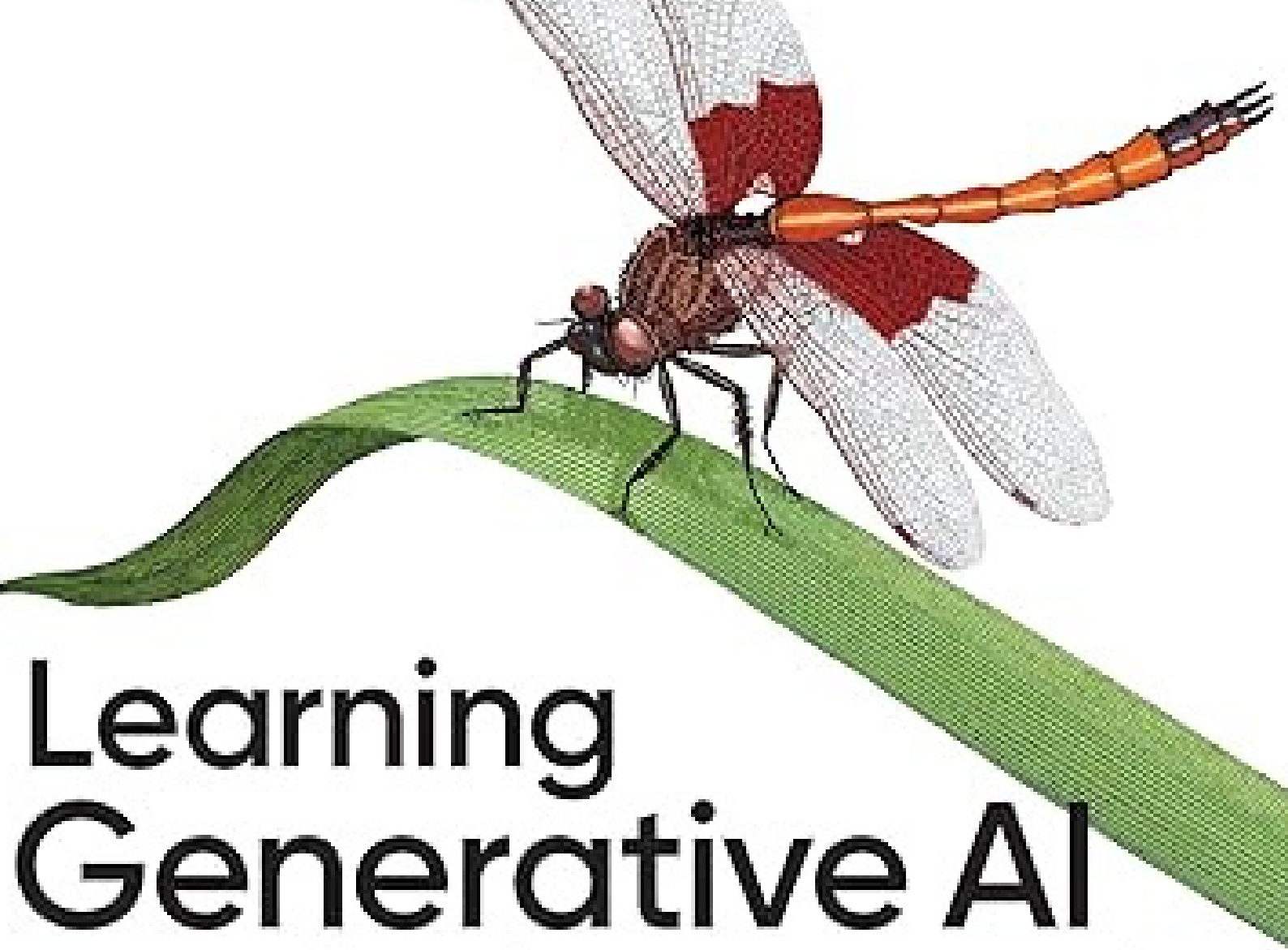




Learning Generative AI Tools for Excel

Speed Up Your Everyday Tasks with
Microsoft Excel, Copilot, ChatGPT

Companion Book

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Exercise 3.4

Enriching a Table with ChatGPT

Based on Chapter 3, Exercise 4 of the parent book.

Objective. Use ChatGPT to extend an existing table with information retrieved from the web.

Exercise Statement

Write instructions for ChatGPT to populate Table 3-7 with the country name and the geographic coordinates of each city. The original table has the columns City, Country, Latitude, and Longitude, and the rows Pisa, New York, Sydney, and Paris, with only the city name filled in. Your prompt should preserve the original table layout and style.

Reference Table

Source city list to enrich with country and coordinates.

City	Country	Latitude	Longitude
Pisa	—	—	—
New York	—	—	—
Sydney	—	—	—
Paris	—	—	—

Solution Walkthrough

Chapter 3 is about speeding up common Excel operations with ChatGPT. Exercise 4 is a strong example because it combines a familiar spreadsheet task with an operation that is often tedious when done manually: enrichment.

The task is to take an existing table and extend it with three new columns:

- country
- latitude

- longitude

The solution prompt is short, but it contains the essential logic:

```
Consider the table Cities in the first worksheet of the attached
file. Extend the table Cities with the following columns: country,
latitude, longitude. Extract the required information from the web.
Format the resulting table as an Excel Table. Keep the original
table layout and style.
```

Step 1: Anchor the Prompt to the Existing Table

The first part of the solution identifies the object clearly:

```
Consider the table Cities in the first worksheet of the attached
file.
```

This means that, firstly, you must attach the original Excel file to the conversation. Next, you must specify the table you want to use. The workbook, in fact, may contain more than one table. By naming the table and the worksheet position, we reduce ambiguity.

Step 2: Define the New Fields Explicitly

The second part of the prompt adds the enrichment goal:

```
Extend the table Cities with the following columns: country,
latitude, longitude.
```

This is a good prompt pattern because it defines the output schema before talking about data retrieval. The model knows exactly which new fields are required and can structure the response accordingly.

Step 3: Specify the Data Source Logic

The next instruction is:

```
Extract the required information from the web.
```

This tells the tool that the new data should not be guessed from the workbook alone. It should come from an external source.

In practical terms, this is the heart of enrichment. We are turning AI into a bridge between a local Excel table and external factual information. In a manual workflow, this might involve opening a browser, searching each city, copying values, and checking formats one by one. AI shortens that path considerably.

Step 4: Preserve Structure and Style

The final part of the solution says:

```
Format the resulting table as an Excel Table. Keep the original
table layout and style.
```

This is a very important constraint. Without it, an AI tool might return the right values but in a way that disrupts the spreadsheet. Columns might move, styles might change, or

the original table might lose its formatting consistency. By preserving layout and style, we make the enrichment practical for continued use.

How to Validate the Result

Once the tool extends the table, I would check four things:

1. Were the new columns added to the existing Cities table?
2. Are the country names consistent?
3. Are latitude and longitude stored in a usable numeric format?
4. Has the original layout and visual style really been preserved?

This validation matters because enrichment can look correct while still introducing subtle problems. Coordinates stored as text, for example, may look fine in the sheet but create issues later in formulas or maps.

Common Mistakes to Avoid

The first mistake is asking for enrichment without naming the columns to add. If the output schema is unclear, the result may not fit your later analysis.

The second mistake is ignoring data types. Latitude and longitude should remain usable as numbers.

The third mistake is forgetting to protect the original layout. A correct answer is much less useful if it disrupts the spreadsheet structure.

Exercise 4 from Chapter 3 shows how ChatGPT can make dataset enrichment much faster inside an Excel workflow.

The real lesson is that enrichment works best when the prompt is explicit about four things: the table, the new fields, the external information source, and the need to preserve structure.

Repository Files

- [03/exercise4.xlsx](#) - Workbook or data file
- [03/exercise4_solution.txt](#) - Prompt or solution text