

*Worksheet 4 part 2 - Sep 26, 2025*

**Build and Clean Your Mini DataFrame**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

✨**Goal:** Create a tiny dataset from scratch, turn it into a pandas DataFrame, and answer simple questions about it.

**You will practice:**

* Making Python **lists**
* Combining lists in a **dictionary**
* Building a **DataFrame** with pandas
* Selecting columns

**Time:** ~20–30 minutes

**Setup:**

Open your Python notebook (Google Colab, Jupyter, or VS Code). Create a new code cell and run:

A black text on a white background

Description automatically generated

## Step 1 – Make your lists

Create **three lists** with **3 items each**:

* cities: names of 3 cities you choose (e.g., "Milwaukee", "Chicago", "New York")
* temperatures: 3 numbers (e.g., 75, 62, 89)
* rainy: 3 values that are either "Yes" or "No"

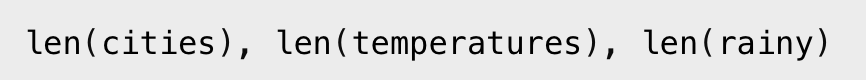
A close-up of a number

Description automatically generated

✅ **Checkpoint:** Each list should have length 3.

## Step 2 – Quick self-check

Make sure your lists are the same length.



✅ **Checkpoint:** You should see (3, 3, 3).

## Step 3 – Build a dictionary

Connect your lists to column names using a **dictionary**.

A black and green text

Description automatically generated

✅ **Checkpoint:** data should show keys City, Temperature, Rainy when you print it.

A black text with a white background

Description automatically generated

## Step 4 – Make the DataFrame

Turn the dictionary into a table.

A close up of a logo

Description automatically generated

✅ **Checkpoint:** You should see a 3×3 table (3 rows, 3 columns).

**Questions:**

1. How many rows and columns are in your table?
2. What are the column names?

Write your answers here:

* Rows × Cols: \_\_\_\_\_\_\_\_\_\_
* Columns: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

## Step 5 – Look at one column

Print just the **City** column.

A green text on a white background

Description automatically generated

**Questions:**

* What type of object does df["City"] return (Series or DataFrame)? \_\_\_\_\_\_\_\_
* What shows on the left side of the output (hint: index)? \_\_\_\_\_\_\_\_\_\_

## Step 6 – Mini edits

Try one tiny edit so you see how tables change.

A screenshot of a computer

Description automatically generated

**Question:** What changed after your edits?

## (Optional) Quick visual (bonus)

Make a fast bar chart of temperature by city.

A screenshot of a computer code

Description automatically generated