DAE Adult Full - Spring 2026 - Semester 1
Logic, Unix & Python

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Logic 1: Foundations of Computational Thinking

Algorithms

Step-by-step procedures for solving problems — the blueprint before the build.

Flowcharts

Visual diagrams that map out an algorithm's logic, decisions, and flow paths.

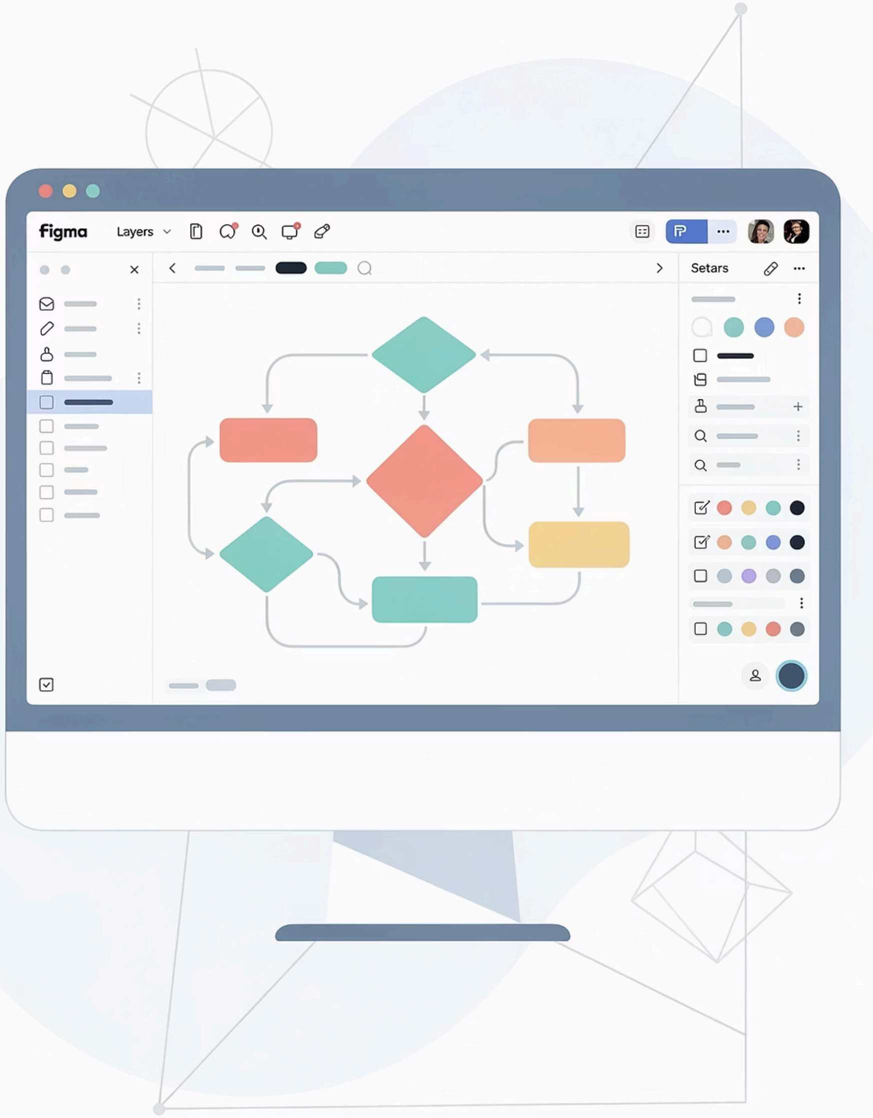
Boolean Logic

True/False values combined with operators — **and**, **or**, **not** — to form conditions.

Conditional Logic

Decision-making structures using **if-then** rules to branch program execution.

Algorithm & Flowchart
Figma



Unix 1: Command Line Essentials

Commands

`ls` list files · `pwd` print directory · `cat` view file · `touch` create file

Options

Modify command behavior with flags — e.g., `ls -l` returns a detailed, formatted file listing.

Arguments

Target a specific file or path — e.g., `cat filename.txt` reads and displays that file's contents.

Text Editors

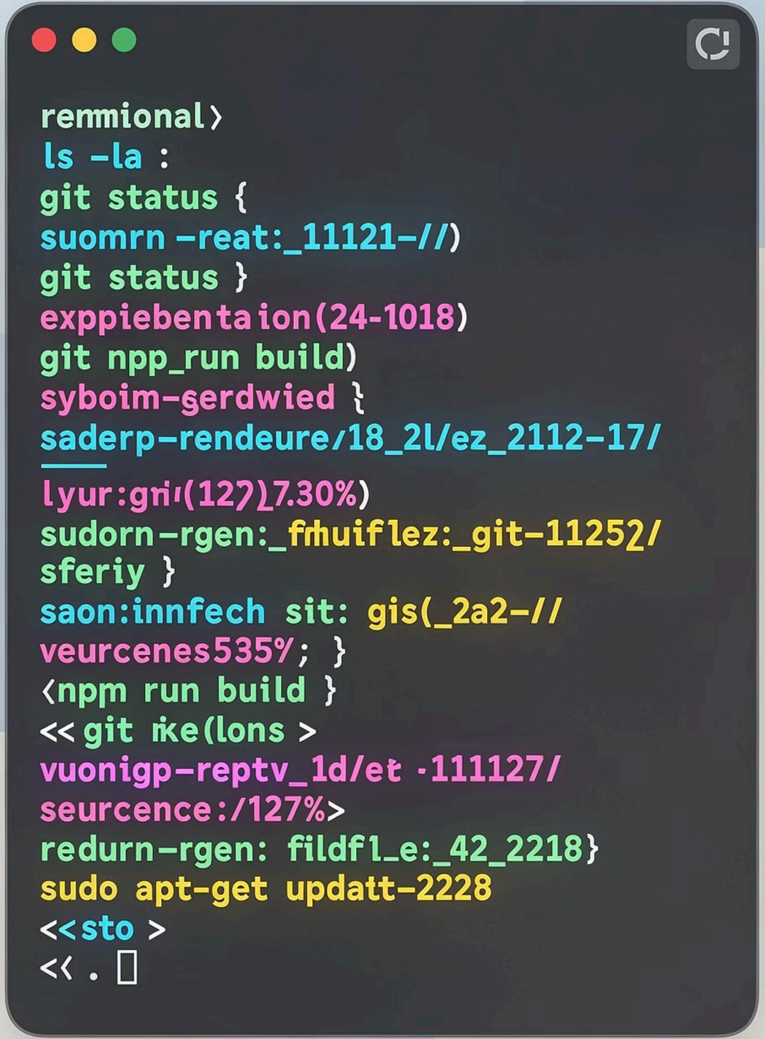
Create files with `touch`, then open and edit them directly in the terminal using `nano`.

Permissions

Control file access with **read**, **write**, and **execute** rights — view them with `ls -l`.

Unix

MacOS Terminal Zshell



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Python 1: Programming Basics

Descriptive Variable Names

Write names that communicate intent — `student_age` beats `x` every time.

Three Data Types

Work with **numbers**, **strings**, and **booleans** — the core building blocks of any program.

Decision Structures

Use `if/else` to branch logic and respond dynamically to different conditions.

Loops

Automate repetition with `for` or `while` loops — let the computer do the work.

Functions

Encapsulate reusable logic in named blocks — cleaner code, easier debugging.

Lists

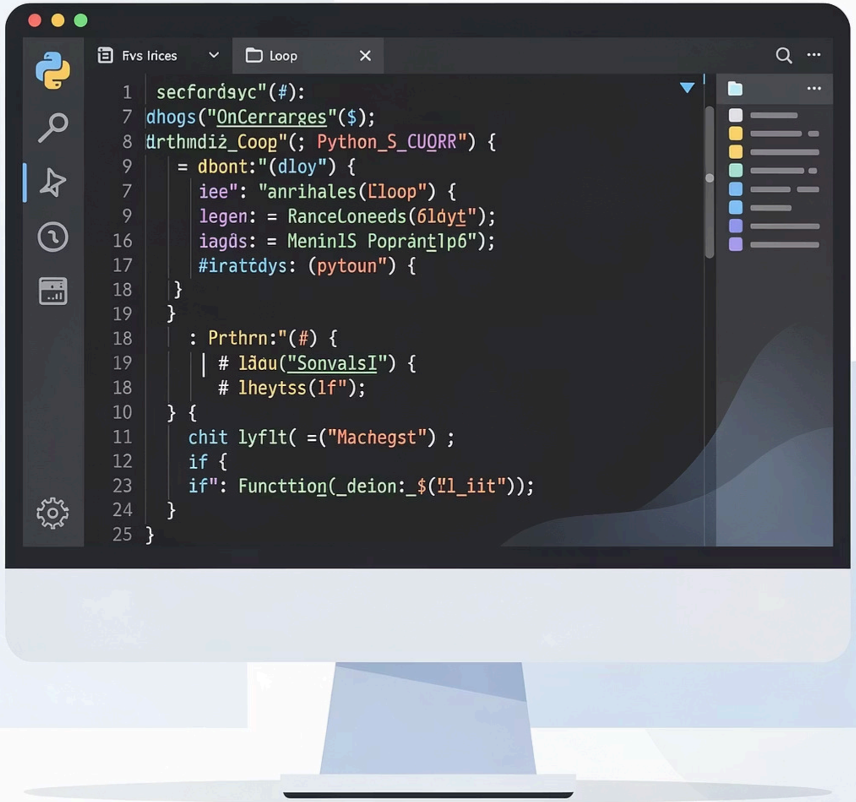
Store ordered sequences of data in a single variable — the foundation of data collections.

Comments

Document your code with `#` comments — readable code is professional code.

Python

VS Code & Github



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Questions?