

Lab: Generative AI Tools in Action

Estimated time: 30 minutes

Learning objectives

After completing this lab, you will be able to:

- Leverage common generative AI tools that can help you with your daily tasks
- Explore Google Gemini, OpenAI ChatGPT, and Microsoft Copilot for different use cases in daily tasks

Welcome to the lab on Generative AI Tools in Action!

Introduction

Generative AI models can generate new content based on contextual understanding and mimic human creative skills. They are trained on massive data sets of text, code, images, or audio and then use that information to produce new outputs.

Generative AI models are used in different applications and tools to enable users to leverage generative AI's potential. Some common generative AI tools are:

- Gemini from Google
- ChatGPT from OpenAI
- Copilot from Microsoft

These tools can be useful for a number of tasks in daily life, including creative writing (writing stories and poems), travel planning, cooking, learning new concepts, skills, or languages, getting advice on physical fitness and mental health, writing emails, and summarizing text.

In this lab, you'll work on exercises that demonstrate some of these uses of the generative AI tools.

The generative AI tools take a prompt as input and then process it to generate new content as output.

Note: The prompts given in this lab are for samples only. You can write prompts based on your requirements to generate responses. However, you may get a different response even if you use prompts from this lab.

Exercise 1: Exploring Google Gemini

In this exercise, you'll leverage Google's AI-powered assistant, Gemini. It understands text, audio, video, and images. You can type your prompt or use the microphone icon to speak.

Scenario 1: Learning a new game

A generative AI tool like Gemini can be your personal coach when you want to learn a new skill or game. It can explain a game's mechanics, suggest learning resources, answer your questions in a clear way, and even analyze your gameplay for improvement.

Scenario: Sarah wants to learn to play chess. She doesn't know the rules or where to begin. Let's see how Sarah can use Google Gemini for this.

Think of a context and draft a statement or prompt for the desired text content you want from the tool. For better results, include specifics and details about the context of the required output.

1. Open the link [Gemini](#) in your Windows browser to sign in or log in to Google's Gemini.

Note: If you cannot access Gemini by clicking on the link, copy the following URL and paste it into a browser.

<https://gemini.google.com/?hl=en>

Note: If you are a first-time user, set up Google's Gemini account to Sign up using the steps given here [Getting Started with Google's Gemini](#)

2. Write a clear and descriptive prompt in the **Enter a prompt here** field. For example, enter the below prompt.

I want to learn how to play chess, but I'm a complete beginner. Can you help me get started?

Gemini ▾

2.0 Flash

Hello, lavanya

+ I want to learn how to play chess, but I'm a complete beginner. Can you help me get started with proper explanation with images.

3. Click the **Submit** icon to generate a response.

Gemini ▾

2.0 Flash

Hello, lavanya

+ I want to learn how to play chess, but I'm a complete beginner. Can you help me get started with proper explanation with images?

The response generated by the tool at our end is shown.

Gemini ▾

2.0 Flash

Chess is a game of strategy and tactics played on a checkered board with 32 pieces. Here's a beginner's guide to get you started:

1. Setting Up the Board

- **The Board:** The chessboard has 64 squares arranged in an 8x8 grid.
- **Colors:** The squares alternate between light (usually white) and dark (usually black).
- **Placement:**
 - Always place the board so that a white square is in the bottom right corner.
 - Arrange the pieces as shown below:



chess board setup

Output from Gemini

Let's Learn Chess Together!

Chess is a game of strategy and tactics played on a checkered board with 32 pieces. Here's a beginner's guide to get you started:

1. Setting Up the Board

- **The Board:** The chessboard has 64 squares arranged in an 8x8 grid.
- **Colors:** The squares alternate between light (usually white) and dark (usually black).
- **Placement:**
 - o Always place the board so that a white square is in the bottom right corner.
 - o Arrange the pieces as shown below:



Chess board setup

2. The Pieces and How They Move

- **King (K):** Moves one square in any direction.
- **Queen (Q):** Moves any number of squares diagonally, horizontally, or vertically.
- **Rook (R):** Moves any number of squares horizontally or vertically.
- **Bishop (B):** Moves any number of squares diagonally.
- **Knight (N):** Moves in an "L" shape: two squares in one direction and one square perpendicular to that. It's the only piece that can "jump" over other pieces.
- **Pawn (P):** Moves one square forward on its first move or two squares forward on its first move. It captures diagonally one square forward.

3. Gameplay

- **Turns:** Players take turns moving one piece at a time.
- **Capturing:** To capture an opponent's piece, move your piece onto the square occupied by their piece.
- **Check:** When your king is under attack by an opponent's piece, it's called "check." You must get out of check by:

- o Moving your king to a safe square.
- o Blocking the check with one of your pieces.
- o Capturing the attacking piece.
- **Checkmate:** If your king is in check and there's no way to escape check, you've been checkmated and lose the game.

4. Special Moves

- **Castling:** A special move that involves moving your king two squares towards a rook and then moving the rook to the square the king passed over.
- **En Passant:** A special pawn capture that can only be made immediately after an opponent's pawn moves two squares forward from its starting position.

Tips for Beginners

- **Control the Center:** Try to control the central squares of the board early in the game.
- **Develop Your Pieces:** Move your pieces out of their starting positions and into more active positions.
- **Protect Your King:** Keep your king safe by castling early in the game.
- **Practice and Play:** The best way to learn chess is to play!

Let me know if you'd like to learn about specific openings, strategies, or want to play a practice game against me (virtually, of course!). I hope this helps you get started on your chess journey!

Note: The response generated by the tool at our end is shown. Note that the response includes basic information about the game and comprehensive instructions for beginners, covering piece movement, board setup, gameplay rules, special moves, and basic strategy.

Scenario 2: Writing a blog post about the revival of board games

Google Gemini can help you with creative writing tasks. You can craft captivating poems, generate witty dialogues for your screenplay, or brainstorm the structure and content of a blog post—all while collaborating with Gemini.

Scenario: Sarah wants to write a blog post about the revival of board games, targeting readers from different generations.

To start with, think of a context and draft a statement or prompt to seek the relevant output from the tool.

1. Write a clear and descriptive prompt in the **Enter a prompt here** field. For example, enter the below prompt.

Develop a blog post outline on "The Board Game Boom" with content sections tailored to specific age groups.

Gemini ▾

2.0 Flash

Hello, lavanya

+ Develop a blog post outline on "The Board Game Boom" with content sections tailored to specific age groups. |

2. Click the **Submit** icon to generate a response.

The response generated at our end is shown here. You can ask the tool further questions to get more detailed information about a specific section or topic of the blog.

Output from Gemini

Blog Post Outline: The Board Game Boom

I. Introduction (All Ages)

- Hook: Start with a fun anecdote about playing board games (e.g., childhood memory, recent game night).
- Thesis Statement: Briefly introduce the concept of the board game boom and its increasing popularity.

II. Reasons Behind the Boom (All Ages)

- **A. Escape from Screens:**

Discuss the appeal of board games as an alternative to screen-based entertainment (especially for younger audiences).

- **B. Social Connection:**

Highlight how board games foster face-to-face interaction and build social bonds.

- **C. Family Fun:**

Emphasize the multigenerational appeal of board games and their ability to bring families together.

- **D. Strategic Challenge:**

Mention the intellectual stimulation and problem-solving skills honed through board games. (Tailor the examples to different age groups)

- Younger audiences: Simple strategy games like matching or memory.

- Older audiences: More complex strategy games involving resource management or negotiation.

III. Board Game Boom for Different Age Groups (Tailored Content)

- **A. Kids & Teens (Ages 5-18):**

- Popular game categories (e.g., cooperative games, dexterity games, party games)

- Benefits of board games for this age group (e.g., learning problem-solving, developing social skills).

- Examples of age-appropriate games with brief descriptions.

- **B. Adults (Ages 18+):**

- Current trends in the board game industry (e.g., crowdfunding, thematic games, solo play options).

- Benefits of board games for adults (e.g., stress relief, fostering relationships).

- Examples of popular adult board games with brief descriptions.

- **C. Seniors (Ages 55+):**

- Classic board games experiencing a resurgence (e.g., Scrabble, Monopoly)

- Benefits of board games for seniors (e.g., maintaining cognitive function, staying socially connected).

- Examples of brain-teasing games or classic favorites with brief descriptions.

IV. Where to Find Board Games (All Ages)

- Local game stores
- Online retailers
- Board game cafes

V. Conclusion (All Ages)

- Briefly reiterate the appeal of board games and their role in bringing people together.
- Encourage readers to explore the world of board games and find their next favorite.
- Optional: Call to action (e.g., share your favorite board game in the comments).

Bonus Section (All Ages)

- Board game recommendations based on specific interests (e.g., strategy, storytelling, cooperative play).

Note:

This outline provides a framework. Feel free to adjust the content and length of each section based on your target audience and blog platform.

3. Let's write a prompt to ask about the list of board games for different age groups.

Can you provide a table or list that recommends specific board games for different age groups.

Gemini ▾

2.0 Flash

Hello, lavanya

+ Can you provide a table or list that recommends specific board games for different age groups.

4. Click the **Submit** icon. Here is the response generated at our end..

Output from Gemini

It's great you're looking into board games! They're fantastic for development and family fun. Here's a breakdown, keeping in mind that these are general guidelines:

Board Game Recommendations by Age Group:

2-4 Years (Toddlers):

- **Focus:**
 - Color and shape recognition
 - Simple matching
 - Hand-eye coordination
 - Turn-taking
- **Game Examples:**
 - First Orchard (HABA)
 - Candyland
 - Chutes and Ladders
 - Peaceable Kingdom cooperative games (e.g., Hoot Owl Hoot!)

4-6 Years (Preschoolers):

- **Focus:**
 - Basic counting
 - Simple strategy
 - Imagination
 - Social skills
- **Game Examples:**
 - Hi Ho! Cherry-O
 - The Sneaky Snacky Squirrel Game
 - Richard Scarry's Busytown, Eye Found It!
 - Uno Junior

6-8 Years (Early Elementary):

- **Focus:**
 - Basic strategy
 - Reading skills (simple)
 - Problem-solving
 - Teamwork
- **Game Examples:**
 - Connect 4
 - Ludo
 - Dobble (Spot it!)
 - Ticket to Ride: First Journey

8-12 Years (Late Elementary/Middle School):

- **Focus:**
 - More complex strategy
 - Critical thinking
 - Planning
 - Decision-making
- **Game Examples:**
 - Ticket to Ride
 - Catan Junior
 - Sequence
 - Battleship

12+ Years (Teens and Adults):

- **Focus:**
 - Advanced strategy
 - Complex problem-solving
 - In-depth themes
 - Social deduction
- **Game Examples:**
 - Catan
 - Pandemic
 - Codenames
 - Wingspan

Key Considerations:

- **Individual Differences:** Children develop at their own pace.
- **Family Games:** Many games can be enjoyed by a mix of ages.
- **Learning Through Play:** Board games offer valuable educational benefits.

I hope this helps you find the perfect games for your family!

Try Yourself!

You can continue this conversation with the tool to generate relevant ideas or content about the blog, such as:

- Are there any educational apps or online resources that share the learning benefits of playing board games?
- Can you craft a catchy introduction for the blog post that attracts the reader's interest in the revival of board games?

Exercise 2: Experimenting with ChatGPT

ChatGPT can generate human-like text and engage in human-like conversation, making it a versatile tool for a wide range of applications. It can help you brainstorm ideas, generate creative content, and summarize content. You can converse with ChatGPT to seek advice on various aspects, including managing your finances, planning a trip, or setting your health and wellness goals.

Logging in to ChatGPT

You can access OpenAI's ChatGPT interface by navigating to the link <https://chatgpt.com/> in your browser window and logging in to ChatGPT.

Note: If you cannot access ChatGPT by clicking on the link, copy the following URL and paste it into a browser.

<https://chat.openai.com/>

Note: If you are a first-time user, set up OpenAI's ChatGPT account to Sign up using the steps given here [Getting started to OpenAI's ChatGPT](#).

Scenario 1: Summarizing text

Summarization is required to extract meaningful and crisp information from long textual components. Writing a summary of long paragraphs or documents can be time-consuming. However, a generative AI tool like ChatGPT can simplify summarization.

Scenario: Alex wants to summarize the following blog from [IBM blog post](#).

Think of a context and draft a statement or prompt for the desired content you want from the tool.

1. Write a clear and descriptive prompt in the **Enter a prompt here** field. For example, enter the below prompt.

Summarize the article on 'AI this Earth Day: Top opportunities to advance sustainability initiatives' based on the [IBM blog post] (<https://www.ibm.com/blogs/ibm-government-solutions/2023/04/this-earth-day-top-opportunities-to-advance-sustainability-initiatives/>)

ChatGPT ▾



Explain
superconductors

Summarize the art
initiatives' based o

into a small parag

-
2. Click the **Send** icon or press the Enter key to generate a response.

ChatGPT ▾



Explain
superconductors

Summarize the art
initiatives' based o



into a small parag

The response generated at our end is shown here.

ChatGPT ▾

Summarize the article on AI this Earth Day.

advance sustainability initiatives' based on t
(<https://www.ibm.com/blog/ai-earth>
paragraph.



Searched 1 site

IBM highlights the role of AI in advancing sustainability initiatives this E technologies can enhance sustainability strategy, energy transition, and Key applications include improving data reporting for sustainability goa with AI and IoT, and leveraging intelligent asset management to reduce Examples include IBM's own use of AI to track energy consumption and management and Denmark's smart grid optimization. AI-driven innovat achieving global sustainability targets.



Read more on IBM's blog [here](#).

Scenario 2: Conversing with ChatGPT to plan a weekend trip

Let's demonstrate ChatGPT's conversational capabilities through a practical, everyday scenario. ChatGPT can assist in numerous ways, including planning a trip, by providing detailed, interactive guidance.

Scenario: Alex has been assigned to a three-month on-site project in Delhi. This weekend, he is planning a short trip to a nearby destination in the Delhi area.

Think of a context and draft a statement or prompt for the desired content you want from the tool.

1. Write a clear and descriptive prompt in the **Enter a prompt here** field.

I need help planning a weekend getaway. Any suggestions for places to visit within a 3-hour drive from Delhi?

ChatGPT ▾



Pick outfit to look
good on camera

I need help plannin



drive from Delhi?

2. Click the **Send** icon or press the Enter key to generate a response.

The response generated at our end is shown here.

Output from ChatGPT

Sure, here are a few great options for a weekend getaway within a 3-hour drive from Delhi:

1. **Neemrana:** Known for its historical Neemrana Fort Palace, it offers a blend of history and luxury with beautiful views.
 2. **Jaipur:** The Pink City, famous for its forts (like Amber Fort and Jaigarh Fort), palaces (City Palace), and vibrant markets (like Johari Bazaar).
 3. **Agra:** Home to the iconic Taj Mahal, Agra Fort, and Fatehpur Sikri, offering a deep dive into Mughal architecture and history.
 4. **Sariska National Park:** A great spot for wildlife enthusiasts, with a chance to spot tigers, leopards, and various bird species.
 5. **Mathura-Vrindavan:** Known for its religious significance in Hinduism, with temples, ghats, and a rich cultural heritage.
 6. **Rishikesh:** Perfect for adventure seekers with activities like river rafting, bungee jumping, and yoga retreats amidst the serene Ganges River.
 7. **Jim Corbett National Park:** Ideal for nature lovers and wildlife enthusiasts, offering a chance to see tigers, elephants, and diverse flora and fauna.
- Depending on your interests—whether historical, cultural, adventurous, or nature-oriented—these places offer a variety of experiences to enjoy over a weekend.

3. Enter a prompt to ask further questions to explore the place you want to visit. Let's ask about the recommendations regarding a hotel or a place to stay.

Jim Corbett National Park sounds amazing. Any recommendations for a hotel or a place to stay there?

ChatGPT ▾

6. **Rishikesh:** Per

yoga retreats and

7. **Jim Corbett National Park:** To see tigers, elephants,

Depending on your budget, these places offer a variety of options.



Jim Corbett National Park



stay there?

4. Click the **Send** icon or press the Enter key to generate a response. Here is a sample response generated.

Output from ChatGPT

Jim Corbett National Park has several options for accommodation ranging from luxury resorts to budget-friendly lodges. Here are a few recommendations across different price ranges:

1. **Luxury Resorts:**

- o **The Taj Corbett Resort & Spa:** Known for its luxurious amenities and beautiful location near the park.
- o **Aahana - The Corbett Wilderness:** Offers eco-friendly luxury with spacious rooms and great hospitality.

2. **Mid-Range Options:**

- o **Corbett Woods Resort:** Provides comfortable rooms with a rustic charm and proximity to nature.
- o **Corbett The Baagh Spa & Resort:** Known for its serene ambiance and excellent service.

3. **Budget-Friendly Lodges:**

- o **Corbett Jungle Club Resort:** Offers budget accommodation with basic amenities and proximity to the park.
- o **Solluna Resort:** Provides a blend of affordability and comfort with decent facilities.

When booking, consider the location (preferably near the park's entry gates for convenience), amenities offered (like safari arrangements, dining options, and recreational activities), and reviews to ensure a pleasant stay aligned with your preferences.

5. Continue the conversation to plan for the trip. Let's ask about the itinerary for a two-day trip.

That sounds perfect. Could you help me with an itinerary for a two-day trip?

ChatGPT ▾

3. Budget-Friendly Options

- Corbett Junction Inn: Located near the junction of I-80 and I-70, offering proximity to major attractions.
- Solluna Ranch: A rustic inn located in a scenic mountain setting, providing a unique vacation experience.

When booking, consider the amenities offered (e.g., swimming pool, spa, etc.) to ensure a pleasant stay.





That sounds perfect!

6. Click the **Send** icon and generate the response. This is a response generated at our end.

Output from ChatGPT

Certainly! Here's a suggested itinerary for a two-day trip to Jim Corbett National Park:

Day 1: Arrival and Safari

Morning:

- Depart from Delhi early in the morning to reach Jim Corbett National Park by mid-morning.
- Check-in at your chosen accommodation and freshen up.

Afternoon:

- Enjoy a delicious lunch at the resort.
- Take some time to relax and explore the resort's amenities.

Evening:

- In the late afternoon, head out for a wildlife safari (Jeep safari or Canter safari) in the designated zone of the national park.
- Explore the diverse flora and fauna, with chances to spot tigers, elephants, deer, and various bird species.
- Return to the resort after the safari.

Night:

- Dinner at the resort.
- Relax and unwind, perhaps with a bonfire or cultural evening organized by the resort.

Day 2: Explore and Departure

Morning:

- Early morning safari (optional, but recommended for better chances of wildlife sightings).
- Return to the resort for a hearty breakfast.

Late Morning/Early Afternoon:

- Depending on your preference, you can either relax at the resort, indulge in spa treatments (if available), or explore nearby attractions like Garjiya Devi Temple or Corbett Museum.

Afternoon:

- Check out from the resort after lunch.
- Depart for Delhi, enjoying the scenic drive back.

This itinerary allows you to experience the best of Jim Corbett National Park's wildlife, natural beauty, and relaxation within a short two-day trip. Adjustments can be made based on your interests and the specific activities available during your visit.

Try Yourself!

You can continue this conversation by asking further questions about the place you want to visit, such as:

- What is the most convenient commuting mode to reach this place?
- Are there any local dishes that I should try during my stay?
- What are some essential travel tips or things to keep in mind while visiting this place?

Exercise 3: Experimenting with Microsoft Copilot

Copilot is a versatile AI companion that can assist with various tasks for both text and image creation. Copilot can be useful for writing, summarization, and translations. It can also create visual content, such as illustrations, logos, or concept art.

Scenario: Creating the plot for a fictitious story

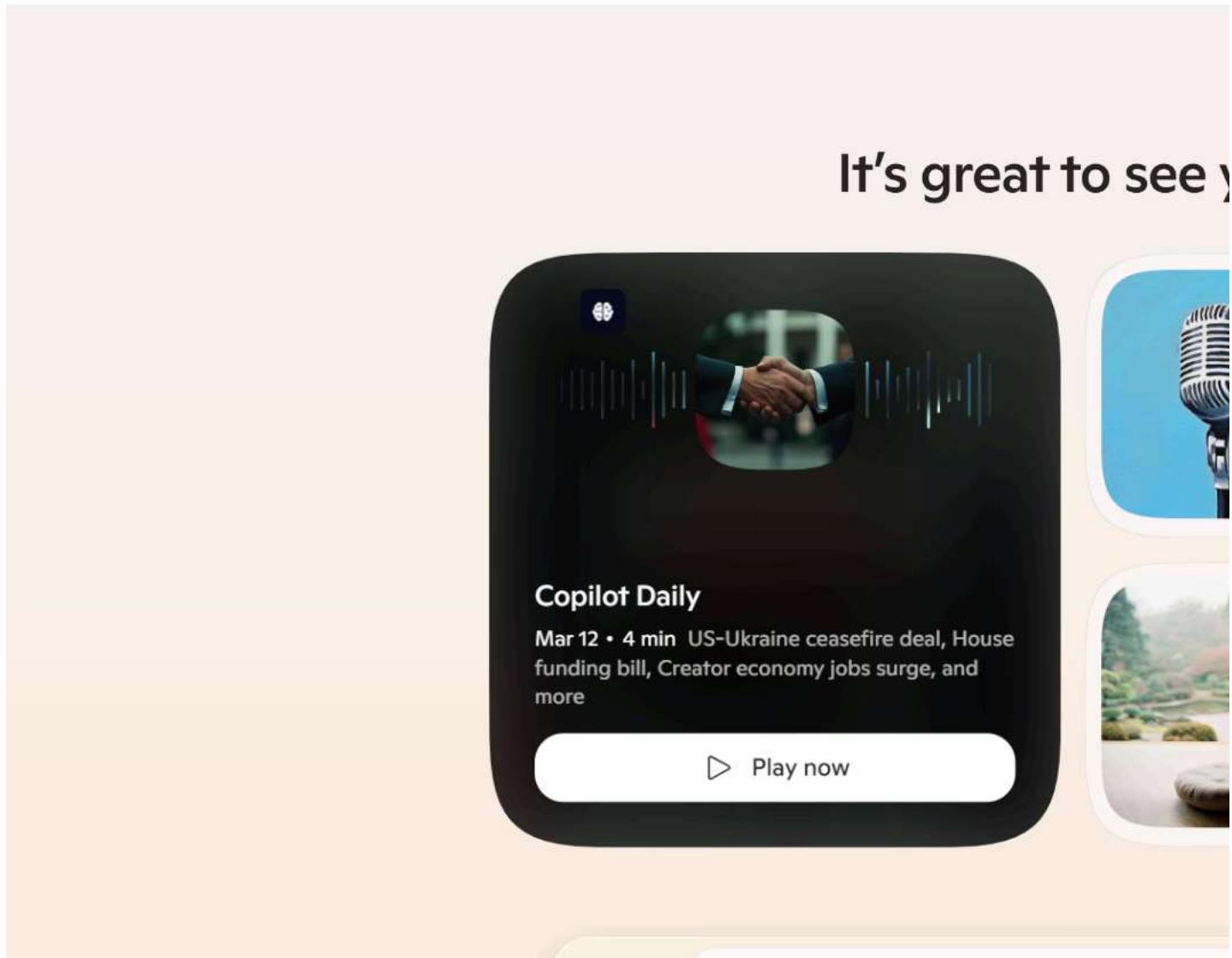
Scenario: Jane wants to write a fictitious story about the friendship between a young boy and a robot.

To start with, think of a context and draft a statement or prompt to seek the relevant output from the tool.

1. Open a link to [Copilot \(microsoft.com\)](https://copilot.microsoft.com) in your browser and select **Sign in** or **Log In** at the top-right corner of the screen.

Note: If you cannot access Microsoft Copilot by clicking on the link, copy the following URL and paste it into a browser.

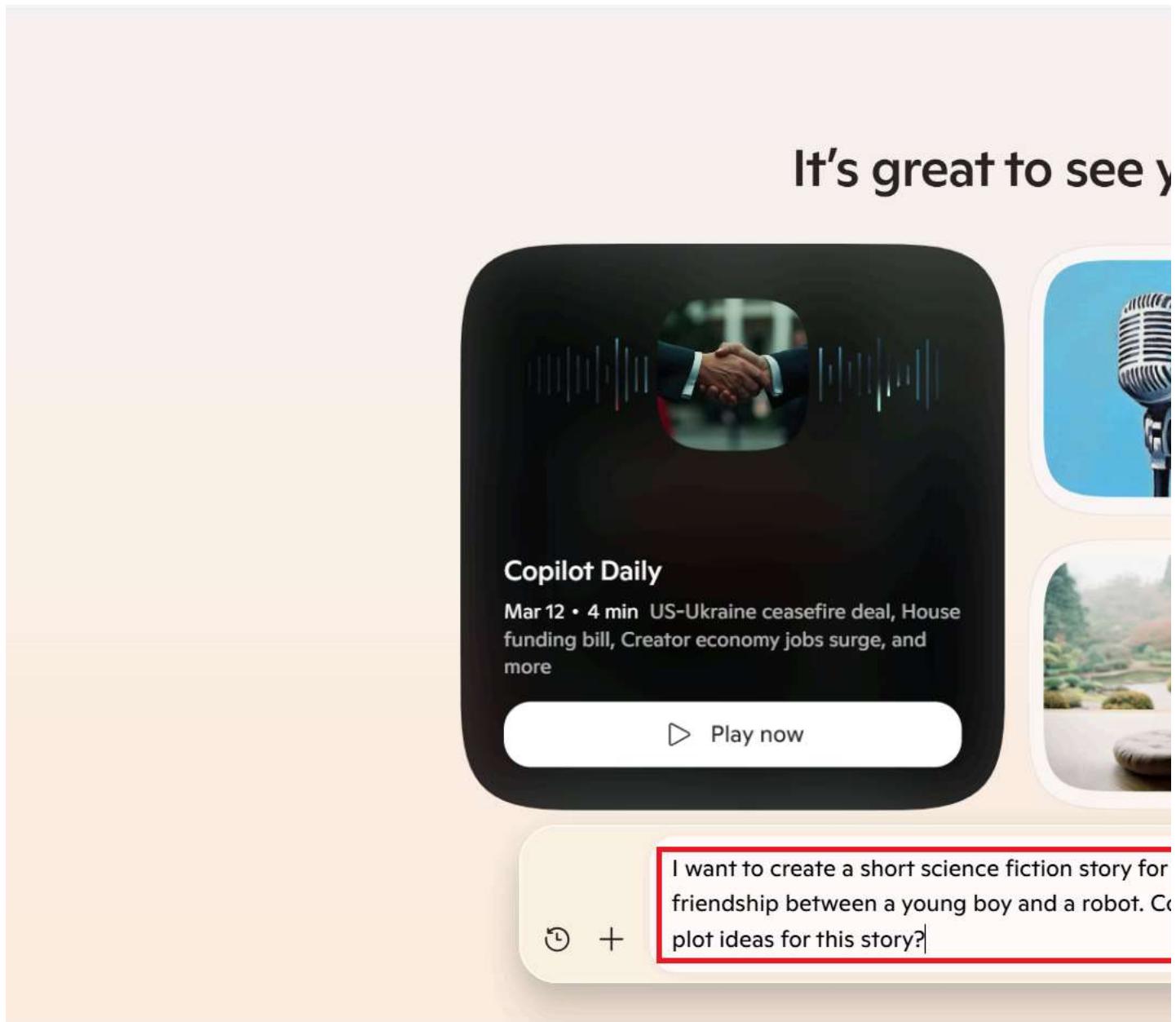
<https://copilot.microsoft.com/>



Note: If you are a first-time user, set up Microsoft's Copilot account to Sign up using the steps given here [Getting Started with Microsoft's Copilot](#).

2. To start with, let's think of a context and draft a statement or prompt to seek the relevant output from the tool, asking about suggestions for the plot of the story. Enter a prompt in the field.

I want to create a short science fiction story for kids centered on the friendship between a young boy and a robot. Could you suggest some plot



3. Click the **Submit** icon to generate the response. Here is the sample response.

Output from Copilot

Absolutely! Here are a few plot ideas to spark your imagination for your story about the friendship between a young boy and a robot:

The Dreaming Robot

A boy named Tim stumbles upon an old, discarded robot in a junkyard. To his surprise, this robot has a unique glitch—it dreams! Together, Tim and the robot explore the robot's dreams, which turn out to be glimpses of otherworldly adventures. Their bond deepens as they uncover the meaning behind these dreams, which may hold the key to saving their small town.

Operation Timekeeper

The robot, created by the boy's late inventor grandfather, has a special ability: it can manipulate time. The boy and the robot use this ability for fun, until one day, they accidentally disrupt the timeline. Now, they must work together to repair the damage, learning important lessons about responsibility and friendship along the way.

The Forest Sentinel

The boy befriends a robot designed to protect a mysterious forest that thrives with bioluminescent plants and strange creatures. When a corporate company threatens to destroy the forest for resources, the boy and the robot team up to save it, discovering the importance of sustainability and courage.

The Stardust Signal

A robot crash-lands in the boy's backyard, claiming to be from a faraway planet. The robot has lost its memory but carries a faint signal that may lead them to its home. As they decode the signal together, the boy teaches the robot what it means to be human, while the robot inspires the boy to dream bigger than the stars.

Inventor's Legacy

The boy builds a robot companion in memory of his missing inventor father. However, he soon realizes that the robot has a fragment of his father's personality encoded within it. The boy embarks on a journey to uncover the mystery behind his father's disappearance, with the robot serving as both guide and friend.

Do any of these resonate with you? Or we can mix and match elements to create something uniquely yours!

Questions to Develop the Story Further:

- How can I develop the characters further?
- What themes should I emphasize in this story?
- How can I make the story engaging for kids?

4. Let's select an idea for the plot and ask Copilot to generate a related illustration. Enter the following prompt:

With regard to the Robot Memories plot idea, could you provide a related illustration.

it into a sanctuary for lost space travelers. Their adventures revolve around meeting alien species and solving cosmic mysteries while strengthening their unique friendship.

4. **The Robot and the Lost Music Box:** A lonely boy named Aadi meets a quirky robot built to play music. They set off on an adventure to find Aadi's mother's missing music box, which contains a special tune from her childhood. Along the way, they discover that the robot itself has a hidden connection to the music.
5. **The ScribbleBot Chronicles:** A boy, Kabir, creates a robot to help him with homework, but the robot turns out to be a master doodler instead! While solving a local mystery about disappearing artworks, Kabir realizes the true power of creativity, and his friendship with the robot helps him see the world in new ways.

Would you like me to help develop one of these ideas further? Or would you like more suggestions?

Can you help me develop one of these plot ideas further?

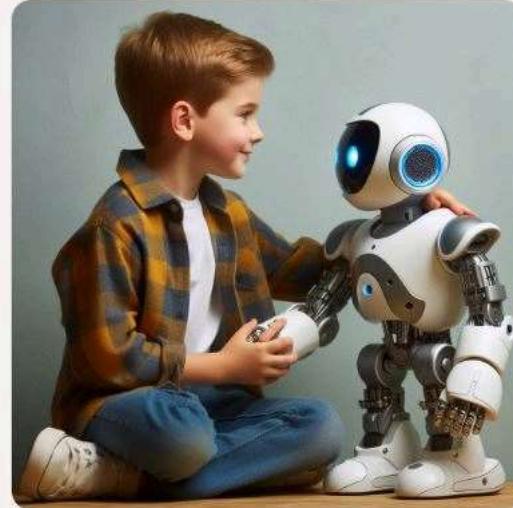
What are the key elements of a good children's story?

What age group should I target for this story?

+

With regard to the Robot Memories plot idea, could you provide a related illustration.

5. Click the Submit icon to generate the output. Copilot will provide an illustration. The image generated on our end is shown here.



Here's your illustration inspired by the Robot Memories plot idea! I hope it captures the warmth and friendship of your story. Let me know if you'd like to tweak or expand on any details for the image!

What themes are most important in "Robot Memories"?

What artistic styles could best represent "Robot Memories"?

Can you give examples of other works with similar themes?



+

Message Copilot

Think Deeper



Summary

Congratulations on completing the lab on Generative AI Tools in Action.

In this lab, you explored Google's Gemini, Microsoft's Copilot, and OpenAI's ChatGPT tools and their capabilities to address your daily tasks. Continue experimenting with these tools to explore various use cases for content generation.

Author(s)

IBM Skills Network Team

Copyright © IBM Corporation. All rights reserved.



Skills Network