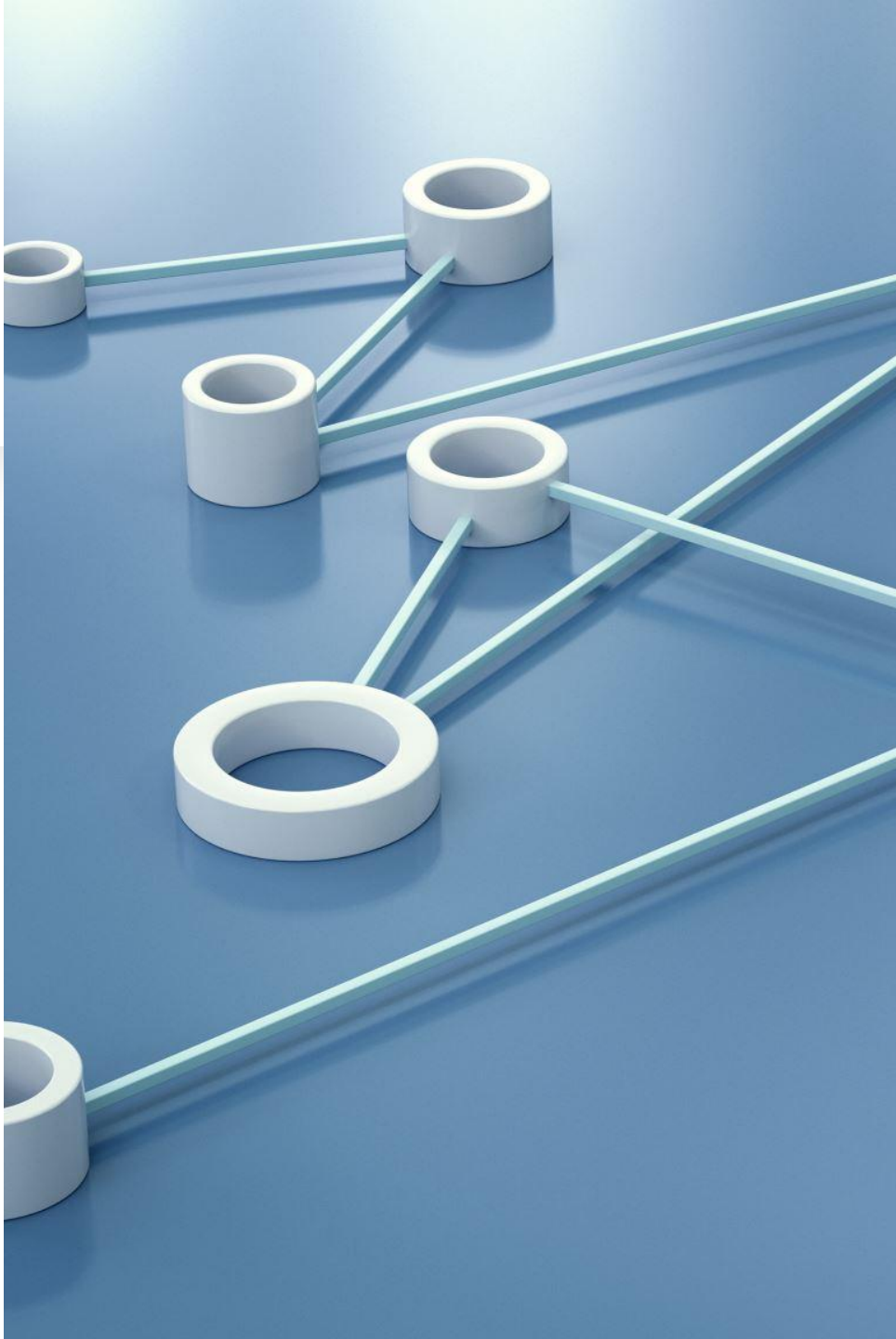


TokenGPT - AI Assistant for Blockchain R&D

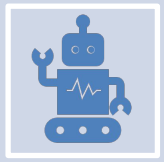
By Sewit Yohannes

Project Introduction

TokenGPT is an AI-powered assistant tailored for blockchain research and development tasks. It leverages the OpenAI API to provide intelligent insights, automation, and enhanced productivity for blockchain projects.



Features and Benefits



Code Generation and Optimization: Automatically generates and refines code snippets for common blockchain development tasks.

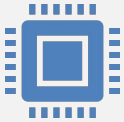
Smart Contract Auditing: Analyzes smart contracts for potential vulnerabilities and suggests improvements.

Natural Language Processing: Understands and responds to natural language queries related to blockchain concepts and development.

Features and Benefits (cont…)

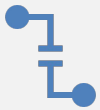
- **Automated Testing**: Generates and executes test cases to ensure code quality and reliability.
- **Documentation Generation**: Creates clear and concise documentation for blockchain projects.

Environment Setup



1. Set up Ubuntu:

Use VMware, Windows 11, or Mac as per provided tutorials.



2. Install Python and pip:

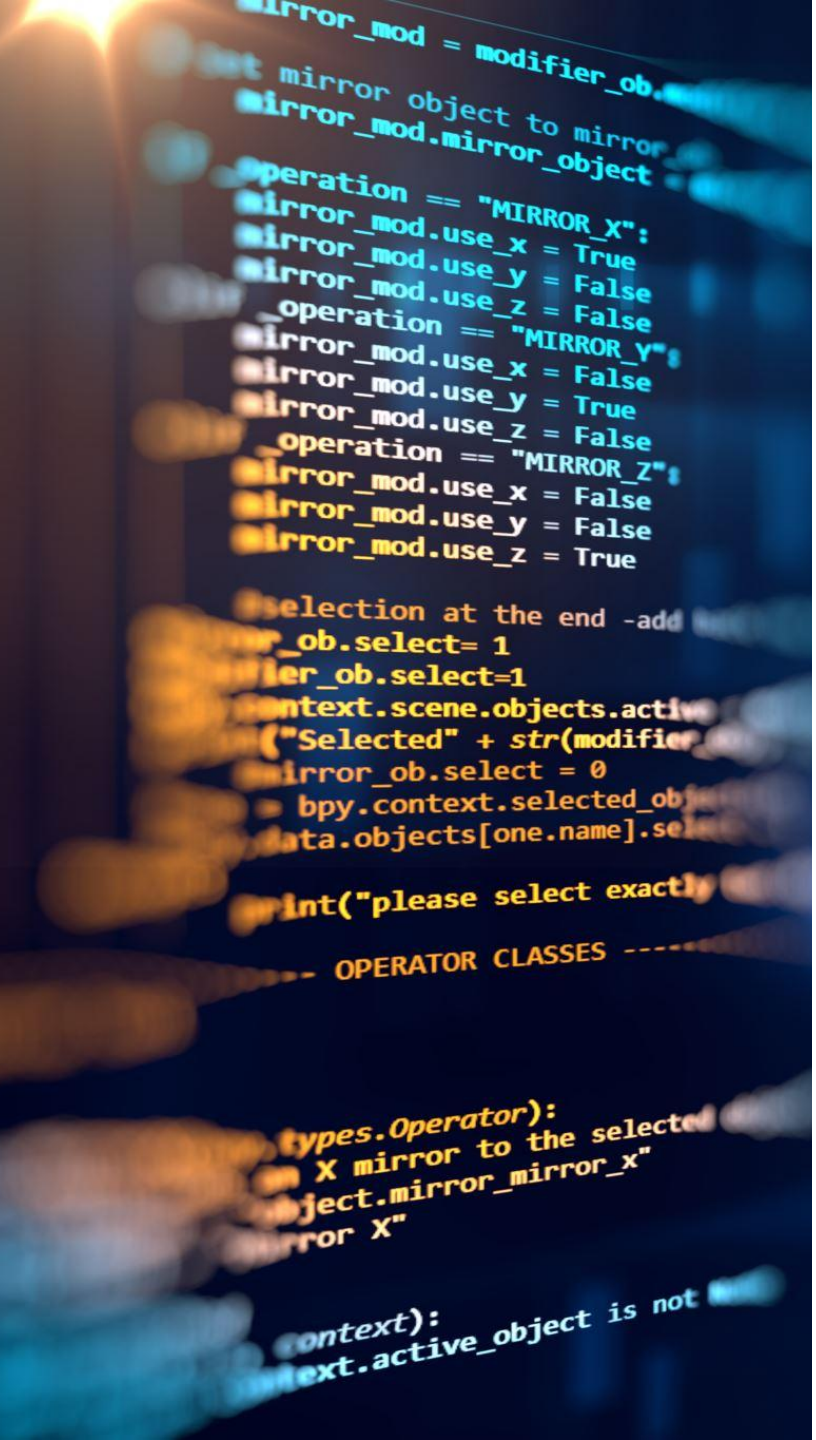
Verify installation using `python3 --version`.

Install pip with `sudo apt install python3-pip`.

3. Set up a virtual environment:

Install virtualenvwrapper and configure Bash.

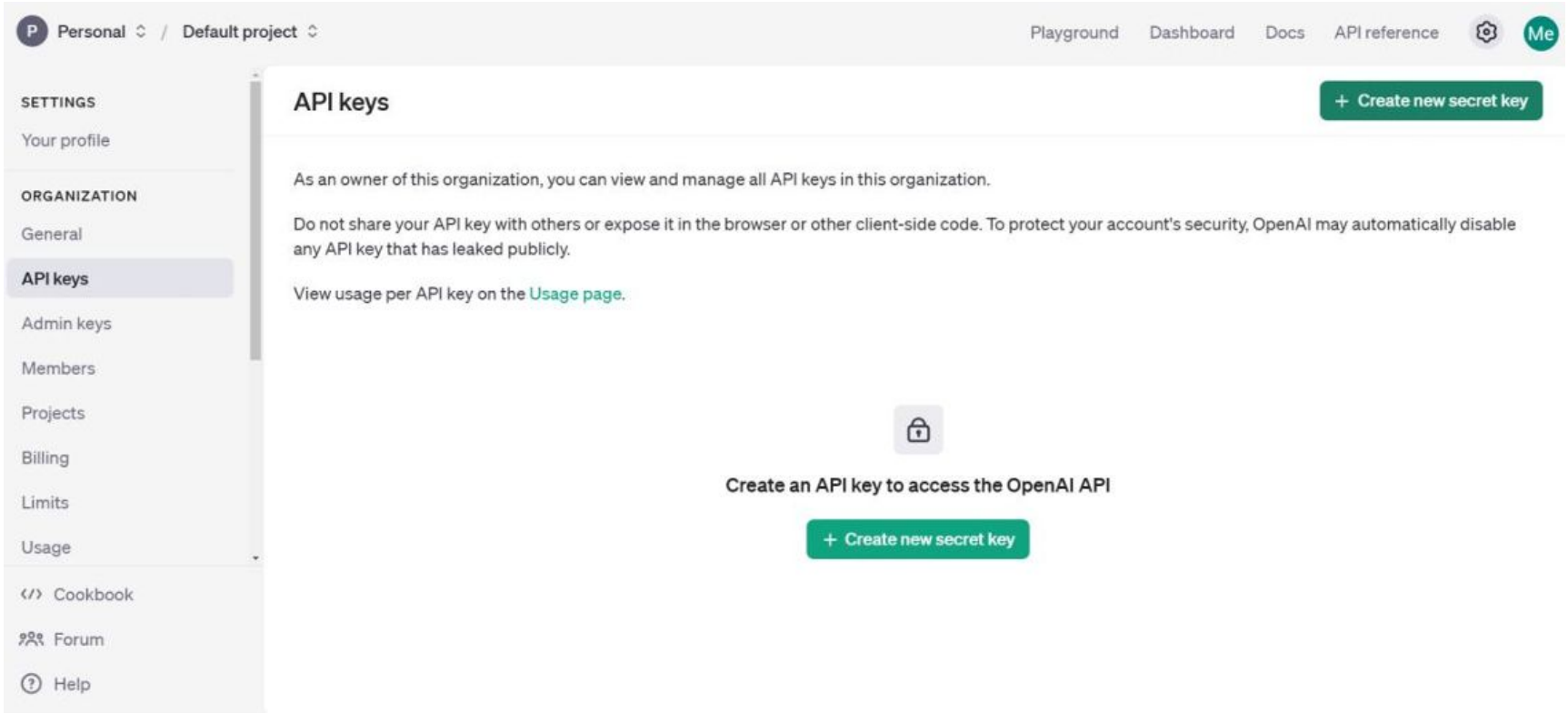
Test using `mkvirtualenv DirectoryName`.



OpenAI API Integration

1. Obtain API keys:
   - Sign up at OpenAI and generate a secret API key.
2. Configure environment variables:
   - Create `.env` file and add API_KEY and ORG_ID.
3. Test API connectivity:
   - Run `curl https://api.openai.com/v1/models` to verify access.

API Configuration



Code Implementation

1

1. Create `test_env.py`:

- Load API keys from `.env` file.
- Use OpenAI Python library to list available models.

2

2. Run the script:

- Execute `python3 test-env.py` to test functionality.

3

3. Verify results:

- Output should display available OpenAI models.

Conclusion

As AI continues to advance, TokenGPT has the potential to unlock even greater possibilities for blockchain development. By embracing this technology, we can anticipate a future where blockchain projects are developed more efficiently, securely, and creatively.

Resources & Links

1. Tutorials:

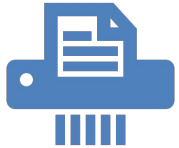
Ubuntu Setup:
https://youtu.be/SgfrHKg81Qc

Windows Setup:
https://youtu.be/Uh9643c2P6k

Mac Setup:
https://youtu.be/1WWj6qoWhJw

2. OpenAI Documentation:

https://platform.openai.com/docs/api-reference/authentication



3. GitHub Repository:

https://github.com/ssewit/blockchain

Google Slide Link:
https://docs.google.com/presentation/d/1-Ln0wkOMFhEFc6GL1DlkgAGS0JcaFvXN/edit?usp=sharing&ouid=116269871237576302022&rtpof=true&sd=true