

# Programming for Biomedical Informatics

## Lecture 4 “Bulk FTP Download & APIs”

<https://github.com/biomedical-informatics/pbi>

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Coding

# Programming Topics

## Updates

- Don't forget to sync the PBI GitHub regularly
- Formative Assignments / GitHub Classroom
- New Starts

## Libraries

- `pandas`
- `PrettyTable`
- `seaborn`

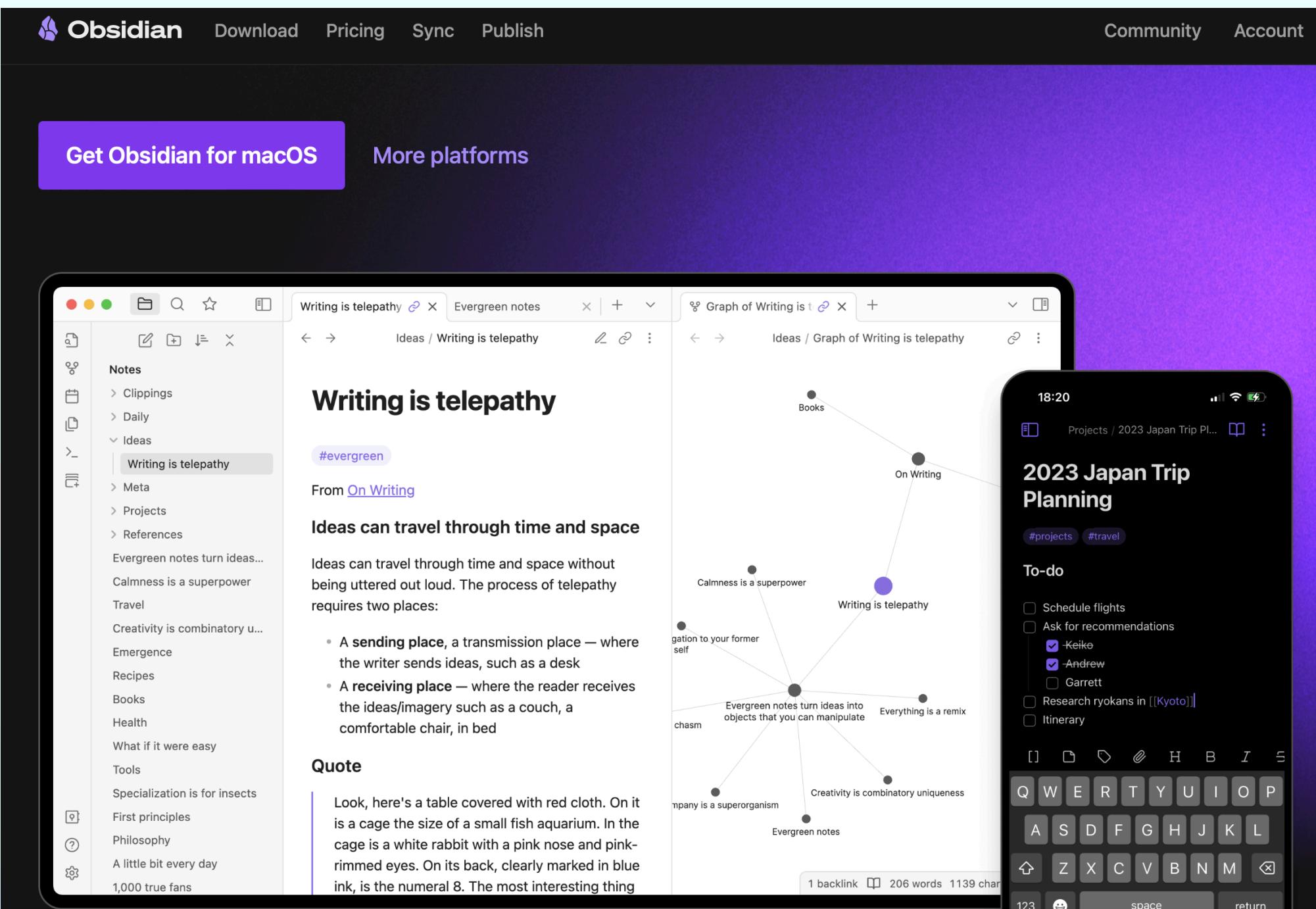
## Visual Studio Code

- Pandas Notebook
- Clinical Genetics Notebook

## Keeping records

- Obsidian
- Markdown
- Commenting

# Obsidian - <https://obsidian.md/>



- **Markdown-based:** Obsidian uses Markdown formatting, which is easy to learn and widely compatible with other systems.
- **Linking Thoughts:** Supports bi-directional linking, allowing you to connect ideas and notes in a networked way, rather than hierarchically.
- **Local Storage:** Your data is stored locally on your device, ensuring privacy and control over your information.
- **Extensible with Plugins:** add plugins to extend functionality, ranging from simple themes to complex data analysis tools. Hugely customisable
- **Community-Driven:** An active community that contributes plugins, workflows, and advice on how to best use Obsidian. Lots of blogs, tips.
- **Cross-platform:** Available on Windows, macOS, Linux, iOS, and Android, allowing for flexibility in how and where you use it.
- **Graph View:** Visual representation of your notes and how they're interconnected, which can help with understanding and navigating your knowledge base.
- **Free:** With an optional subscription service for additional sync and publishing services.
- **Version Control:** track changes and revisions over time can work with GitHub/GitLab

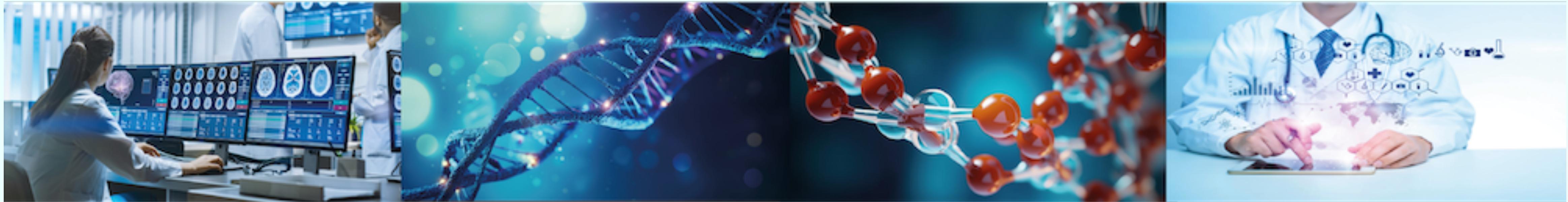
# References

- **Useful Links**

- ELM (local UoE “private” ChatGPT) - <https://elm.edina.ac.uk/elm/elm>
- Markdown Cheatsheet - <https://www.markdownguide.org/cheat-sheet/>
- Pandas - <https://pandas.pydata.org/>
- Seaborn - <https://seaborn.pydata.org/>
- PrettyTable - <https://pypi.org/project/prettytable/>

- **Biomedical Data**

- GenCC - <https://thegencc.org/>
- NCBO Bioportal - <https://bioportal.bioontology.org/>
- NCBO Bioportal API - <http://data.bioontology.org/documentation>



# Programming for Biomedical Informatics

Next Lecture  
“Mapping & Harmonisation”

**Ask Questions on the Piazza Discussion Board**

**Background**

<https://github.com/biomedical-informatics/pbi>