📓 Day 2 – Grocery List in Python & Pandas in Google Colab

📅 Date: **June 25, 2025**

◆ Overview of Day 2

On Day 2, we focused on improving **Python coding logic** and started working with **real datasets using Pandas** in **Google Colab**.

We covered:

- Writing a program to build a **grocery list** using loops and conditionals
- Introduction to the **Pandas library**
- Loading and exploring the **California Housing dataset**
- Running our code in **Google Colab** environment

◆ Part 1: Python Program – Grocery List (Q4)

We created a program that builds a grocery list by taking user input. If the input is `"done"`, the loop stops.

💻 Code:

```
grocery_list = []

while True:
    item = input("Enter an item for grocery list: ")
    if item.lower() == "done":
        break
    grocery_list.append(item)

print("Your Grocery List:", grocery_list)
```

□ Sample Output:

```
Enter an item for grocery list: Milk
Enter an item for grocery list: Bread
Enter an item for grocery list: done
Your Grocery List: ['Milk', 'Bread']
```

This taught us how to:

- Use `while True` loops
- Take repeated input
- Break based on a condition
- Build and print a list

◆ Part 2: Using Pandas in Google Colab

We worked on a Jupyter Notebook in **Google Colab** to practice with the **Pandas** library.

📂 Dataset Used:

`california_housing_train.csv` (from Colab's built-in sample data)

💻 Code Practiced:

```
import pandas as pd

# Load dataset
dataframe =
pd.read_csv("/content/sample_data/california_housing_train.csv")

# Display first few records
print(dataframe.head())

# Display last few records
print(dataframe.tail())

# Info about the dataset
print(dataframe.info())
```

🔍 Key Concepts:

- Reading CSV using `pd.read_csv()`
- Understanding data shape and content using `.head()`, `.tail()`, `.info()`
- Basic familiarity with real-world datasets