

# Install and configure a blog based on Material for MkDocs

Install Material for MkDocs, add Markdown extensions, modify layouts and styles.

`#python` `#mkdocs`

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# 1. Installation

## 1.1. Python

Download and install [Python 3](#).

## 1.2. Material for MkDocs

There are some [static site generators](#) written in Python: MkDocs, Pelican, Sphinx, etc. MkDocs is the most popular one.

[MkDocs](#) is a fast and simple engine to build project documentation. Content source files are written in [Markdown](#), and configured with a single [YAML](#) config file.

[Material for MkDocs](#) is a popular theme for MkDocs. It has a simple UI with [Material color](#) palettes. It also brings more features, has flexible settings, and makes a clear layout for printing.



Refer to the official homepage of Material for MkDocs. Refer to the official homepage of Material for MkDocs. Refer to the official homepage of Material for MkDocs. Refer to the official homepage of Material for MkDocs.

Start a new project:

```
mkdir CodeInsideOut
cd CodeInsideOut
```

Create project's [virtual environment](#):

```
python -m venv .venv
```

*Why should use virtual environment? Read more here.*

Activate the environment:

```
.venv\Scripts\activate.bat
```

Then update the `pip` and `setuptools`:

```
python -m pip install -U pip setuptools
```

*-U or --upgrade will upgrade the package if it is already installed*

Then install *Material for Mkdocs*:

```
pip install -U mkdocs-material
```

Finally, bring up the base of the site

```
mkdocs new .
```

This will create the following structure

```
.
├── mkdocs.yml    # The configuration file
└── docs/         # Other markdown pages
    ├── index.md  # The documentation homepage
    └── ...       # Other files
```

Change the theme to *material* in the project configuration file *mkdocs.yml*:

```
theme:
  name: material
```

That's it. Start a local server with :

```
mkdocs serve
```

and preview the site at <http://localhost:8000>.

To publish the site, build it:

```
mkdocs build
```

then copy all the content in the *site* folder to the website root folder.

## 1.3. Visual Studio Code

Install [Visual Studio Code](#) - a lightweight but powerful source code editor. It well supports users to write code, documents, notes.

Useful extensions for writing in Markdown and editing HTML template:

- **Code Spell Checker:** catch common spelling errors
- **Markdown All in One:** keyboard shortcuts, auto completions, list and task list, table formatter
- **Markdown Paste:** paste image, links from clipboard
- **Jinja:** highlight Jinja syntax (HTML template)
- **Git History:** view history edits from git log

## 2. Configuration

### 2.1. Markdown extensions

Original Markdown syntax just renders some basic elements. Therefore many extensions are made to extend Markdown syntax:

- [Official Markdown extensions](#) has more syntaxes to make Tables, Table of Content, Abbreviations, Admonitions, Codeblocks.
- [PyMdown Extensions](#) has a list of useful extensions to replace the official ones which eventually produce much better formats such as Nested Code Bocks, Tabs, Progress Bars, Tasks.
- [3<sup>rd</sup> party extensions](#) which extend the Python Markdown APIs to deal with Math/Latex, Diagrams, Advanced formats, and more.

Material for MkDocs comes with both Official Python Markdown extensions and PyMdown Extensions, but those are not fully activated. To enable an extension, just need to declare its name in the project config file *mkdocs.yml* under `markdown_extensions` field. For example:

```
markdown_extensions:  
  - admonition
```

Refer to [Markdown Syntax](#) to know the list of extensions and their usage.

### 2.2. MkDocs plugins

To extend the abilities of MkDocs, there are some plugins can be installed. Check the list at the [official MkDocs plugin list](#).

To enable an extension, just need to declare its name in the project config file *mkdocs.yml* under `plugins` field. For example:

```
plugins:  
  - search # built-in search engine
```

Refer to [MkDocs plugins](#) to know the list of plugins and their usage.

### 2.3. Theme configs

Material for MkDocs comes with some configs to change the look of the site. Follow the official homepage of [Material for MkDocs](#) to learn how to configure or override the theme with more information.

List of modifications:

- Theme settings
- Overridden templates
- Additional styles

Refer to [Customize theme](#) to know the list of modifications in details.