



Developing **Better** Prompts for Copilot for Security

Rod Trent

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Microsoft



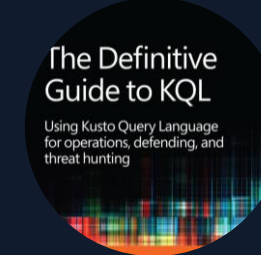
About Me...

Name: Rod Trent

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Twitter: <https://twitter.com/rodtrent>



- Husband
- Dad
- Grandfather (G-pop)
- Running freak
- KQL nut
- 6MDM

My blog: <https://aka.ms/RodsBlog>

Microsoft Sentinel this Week (newsletter):

<http://aka.ms/MicrosoftSentinelNewsletter>

Microsoft Defender (newsletter)

<http://aka.ms/MicrosoftDefenderNewsletter>

Azure Open AI Weekly Community Copilot (newsletter)

<https://aka.ms/AzOpenAINews>



myITforum.com
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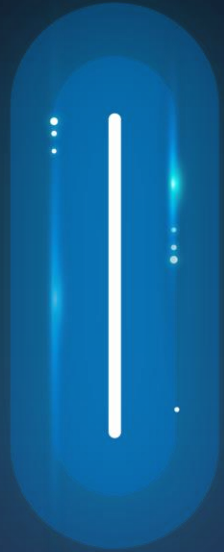
Quick Poll: Help me help you

1. How familiar are you with Generative AI?
2. How familiar are you with Prompt Engineering?
3. How familiar are you with Copilot for Security?



<https://etc.ch/aFxc>

Agenda



What is generative AI and how does it work?

Prompt Engineering

Introduction to Copilot for Security

How Copilot for Security Processes Requests

Prompting for Copilot for Security

Brief: What is Generative AI?



Generative AI

A type of machine learning that uses algorithms and models to generate new and original content. LLMs are one form, but generative AI can be multi-modal.

Defender that can identify patterns, speak and understand different languages, so they can automatically communicate with other defenders around the world to stop attackers

What characterizes generative AI?

Uses natural (human) language

Generates new content from a variety of user inputs

Allows for greater personalization

How to use generative AI accurately



View data sources



Personally verify



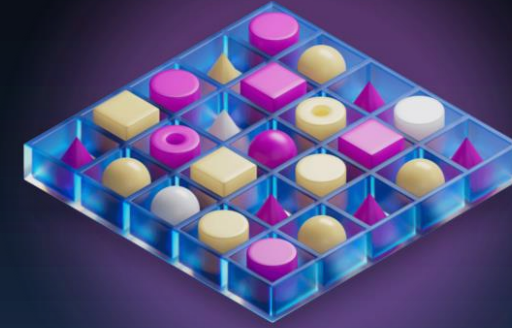
Provide feedback



Fabrications

Generated content that appears plausible but isn't contained in the provided content and may be incorrect. It happens when the response appears correct, but omits important key points from the source, which creates a false narrative

Incomplete response that generates the wrong summary



Responsible AI

Crucial element that guides people as they design systems that are safe and fair at every level. Understanding the data that was used to train the systems and finding ways to mitigate any shortcomings to help better reflect society at large, not just certain groups of people

Foundational practices in place when developing models to create safe and fair AI

Microsoft's responsible AI framework

Privacy and
security

Accountability

Reliability and
Safety

Microsoft's responsible AI principles

Inclusiveness

Transparency

Fairness

In the Generative AI world, what are Fabrications?

A. Generated content that appears plausible but isn't contained in the provided content and may be incorrect.

B. Crucial element that guides people as they design systems that are safe and fair at every level.

C. A type of machine learning that uses algorithms and models to generate new and original content.

Question 1

Question 2

Why could a poorly created prompt cause a Fabrication?

- A. It's not worded correctly to drive an efficient compute.
- B. It uses words or phrases that get skipped due to Responsible AI.
- C. Incomplete responses will generate the wrong summary.

Generative AI Tokens

Generative AI Tokens



Generative AI tokens are used to create natural language



Tokens can be used to generate sentences and paragraphs

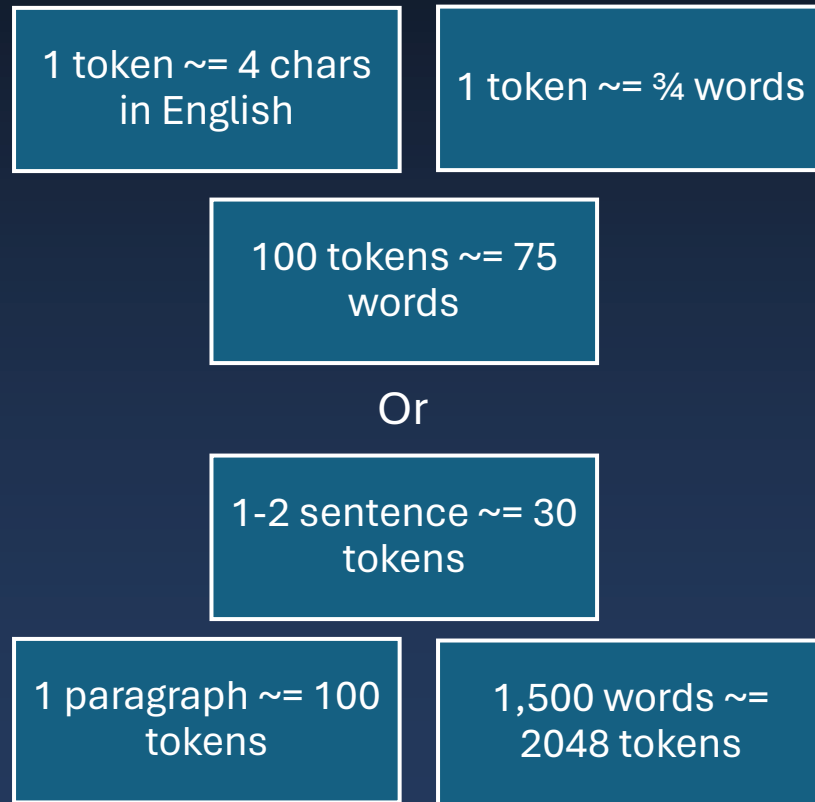


Tokens are trained on datasets to understand language patterns

Tokens can be thought of as pieces of words. Before the API processes the request, the input is broken down into tokens. These tokens are not cut up exactly where the words start or end - tokens can include trailing spaces and even sub-words.

Generative AI Tokens

Rules of thumb for understanding tokens in terms of lengths:



To get additional context on how tokens stack up, consider this:

- Wayne Gretzky's quote "You miss 100% of the shots you don't take" contains 11 tokens.
- OpenAI's charter contains 476 tokens.
- The transcript of the US Declaration of Independence contains 1,695 tokens.

Token Usage

- Azure OpenAI processes text by breaking it down into tokens. Tokens can be words or just chunks of characters.

Example: the word “hamburger” gets broken up into the tokens “ham”, “bur” and “ger”, while a short and common word like “pear” is a single token. Many tokens start with a whitespace, for example “ hello” and “ bye”.

- The total number of tokens processed in a given request depends on the length of your input, output and request parameters. The quantity of tokens being processed will also affect your response latency and throughput for the models.

Tool: Tokenizer

- <https://platform.openai.com/tokenizer>
- Tool to understand how a piece of text might be tokenized by a language model, and the total count of tokens in that piece of text.
- The exact tokenization process varies between models.

Newer models like GPT-3.5 and GPT-4 use a different tokenizer than previous models, and will produce different tokens for the same input text.

Tokenizer

Learn about language model tokenization

OpenAI's large language models (sometimes referred to as GPT's) process text using **tokens**, which are common sequences of characters found in a set of text. The models learn to understand the statistical relationships between these tokens, and excel at producing the next token in a sequence of tokens.

You can use the tool below to understand how a piece of text might be tokenized by a language model, and the total count of tokens in that piece of text.

It's important to note that the exact tokenization process varies between models. Newer models like GPT-3.5 and GPT-4 use a different tokenizer than previous models, and will produce different tokens for the same input text.

GPT-3.5 & GPT-4 GPT-3 (Legacy)

The lazy dog allowed the fox to walk confidentially into the henhouse.

Clear

Show example

Tokens

16

Characters

71

The lazy dog allowed the fox to walk confidentially into the henhouse.

Tool: Tokenizer

- <https://platform.openai.com/tokenizer>

Tokens	Characters
16	71

The lazy dog allowed the fox to walk confidentially into the henhouse.

Prompt Engineering

What is Prompt Engineering

- Prompt engineering is the art and science of **designing effective inputs** and outputs for AI systems, such as natural language models.
- A prompt is a set of instructions, examples, or queries that **elicit a desired response** from an AI system.

For example, a prompt can be a question that asks an AI system to summarize a text, or a template that instructs an AI system to generate a poem.

Brief: Prompt Engineering

- **Process of writing, refining, and optimizing inputs for AI systems**
 - Helps AI models organize better responses to a wide range of queries
- **Allows for programming AI models in natural language**
 - No coding experience or deep knowledge of datasets required
- **Prompt engineers play a pivotal role in crafting queries**
 - Helps AI models learn language, nuance, and intent behind the query
- **Important for producing accurate and relevant outputs**
 - More precise and comprehensive prompts lead to better responses from AI models

By crafting well-designed prompts, humans can:

- **Improve the quality and accuracy of AI outputs.** A good prompt can help an AI system understand the task and the context better and avoid errors or biases.
 - For example, a prompt can provide relevant information, clarify the expectations, or specify the constraints for an AI system.
- **Expand the capabilities and applications of AI systems.** A good prompt can help an AI system perform tasks that are not explicitly programmed or trained for, by using its general knowledge and reasoning abilities.
 - For example, a prompt can ask an AI system to generate content, solve problems, or answer questions that are beyond its pre-defined scope.
- **Enhance the interaction and collaboration between humans and AI systems.** A good prompt can help an AI system communicate with humans in a natural and engaging way and provide feedback or suggestions.
 - For example, a prompt can use conversational language, humor, or emotions to make an AI system more human-like and relatable.

Prompt Engineering as a Career

- Vast Opportunity (*for now*)
- Not only a skill for AI experts or developers – for anyone who wants to use AI systems for their personal or professional goals.
- A skill that can be learned and improved over time
- Average starting range: **\$180k/yr**
- Average max: **\$335k/yr**
- How long?

The screenshot shows a LinkedIn job search interface. The search bar at the top contains 'prompt engineering' and 'United States'. Below the search bar, there are filters for 'Jobs', 'Remote' (3 results), 'Date posted', 'Experience level', 'Salary', 'Company', 'Easy Apply', 'All filters', and 'Reset'. The search results are displayed in a list format. The first result is 'Principal Engineer, Foundation LLM' at SambaNova Systems, Palo Alto, CA (Hybrid), with a salary range of \$180K/yr - \$210K/yr. The second result is 'Principal Applied Scientist - HDIP' at Oracle, Austin, TX (Hybrid), with a salary range of \$120.1K/yr - \$251.6K/yr. The third result is 'Staff Software Engineer, AI Innovation' at HubSpot, United States (Remote), with a salary range of \$218.9K/yr - \$328.4K/yr. The fourth result is 'AI Program Coordinator - Intern' at Lumentum, Oregon, United States (Remote). The fifth result is 'Principal Applied Scientist - HDI' at Oracle, Austin, TX (Hybrid), with a salary range of \$120.1K/yr - \$251.6K/yr. On the right side of the screen, there is a detailed view of the 'Principal Engineer, Foundation LLM' job at SambaNova Systems. It shows the job description, salary range, location, and a 'Meet the hiring team' section featuring Fiona Kong, 3rd building teams at SambaNova Systems. The 'About the job' section describes the role as a Principal Engineer in the Foundation LLM team, responsible for developing and optimizing the SambaNova Suite, a full-stack generative AI platform.

prompt engineering in United States 175 results Set alert

Principal Engineer, Foundation LLM ✓
SambaNova Systems
Palo Alto, CA (Hybrid)
\$180K/yr - \$210K/yr · Medical, +7 benefits
17 company alumni work here
Promoted

Principal Applied Scientist - HDIP ✓
Oracle
Austin, TX (Hybrid)
\$120.1K/yr - \$251.6K/yr · Vision, 401(k), +1 benefit
35 connections work here
Promoted

Staff Software Engineer, AI Innovation ✓
HubSpot
United States (Remote)
\$218.9K/yr - \$328.4K/yr
3 connections work here
Promoted

AI Program Coordinator - Intern ✓
Lumentum
Oregon, United States (Remote)
3 company alumni work here
Promoted

Principal Applied Scientist - HDI ✓
Oracle
Austin, TX (Hybrid)
\$120.1K/yr - \$251.6K/yr · Vision, 401(k), +1 benefit
35 connections work here
Promoted

Principal Engineer, Foundation LLM ✓
SambaNova Systems · Palo Alto, CA · Reposted 3 weeks ago · 37 applicants

\$180K/yr - \$210K/yr · Hybrid · Full-time · Mid-Senior level
201-500 employees · Computer Hardware Manufacturing
17 company alumni work here
4 of 4 skills match your profile - you may be a good fit

Am I a good fit for this job? How can I best position myself for this job?

Apply Save

PREMIUM
Meet the hiring team

Fiona Kong · 3rd
Building teams at SambaNova Systems!
Job poster
Message

Show all

About the job

The era of pervasive AI has arrived. In this era, organizations will use generative AI to unlock hidden value in their data, accelerate processes, reduce costs, drive efficiency and innovation to fundamentally transform their businesses and operations at scale.

SambaNova Suite™ is the first full-stack, generative AI platform, from chip to model, optimized for enterprise and government organizations. Powered by the intelligent SN40L chip, the SambaNova Suite is a fully integrated platform, delivered on-premises or in the cloud, combined with state-of-the-art open-source models that can be easily and securely fine-tuned using customer data for greater accuracy. Once adapted with customer data,

Bad Googlers will be bad Prompters

Also: Good Googlers can be bad Prompters

Example 1

Poor Prompt: Write something.

What's wrong with it: The prompt is too vague and does not provide any context or specific instructions for the AI.

Improved Prompt: Write a short story about a space explorer discovering a new planet.

Why it's better: The prompt is specific, provides a clear context, and guides the AI towards a particular task.

Example 2

Poor Prompt: Summarize this.

What's wrong with it: The prompt lacks detail on what needs to be summarized and the desired length or style of the summary.

Improved Prompt: Provide a one-paragraph summary of the key points from the article titled 'The Impact of Climate Change on Coastal Cities'.

Why it's better: The prompt specifies the document to summarize, the focus on key points, and the expected length.

Example 3

Poor Prompt: **Translate.**

What's wrong with it: The prompt does not specify the source language, target language, or the text to be translated.

Improved Prompt: **Translate the following sentence from English to Spanish: 'Artificial intelligence is changing the future of technology.'**

Why it's better: The prompt clearly defines the source and target languages and provides the exact text for translation.

Prompt Engineering for Security

Security professionals can benefit from prompt engineering for AI in the future in various ways, such as:

- **Researching and understanding new technologies and threats.** Security professionals can use prompt engineering to leverage AI tools to gather and analyze information, generate insights, and stay updated on the latest developments and risks in the field.
- **Understanding and detecting malicious code.** Security professionals can use prompt engineering to interact with AI tools that can scan, parse, and interpret code, identify vulnerabilities, and flag potential malware or exploits.
- **Generating countermeasures and solutions.** Security professionals can use prompt engineering to instruct AI tools to create and test defensive strategies, such as patches, firewalls, encryption, or authentication.
- **Summarizing and communicating findings and results.** Security professionals can use prompt engineering to request AI tools to produce concise and clear reports, presentations, or recommendations based on their data and analysis.

Prompt Engineering for Security

Prompt engineering for AI can also pose some challenges and risks for security professionals, such as:

- **Handling potentially malicious or harmful prompts.** Security professionals need to be aware of the possibility of attackers using prompts to compromise or manipulate AI systems and implement input validation and response plans for security incidents.
- **Dealing with ethical and regulatory issues.** Security professionals need to consider the ethical and legal implications of using AI tools, such as privacy, consent, accountability, and compliance, and ensure that their prompts are aligned with these principles.
- **Adapting to the evolving and dynamic nature of AI.** Security professionals need to keep up with the rapid changes and innovations in AI and update their prompts and skills accordingly.

Tools consolidation and Generative AI can transform security

Tools consolidation

Coordinated defense across all threat vectors to deliver end-to-end visibility and coverage



AI

Exponential gains in human expertise and efficiency to defend at machine speed and scale



Question 3

Which is the best description of Prompt Engineering?

A. Prompt engineering is the process for identifying the proper words and phrases with which to produce desired results.

B. Prompt engineering is the art and science of **designing effective inputs** and outputs for AI systems, such as natural language models

C. Prompt Engineering is the act of developing responsible questions to pose to a Generative AI model.

Question 4

Choose the best prompt:

A. Write a short story about how my dog ate my homework.

B. Summarize the text.

C. Translate the phrase.

Introduction to Copilot for Security

Microsoft Copilot for Security

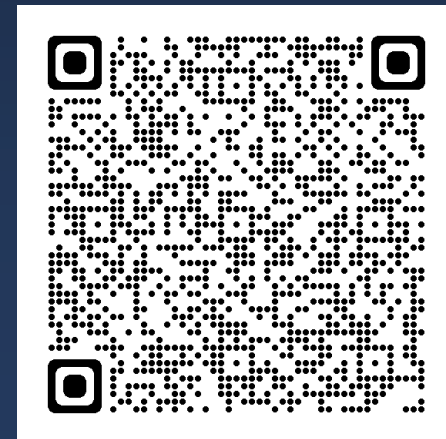
The first generative AI security product that empowers security and IT teams to protect at the speed and scale of AI



“Microsoft Copilot for Security acts as a sort of intense and ultra-fast security consultant, able to read through complex hash files and scripts to divine their true intent, and quickly recognize both known threats and things that act like existing threats. Microsoft claims that using such a service could help address the security personnel talent shortage.”

From: *Copilot for Security is not an oxymoron – it's a potential game-changer for security-starved businesses*

Story by: *Lance Ulanoff* - TechRadar



Why does it exist?



4,000

Password attacks per second



72 mins

Median time for an attacker to access your private data if you fall victim to a phishing email



3.5M

Global shortage of skilled cybersecurity professionals

The odds are **against**
today's **security**
analysts

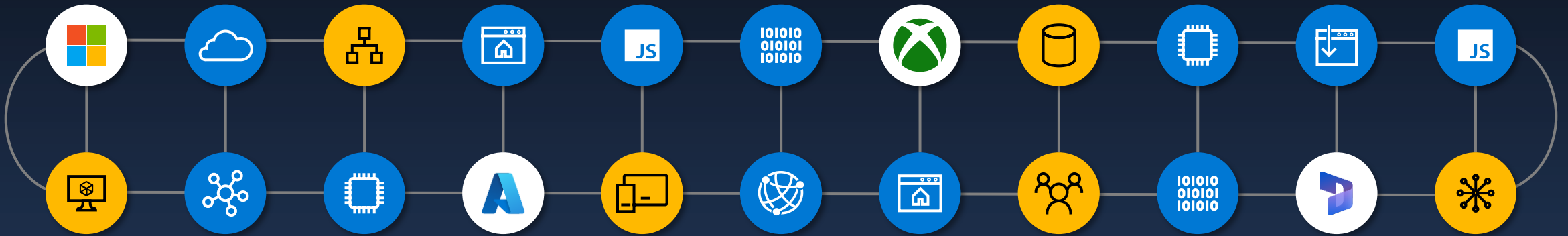
Get acquainted with Microsoft Copilot for Security

The top security challenges organizations face include:

- An **increase** in the number and sophistication of **attacks**.
- A **talent shortage** that is driving the need for automation, integration, and consolidation of security tools.
- **Limited visibility** into security, privacy, compliance, and governance.
- **Security posture management**. Copilot delivers information on anything that might expose an organization to a known threat. It then gives the analyst prescriptive guidance on how to protect against those potential vulnerabilities.
- **Incident response**. Copilot can quickly surface an incident. For a surfaced incident, Copilot can enrich it with context from other data sources, assess its scale and impact, and provide information on what the source might be. Copilot can then guide the analyst through the response and remediation steps with guided recommendations. Copilot provides a single pane of glass visibility by pulling in data from other sources like Defender XDR and Sentinel and then correlating and analyzing that data all together.
- **Security reporting**. Copilot can deliver customizable reports that are ready to share and easy to consume, allowing analysts to focus more on high value tasks pertinent for securing the organization.

Microsoft Threat Intelligence

The industry's largest vector coverage powered by 65T daily signals



One of the
world's largest
clouds

+

Signal from 1.4B
endpoints¹ across
the planet

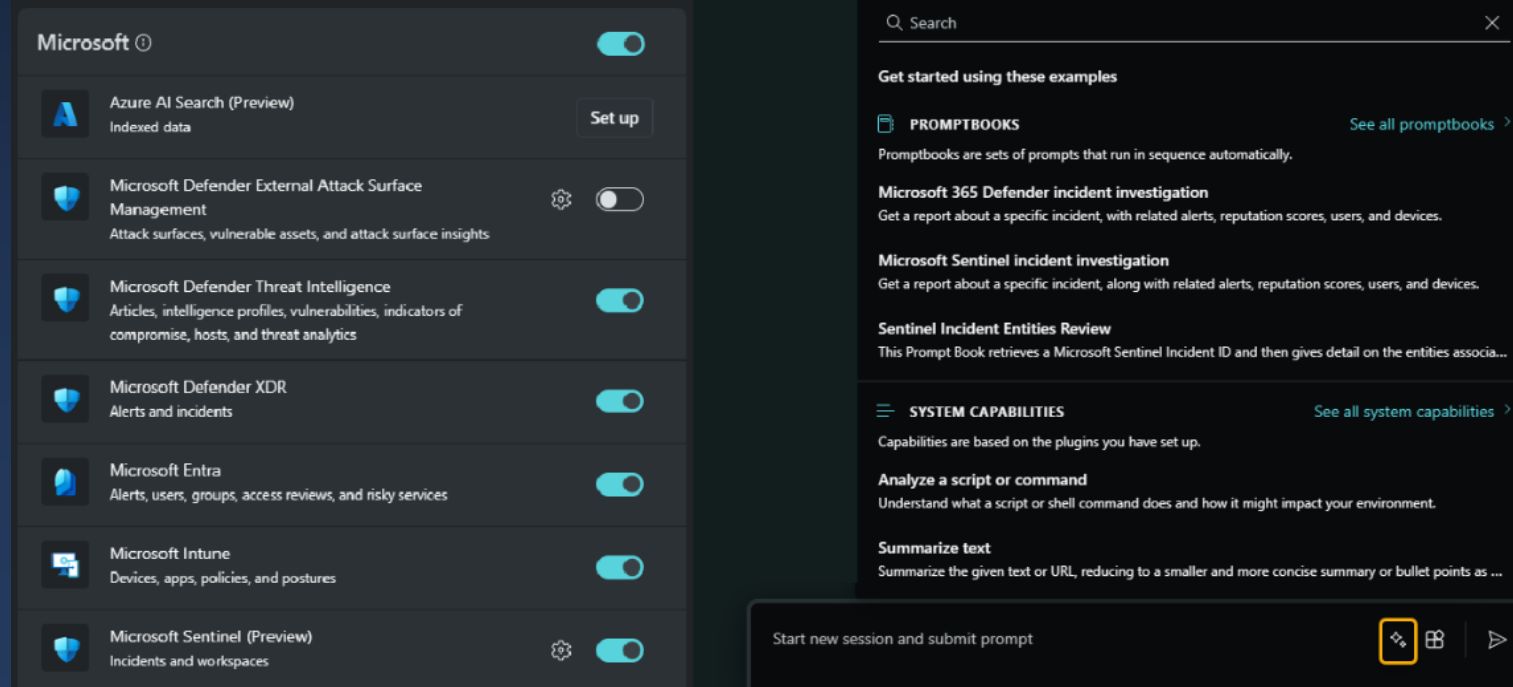
+

Graphing global
internet
infrastructure

1. "Microsoft by the Numbers". Microsoft Story Labs

Security Framework

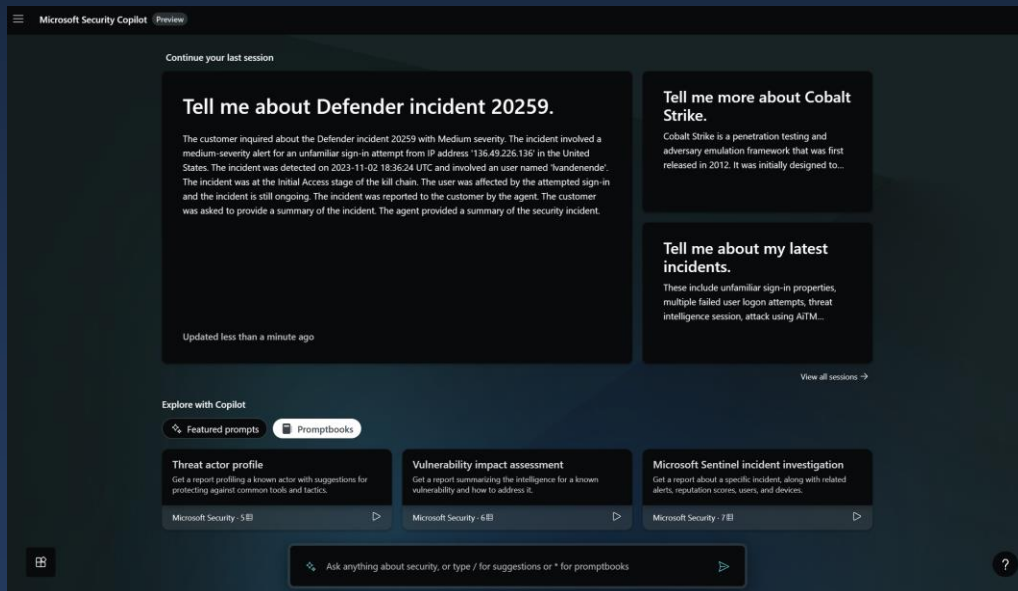
Microsoft Copilot for Security integrates with various sources, including Microsoft's own security products, non-Microsoft vendors, open-source intelligence feeds, and websites to generate guidance that's specific to your organization.



Experiences to meet you where and how you work

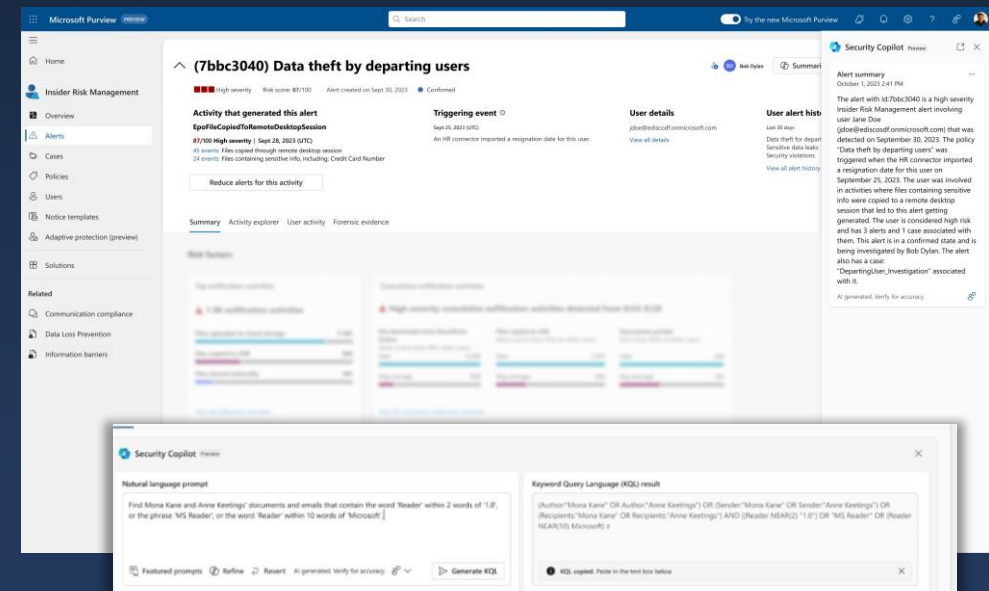
Standalone

Helps teams gain a **broader context** to troubleshoot and remediate incidents faster within Copilot for Security itself, with **all use cases in one place**, enabling **enriched cross-product guidance**.



Embedded

Offers the **intuitive experience** of getting Copilot for Security guidance **natively** within the products that your team members already work from and are familiar with.



Copilot for Security – What it is not

- Does not replace analysts
- Is not a replacement for existing tools
- Is not the only tool you need



Primary use cases



Incident summarization



Impact analysis



Reverse engineering of scripts



Guided response

Copilot for Security: Who is it for?

Threat Hunters

- Enables organizations to add/keep threat hunting
- Empowers security teams to perform proactive threat hunting
- Assists in building hunting theories

Security Experts

- Improves the speed and efficiency for security teams (analysts)
- Enhances the quality of responses
- Reduces resistance or skepticism
- Offers considerable time savings
- Alleviates tedious tasks
- Empowers senior staff to focus on strategic priorities
- Unbiased viewpoint

Security Novices

- Strengthens expertise of junior staff
- Through step-by-step guidance
- Quickly upskill on otherwise technically involved processes such as building KQL queries.
- Skills gap

Partners/Services

- Example: Defender Experts

Copilot makes security simple

Uses natural language

Augments existing workflows

Provides rapid intelligent
recommendations

Question 5

How many signals are collected and collated for use with Copilot for Security?

A. 23 million per day

B. 200 million per week

C. 65 trillion per day and growing

Question 6

What is the biggest value for using the Standalone experience for Copilot for Security?

A. Its easier on the eyes because it supports dark mode.

B. It allows organizations to connect and consolidate non-Microsoft applications and services.

C. It integrates directly with the Azure portal.

Question 7

What suggested roles are a good fit for using Copilot for Security?

A. Threat Hunters, Security Experts, Security Novices, Partners/Services.

B. Threat Hunters, Security Experts, Partners/Services.

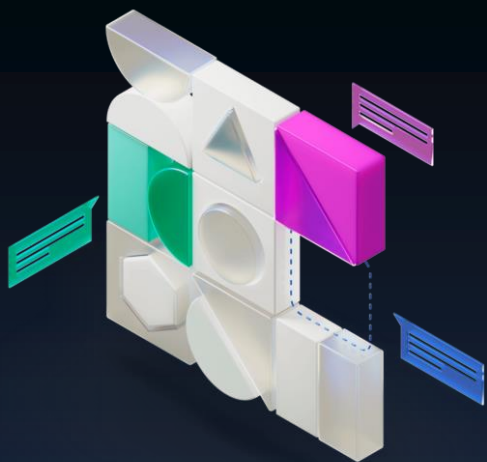
C. CTO, CISO, Analysts.

Prompting in Copilot for Security

Prompt Engineering in Copilot for Security

Companies using Microsoft Copilot for Security can benefit from prompt engineering for AI in various ways, such as:

- **Improving the efficiency and capabilities of security professionals.**
 - Prompt engineering can help security professionals leverage the power of Copilot for Security, an AI-powered security solution that provides tailored insights and guidance to defend at machine speed and scale.
- **Enhancing the interaction and collaboration between security professionals and Copilot for Security.**
 - Prompt engineering can help security professionals communicate with Copilot for Security in natural language, ask questions, receive actionable responses, and provide feedback or suggestions.
- **Expanding the functionalities and applications of Copilot for Security.**
 - Prompt engineering can help security professionals customize and optimize Copilot for Security for their specific needs and preferences and unleash their creativity and innovation.



Prompts

A natural language set of instructions that serves as an input for a generative AI tool

Show me the intel profile for <THREAT ACTOR> and create a bulleted list of associated indicators for this actor"



Analyze the following script
<INSERT SCRIPT>



Summarize Sentinel incident
<SENTINEL_INCIDENT_ID>



Why was <USERNAME>
prompted for MFA?



Show me the top 5 DLP alerts
I should prioritize today



Tell me about Defender
incident 20259



Describe the impact of this policy on users and
highlight setting conflicts with existing policy



Generate and run a KQL query within Microsoft
Sentinel to hunt for break-glass account usage



How can I improve my security posture?



Are any of my machines affected?



Summarize this incident in bullets.



Which alerts are being triggered the most?



What is log4shell?



Tell me about Defender incident 20259.

Tell me about Defender incident 20259.



> 3 steps completed 25s

Nov 2, 3:14 PM | 26.94s

Defender incident 20259 with Medium severity has a total of 1 alerts. 1 alerts were selected for summarizing the incident.

Some alerts from the incident include:

1. Severity: Medium Start time: 2023-11-02 18:36:24 Description: Unfamiliar sign-in properties relating to attempted sign-in, IP '136.49.226.136' impacting User 'lvandenende'

Here's a short summary of the incident:

The security incident occurred on 2023-11-02 18:36:24 UTC and involved a medium-severity alert. An unfamiliar sign-in attempt was detected, originating from IP address '136.49.226.136' in the United States, impacting user 'lvandenende'. The incident is at the Initial Access stage of the kill chain.

Sources

[Incident Page](#)



Looks right



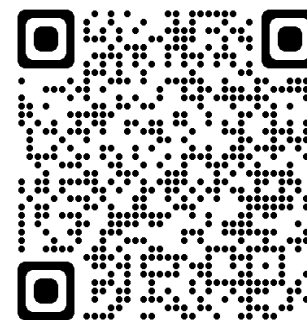
Needs improvement



Inappropriate



Prompt Library

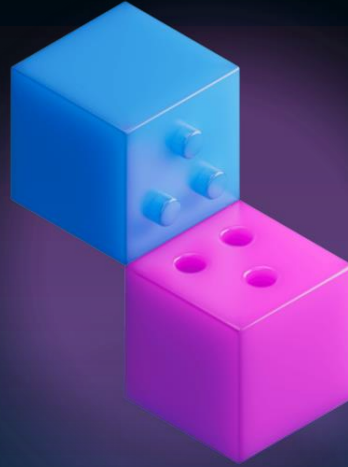




Skill

A predefined function Copilot uses to solve part of a problem

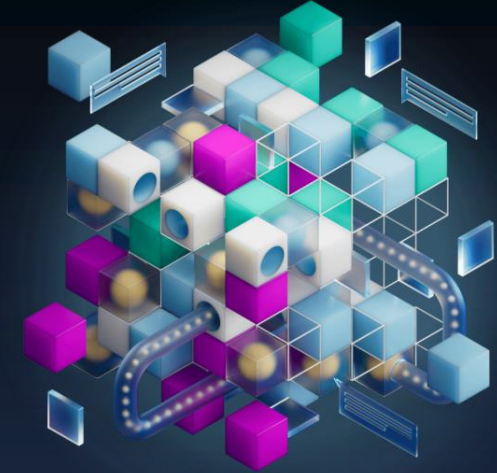
Leverage the expertise of security analysts in areas such as threat hunting, incident response and vulnerability management



Plugin

A collection of skills for a particular resource that provide AI capabilities and intelligent insights into existing apps or platforms

ServiceNow plugin available to automate initial triage efforts



Orchestrator

An AI architecture that evaluates a prompt, determines relevant plugins, retrieves data, ranks it for relevance, and adds grounding data to the prompt with guardrails to stay below token limits before presenting to the LLM to generate an informed response

The 'engine' that develops a plan, gathers context and determines which skills to use to give to the LLM to generate a response

How many candles go on a birthday cake for someone who is 10 years old?

✓ 2 steps completed 5 seconds

✗ Couldn't find a plugin for that 1 second

Couldn't match your prompt with any of the plugins you're using. Requesting a response instead from the GPT model in Azure OpenAI Service.

> ✓ Prepared your response 3 seconds

Mar 14, 3:24 PM | 8 seconds

Typically, a birthday cake for a 10-year-old would have 10 candles. Each candle represents one year of life. However, this can vary based on cultural practices or personal preferences.

☹️ How's this response?



💡 Ask anything about security, or type / for suggestions or * for promptbooks



AI-generated content can have mistakes. Make sure it's accurate before using it.

What's the best camping gear to take on a 3-day weekend where the forecast calls for rain?

✓ 2 steps completed 12 seconds

> ✗ Couldn't find a plugin for that 1 second

> ✓ Prepared your response 11 seconds

Mar 14, 3:39 PM | 13 seconds

While I'm primarily a security assistant and my expertise lies in providing security-related advice, I can share some general tips based on common knowledge. For a 3-day camping trip where rain is expected, you might want to consider the following gear:

1. **Waterproof Tent:** A tent with a rainfly is essential to keep you dry. Make sure it's rated for the conditions you expect to encounter.
2. **Sleeping Bag:** A synthetic sleeping bag is a good choice as it provides insulation even when wet, unlike down bags.
3. **Waterproof Clothing:** Pack a waterproof jacket and pants. Layering your clothes can help you adjust to changing temperatures.
4. **Waterproof Boots:** Wet feet can quickly ruin a camping trip. Waterproof boots are a must.
5. **Cooking Gear:** A camping stove is a good idea as it can be difficult to start a fire in the rain.
6. **Food and Water:** Pack enough for your trip plus a little extra in case you get stuck longer than expected.
7. **First Aid Kit:** Always a good idea, rain or shine.
8. **Waterproof Bag or Container:** To keep your gear dry.
9. **Headlamp or Flashlight:** Preferably waterproof.

Remember, this is just a general guide. You should adjust your gear based on the specific conditions and your personal needs. Always prioritize safety when camping.

☹️ How's this response?



💡 Ask anything about security, or type / for suggestions or * for promptbooks

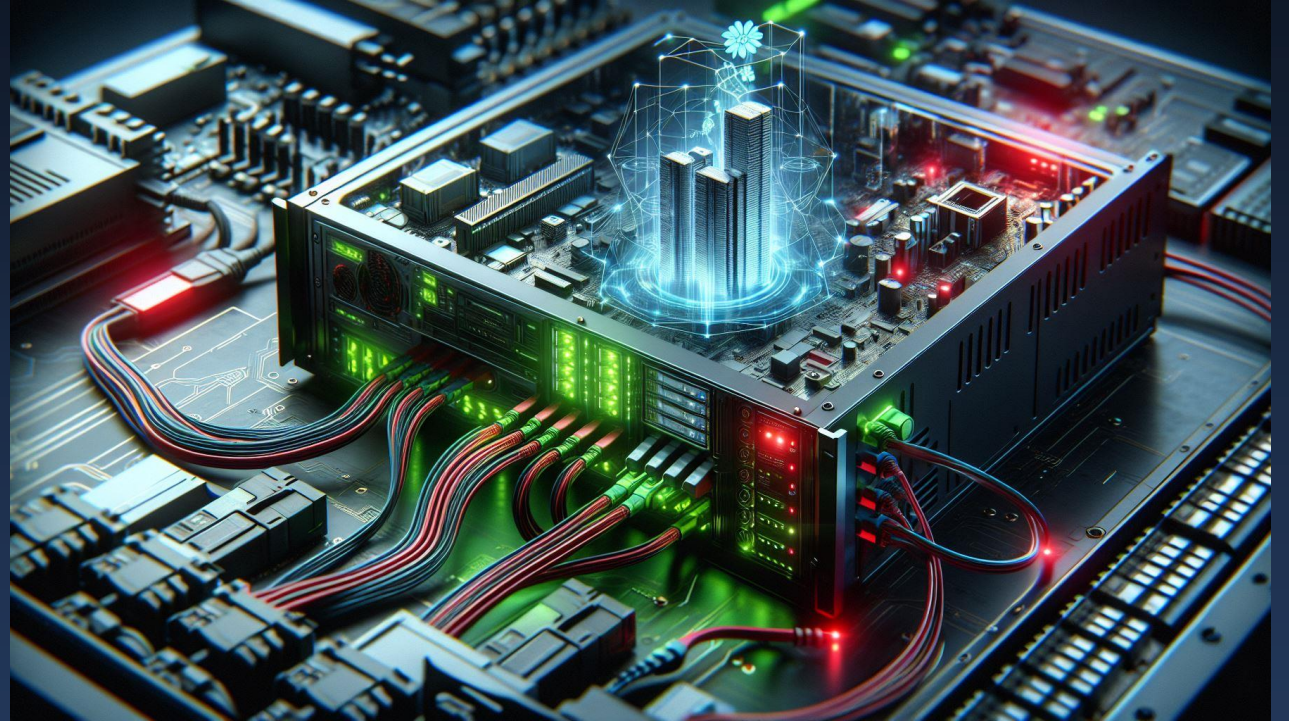


AI-generated content can have mistakes. Make sure it's accurate before using it.

SCU = Security Compute Unit

Customers will receive a monthly bill for the number of SCUs provisioned hourly to run Copilot for Security workloads (with a minimum of one hour).

The cost of a prompt in terms of SCUs (Security Compute Units) depends on various factors such as the model used, the length of the text, and the time taken for the model to generate the response.



The standard calculation for the monthly bill is:
 $(\text{SCUs/hour}) \times (\text{hourly SCU price}) \times (730\text{hour/month})$

Question 8

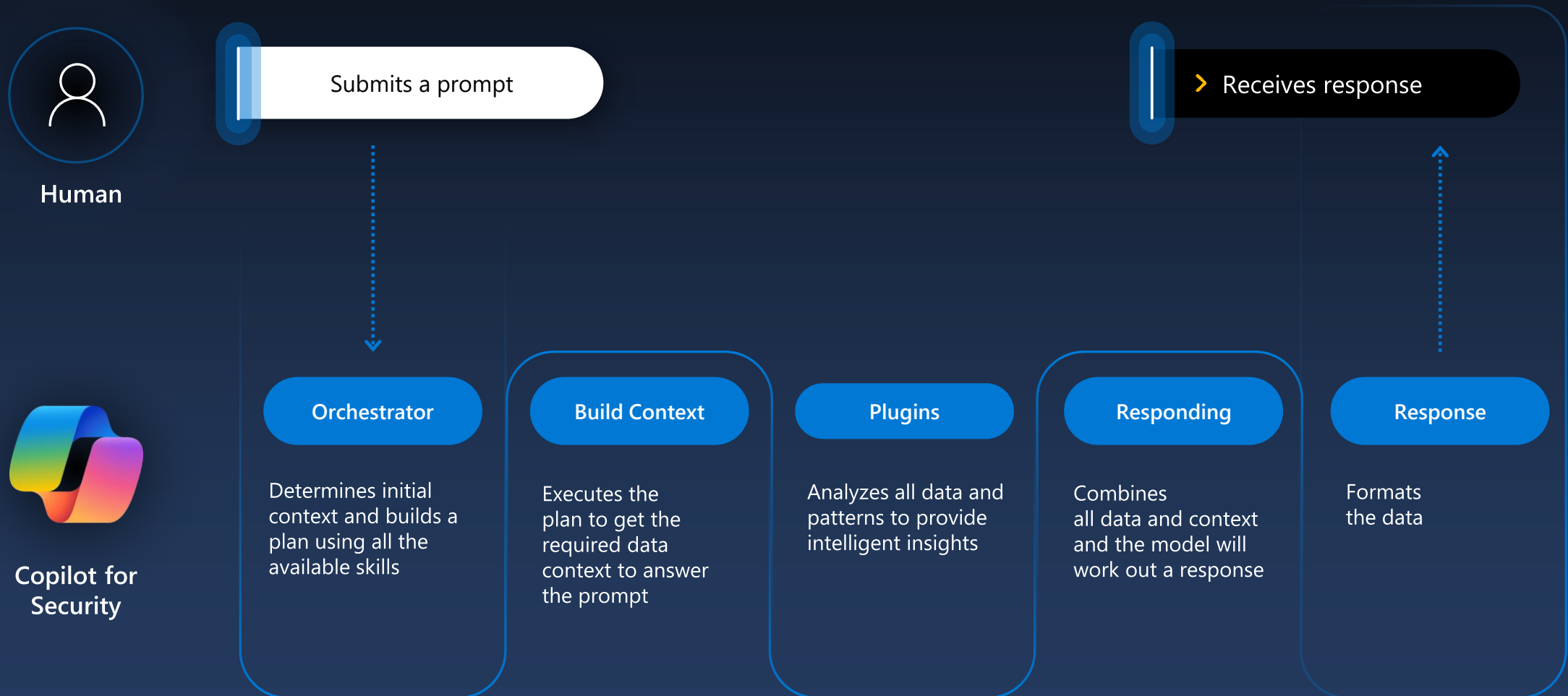
Can Copilot for Security do math calculations?

A. No. It's a Copilot that is hyper-focused on Security.

B. Yes. But every session counts against the provisioned SCUs.

How Microsoft Copilot for Security processes prompt requests

Operated with simple natural language queries



How Microsoft Copilot for Security processes prompt requests

- The process starts when a **user submits a prompt in the prompt bar**. Once the user submits their prompt, it's **sent to the Copilot backend referred to as the orchestrator**. The orchestrator is Copilot's system for composing capabilities (skills) together to answer a user's prompt.
- **Copilot bundles the user prompt and a full list of Copilot capabilities** for the enabled sources (plugins and knowledge bases) and then **sends it to Azure OpenAI** with the request to make a plan for fulfilling the user's request
- Azure OpenAI, **runs advanced LLMs to match the prompt with the available capabilities** (skills) and creates a plan (set of steps) for fulfilling the user's request. That plan is sent back to the orchestrator.
 - If no capability is matched, the response to the user's prompt is generated using the general knowledge LLM.
 - The **general knowledge LLM is good at general knowledge** and problem solving but **isn't uniquely focused on security** so there's a greater chance that the response provided isn't accurate. For this reason, it's beneficial to enable plugins and connect to knowledge bases to bring a collection of resource specific capabilities to Copilot.

How Microsoft Copilot for Security processes prompt requests

- Copilot's **orchestrator executes the plan** by running the code for the selected plugins/capabilities and calling the appropriate application programming interfaces (API) to gather information and to take action.
- The **first- and third-party integration partner apps gather information and execute actions** based on the API call and sends the response back to Copilot.
- The orchestrator receives the response from the API calls, but it's still not ready to be sent to the user. **Copilot iterates on the process to ensure the best response.** Before a final response can be sent to the user, the **orchestrator bundles that response with the original prompt**, and sends it back to Azure OpenAI.
- Azure OpenAI uses the power of its advanced LLM to **compose a response using language that makes sense to a human being.**

How Microsoft Copilot for Security processes prompt requests

- That **response is sent back to Copilot** for review by [Microsoft's responsible AI](#) models that look for anything malicious, hate speech, etc.
 - If everything looks good, then the response is sent to the user.
 - If something malicious or inappropriate is detected, then an error message is generated instead of sending the information to the user.
- The **user receives the response from the Copilot.**

Question 9

How does developing good prompts help Copilot for Security?

- A. It saves time when Copilot for Security doesn't have to verify responsible prompts.
- B. It shortens the time it takes for the responses to be returned.
- C. It ensures the responses are better security related and not generalized.

Effective Prompting in Copilot for Security

Elements of Effective Prompts

- **Goal:** Specific, security-related information needed
- **Expectations:** Format or target audience for the response
- **Source:** Known information, data sources, or plugins to use
- **Context:** Why the information is needed and how it will be used

Describe the elements of an effective prompt

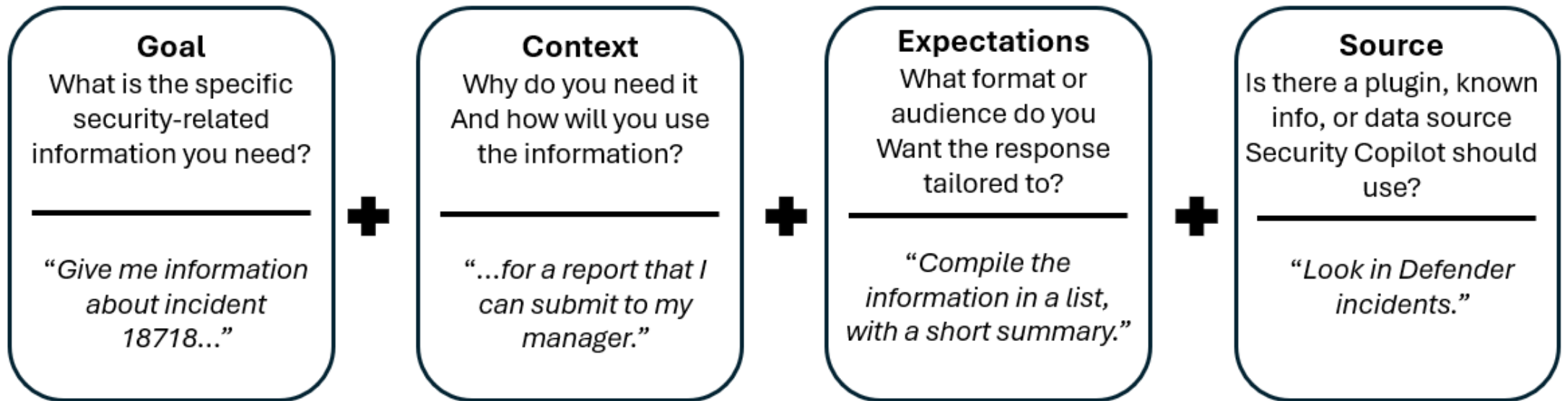
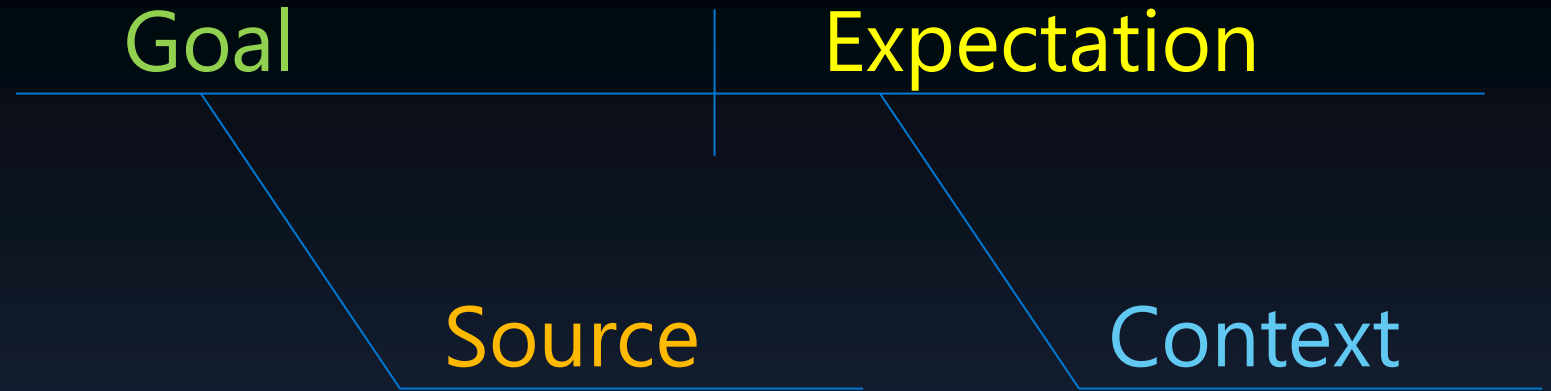


Diagram Format:

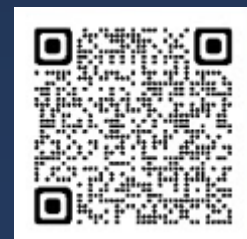
Components
of a prompt



Prompt: Look in Defender and tell me about the entities associated with Incident 18718 for a summarized report I can submit to my manager

Diagram example:

Identify the
components in the
prompt



Tell me about the entities in
Incident 18718

Summarization

Look in Defender

Report to send to
my manager

Tips

- **What is your Goal?**- Be specific, clear, and concise as much as you can about what you want to achieve.
- **Supply Context** - Why do you need this information or how will you use it? Provide necessary context to narrow down where Copilot looks for data.
- **Set Expectations** - What format or which target audience do you want the response tailored to? Give positive instructions instead of "what not to do. Copilot is geared toward action, so telling it what you want it to do for exceptions is more productive.
- **Provide a Source**- Supply any known information, data source(s), or plugins Copilot should be used.
- **Directly address** Copilot as "You", as in, "You should ..." or "You must as this is more effective than referring to it as a model or assistant.

Featured Prompts

- **Analyze a script or command** - Identifies script language, purpose, risks, and recommended actions
- **Summarize a security article** - Extracts main points, key takeaways, and implications for your organization
- **Generate a security query** - Converts natural language request into query language for specific data sources
- **Generate a security report** - Creates concise and informative report for specific audience using previous prompts and responses



Top 10

1

Analyze the following script <INSERT SCRIPT>

2

If a user is listed in the incident details, show which devices they recently used and indicate if they are compliant with policies.

3

Summarize Sentinel incident <SENTINEL_INCIDENT_ID>.

4

Show me the top 5 DLP alerts that I should prioritize today.

5

Show me the intel profile for <THREAT ACTOR> and create a bulleted list of associated indicators for this actor.

6

Can you summarize the IOC's related to this intel profile into a list and give me direct links for Microsoft Defender Threat Intelligence portal?

7

Describe the impact of this policy on users and highlight setting conflicts with existing policy.

8

Why was <USERNAME> prompted for MFA?

9

Generate and run a KQL query within Microsoft Sentinel to hunt for break-glass account usage.

10

Append comment To ServiceNow Incident.

What are the four elements of an effective prompt for Copilot for Security in order?

A. Goal, Expectations, Source, Context

B. Expectations, Goal, Source, Context

C. Source, Context, Expectations, Goal

Question 10

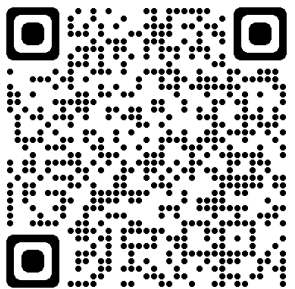
Question 11

Choose the best prompt:

A. Show the authentication methods setup for each user involved in that incident. Especially indicate whether they have MFA enabled.

B. Create a report for Incident 2818.

C. Translate Incident 2818 into Chinese.



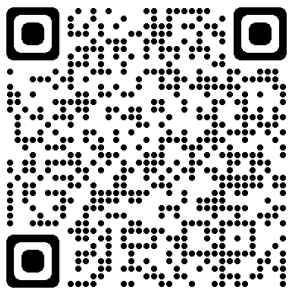
Question 12

Choose the best prompt:

A. Write an executive report.

B. Write an executive report summarizing this investigation. It should be suited for a non-technical audience.

C. Write a report in the first person.



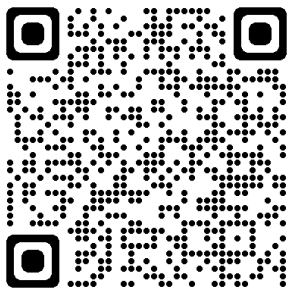
Question 13

Choose the best prompt:

A. What is "service-logins.com"?

B. Get the reputations for hostname "service-logins.com" and put it in a report to show my manager.

C. Get the reputations for hostname "service-logins.com"



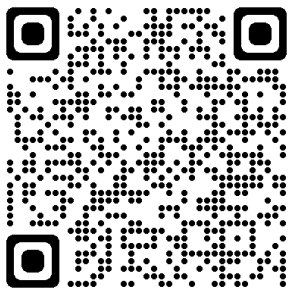
Question 14

Choose the best prompt:

A. Summarize recent threat intelligence.

B. Generate and run Defender Hunting Queries

C. Describe the impact of this policy on users and highlight setting conflicts with existing policy.



Building Prompts

Mad Libs Mania

MAD LIBS[®]

World's Greatest Word Game

5

*Mad Libs
for fun!*



A super silly way to fill in the _____!

PLURAL NOUN

MAD

PROMPTS



Fill in the blanks

Analyze a recent phishing email trend and suggest mitigation strategies.



phishing

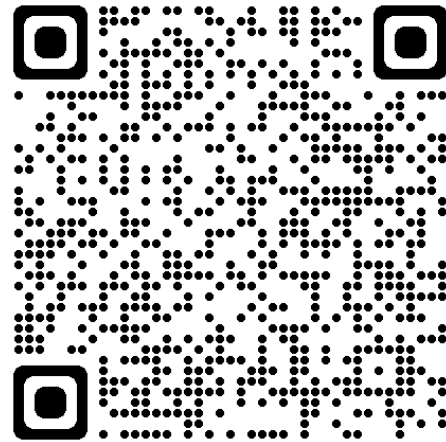
Lee Majors

cookie

monster

Godzilla

mitigation



Fill in the blanks



Show me the intel profile for Hazel Sandstorm.

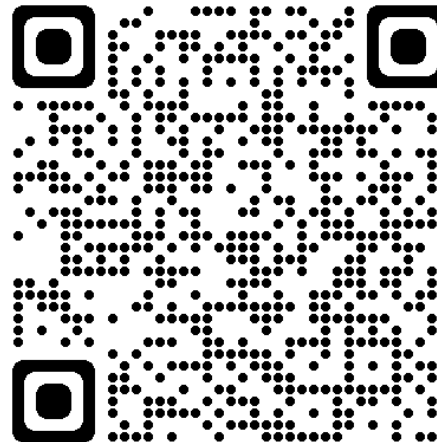
intel

Jaime Somers

Oscar the Grouch

Hazel

online



Take it further

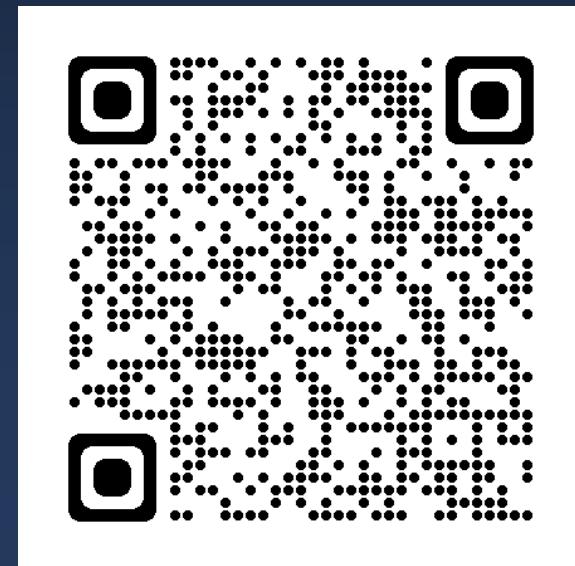
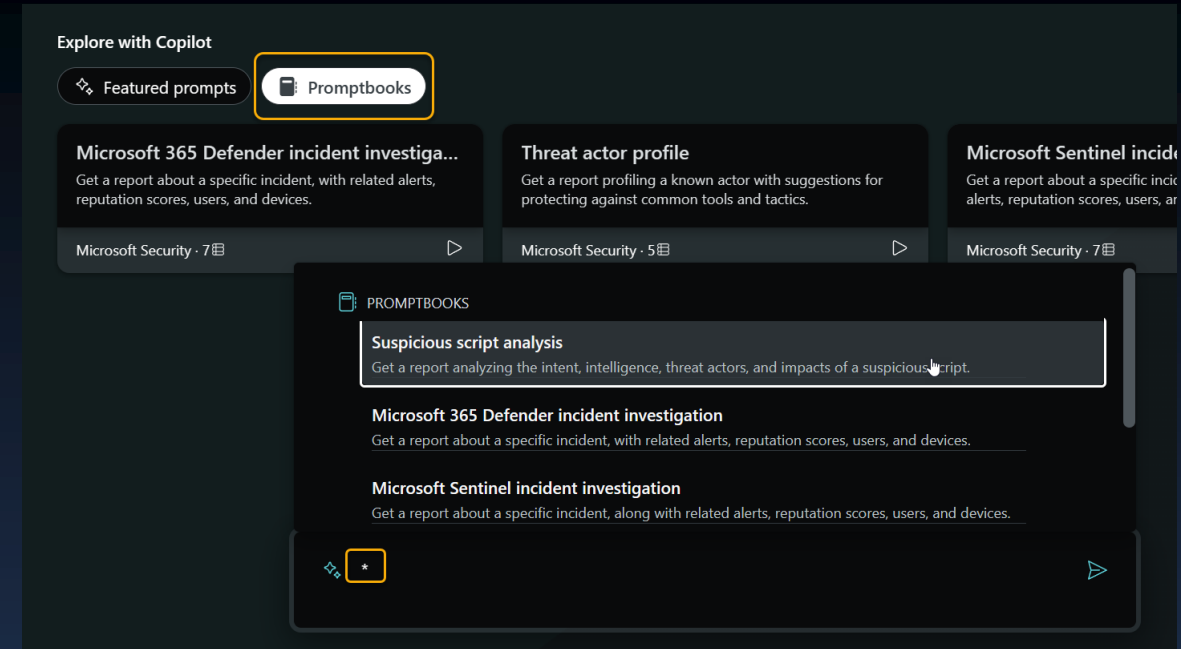
Promptbooks

- **Promptbooks: A Collection of Prompts**
 - Used for specific security-related tasks
 - Examples: incident investigation, threat actor profile, suspicious script analysis, vulnerability impact assessment
 - Existing prompt books can be used as templates or examples
 - Can be modified to suit your needs



Using Promptbooks

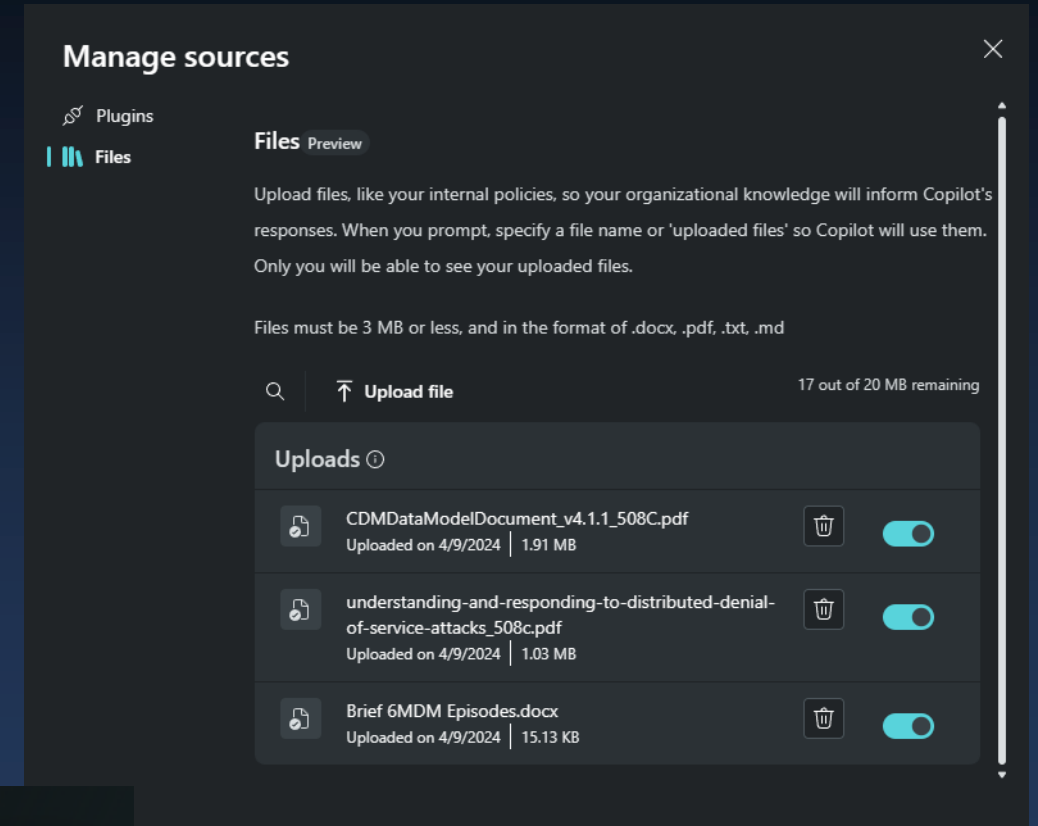
- **Incident Investigation**
 - Summarize incident, assess impact, provide remediation steps
- **Threat Actor Profile**
 - Get executive summary about specific threat actor
- **Suspicious Script Analysis**
 - Analyze and interpret command or script
- **Vulnerability Impact Assessment**
 - Assess impact of publicly disclosed vulnerability



Expanding Knowledge

Knowledge base (KB) connections, a feature of Microsoft Copilot for Security currently in preview, allows you to integrate your organization's knowledge base as another source of information.

- Azure AI Search plugin
- File upload



In the uploaded files, How Does Your Organization Know If It's Experiencing a DDoS Attack?

Question 15

A security analyst is tasked with automating investigation flows to streamline repetitive steps in Copilot. After selecting relevant prompts from an existing session, the analyst wants to create a promptbook. What should the analyst do next to accomplish this task?

- A. Select the 'Create promptbook' icon to open the page where they can name, tag, and further customize the promptbook.
- B. Select the 'Export prompts' button to download the selected prompts for manual execution.
- C. Choose the 'Save session' option to preserve the current state of the session for later use.

Conclusion

- **Precise and comprehensive prompts produce accurate, relevant responses**
 - Improves speed and efficiency of generative AI tasks
 - Mitigates biases and reduces output errors
 - No coding experience or deep knowledge required
- **Prompt engineering best practices can help security teams utilize the power of generative AI**
 - Improves workflow and focus on higher-level tasks
 - Minimizes tedious work
- **Learn more about Copilot for Security at <https://aka.ms/CopilotforSecurity>**



Stay Connected and Informed

Community is everything!

