**DEEPSEEK – R1**

**Ollama(deepseek-r1) + Langchain + Streamlit**

* Min system Requirment : 8gb Ram
* Login to 🡪 <https://ollama.com/> 🡪 Download & install Ollama 🡪

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* DeepSeek-R1 model locally. The system requirements vary significantly based on model size.
* 1.5B model: Works fine on 8GB RAM and 4GB+ VRAM (even integrated GPUs can handle it with CPU offloading).
* 7B - 8B models: Need 16GB+ RAM and 12GB+ VRAM (RTX 3060 or better) for smooth performance.
* 14B+ models: Require at least 24GB VRAM (RTX 3090/4090) and 32GB+ RAM for decent speed.
* 32B - 70B models: Need A100 80GB+ or multiple GPUs, plus 64GB+ RAM (offloading works but is slow).
* 671B model : Impossible to run locally—it requires huge cloud compute resources.
* System Cmd 🡪 Ollama 🡪

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* Vscode 🡪 terminal 🡪 Ollama run deepseek-r1 🡪 first it will download 4.7GB & then it will give a prompt to use user int

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* Let’s integrate OLLAMA- DEEPSEEK along with LANGCHAIN FRAMEWORK
* VS Code 🡪 Create new folder 🡪 Ollama 🡪 Install below library

####Install packages

pip install --upgrade langchain langchain-community

#### Provides access to the ollama models.

pip install -U langchain-ollama

#### Install streamlit.

pip install streamlit

* Create new python file & start write the code