

Reflection

Working on this project allowed me to apply different **Python data structures and concepts** in a real-world scenario, framed around *beekeeping honey weights*.

1. Integers & Calculations

- I practiced using built-in functions like `sum()`, `min()`, and `max()` to compute totals, averages, and ranges.
- This reinforced the importance of **basic statistics** when dealing with numerical data.

2. Strings & f-strings

- By formatting the honey report with f-strings, I learned how to make outputs more **readable and professional**.
- Using f-strings also made it easy to insert computed values directly into text.

3. Booleans & Conditions

- I implemented a **threshold check** with a compound condition (`and`).
- This highlighted how boolean logic helps in making decisions, such as labeling honey production as *Above Standard* or *Below Standard*.

4. Lists

- Adding, removing, and sorting honey weight records showed the **flexibility of lists** for managing collections of data.
- I also practiced **conditional filtering**, which is useful for removing values that don't meet criteria.

5. Arrays

- By using Python's `array` module, I explored how arrays are more **memory-efficient** than lists for numeric data.
- Comparing array sums with list sums showed that both structures can achieve similar results but may serve different purposes.

6. Dictionaries

- Creating a list of dictionaries for hive records let me simulate a **mini-database**.
- Updating, deleting, and summing dictionary values improved my understanding of **structured data management**.