AI_LAB EXAM: 2

HALL TICKET :2403A51292

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BATCH : 12

E.1 — [S18E1] Generate README from comments

Context:

A small real estate listings platform utility needs a README for onboarding.

Your Task:

From comments, produce README: Overview, Setup, Usage, Tests, Limitations + a CLI

example.

Data & Edge Cases:

Module + functions listed in comments.

AI Assistance Expectation:

Use AI to draft structure then refine.

Constraints & Notes:

Include one CLI block.

Sample Input

module: real estate listings platform utilities
functions: parse, validate, export

Sample Output

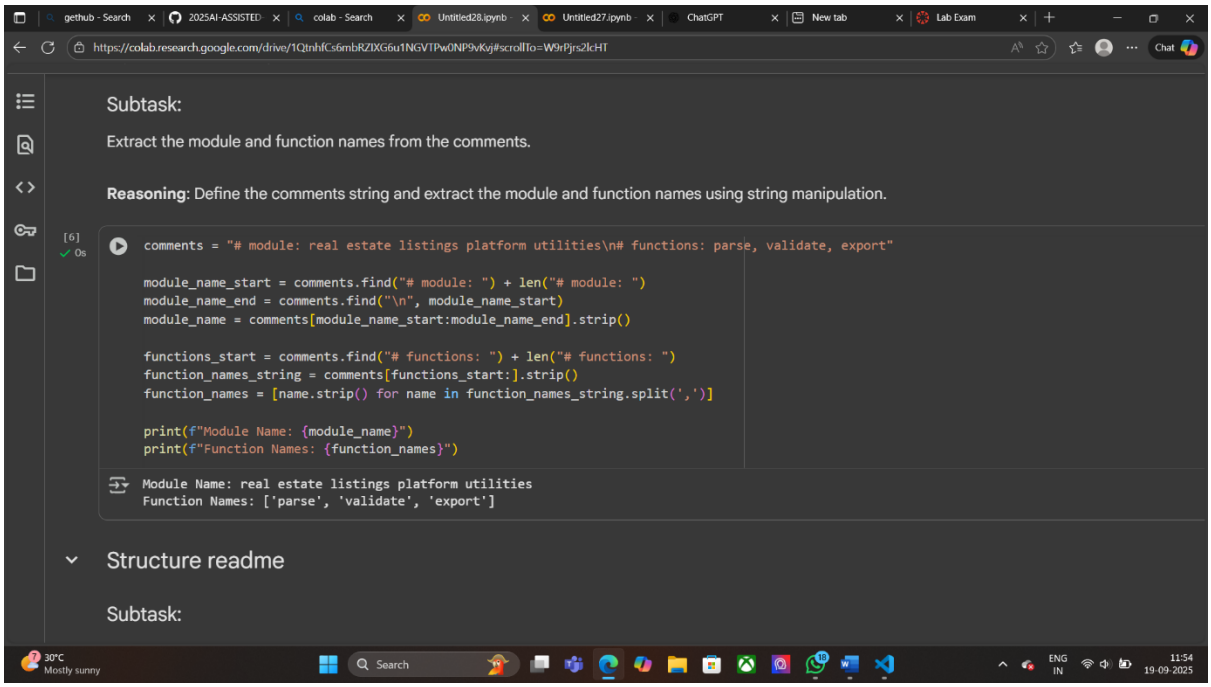
README with 5 sections and example

Acceptance Criteria: Contains required sections

Prompt:

Given the following module comment

1. Use AI to generate a README file for onboarding new users.
2. The README must include the following sections:
    - Overview
    - Setup
    - Usage
    - Tests
    - Limitations
3. Include at least one CLI usage example block.
4. Ensure the README is clear, concise, and covers all required sections.



E.2 — [S18E2] Refactor nested loops to dict aggregation

Context:

Legacy real estate listings platform code uses nested loops for aggregation.

Your Task:

Refactor to dict.get/defaultdict with type hints.

Data & Edge Cases:

Example: [('a',1),('b',2),('a',3)] -> {'a':4,'b':2}.

AI Assistance Expectation:

Ask AI for refactor and parity tests.

Prompt:

Given legacy code that uses nested loops to aggregate values from a list of tuples (e.g., [('a',1),('b',2),('a',3)]), refactor the code to use a dictionary (with dict.get or collections.defaultdict) and add type hints.

1. The refactored function should have a typed signature.
2. The output for the sample input should be {'a': 4, 'b': 2}.
3. Ask AI to provide parity tests to ensure the refactored code matches the original behavior.
4. Ensure the function handles all edge cases and maintains the same output as the original.

Constraints & Notes:

Typed function signature preferred.

Sample Input

data=[('a',1),('b',2),('a',3)]

Sample Output

{'a':4,'b':2}

Acceptance Criteria: Behavior unchanged