

Copilot + Excel

Designing effective workbooks with
embedded AI



Microsoft 365 Copilot + Microsoft Excel

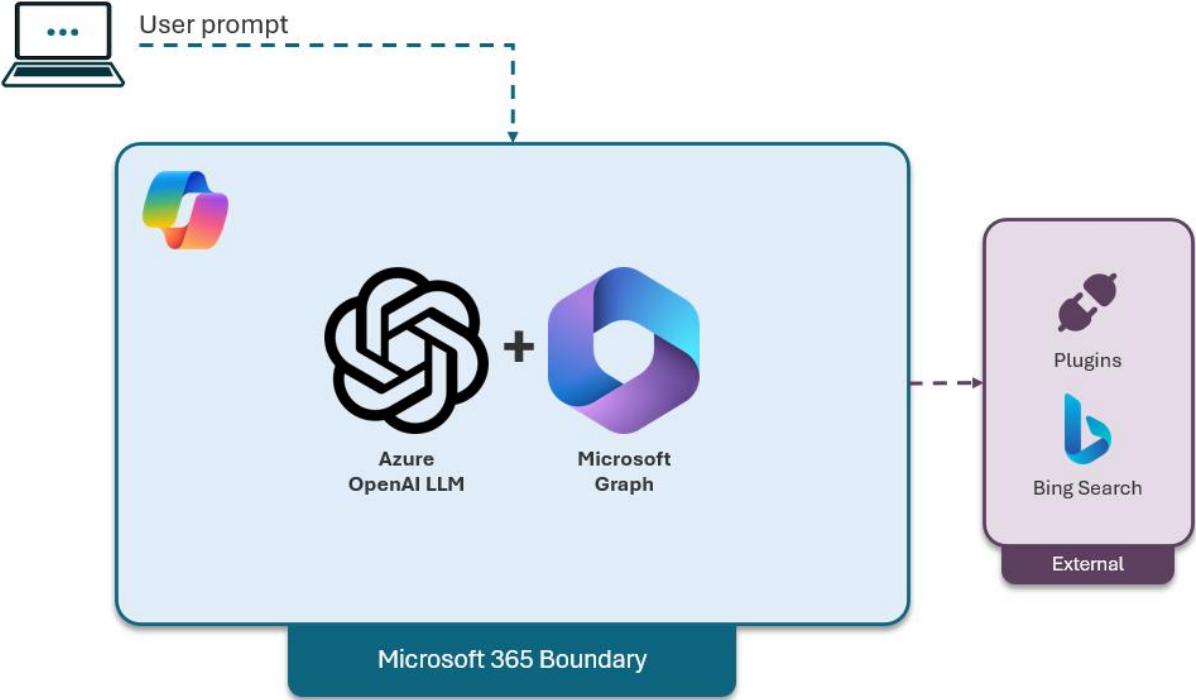
Microsoft 365 Copilot is a generative artificial intelligence that is not only useful for everyday interaction and brainstorming, but is inserted into Excel and the broader Microsoft 365 environment for your organization. Learning to effectively leverage this tool can significantly improve your work.

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Understanding Copilot: What You Have and What's Possible

Microsoft Copilot is a name that is applied to multiple versions of an artificial intelligence tool from Microsoft. At its most essential, copilot leverages the OpenAI ChatGPT Large Language Model. This makes the free iteration of Copilot essentially the same product as ChatGPT. However, when the user has a paid Copilot license, the contextual value of the Microsoft 365 environment is added.



Generative Artificial Intelligence

Generative Artificial Intelligence is a subset of AI focused on creating new content. Unlike traditional AI, which typically relies on analyzing and interpreting existing data, generative AI models are designed to produce new data that mimics the patterns and structures of the data they were trained on. This ability to generate new content makes generative AI particularly useful in applications such as natural language processing, image and video creation, and even music and art generation.

It's critical that we understand this tool is designed to mimic human responses to the prompts you create, based on its interpretation previously written information. Because of this, it is highly likely that generative AI will periodically 'hallucinate,' and give you incorrect information that is phrased as a fact. Its ability to generate valuable information at high volumes with no tiring typically outweighs the potential for incorrect information in the aggregate, but that is something that each person must judge for themselves, and set up processes to catch the incorrect information.

AI Grounded in the Microsoft Graph

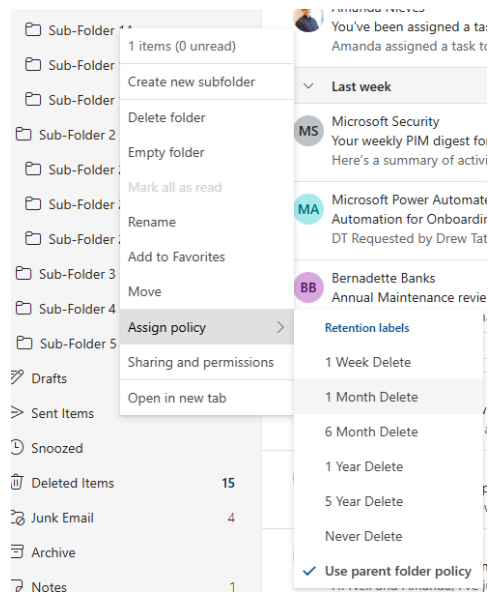
The **Microsoft Graph** includes all contents that are discoverable by search across all Microsoft applications – Word, Excel, PowerPoint, Outlook, OneDrive, Teams, SharePoint, and more.

When you prompt Microsoft 365 Copilot, it will scan all files and other information that is accessible to your account before presenting a response.

Managing Microsoft Graph Contents

Because Microsoft 365 Copilot is scanning your email, meetings, and all the files you have access to when you prompt it, it's critical to understand what is available to Copilot, and how we might adjust that. Having firm **retention policies** in place, as well as archiving and data management, we can move information outside the view of Copilot, making its responses more accurate.


In Outlook, note that you can now **right-click** any folder and set a retention policy for the emails in that folder:








By removing older emails, you can focus the AI on more current information that is pertinent to the requests you're making.


Additionally, your organization can use Microsoft Purview to create organization-wide **retention policies**:

Labels

 Make labels with Records Management to access even more label settings. [Create a label](#) with Records Management.

Create labels for items that need exceptions to your retention policies. Exceptions include extending the retention period for specific documents. For more label options, use Records management > File plan to manage your content. [Learn about using retention labels for exceptions](#)

 Create a label  Publish labels  Import  Export  Refresh

Name 

Five-Year Retention

Finally, in any SharePoint site, each Library is automatically indexed to show up in search results. This can be adjusted by clicking into the **Library Settings** and choosing **Advanced Settings**:

Search

Specify whether this document library should be visible in search results. Users who do not have permission to see these items will not see them in search results, no matter what this setting is.

Allow items from this document library to appear in search results?

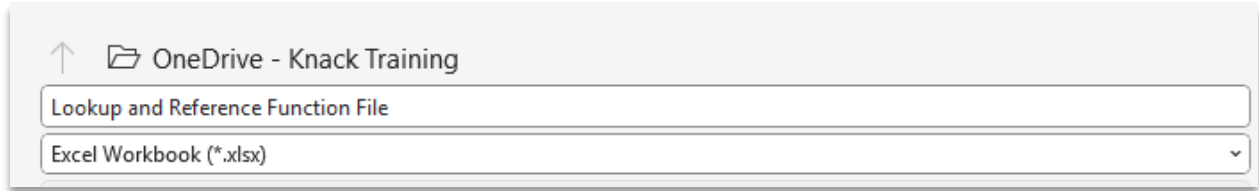
Yes No

By either deleting or de-indexing content within Microsoft 365, you're more likely to receive valid responses to your requests to Microsoft 365 Copilot.

Excel and Copilot Quickstart

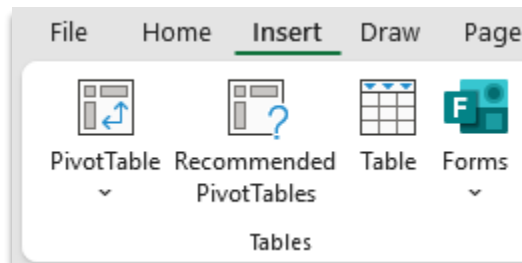
Setup for Copilot and Excel

To properly use Copilot with your Excel files, make sure that the files are in **.XLSX** format (Excel 2007-present), and saved to the cloud in either **OneDrive** or **SharePoint**.

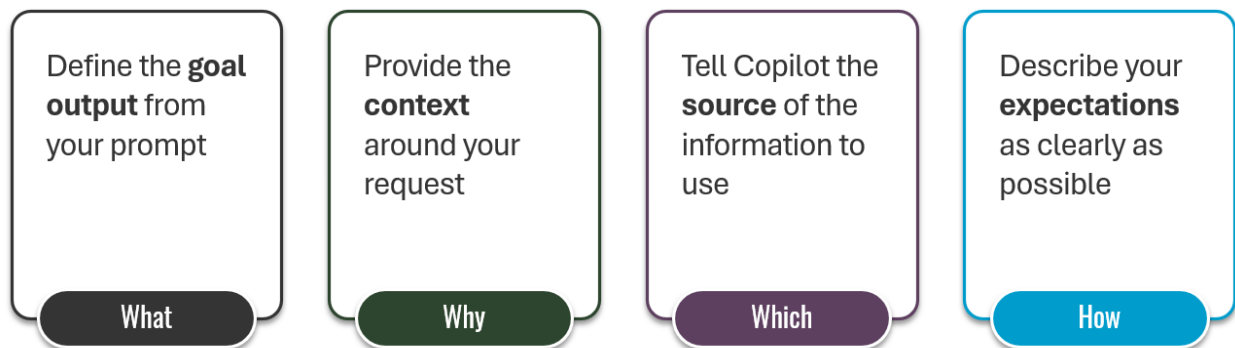


A further step that is not required, but often improves the functionality of Copilot, is to convert any data in your workbook into a **Table**.

On the **Insert Tab**, select the **Table** button, or press **[CTRL] + [T]** on your keyboard:



Good Prompting



To generate the best responses possible, always include information about these four elements in every prompt:

Goal output: Describe thoroughly what you want created for you. For example:

Create a 6-module class outline with lessons, hands-on exercises, learning objectives, and knowledge check questions

Context: Help Copilot understand who you are, who the audience for this is, and if it should assume any specific job roles or experience. For example:

You are an IT manager. Use simple language for a broad audience to describe the reasons to roll out Microsoft 365 Copilot to the entire organization.

Data sources: Let Copilot know where the information should be coming from, including different segments of Microsoft 365 or the web. For example:

Look for emails from Faye Chen or Miguel Rivas, as well as PDFs in the Operations SharePoint site.

Expectations: Return to the output goals and elaborate on any additional expectations for quality, length, or content. For example:

Highlight cost savings and potential revenue from the recommended changes.

Troubleshooting

Copilot Not Responding or Loading

- Confirm that you have an active Microsoft 365 subscription and an active subscription to Microsoft 365 Copilot
- Check the stability of your internet connection (Copilot runs entirely online, not on your PC)
- Try refreshing or restarting the application
- Confirm your login to the application

Poor Results

- Be more specific calling out the names of columns or the desired outcomes
- Break complex ideas into smaller sequential prompts
- Provide more context about your data and your goals
- Use examples in the prompt of a successful result

Copilot Can't Access the Data

- Ensure you convert the data into Table format (Insert Tab > Table)
- Check for merged cells
- Verify there aren't any hidden rows or columns
- Confirm there are clear headings at the tops of each column

Excel Prompt Library

Data Cleanup Prompts

Remove all duplicate rows in this dataset, and highlight any partial duplicates.

Standardize all phone numbers in (column) to XXX-XXX-XXXX format.

Convert all text in (column) to proper case and remove extra spaces.

Split the (column) into separate columns for First Name and Last Name.

Find all variations of “N/A”, “null”, and blank cells, and replace them with a 0 in (column).

Identify and flag any dates outside (range).

Flag all rows where the email address doesn't contain a valid email format.

Standardize all state abbreviations to their two-letter format (e.g. CA, NY, TX).

Formula Generation Prompts

Create a formula to calculate the percentage change between last month and this month's sales.

Generate an XLOOKUP formula to find (information) from an ID in another worksheet.

Create a formula that counts the number of orders placed in the last 30 days.

Create a formula to calculate compound interest over multiple years.

Create a formula to extract the domain name from email addresses.

Write a formula to calculate the number of business days between (date columns).

Create a formula to find the second-highest value in (column).

Generate a formula to total sales by region.

Analysis Prompts

Analyze sales trends over the past 12 months, and identify seasonal patterns.

Find the top 5 customers by revenue, and show their contribution to total sales.

Calculate the correlation between marketing spend and sales revenue by month.

Identify outliers in the pricing data that are more than 2 standard deviations from the mean.

Compare year-over-year performance and highlight the biggest growth areas.

Create a summary showing average order value by customer segment.

Visualization Prompts

Create a line chart showing monthly revenue trends with a forecast trendline.

Create a heat map showing sales performance by region and quarter.

Build a waterfall chart showing how individual factors contribute to total profit.

Generate a scatter plot to visualize the relationship between price and sales volume.

Build a stacked bar chart comparing this year's vs. last year's sales by category.

Advanced Techniques

Chaining Requests

Think of sending prompts to Copilot like talking with someone who can help, but doesn't know anything about what you're doing. If you simply write a long, complex request without enough context, even the smartest and most capable person will probably fail. So, for this reason, you should *chain requests* by writing sequential, building, or even corrective prompts.

Sequential Prompting

1. **Analysis:** Begin with basic analysis, then build on the results. Prompt 1: *Identify the top 10 customers by revenue*; Prompt 2: *Calculate the average order frequency of these customers*; Prompt 3: *Create a retention strategy table for customers below this average.*
2. **Transformation:** Begin with the first layer of cleaning, then use that in a further prompt. Prompt 1: *Standardize the phone numbers in the format XXX-XXX-XXXX*; Prompt 2: *Add a column categorizing customers by region based on area code*; Prompt 3: *Create a summary table with customer count and average purchase size by region.*