First Principle Study (a.k.a. First Principles Thinking)

- You **break things down to the most basic truths** and build your understanding from scratch.
- Instead of memorizing “this framework works like this,” you ask:
    - *What is the core problem this solves?*
    - *What are its building blocks?*
- Example in coding: Instead of just using Django’s ORM, you learn how SQL queries work underneath.

It’s about going deep into **fundamentals** so nothing feels like “magic.”

Investigative Study (a.k.a. Investigative Learning)

- You **explore and learn by experimenting**, questioning, and testing.
- Instead of reading everything first, you dive in and investigate step by step.
- Example in coding: You run a piece of Python code, see the output, then tweak it to understand *why* it behaves that way.
- You act like a detective—debugging, experimenting, and uncovering knowledge as you go.

It’s about **curiosity + hands-on exploration** rather than memorization.

Difference in Style

- **First principle study** = Deep dive into core fundamentals before building up.
- **Investigative study** = Learn by questioning, experimenting, and figuring things out as you go.

Both are powerful. Usually, good teachers mix them: first give you the foundation, then let you investigate and discover on your own.

1. First Principle Learning:

- Inspired by the idea of **breaking down a concept to its most basic components**.
- You explore **every detail** of a framework or library.
- You understand **how and why** each part works, rather than just learning it at the surface.
- Great for learning the **core fundamentals** of a language like Python.

📌 *Example: Instead of memorizing how a function works, you understand what makes it work internally.*

2. Investigative Learning (Investigation Study):

- A more **exploration-based and experimental** style of learning.
- There's **no official term**, but the instructor calls it **"Investigative Learning"**.
- You **write code**, **observe the output**, and **question everything**.
- Ideal for learning **through curiosity and discovery**.