



Obsidian suggested practices

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Outline & Goals

Outline

1. Appearance, directory structure and general editor options
2. Link/backline, metadata, tags
3. Synchronization and backup
4. Image management

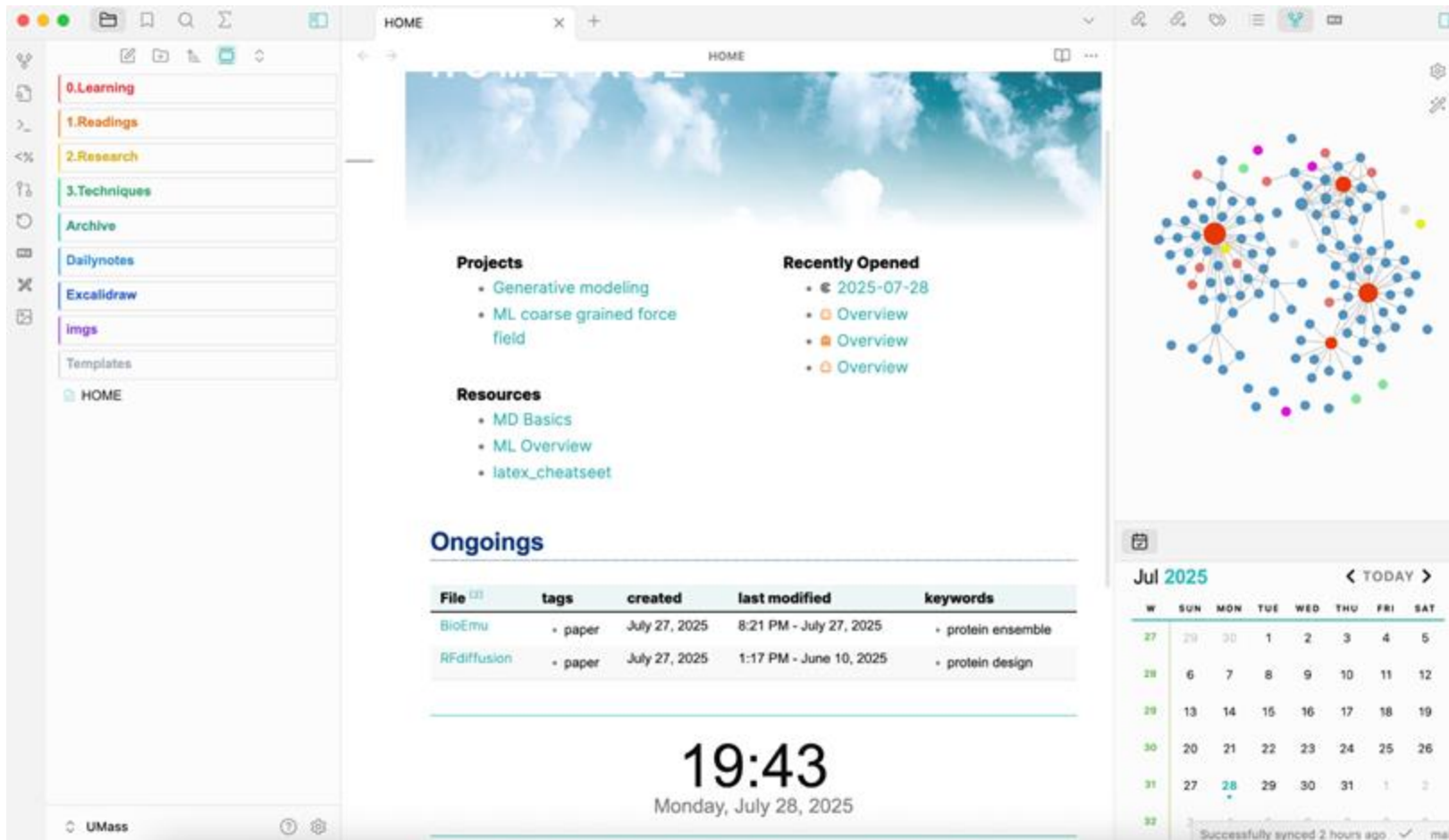
Goal of this workshop

1. Basic configurations to set up your own obsidian
2. Note organization
3. Plugin suggestions



Introduction

Obsidian is a **markdown-based**, **multi-platform**, **decentralized** and **highly customizable** notebook application



Uniqueness

1. Link/backlink
2. Thousands of plugins
3. Safety and self-owned PI

Not just for taking notes:

1. Databases
2. Goal Management
3. More for you to explore



Appearance and some default behaviors

1. **Theme:** controls the overall global appearance

Settings → Appearance → Themes → manage (recommend: minimal; Blue Topa; Border; Dune etc).

Explore other options inside Appearance for further fine-tuning.

1. **Editor:** controls the editing interface appearance

Settings → Editor, turn on all options except: Right-to-left, Vim key bindings (optional)

set the **Default view for new tabs** to be Editing view

set the **Default editing mode** to be Live Preview

set the **Properties in document** to be Source

1. Other useful options to consider

Settings → Files and links

Default location for new attachments: in the folder specific below (and make folder for this)

1. Explore other settings as you will

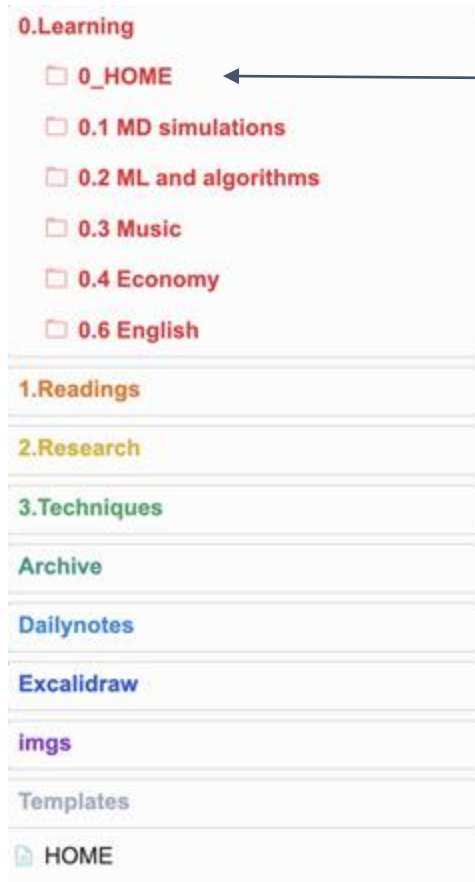


Hierarchical directory structure

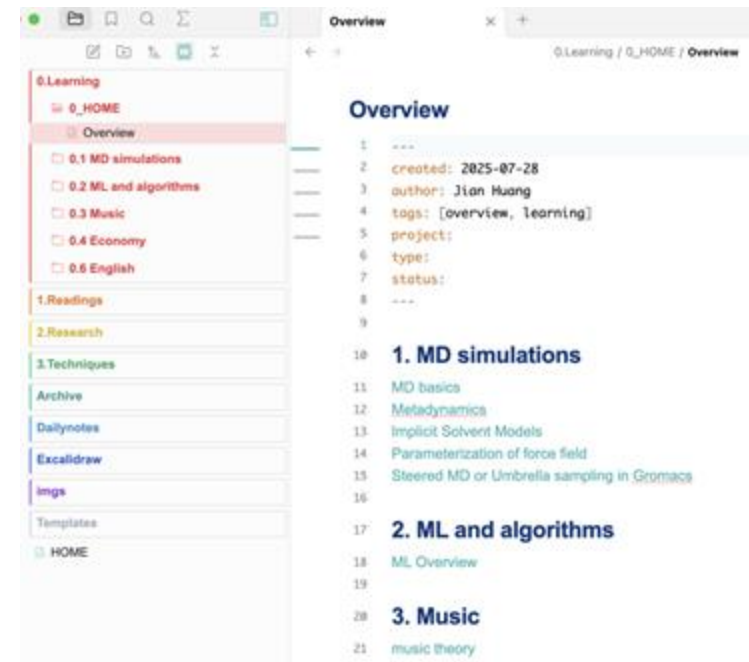
Basic rules:

- use no more than **3** layers/levels for your directories
- Sequential integer for numbering categories and subcategories

Example:



Personally, I also create a 0_HOME folder which only has a [overview.md](#) for indexing all files. under the major category 0_HOME wil always be shown on the top.





Link and backlink for referencing

In real life, the “tree” structure might not be sufficient
Use the [overview.md](#) for example

1. MD simulations

[[MD basics]]

[[Metadynamics]]

[[./0.1 MD simulations/Implicit Solvent Models|Implicit Solvent Models]]

[[./0.1 MD simulations/Parameterization of force field|Parameterization of force field]]

[[./0.1 MD simulations/Steered MD or Umbrella sampling in Gromacs|Steered MD or Umbrella sampling in Gromacs]]

2. ML and algorithms

[[./0.2 ML and algorithms/0_HOME/Overview|ML Overview]]

3. Music

[[./0.3 Music/music theory|music theory]]

4. Economy

[[./0.4 Economy/利率|利率]]

5. English

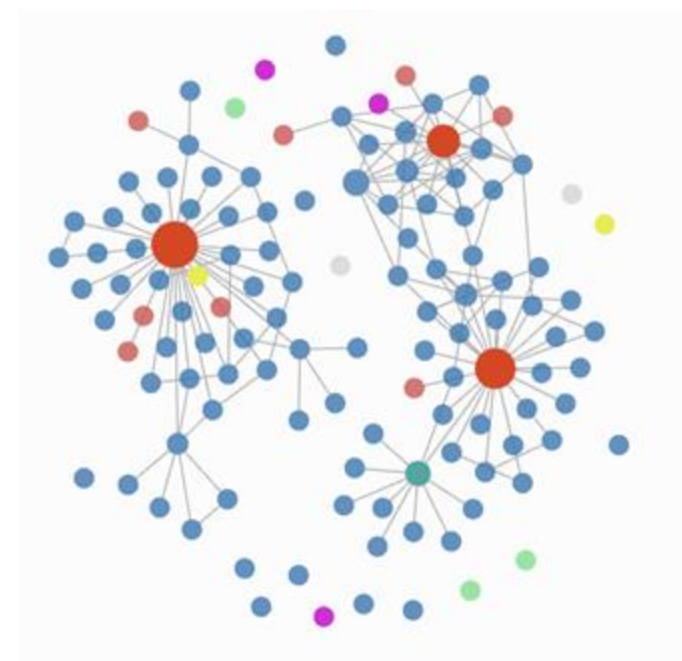
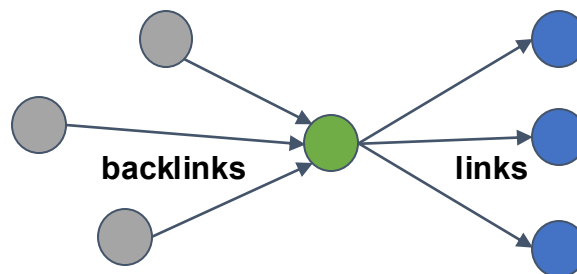
[[./0.6 English/Gathering-01|Gathering-01]]

[[./0.6 English/Gathering-02|Gathering-02]]

Links/backlinks are basically references, allowing for **network**-like structures.

Syntax for creating links/backlinks: **[[note_path]]**

As you can image, a note can link to other notes (“**link**”), while itself can also be linked by other notes (“**backlink**”).



Source mode (command+shift+E)

You do not actually need to create a note for using link/backlink



Metadata for your note

Metadata for a note describes the basic information (author, created date, type, status etc).

Using metadata is highly recommended, even more than links/backlinks!

Overview

1	---	
2	created: 2025-07-28	
3	author: Jian Huang	
4	tags: [overview, learning]	<u>Metadata</u>
5	project:	
6	type:	
7	status:	
8	---	
9		
10	# 1. MD simulations	
11	[[MD basics]]	<u>Actual content</u>
12	[[Metadynamics]]	
13	[[../0.1 MD simulations/Implicit Solvent Models Implicit Solvent Models]]	
14	[[../0.1 MD simulations/Parameterization of force field Parameterization of force field]]	
15	[[../0.1 MD simulations/Steered MD or Umbrella sampling in Gromacs Steered MD or Umbrella sampling in Gromacs]]	

Metadata in Obsidian is defined using the **YAML** format.

Why this is so necessary?

1. can be used with **Dataview** plugin for sorting and indexing your vault.
2. It is another method for organizing your whole notebook. e.g., tags can be used to cross-referencing and grouping

No worries for typing so many char for the metadata since we have **templater** plugin to automatically generate the code



Synchronization and backup

Basic rules:

1. **Complete segregation** of local vaults, cloud vaults and github repositories
2. For daily syncing, always use Remotely Save to sync vault to your **cloud folder**
3. Weekly or monthly (or you have major changes in obsidian plugin and settings updates), use git to upload your vault changes to **github repository**

My setup:

1. **ALWAYS** keep a local copy of your vault (could use “git clone” to pull from your github repo.)
This should be the working environment. You will consistently make changes to your local copy.
1. One copy in my cloud service for syncing across platforms.
(I am using nutstore; other cloud services also work, like onedrive)
1. A private remote github repo for version control.
(Only manually run monthly)



Synchronization and backup

Use cloud service for syncing and github for version control.
Install the **Remotely save** and **Git** plugin in Obsidian.

Remotely Save

Choose A Remote Service

Choose A Remote Service

Start here. What service are you connecting to? S3, Dropbox, Webdav, OneDrive for personal, or Webdis?

Webdav

Remote For Webdav

Disclaimer: The information is stored locally. Other malicious/harmful/faulty plugins may read the info. If you see any unintentional access to your webdav server, please immediately change the username and password.

We will create and sync inside the folder /UMass on your server.

Server Address

Server address.

https://dav.jianguoyun.c

Username

Username. Attention: the username and other info are saved locally.

.....

Password

Password. Attention: the password and other info are saved locally.

.....

Auth Type

If no password is provided, this option will be ignored.

basic

Depth Header Sent To Servers

Webdav servers should be configured to allow requests with header Depth being '1' or 'infinity'. If you are not sure what's this, choose "depth='1'". If you are sure your server supports depth='infinity', please choose that to get way better performance.

only supports depth='1'

X-Header1: Value1

For Git: **mute all other options**, except the following:

Push on commit-and-sync

Most of the time you want to push after committing. Turning this off turns a commit-and-sync action into commit and pull only. It will still be called commit-and-sync.



Pull on commit-and-sync

On commit-and-sync, pull commits as well. Turning this off turns a commit-and-sync action into commit and push only.



Source control view

Automatically refresh source control view on file changes

On slower machines this may cause lags. If so, just disable this option.



Show status bar

Obsidian must be restarted for the changes to take affect.



File menu integration

Add "Stage", "Unstage" and "Add to .gitignore" actions to the file menu.



Show branch status bar

Obsidian must be restarted for the changes to take affect.



Set “Schedule For Auto Run” to be 30 min

In principle, run “commit-and-sync” once per month



Use powerful community plugins

Turn on community plugins: go to Settings → Community plugins → turn off Restricted mode
Then we can use the Browse to search for plugins

The screenshot shows the Joomla! Settings interface for Community plugins. On the left is a sidebar with a list of settings categories: Options, General, Editor, Files and links, Appearance, Hotkeys, Core plugins, and Community plugins (which is highlighted with a teal background). Below these is a 'Core plugins' section. The main content area on the right is titled 'Community plugins' and contains several sections: 'Restricted mode' with a 'Turn on and reload' button, 'Community plugins' with a 'Browse' button, 'Current plugins' with a 'Check for updates' button, and 'Search installed plugins' with a search input field. At the bottom, there is an 'Installed plugins' section with refresh and folder icons.

Options

- General
- Editor
- Files and links
- Appearance
- Hotkeys
- Core plugins
- Community plugins**

Core plugins

Restricted mode Turn on and reload
Restricted mode is off. Turn on to disable community plugins.

Community plugins Browse
Browse and install community plugins made by our amazing community.

Current plugins Check for updates
You currently have 23 plugins installed.

Search installed plugins
Filter installed plugins by name or description. Search installed plugins.

Installed plugins



Use hotkeys to simplify your life

command/ctrl + o: switcher

command/ctrl + p: command palette

customize your own hotkeys: Settings → Hotkeys

Caveat: for Mac users, do NOT use the ctrl key (conflicts with windows ctrl key)



Image management

Locally:

use **Image converter** plugin

Caveat: difficult for sharing and publishing your notes to others

Remote: (more steps but convenient for sharing and publishing; **highly recommended**)

create a github repository for images (has to be a public repo);

download **PicGo** and configure it to connect with your image github repo;

download **the Image auto upload plugin** in Obsidian

Done! [you need to turn off Image converter plugin if you installed and enabled]

Caveat: images are public

You can find more details here:

<https://share.note.sx/21at8p4b#ejb8TCuj8pzCqSCRp9+mVAzRO70/IKymrUsU3rN1Ofw>



Other useful plugins

1. **Calendar**
2. Clear Unused Images
3. **Dataview**
4. **Excalidraw**
5. Markdown formatting assistant
6. **Mathpad: (similar to the desmo tool)**
7. PDF++: (for PDB annotation and viewing and taking notes)
8. **Share note**
9. Style setting
10. **Templater**
11. **Latex Suite**
12. Banner
13. Homepage

**To create your homepage
find more here:**

<https://share.note.sx/6mb3ef8u#AOC/14p7CZagkBPIbMh87YxxdeySrMEgNSsWBa+PB8>



Templater

Use Templater plugin to format your note, especially automatically generating metadata

Folder templates

Folder templates are triggered when a new **empty** file is created in a given folder. Templater will fill the empty file with the specified template. The deepest match is used. A global default template would be defined on the root / .

Enable folder templates

When enabled, Templater will make use of the folder templates defined below. This option is mutually exclusive with file regex templates below, so enabling one will disable the other.



Add new folder template

Normal notes

```
1 ---
2 created: <% tp.date.now("YYYY-MM-DD") %>
3 author: Jian Huang
4 tags: [note]
5 project:
6 type:
7 status:
8 ---
9
```



Dataview example

```
```dataview
TABLE tags, created, file.ctime AS "last modified", keywords
from ""
where status = "ongoing"
 and !contains(file.path, "archive/")
 and !contains(file.path, "Templates/")
sort file.ctime desc
```
```

key:value pairs defined in your metadata

| File ⁽²⁾ | tags | created | last modified | keywords |
|---------------------|---|---------------|--------------------------|--|
| BioEmu | <ul style="list-style-type: none">paper | July 27, 2025 | 10:29 AM - July 29, 2025 | <ul style="list-style-type: none">protein ensemble |
| RFdiffusion | <ul style="list-style-type: none">paper | July 27, 2025 | 10:29 AM - July 29, 2025 | <ul style="list-style-type: none">protein design |

No need to worry about writing the code. Chatgpt can totally handle it.



Thank you.



Outline



Caveat & Solutions for conflicts

Since your obsidian in all platforms will essentially be individual copies, when you have major plugin updates or changes of workspace settings in one PC, you need to **avoid conflicts** between different platforms.

BE VERY **CAREFUL** ABOUT THIS! Below is what I do:

Assuming I am working on Obsidian on my Mac and I updated lots of settings, downloaded lots of plugins and notes, i.e., **A major version update/change**.

1. synchronize your vault through Remotely Save on the Mac
2. Backup your vault using Git to your remote github repository on the Mac
3. Moving to your Windows or Ubuntu, use the git (not the git plugin inside Obsidian) under your vault directory to do the following:
 - `git pull` # try pull the remote synchronized version of your vault
 - # if the above reported some conflicts, try the following
 - `git fetch origin`
 - `git reset --hard origin/main`
 - `git clean -fd`
1. Run Remotely Save on your windows or ubuntu (you might need to disable the protection on **Abort Sync if Modification Above Percentage** in the Remotely Save settings)