# Installation and Setup

The LlamaIndex ecosystem is structured using a collection of namespaced python packages.

What this means for users is that pip install llama-index comes with a core starter bundle of packages, and additional integrations can be installed as needed.

A complete list of packages and available integrations is available on LlamaHub.

## Quickstart Installation from Pip

To get started quickly, you can install with:

```
pip install llama-index
```

This is a starter bundle of packages, containing

- llama-index-core
- llama-index-llms-openai
- llama-index-embeddings-openai
- llama-index-program-openai
- llama-index-question-gen-openai
- llama-index-agent-openai
- llama-index-readers-file
- llama-index-multi-modal-llms-openai

**NOTE:** LlamaIndex may download and store local files for various packages (NLTK, HuggingFace, ...). Use the environment variable "LLAMA\_INDEX\_CACHE\_DIR" to control where these files are saved.

#### Important: OpenAl Environment Setup

By default, we use the OpenAI gpt-3.5-turbo model for text generation and text-embedding-ada-002 for retrieval and embeddings. In order to use this, you must have an OPENAI\_API\_KEY set up as an environment variable. You can obtain an API key by logging into your OpenAI account and creating a new API key.

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You can also use one of many other available LLMs. You may need additional environment keys + tokens setup depending on the LLM provider.

Check out our OpenAI Starter Example

### Custom Installation from Pip

If you aren't using OpenAI, or want a more selective installation, you can install individual packages as needed.

For example, for a local setup with Ollama and HuggingFace embeddings, the installation might look like:

pip install llama-index-core llama-index-readers-file llama-index-llms-ollama llama-index-embeddings-huggingface

#### Check out our Starter Example with Local Models

A full guide to using and configuring LLMs is available here.

A full guide to using and configuring embedding models is available here.

### Installation from Source

Git clone this repository: git clone https://github.com/run-llama/llama\_index.git.Then do the following:

- Install poetry this will help you manage package dependencies
- . If you need to run shell commands using Poetry but the shell plugin is not installed, add the plugin by running:

```
poetry self add poetry-plugin-shell
```

- poetry shell this command creates a virtual environment, which keeps installed packages contained to this project
- pip install -e llama-index-core this will install the core package
- (Optional) poetry install --with dev, docs this will install all dependencies needed for most local development

From there, you can install integrations as needed with pip, For example:

pip install -e llama-index-integrations/readers/llama-index-readers-file
pip install -e llama-index-integrations/llms/llama-index-llms-ollama