

## Loading **Meta-Llama-3-8B** Using Ollama

### **Terminologies:**

#### Ollama:

Ollama is an open-source tool designed for running and managing large language models (LLMs) locally on your own hardware. It supports several popular models, including LLaMA-2, CodeLLaMA, Falcon, and Mistral. The primary goal of Ollama is to make it easy for users to deploy and interact with these models without relying on cloud-based services, ensuring better control over data privacy and reducing costs associated with API usage.

#### **Prerequisite:**

Since we are integrating meta-llama/Meta-Llama-3-8B model in Ollama therefore its mandatory to that our system has atleast 8GB of RAM as size of out Meta-Llama-3-8B model is 4.7GB.

### Steps to Load **Meta-Llama-3-8B** Using Ollama:

#### **Step 1: Install Docker**

Its preferable to ensure Docker is installed on your machine. Docker is necessary to run the models in a containerized environment. Install it as par your Machine's Operating System.

#### **Step 2: Install Ollama**

Download and Install Ollama as par your Machine's Operating System. You can ensure installation by opening your terminal and run the command: *ollama --version*

#### **Step 3: Model Selection**

Below are the list of models that are supported by Ollama,select as par your requirement.

Model	Parameters	Size	Download
Llama 3	8B	4.7GB	<code>ollama run llama3</code>
Llama 3	70B	40GB	<code>ollama run llama3:70b</code>
Phi 3 Mini	3.8B	2.3GB	<code>ollama run phi3</code>
Phi 3 Medium	14B	7.9GB	<code>ollama run phi3:medium</code>
Gemma 2	9B	5.5GB	<code>ollama run gemma2</code>
Gemma 2	27B	16GB	<code>ollama run gemma2:27b</code>
Mistral	7B	4.1GB	<code>ollama run mistral</code>
Moondream 2	1.4B	829MB	<code>ollama run moondream</code>
Neural Chat	7B	4.1GB	<code>ollama run neural-chat</code>
Starling	7B	4.1GB	<code>ollama run starling-1m</code>
Code Llama	7B	3.8GB	<code>ollama run codellama</code>
Llama 2 Uncensored	7B	3.8GB	<code>ollama run llama2-uncensored</code>
LLaVA	7B	4.5GB	<code>ollama run llava</code>
Solar	10.7B	6.1GB	<code>ollama run solar</code>

Note: You should have at least 8 GB of RAM available to run the 7B models, 16 GB to run the 13B models, and 32 GB to run the 33B models.

#### Step 4 Set Up and Run LLaMA 3:

##### ->**Pull the LLaMA 3 Model:**

Open your terminal and run: `ollama pull llama3`

This command will download the LLaMA 3 model to your local machine.

##### ->**Run the Model:** Afte r the model is downloaded, you can start a session with:

After selecting the model in our case Meta Llama3 run the following command in your command prompt.

```
ollama run llama3
```

```
Windows PowerShell
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Install the latest PowerShell for new features and improvements! https://aka.ms/PSWindows

PS C:\Users\ARYAN> ollama run llama3
pulling manifest
pulling 6a0746a1ec1a... 57% | 2.7 GB/4
PS C:\Users\ARYAN> ollama run llama3
pulling manifest
pulling 6a0746a1ec1a... 100% | 4.7 GB
pulling 4fa551d4f938... 100% | 12 KB
pulling 8ab4849b038c... 100% | 254 B
pulling 577073ffcc6c... 100% | 110 B
pulling 3f8eb4da87fa... 100% | 485 B
verifying sha256 digest
writing manifest
removing any unused layers
success
```

```
>>> "" Tell me something about MS Dhoni""
Mahendra Singh Dhoni!

MS Dhoni is a former Indian international cricketer who played as a wicket-keeper-batsman. He is widely regarded as one of the greatest wicket-keepers and finishers in cricket history.

Here are some interesting facts about MS Dhoni:

1. Captaincy record: Dhoni is India's most successful captain in terms of Test victories, with 27 wins from 60 matches.
2. Wicket-keeping record: He holds the record for the most dismissals by a wicket-keeper in international cricket (383).
3. Finisher extraordinaire: Dhoni is famous for his ability to finish innings under pressure, scoring crucial runs when India needed them most.
4. Leadership skills: He led India to two World Cup finals (2007 and 2011) and three ICC Champions Trophy titles (2006, 2013, and 2017).
5. Record-breaking: Dhoni holds the record for the fastest ODI century by an Indian captain (33 balls), and his 183 not out against Sri Lanka in 2005 is India's highest individual score in ODIs.
6. Awards and recognition: Dhoni has won numerous awards, including the ICC ODI Cricketer of the Year award twice (2008 and 2011) and the BCCI's Polly Umrigar Award for Best Player.
7. Retirement: Dhoni retired from international cricket in December 2012, but made a comeback to represent Chennai Super Kings in the Indian Premier League (IPL).
8. Philanthropy: He has been involved with various charitable initiatives, including the MS Dhoni Foundation, which focuses on education and healthcare for underprivileged children.
9. Business ventures: Dhoni has invested in several businesses, including a stake in the Indian Super League football team, ATK Mohun Bagan.

MS Dhoni's incredible career spanned over 15 years, earning him immense respect and admiration from fans worldwide. He remains an icon in Indian cricket and beyond!
```

**Bibliography:** <https://github.com/ollama/ollama?tab=readme-ov-file>