

Turn on your Laptop

Connect to Internet (Check your connection)

**Read how to launch powershell in windows
and terminal in macOS**

Tutorial Outline

1. Introduction to **git** and **GitHub**
2. Introduction to **Conda**
3. Introduction to **Python** and **Biopython**
4. Vibe Coding
 - a. Installing **WSL** and **Conda**
 - b. Creating an **environment** with python, biopython and git
 - c. Hands on **biopython** session
 - d. Vibe **coding tasks**
 - e. Pushing scripts and files to **GitHub**



Git

1. Version control system.
2. Track changes in source code.
3. Key features:
 - a. Version tracking
 - b. Branching and Merging
 - c. Distributed

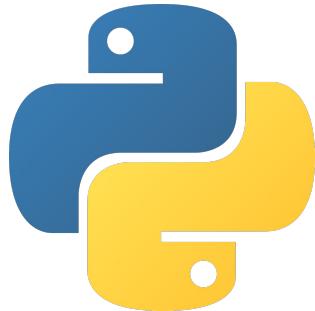


GitHub

1. Web platform for hosting Git repo.
2. Key features:
 - a. Collaboration
 - b. Code review
 - c. Issue tracking

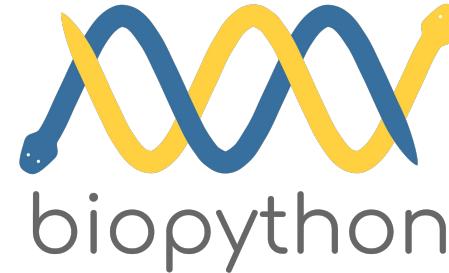


1. Open-source package and environment management.
2. Enables users to create isolated environments, avoiding dependency conflicts.
3. Key features:
 - a. Cross-platform support
 - b. Ensure reproducibility
 - c. Dependency management



Python

1. High-level, interpreted programming language
2. Widely used in scientific computing, data analysis, machine learning
3. Key features:
 - a. Easy-to-read
 - b. Huge libraries support
 - c. Strong community support

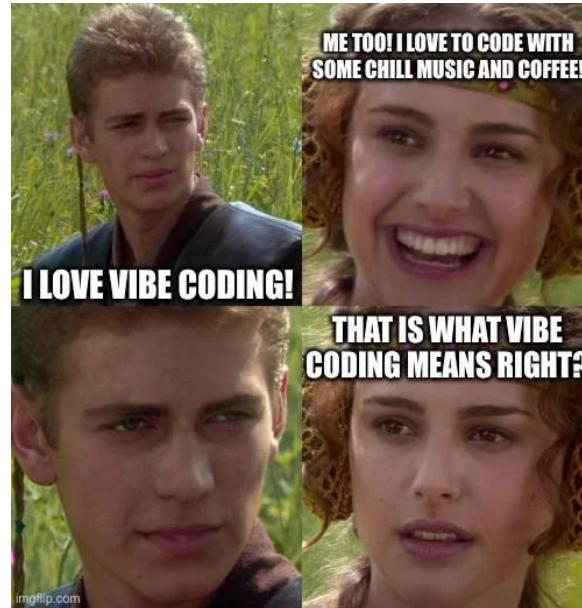


Biopython

1. Python library for computational biology and bioinformatics
2. Key features:
 - a. Stand file parsers
 - b. Sequence analysis and manipulation
 - c. Interfaces to biological databases

Vibe Coding

1. AI driven programming
2. Informal, intuitive approach to programming.
3. Focused on flow, creativity, and rapid experimentations.
4. Great for prototyping, research, and idea exploration.



Prerequisites

Windows

1. WSL
2. Conda
3. Git
4. Python
5. Biopython

Linux

1. Conda
2. Git
3. Python
4. Biopython

Mac

1. Conda
2. Git
3. Python
4. Biopython

Thank You

Close a file : Ctrl + C

**Don't Know WTH happened in
your Terminal or WSL:**

Ctrl + Z