Lab #11

Recursion, Python Names and Interviews Readiness.

The "Recursion" lecture introduces recursion as a method where a function calls itself, emphasizing the need for base and recursive cases to avoid infinite loops and stack overflows. It also explores examples like factorial, Fibonacci, and tree traversal, showing how recursion simplifies complex problems. Ned Batchelder's article on Python names and values clarifies common misunderstandings, explaining that Python names refer to objects (values) and assignments create references can lead to unexpected changes (e.g., lists). In "Why FAANG is Obsessed with Whiteboard Interviews", Fabian Hinsenkamp explains that whiteboard interviews allows companies to assess standardized problem-solving skills, coding fluency without IDEs, and real-time design evolution under constraints. John Nagro's "5 Whiteboard Coding Tips" offers practical strategies: write the problem and examples on the board, write legibly and clearly, double-space to allow edits, and use space efficiently. Pachi Parra's "GitHub Portfolio Tips" stress the importance of customizing your GitHub README to reflect your personal brand, pinning meaningful projects, and keeping profile details complete for recruiters. From a coding practice angle, the "FizzBuzz" problem helps reinforce loops and conditionals by printing "Fizz", "Buzz", or "FizzBuzz" based on divisibility, and the "Two Sum" challenge focuses on identifying array elements summing to a target using both brute force and optimized hash-map approaches — key patterns in technical interviews. Reviewing these concepts ensures a solid foundation for both programming logic and interview preparedness.