



AI PROGRAMMING WITH PYTHON AND OLLAMA

Eric Greene
eric@training4programmers.com



Goals for this Session

- What is Ollama?
- Ollama compared to Online AI Services
- Installing and Running Ollama
- Ollama and Tooling
- Ollama and Python



Ollama compared to Online AI Services

- Popular online AI services like Anthropic, OpenAI, and Google Cloud provide powerful AI capabilities
- However, they can be expensive, require continuous network access, and may be difficult to setup
- Ollama runs locally and is very easy to use
- However, Ollama requires a capable computer to run on

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 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>) and 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

Python with Ollama Demo



Let's Explore Python with Ollama!



Python and Ollama Next Steps

- Review the demonstratons
- 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-xebia-webinars/ollama_05272025

slides and source code available

Q&A



Questions?

Thank you!



Eric Greene

eric@training4programmers.com