

Code review by Edi and Kun for Tabita and Lavinia

<https://github.com/914LucaciuTabita/LFTC/tree/main/Lab7>

What's Great:

- you've done a great job with comments and docstrings. they're clear, concise, and really help in understanding the code.
- we like the way you've structured your classes and functions. it's modular, making it easier to follow the logic.
- good use of meaningful variable and function names. it makes the code self-explanatory.
- you're handling exceptions properly, which is awesome.
- the code follows PEP 8 (Python's style guide) quite well. it's clean and readable.

Improvements:

- there seems to be some code duplication across your scanning methods (`_scan_string`, `_scan_integer`, etc.).
- consider refactoring to reduce redundancy.
- it might be beneficial to provide more context in your error messages, especially for the `SyntacticalError`. knowing which part of the grammar or input caused the error could be very helpful for debugging.
- you've used some magic values like `STR_QUOTE` and `ZERO_DIGIT`. consider defining them as constants at the beginning of your file to improve readability.
- the `LL1` class, while well-structured, has quite a bit of complexity. it might be worth breaking down some of its functionality into smaller, more focused methods.

Suggestions:

- consider using type hints more consistently throughout your code to enhance readability.
- adding more comprehensive unit tests would be beneficial, especially for the scanning and parsing parts.
- consider using a logger for more sophisticated logging instead of print statements.

Overall, your code looks quite well-organized and seems to follow good practices. Here are some thoughts: