# Daily Diary: Day 3

Date: 08/06/2024

# **Topics Covered**

## **Sets Operations**

Learned how to create sets and perform basic operations such as union, intersection, difference, and symmetric difference. Explored how to check subset and superset relationships between sets.

#### List Manipulations

Practiced creating and manipulating lists, including appending elements, extending lists, slicing, and checking for the presence of elements. Learned how to reverse a list, remove specific elements, and find the index of elements.

### **Tuple Operations**

Created tuples with different data types and performed operations such as concatenation and unpacking. Checked for the presence of elements in a tuple and converted a tuple to a list. Practiced creating and combining tuples, as well as using tuples to swap values between variables.

#### Set Exercises

Created sets with prime numbers and performed various set operations such as adding and removing elements, checking subset relationships, and finding intersections with other sets. Practiced creating a frozen set and using set comprehension to create a set of squares for numbers 1 to 10.

#### **Dictionary Operations**

Created dictionaries with key-value pairs and performed operations such as accessing values, updating values, and merging dictionaries. Learned how to remove keys from a dictionary and check for the existence of keys. Practiced iterating through a dictionary to print keys, values, and key-value pairs. Used dictionary comprehension to generate a dictionary of squares and filtered it to include only even squares. Worked with nested dictionaries to store information about multiple students and accessed specific information. Practiced using dictionary methods such as get to retrieve values with a default and pop to remove and return specific key-value pairs.