Python & Ollama:
Ignite Your AI Programming Ideas Fast

Free Webinar
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Python & Ollama Ignite Your AI Programming Ideas Fast

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Goals for this Session

- What is Ollama?

- Ollama compared to Online AI Services

- Installing and Running Ollama

- Ollama and Programming Tooling

- Ollama and Python

What is Ollama?

- Open-source tool for running large language models (LLMs) locally
- Designed for easy setup and use on personal computers
- Supports popular models like Llama 3 and Mistral
- Works offline—no internet connection required
- Flexible API for integration with apps and workflows
- Focused on privacy and user data security
- Lightweight and efficient for everyday hardware
- Active community with frequent updates and support

Ollama compared to Online AI Services

Online AI Services (Anthropic, OpenAI, Google Cloud, etc.)

- Offer advanced, cloud-powered AI capabilities
- Simple to access—no hardware requirements
- Can be costly, especially at scale
- Require a constant internet connection
- May involve complex setup or account management
- User data is processed in the cloud

Ollama (Local AI):

- Runs powerful AI models directly on your computer
- One-time setup—no recurring fees
- Works offline—no internet needed
- Keeps all your data private and local
- Easy to use and integrate
- Needs a reasonably powerful computer to perform well

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Installing and Running Ollama

- Download and install for Windows/macOS/Linux from
  - https://ollama.com/download
- Once installed, download a language model from
  - https://ollama.com/models
  - `ollama pull <model_name>`
- Run Ollama with the language model using the command line or a GUI interface
  - `ollama run <model_name>`

Ollama and Programming Tooling

- Ollama combined with Visual Studio Code clones and extensions can be used in place of tools like GitHub Copilot

- The **Continue** extension from Visual Studio Code supports using Ollama instead of an online language models for providing code completion and suggestions, chat, and even agent mode!

- The popular "vide coding" editor **Cursor AI** can be configured to use Ollama instead of online language models as well

- You can build your own programming tools which rely on Ollama too!

Ollama and Python

- Ollama provides a REST API for use with all programming languages:
  - https://github.com/ollama/ollama/blob/main/docs/api.md
- Also, Ollama provides libraries for
  - Python: https://github.com/ollama/ollama-python
  - JavaScript: https://github.com/ollama/ollama-js
- The Python library can be installed with: `pip install ollama`
- Python library supports functions to manage Ollama models, chat interface, and a generate interface
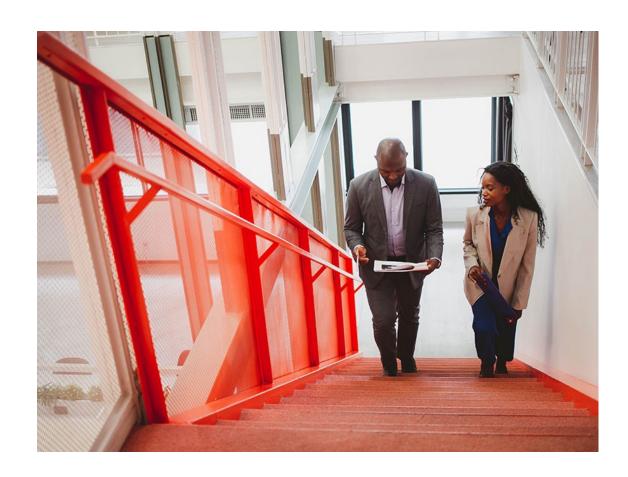
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Python with Ollama Demo

Let's Explore Python with Ollama!

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Python and Ollama Next Steps

- Review the demonstrations
- Review the Ollama documentation
- Create a new Python project and incorporate Ollama
- Learn more about language models and their applications

Download the Code

github.com/cc-protech-webinars/ollama_05282025
slides and source code available

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Q&A

Thank you!

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