

WizardLM-2

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Demo Environment

Development board: Jetson Orin series motherboard

SSD: 128G

Tutorial application scope: Whether the motherboard can run is related to the available memory of the system. The user's own environment and the programs running in the background may cause the model to fail to run

Motherboard model	Ollama	Open WebUI
Jetson Orin NX 16GB	√	√
Jetson Orin NX 8GB	√	√
Jetson Orin Nano 8GB	√	√
Jetson Orin Nano 4GB	×	×

WizardLM-2 is Microsoft's latest advanced large-scale language model, which improves performance in complex dialogue, multi-language, reasoning and intelligent agent capabilities.

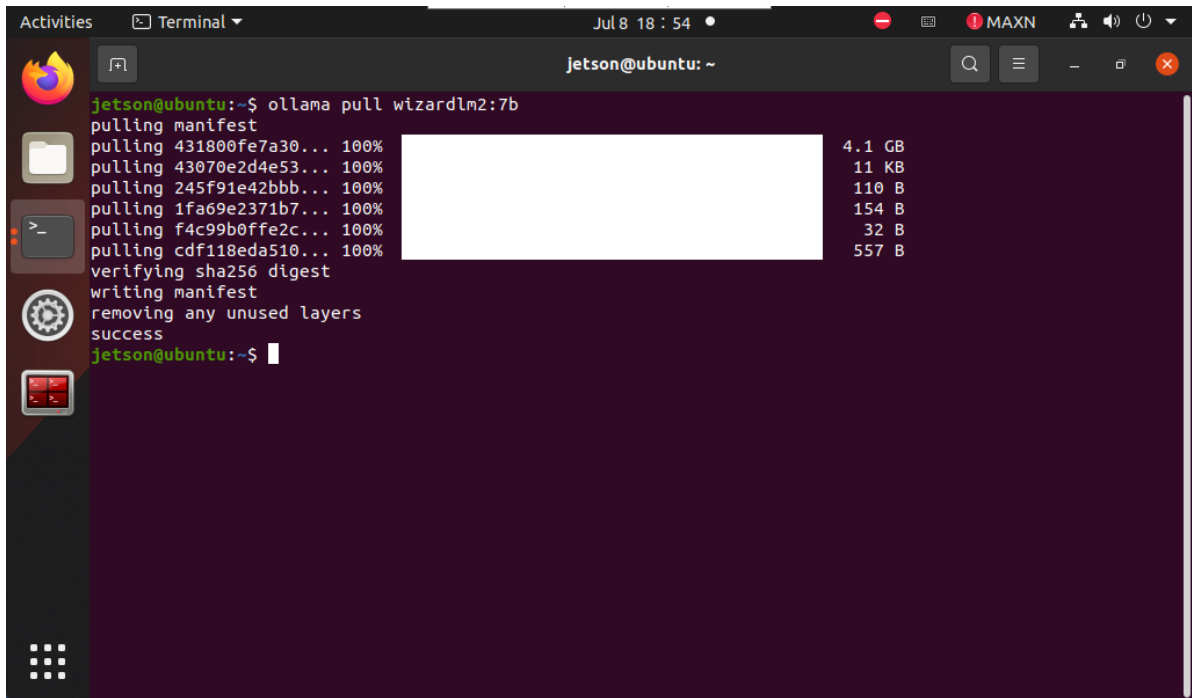
Model size

Model	Parameters
WizardLM-2	7B
WizardLM-2	70B
WizardLM-2	8x22B

Pull WizardLM-2

Using the pull command will automatically pull the model from the Ollama model library:

```
ollama pull wizardlm2:7b
```

A terminal window on a Jetson Ubuntu system showing the command 'ollama pull wizardlm2:7b'. The output displays the progress of pulling the model layers, with a progress bar and size information for each layer. The layers are: manifest (4.1 GB), 431800fe7a30... (11 KB), 43070e2d4e53... (110 B), 245f91e42bbb... (154 B), 1fa69e2371b7... (32 B), f4c99b0ffe2c... (557 B), cdf118eda510... (557 B). The process includes verifying the sha256 digest, writing the manifest, removing any unused layers, and finally succeeding.

```
jetson@ubuntu:~$ ollama pull wizardlm2:7b
pulling manifest
pulling 431800fe7a30... 100% 4.1 GB
pulling 43070e2d4e53... 100% 11 KB
pulling 245f91e42bbb... 100% 110 B
pulling 1fa69e2371b7... 100% 154 B
pulling f4c99b0ffe2c... 100% 32 B
pulling cdf118eda510... 100% 557 B
verifying sha256 digest
writing manifest
removing any unused layers
success
jetson@ubuntu:~$
```

Use WizardLM-2

Run WizardLM-2

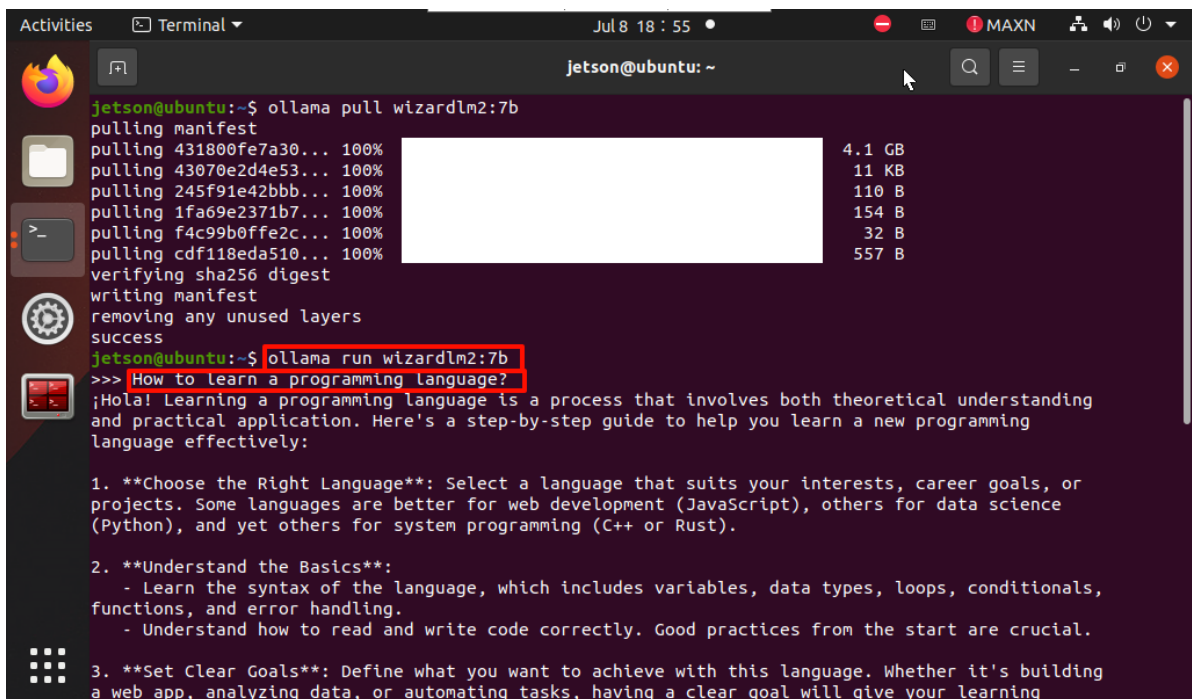
If the system does not have a running model, the system will automatically pull the WizardLM-2 7B model and run it:

```
ollama run wizardlm2:7b
```

Have a conversation

```
How to learn a programming language?
```

The time to reply to the question depends on the hardware configuration, please be patient!

A terminal window on a Jetson Ubuntu system showing the command 'ollama run wizardlm2:7b'. The output displays the progress of pulling the model layers, followed by the model's response to the question 'How to learn a programming language?'. The response is a detailed guide with three main points: 1. Choose the Right Language, 2. Understand the Basics, and 3. Set Clear Goals.

```
jetson@ubuntu:~$ ollama pull wizardlm2:7b
pulling manifest
pulling 431800fe7a30... 100% 4.1 GB
pulling 43070e2d4e53... 100% 11 KB
pulling 245f91e42bbb... 100% 110 B
pulling 1fa69e2371b7... 100% 154 B
pulling f4c99b0ffe2c... 100% 32 B
pulling cdf118eda510... 100% 557 B
verifying sha256 digest
writing manifest
removing any unused layers
success
jetson@ubuntu:~$ ollama run wizardlm2:7b
>>> How to learn a programming language?
¡Hola! Learning a programming language is a process that involves both theoretical understanding and practical application. Here's a step-by-step guide to help you learn a new programming language effectively:

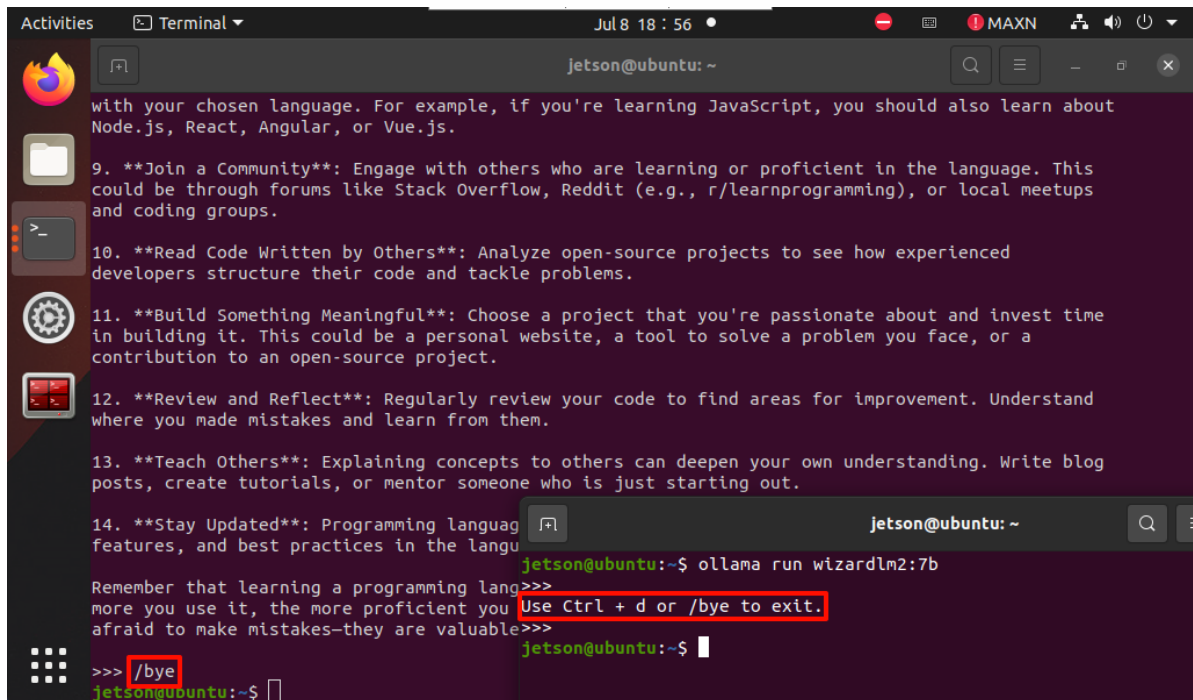
1. **Choose the Right Language**: Select a language that suits your interests, career goals, or projects. Some languages are better for web development (JavaScript), others for data science (Python), and yet others for system programming (C++ or Rust).

2. **Understand the Basics**:
   - Learn the syntax of the language, which includes variables, data types, loops, conditionals, functions, and error handling.
   - Understand how to read and write code correctly. Good practices from the start are crucial.

3. **Set Clear Goals**: Define what you want to achieve with this language. Whether it's building a web app, analyzing data, or automating tasks, having a clear goal will give your learning
```

End the conversation

Use the `Ctrl+d` shortcut key or `/bye` to end the conversation!



The screenshot shows a terminal window titled 'jetson@ubuntu: ~'. The terminal displays a list of 14 tips for learning programming, followed by a terminal session with Ollama. The tips are:

- 9. **Join a Community**: Engage with others who are learning or proficient in the language. This could be through forums like Stack Overflow, Reddit (e.g., r/learnprogramming), or local meetups and coding groups.
- 10. **Read Code Written by Others**: Analyze open-source projects to see how experienced developers structure their code and tackle problems.
- 11. **Build Something Meaningful**: Choose a project that you're passionate about and invest time in building it. This could be a personal website, a tool to solve a problem you face, or a contribution to an open-source project.
- 12. **Review and Reflect**: Regularly review your code to find areas for improvement. Understand where you made mistakes and learn from them.
- 13. **Teach Others**: Explaining concepts to others can deepen your own understanding. Write blog posts, create tutorials, or mentor someone who is just starting out.
- 14. **Stay Updated**: Programming languages evolve rapidly. Stay up-to-date with new features, and best practices in the language.

Remember that learning a programming language is a journey. The more you use it, the more proficient you will become. Don't be afraid to make mistakes—they are valuable learning opportunities.

The terminal session shows the command `ollama run wizardlm2:7b` being executed. The output is a prompt `>>>`. The user enters `/bye`, which is highlighted with a red box. The terminal then shows the prompt `jetson@ubuntu:~$`.

References

Ollama

Official website: <https://ollama.com/>

GitHub: <https://github.com/ollama/ollama>

WizardLM-2

Ollama corresponding model: <https://ollama.com/library/wizardlm2>