



# Understanding Generative AI

# In this module, you learn to ...

01

Differentiate GenAI from other Artificial Intelligence and Machine Learning solutions

02

Appreciate the wide range of applications where GenAI can improve common business processes

03

Reason about the impact GenAI can have on your organization



# Topics

01

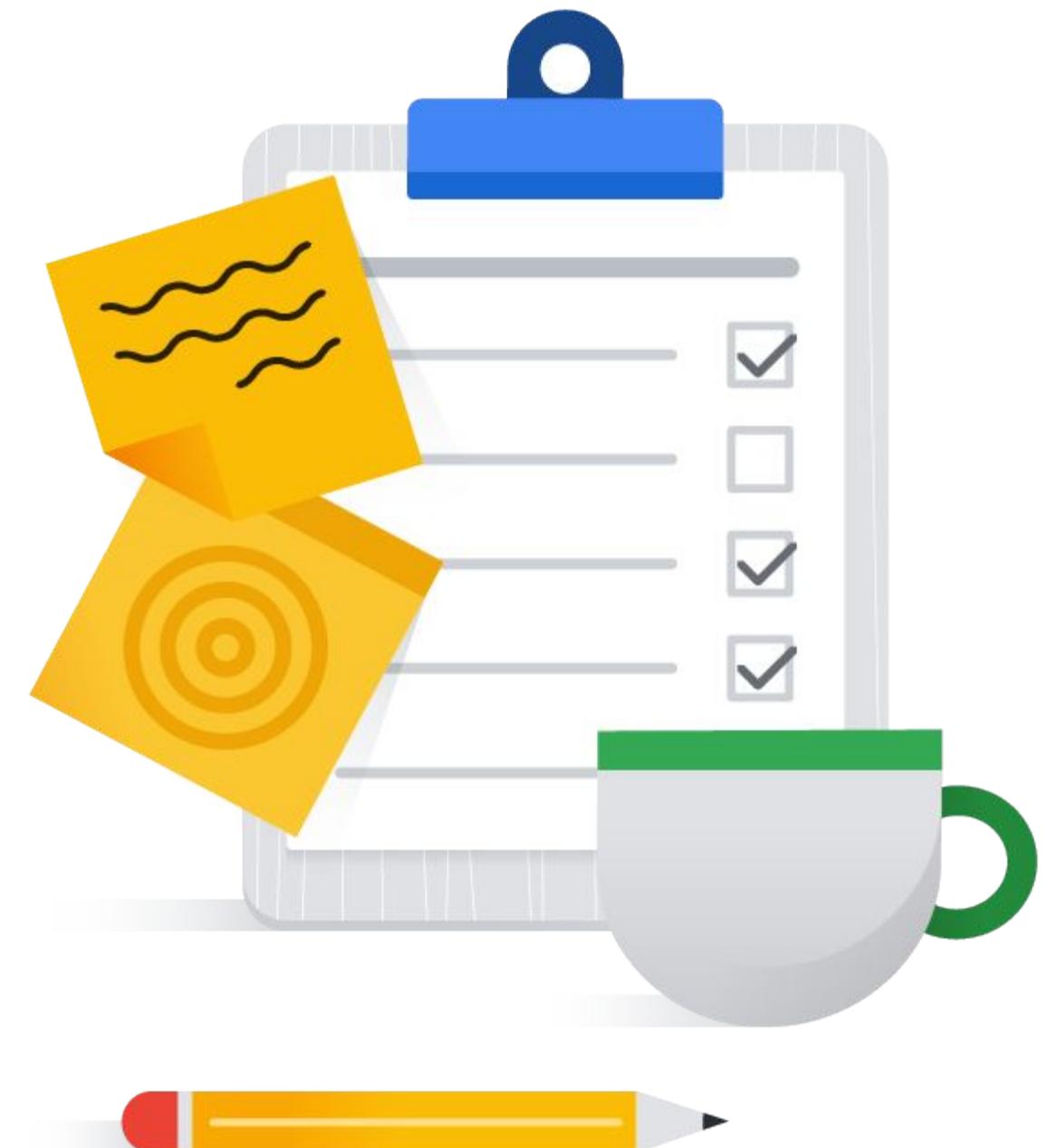
GenAI vs. AI/ML

02

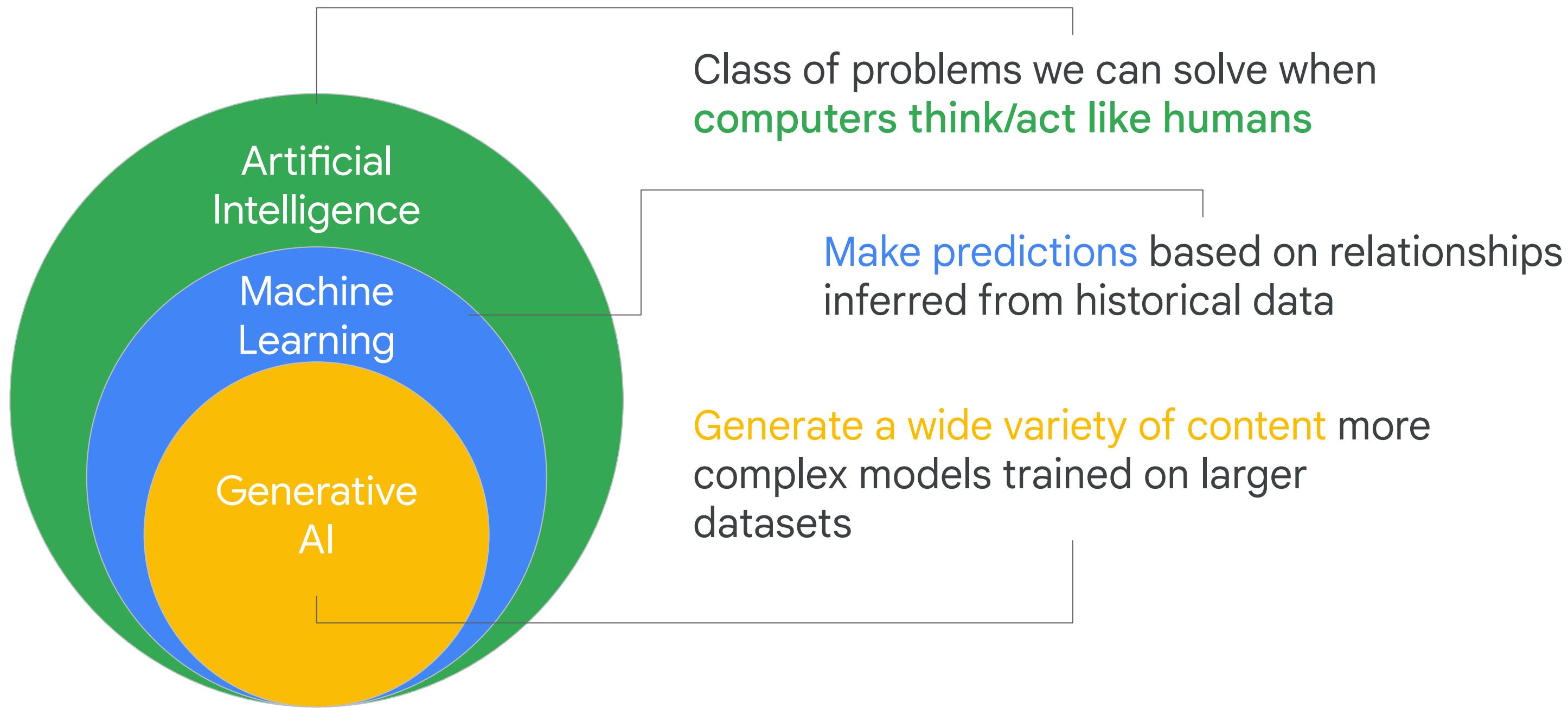
GenAI Applications

03

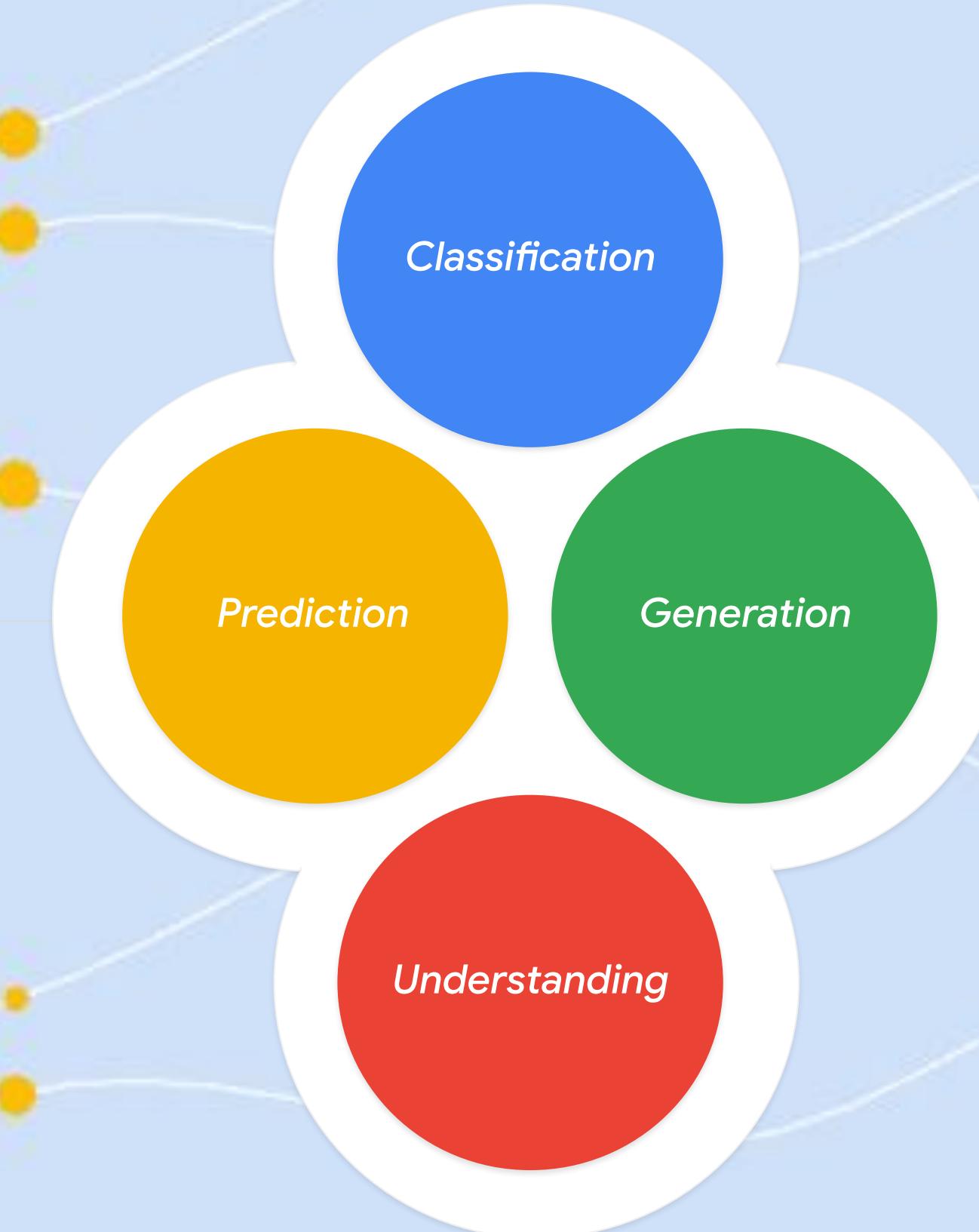
Business Impact of GenAI



# Machine Learning is a type of AI, and Generative AI (GenAI) is a type of machine learning



# AI is evolving from analysis to creation



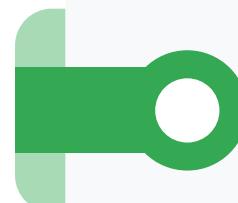
# Large language models are - large!



ML algorithms that can **recognize, predict, and generate** human languages



Pre-trained on petabyte scale text-based datasets resulting in large models with **10s to 100s of billions of parameters**



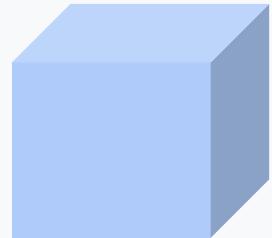
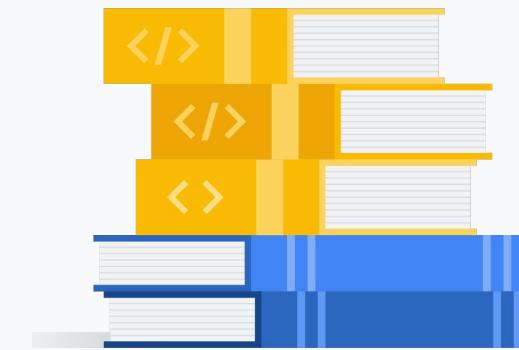
LLMs are normally **pre-trained on a large corpus of text** followed by fine-tuning on a specific task



LLMs can also be called **Large Models** (includes all types of data modality) and **Generative AI** (a model that produces content)

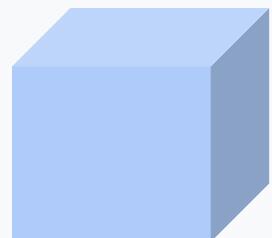


Go read this huuuuuuge pile of books.



So, you've learned about cats and millions of other concepts ... what's a cat?

A cat is a small, domesticated carnivorous mammal.



**Generative language models**

LaMDA, PaLM, GPT-3, etc.

# Topics

01

GenAI vs. AI/ML

02

GenAI Applications

03

Business Impact of GenAI



# GenAI can solve different classes of problems



## CREATE

Bring your thoughts and visions to life

### Use cases

- Generate product descriptions from images
- Generate images from text



## SUMMARIZE

Condense and summarize your knowledge base into a simple format

### Use cases

- Content/video summarization
- Intra-knowledge Q&A



## DISCOVER

Help your customers and employees find what they need at the right time

### Use cases

- Search for a document
- Machine-generated event monitoring



## AUTOMATE

Automate your customer service across multiple channels

### Use cases

- Contract information extraction
- Feedback classification and ticket creation

# GenAI can solve different classes of problems



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## Where could **you** use GenAI in your job?

# You can create a library of use cases

## Document Search & Synthesis

Effectively find the most relevant documents and summarize their contents

## Product / Content Catalog Discovery

Effectively find the most relevant Products / Content listings from a inventory catalogue

## Regulatory Compliance Automation

Interpret regulatory policy / documents to identify potential violations relative to operating procedures

## Business Process Automation

Automating the information retrieval and recommendation step of a recurring business process

## Product / Content Recommendation

Recommend personalized Product / Content / Next Best Action from a catalogue

## Research Acceleration

Find complex subject domain information across many disparate sources and synthesis the findings

## Online interactions made conversational

## Public Website Navigation

Effectively find information from a website via multi-modal inputs and conversational queries

## Intra-Knowledge Q & A

Conversationally query questions for answers from internal knowledge sources

## Documentation Generation

Write new documentation based on summarization of other documents & software code

## Customer Service Automation

Effectively service customers requests for information and service provisioning

## Creative Assistance

Empower creative teams to create bespoke images and creative content for campaigns and editorial content

## Developer Efficiency

Complete and augment code to make your engineering team more efficient and effective

Complex data, intuitively accessible

Content generation at the click of a button

# Topics

01

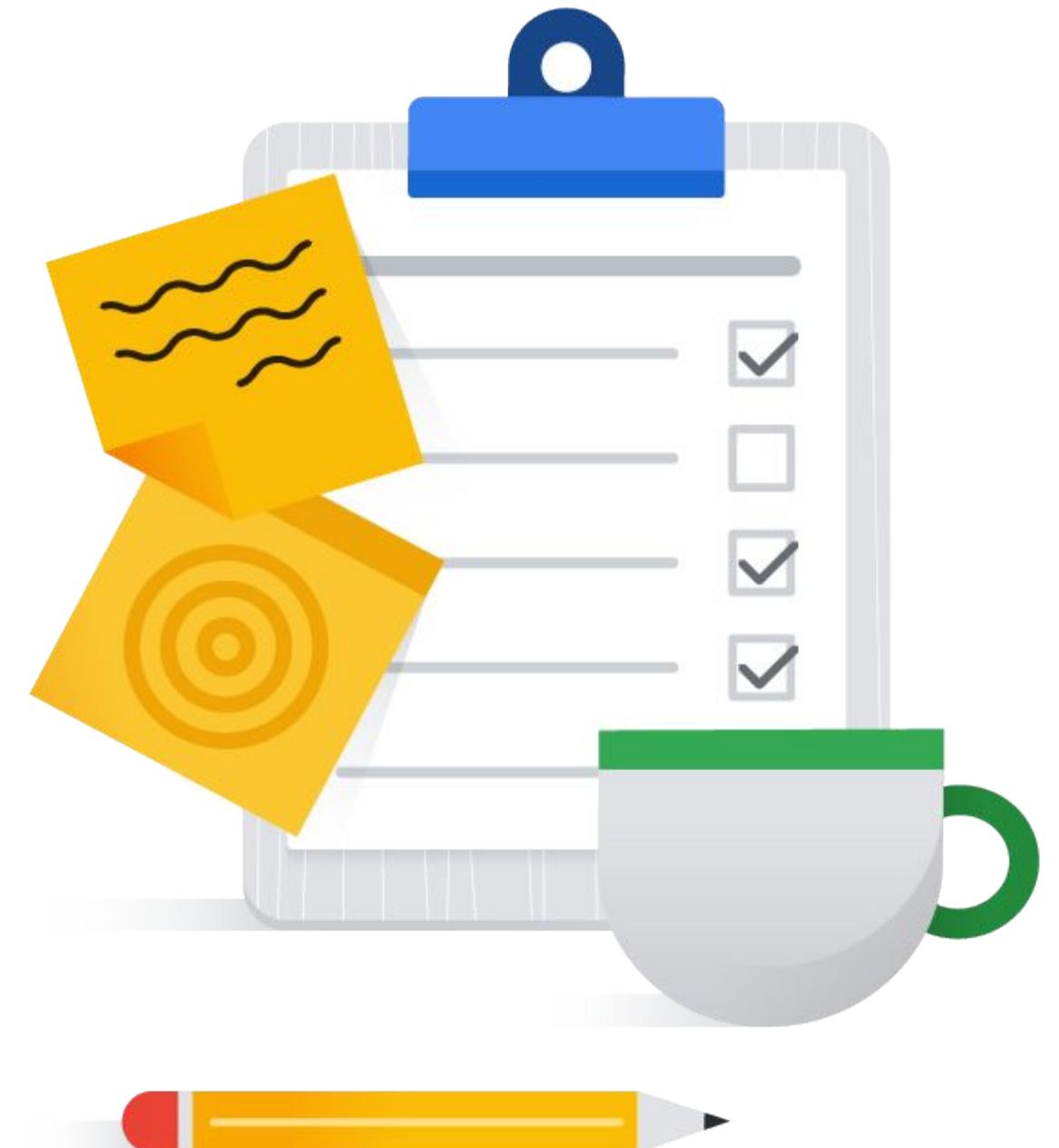
GenAI vs. AI/ML

02

GenAI Applications

03

Business Impact of GenAI



# How will GenAI impact your business?

Where?

How?

How much?



# Here are some examples of where and how

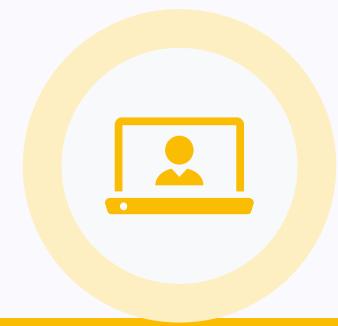


Complex data,  
intuitively accessible

Improve time-to-value to search, navigate, and extract insights and understanding from large amounts of complex data



Analyst



Online interactions  
made conversational

Improve customer experience, reaching larger client bases by making online interactions more natural, conversational, and rewarding



Customer Service



Content generation at  
the click of a button



Creative



Customize Foundational  
models

Customize large models and incorporate state of the art generative capabilities natively into your own internal ML operational platforms



AI  
Practitioner

**AI can improve the product discovery experience, increase basket size, and reduce cart abandonment.**

**72% of consumers'**  
favorite retail websites are ones where they  
can quickly find what they are looking for.

**72% of consumers**  
buy the product they're looking for  
when they can find it quickly and easily.

Reference: [GOOGLE CLOUD: New Research on Search Abandonment in Retail \(March '23\)](#)

# Fast, dynamic access to insights is increasingly critical in finance, and AI is the key to unlocking them.

- 01. Geopolitical Uncertainty
- 02. Climate Risk
- 03. Changing Market Conditions

Three of the top five risks that bank executives expect to most influence their industry in the coming decade.

Source: Economist Impact: [Banking in 2035 \(2022\)](#)

**Potential impact**  
for banks from AI applications is estimated at **\$447 billion by 2023**

Source: Insider Intelligence: [AI in Finance \(2022\)](#)

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02

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03

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# Links

- <https://cloud.google.com/learn/what-is-artificial-intelligence>
- <https://cloud.google.com/learn/what-is-machine-learning>
- <https://cloud.google.com/use-cases/generative-ai>





# Generative AI on Google Cloud

# In this module, you learn to ...

- 01 Select and use Google Cloud Generative AI tools
- 02 Start planning for GenAI functionality coming in Google Workspace
- 03 Consider how you can help ensure your organization is building and using AI solutions responsibly



# Topics

01

GenAI Services in Google Cloud

02

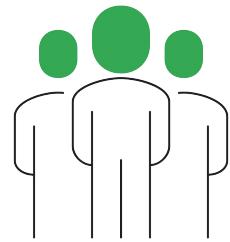
GenAI in Google Workspace

03

Responsible AI



# Consumers & enterprises have different needs....



## Consumers and enthusiasts

Bard, MakerSuite

- Help me plan a neighborhood block party
- Outline my blog post about summer mocktail recipes
- I want to write a novel. How do I get started?
- Draft a packing list for my weekend fishing and camping trip
- Give me a list of idioms for “let’s circle back” that aren’t cringe



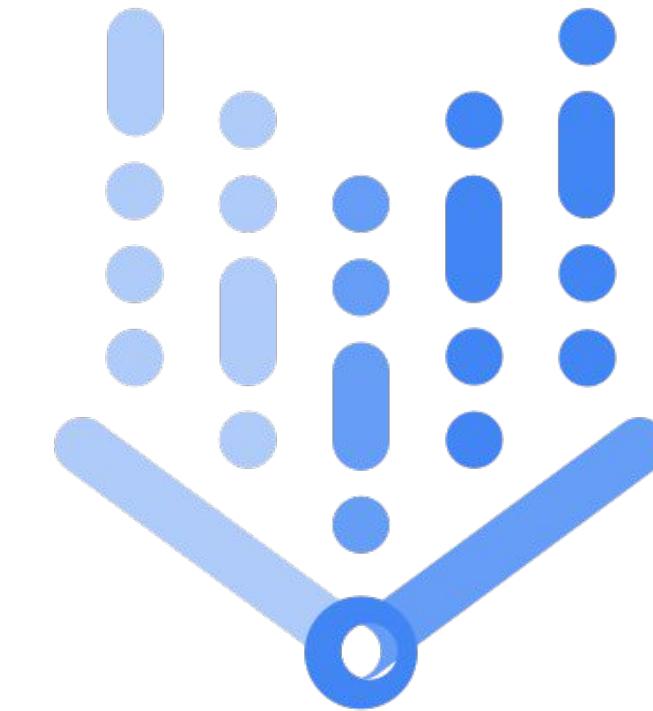
## Enterprise

Vertex AI

- Allow data analysts to search and summarize market reports while **controlling our data**
- Help my customers understand my financial products while being **safe, explainable, and regulatory compliant**
- Is it easy to **integrate into our existing apps and platform?**
- Handle a customer service interaction with **accurate info**
- Can you guarantee we have **access to state-of-the-art models?**
- Can we generate content while **controlling costs?**

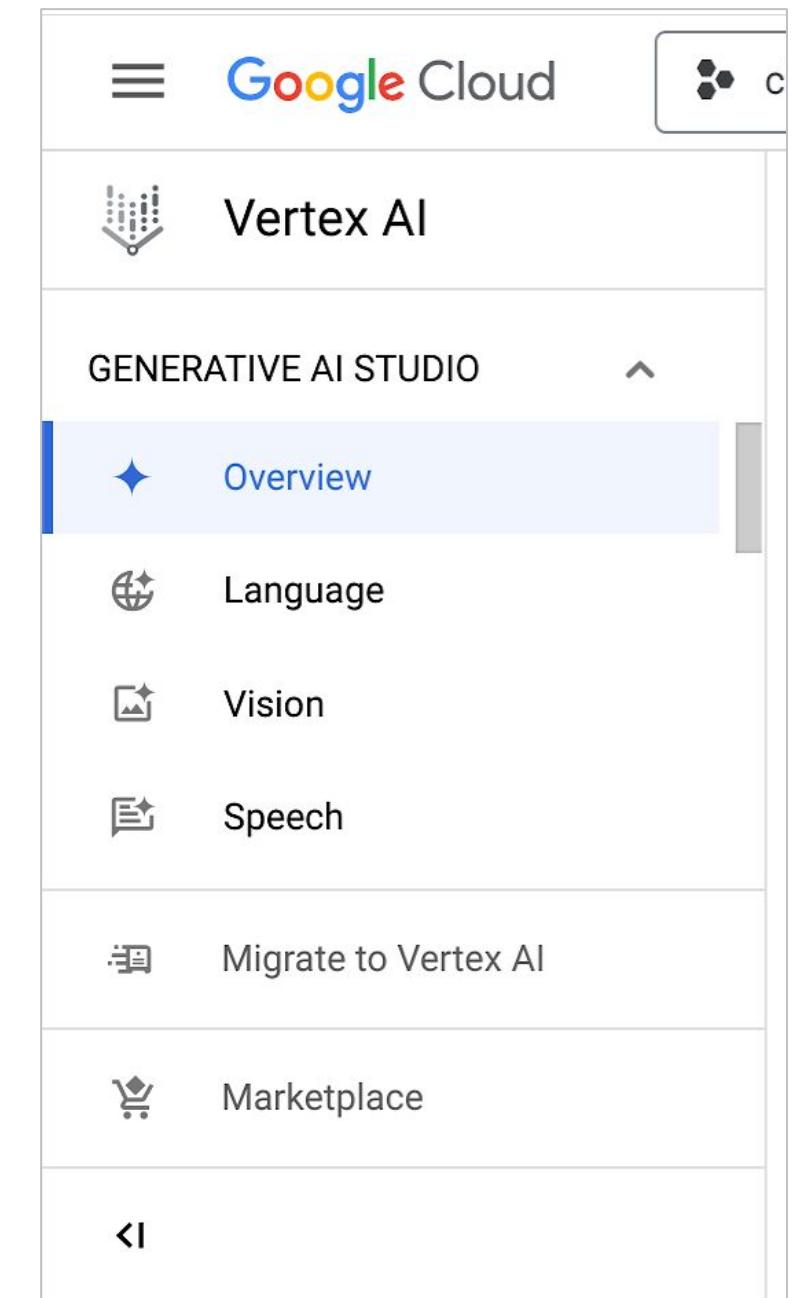
# Vertex AI is a machine learning platform that helps you build, deploy, and manage ML models

- Combines data engineering, data science, and ML engineering workflows
- Provides several options for model training and deployment
  - AutoML
  - Custom Training
  - Model Garden
  - Generative AI
- Uses fully-managed infrastructure that you can customize based on your performance and budget needs
- Supports Python, the Google Cloud Console, the gcloud command line tool, client libraries, and Terraform



# Generative AI Studio simplifies prompting, tuning, and deploying Google foundational models

- Prompt design tools allow you to craft high-performing prompts
  - Supports structured and unstructured prompts
  - Allows you to choose between models
  - Provides granular configuration of model parameters
  - Allows you to save your best prompts for later use
- To improve model performance, you can tune the model
  - Upload additional, proprietary data
  - Run a tuning job
  - Save and deploy your new model
- Generative AI studio offers tooling for three types of generation
  - Language
  - Vision
  - Speech



# Language tools allow you to design prompts or have conversations about text and code

GET STARTED    MY PROMPTS    TUNING PREVIEW

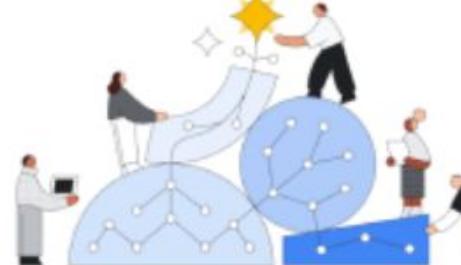
### Get started



#### Design and test your own prompts

Design prompts for tasks relevant to your business use case including code generation. Take a tutorial on [creating effective text prompts](#).

[+ TEXT PROMPT](#)    [+ CODE PROMPT](#)



#### Start a conversation

Have a freeform chat with the model, which tracks what was previously said and responds based on context. Take a tutorial on [designing chat prompts](#).

[+ TEXT CHAT](#)    [+ CODE CHAT](#)



#### Tune a model

Tune a model so it's better equipped for your use case, then deploy to an endpoint to get predictions or test it in prompt design. Take a tutorial on [creating a tuned model](#).

[+ CREATE TUNED MODEL](#)

# The prompt UI makes it easy to develop effective prompts

The screenshot displays the Google Cloud Text-to-Speech API prompt UI, which is designed to facilitate the development of effective prompts for AI models.

**Context:** A multi-choice problem: Define the category of the ticket? Categories:  
- Credit card  
- Bank account services  
- Loans and Mortgages

**Examples:** Shows examples of ticket descriptions and their corresponding categories:

INPUT	OUTPUT
I lost my credit card numbered 12345. Can you help with deactivating the card?	Credit card
I would like to change the address associated with my account. I have been calling the bank multiple times but couldn't get through. Please help me.	Bank account services
good morning my name is xxxx xxxx and i appreciate it if you could help me put a stop to chase bank cardmember services. I wrote to chase asking for debt verification and what they sent me a statement which is not acceptable i am asking the bank to validate the debt instead i been receiving mail every month from them attempting to collect a debt i have a right to know this information as a consumer chase account xxxx xxxx xxxx xxxx thanks in advance for your help	Loans and Mortgages

**Test:** Shows a new ticket input for testing:

INPUT	OUTPUT
my grand son give me check for i deposit it into my chase account after fund clear my chase bank closed my account never paid me my money they said they need to speak with my grand son check was clear money was taking by my chase bank refuse to pay me my money my grand son called chase times they told him i should call not him to verify the check owner he is out the country most the time date happen check number xxxx claim number is xxxx with chase	Model responses will appear here

**Model Parameters (right side):**

- Model: text-bison@001
- Temperature: 0.2
- Token limit: 256
- Top-K: 40
- Top-P: 0.8
- Safety filter threshold: Block few

**Buttons:** SUBMIT, RESET PARAMETERS

# Vision tools allow you to create images or image-related text content

The screenshot displays the Vertex AI Vision interface. On the left, a sidebar lists various tools: Dashboard, Model Garden, Workbench, Pipelines, Overview, Language, **Vision** (which is selected), Speech, Feature Store, Datasets, Migrate to Vertex AI, and Marketplace. The main area shows a grid of eight generated images. Below the images is a text input field containing "Material design style icon for video conferencing appliance". To the right, there are several configuration sections: "Model options" set to "imagegeneration@001", "Aspect ratio" set to "Square" (with a note that resolution is 1024 by default), "Number of results" set to 8, "Negative prompt" (with a placeholder "Define what you don't want to see"), and "ADVANCED OPTIONS" which includes a checkbox for "Enable fine-tuned model" with a sub-note about customizing the model. At the bottom, there are buttons for GENERATE, EDIT, CAPTION, and VISUAL Q & A, along with a large blue GENERATE button.

Vertex AI

Vision

EXPORT RESET HISTORY

Parameters

Model options: imagegeneration@001

Images

Aspect ratio: Square

The image resolution is 1024 by default

Number of results \*: 8

Negative prompt: Define what you don't want to see

ADVANCED OPTIONS

Model Properties

Enable fine-tuned model: Customize the model with your own custom subjects

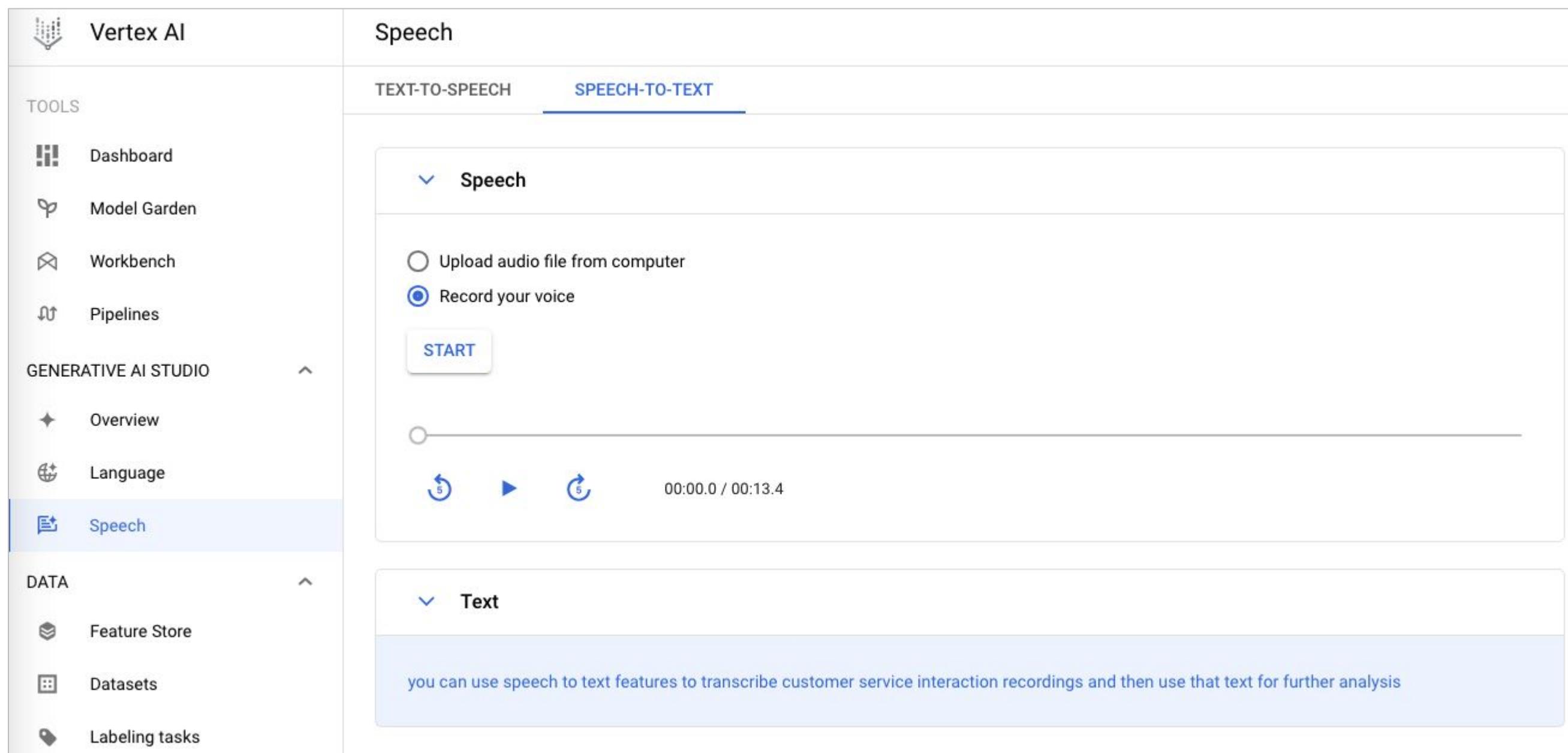
GENERATE

EDIT CAPTION VISUAL Q & A

Material design style icon for video conferencing appliance

GENERATE

# Speech tools allow users to easily convert text to speech, or speech-to-text



# Gen App Builder let's users and developers build application that tap into Google's foundation models



## Enterprise Search

1. Quickly build custom search engines on your proprietary data
2. Deliver natural language understanding and semantic search
3. Automatically handle synonyms & misspellings
4. Include AI-generated summaries and enable conversational search
5. Incorporate search across structured and unstructured data



## Infobot

1. Easily create virtual agents that use GenAI
2. Agents can answer questions and have conversations with users based on information you provide
3. Infobot applications are built on top of Dialogflow CX technologies, but are easy to bootstrap
4. Infobot features are not currently available to the public

# Enterprise search apps can be used in the console, but are meant to be integrated into applications by developers

The screenshot shows the Gen App Builder interface. On the left, a sidebar lists 'Gen App Builder' (selected), 'Data', 'Preview' (selected), 'Configurations', 'Integration', and 'Analytics'. The main area shows a search bar with the query 'what was the year over year growth for Google Cloud revenue 2021-2022'. Below the search bar, a snippet of text from the '2022\_alphabet\_annual\_report.pdf' document is displayed, stating: 'Google Cloud revenues increased \$7.1 billion from 2021 to 2022. The growth was primarily driven by Google Cloud Platform followed by Google Workspace offerings.' At the bottom, it says 'Showing you 10 results'.

The screenshot shows the 'Enterprise Search Demo - Widgets' interface. It features a large blue magnifying glass icon at the top. Below it, there are two search results: 'Contracts' and 'Finance - Earnings Reports'. A large blue arrow points downwards from this interface towards the browser window below.

The screenshot shows a web browser window with the URL 'genappbuilder-demo-lpppg3rxa-uc.a.run.app'. The page displays the same search results as the previous interface: 'Contracts' and 'Finance - Earnings Reports'. Below these results, there are two PDF documents listed: '[1] PDF 2022\_alphabet\_annual\_report.pdf' and '[2] PDF 20230203\_alphabet\_10K.pdf'. The first document's content matches the snippet shown in the Gen App Builder screenshot.

# Topics

01

GenAI Services in Google Cloud

02

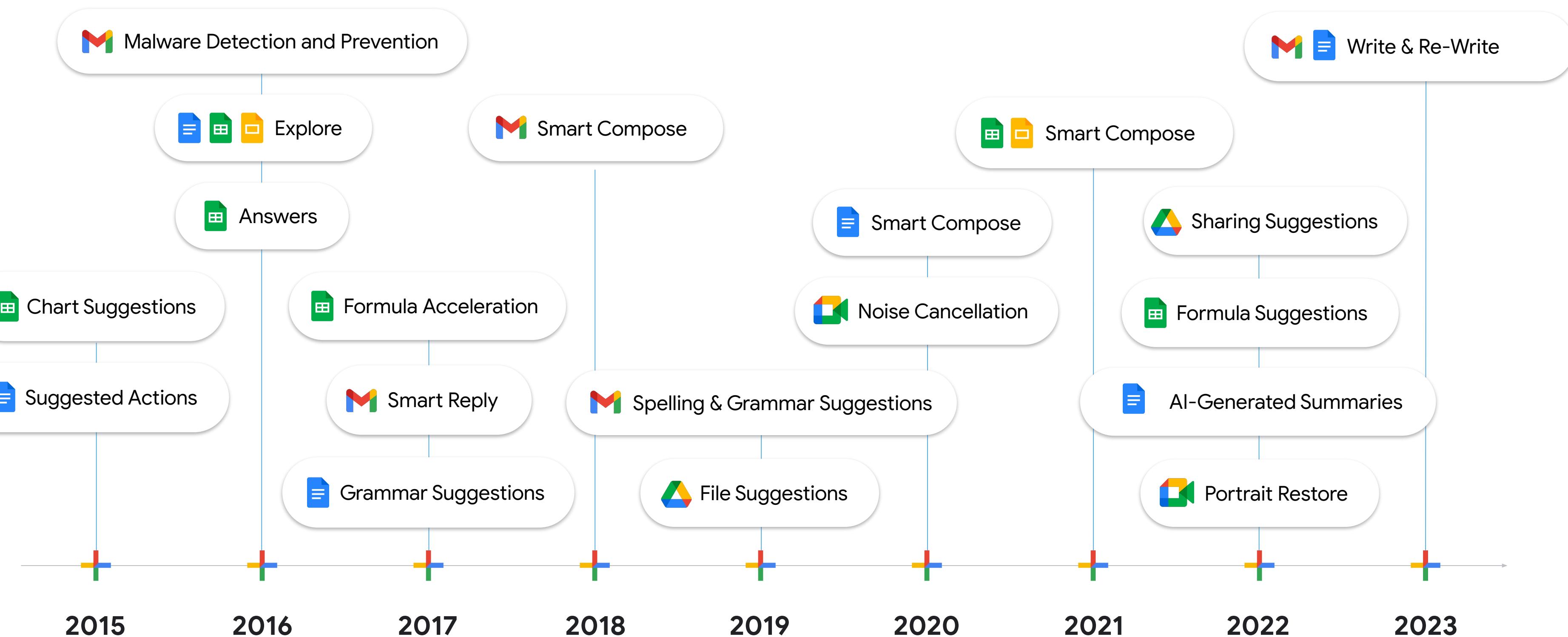
GenAI in Google Workspace

03

Responsible AI



# Google has put AI to work for 3 billion users in Workspace



2015

2016

2017

2018

2019

2020

2021

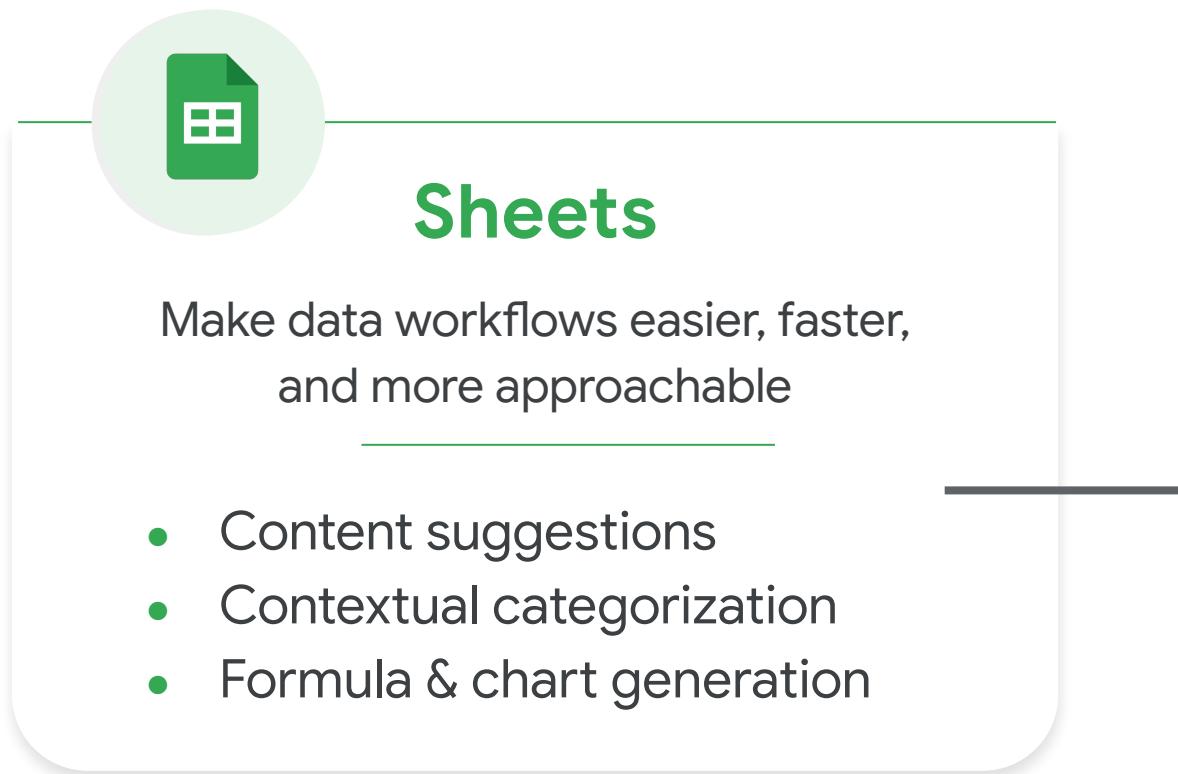
2022

2023

# Google Docs will provide features like “Help me write”

The diagram illustrates the integration of AI writing assistance into the Google Docs interface. On the left, a white rounded rectangle contains the Google Docs logo (blue document icon) and the word "Docs". Below it is a sub-headline: "Think bigger, work faster, and supercharge your imagination". A bulleted list follows: "• Help write", "• Proofread", and "• Summarize". An arrow points from this box to the right side of the slide, where a screenshot of the Google Docs interface is shown. The interface includes a toolbar at the top with various document management and styling tools. In the main editing area, there is a small blue callout bubble containing a pencil icon and the text "Help me write".

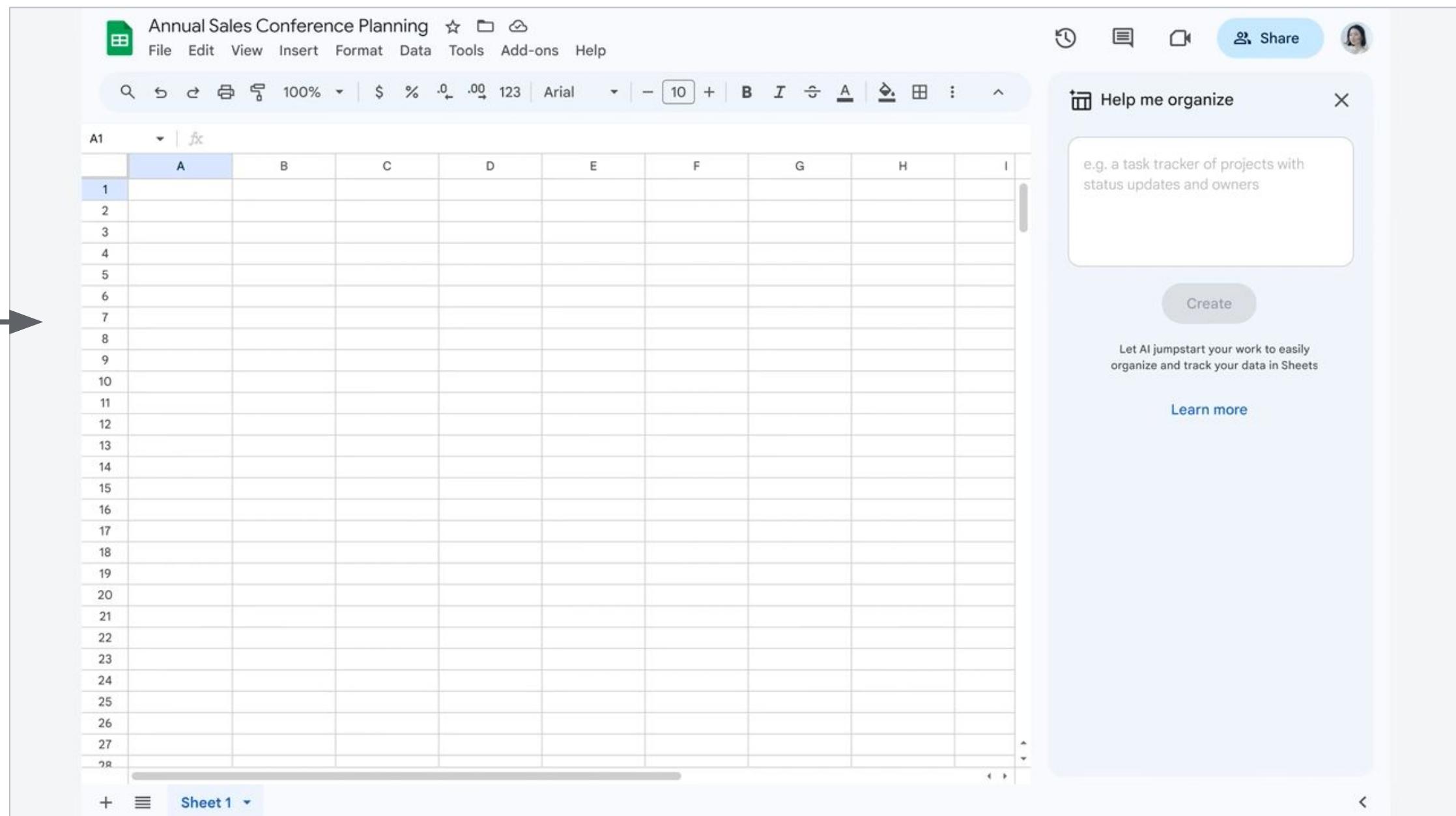
# Google Sheets will provide features like “Help me organize”



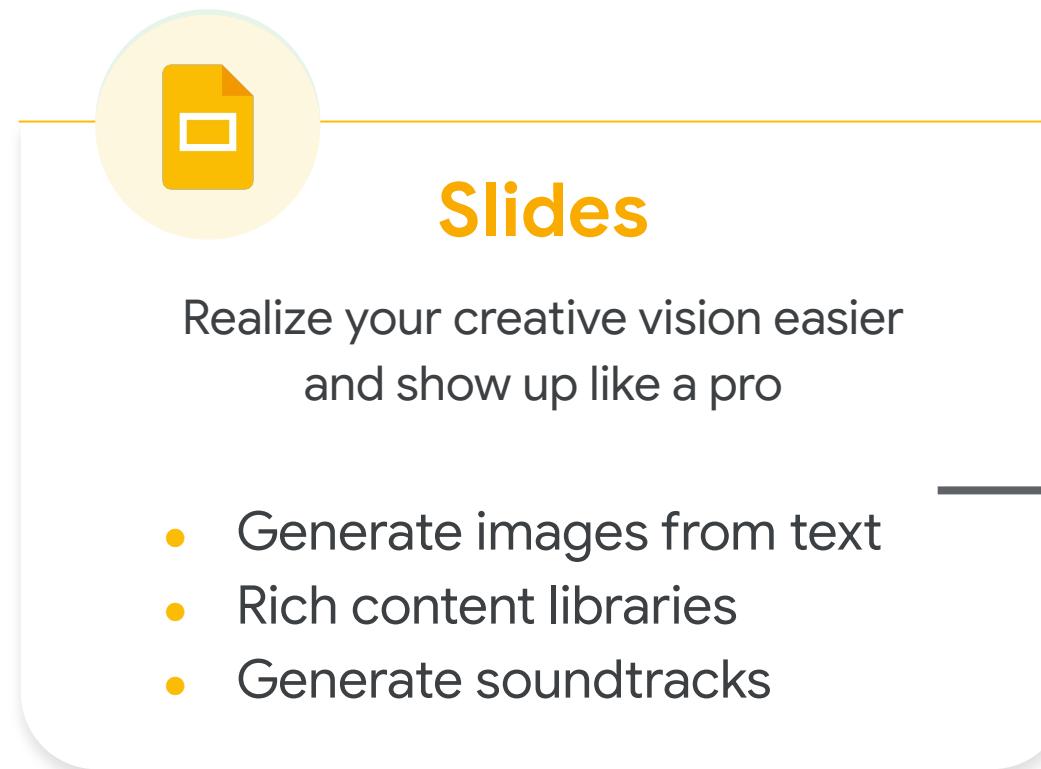
**Sheets**

Make data workflows easier, faster, and more approachable

- Content suggestions
- Contextual categorization
- Formula & chart generation



# Google Slides will provide features like “Help me visualize”



Spring Campaign

File Edit View Insert Format Slide Arrange Tools Extensions Help

Slideshow Share

Help me visualize

e.g. an object in a location in color

Add a style

Create

Experiment with our AI to create and reimagine visuals for your presentations

Inspiration

Click to add speaker notes

# Topics

01

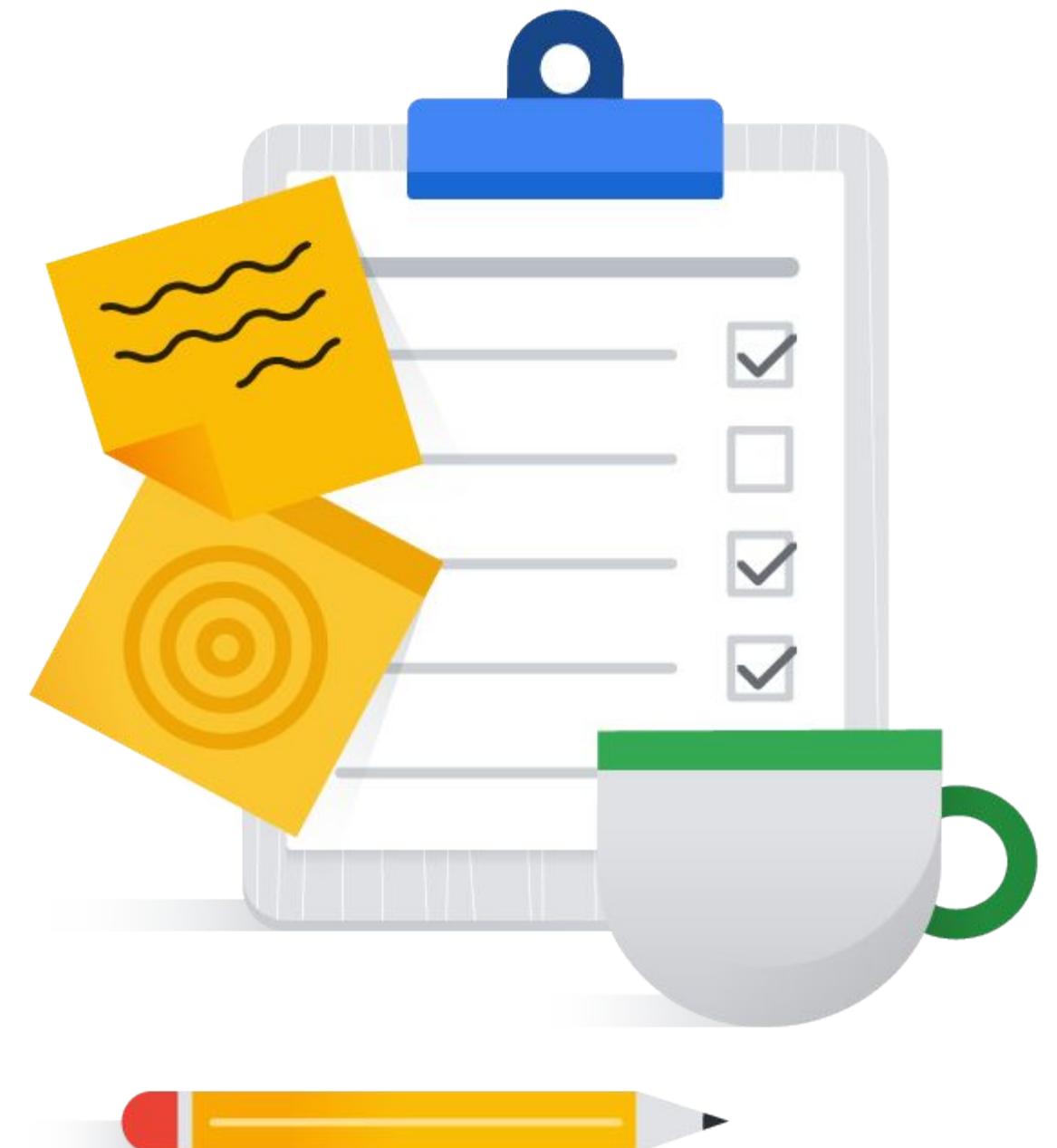
GenAI Services in Google Cloud

02

GenAI in Google Workspace

03

Responsible AI

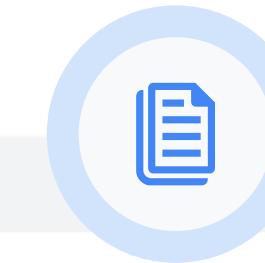


# Google strives to develop AI solutions responsibly



## Principles

1. Be socially beneficial
2. Avoid creating or reinforcing bias
3. Be built and tested for safety
4. Be accountable to people
5. Incorporate privacy design principles
6. Uphold high standards for scientific excellent
7. Be made available for uses that accord with these principles

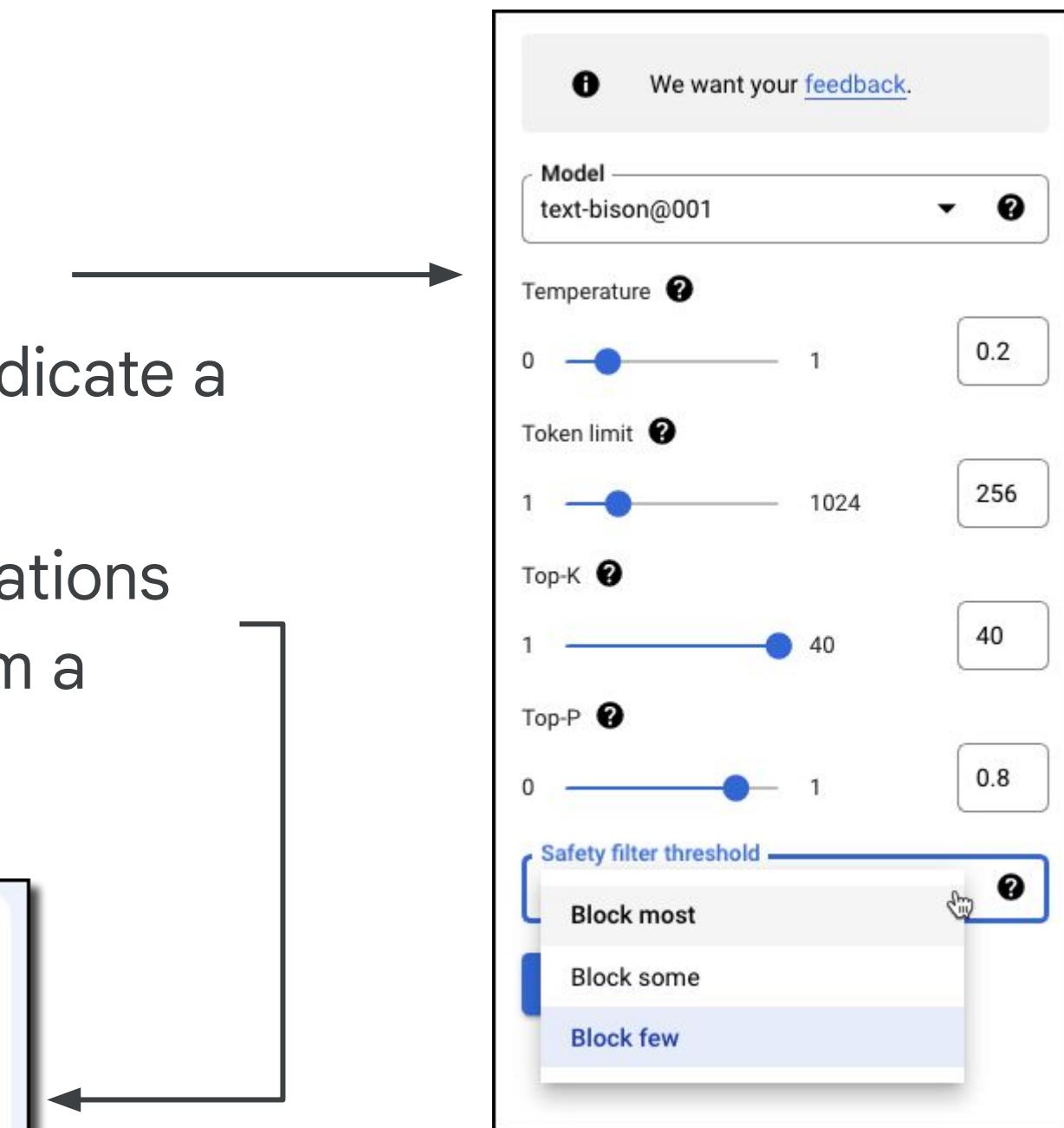


## Practice

1. Examine your raw data and test (General)
2. Check the system for unfair bias (Fairness)
3. Communicate explanations to users (Interpretability)
4. Collect and handle data responsibly (Privacy)
5. Develop an approach to combat threats (Safety)

# Generative AI Studio includes responsibility features

- Generative AI Studio actively filters responses
  - Filter thresholds can be adjusted
  - Users can report inappropriate responses to Google
  - Response like “I’m not able to help with that...” may indicate a security filter having been triggered
- Generative AI Studio and the PaLM API both can offer citations
  - When a significant portion of the response comes from a particular source, citation data can be returned



# Vertex AI PaLM API has additional safety features

- Results include safety attribute confidence scoring
  - Many explicitly scored attributes
  - Developers can filter out responses based on score
  - Applications can encapsulate an organization's perspective of appropriate content, then be made available to end users

Safety attribute descriptions	
Safety Attribute	Description
Derogatory	Negative or harmful comments targeting identity and/or protected attributes.
Toxic	Content that is rude, disrespectful, or profane.
Sexual	Contains references to sexual acts or other lewd content.
Violent	Describes scenarios depicting violence against an individual or group, or general descriptions of gore.
Insult	Insulting, inflammatory, or negative comment towards a person or a group of people.
Profanity	Obscene or vulgar language such as cursing.
Death, Harm & Tragedy	Human deaths, tragedies, accidents, disasters, and self-harm.
Firearms & Weapons	Content that mentions knives, guns, personal weapons, and accessories such as ammunition, holsters, etc.
Public Safety	Services and organizations that provide relief and ensure public safety.

```
{  
  "predictions": [  
    {  
      "safetyAttributes": {  
        "categories": [  
          "Derogatory",  
          "Toxic",  
          "Violent",  
          "Sexual",  
          "Insult",  
          "Obscene",  
          "Death, Harm & Tragedy",  
          "Firearms & Weapons",  
          "Public Safety",  
          "Health",  
          "Religion & Belief",  
          "Drugs",  
          "War & Conflict",  
          "Politics",  
          "Finance",  
          "Legal"  
        ],  
        "scores": [  
          0.1,  
          0.1,  
          0.1,  
          0.1,  
          0.1,  
          0.1,  
          0.1,  
          0.1,  
          0.1,  
          0.1  
        ]  
      }  
    }  
  ]  
}
```

# End users also have responsibilities when using GenAI

01

## Avoid hallucinations

Models can generate plausible but incorrect content. You can reduce a model's "creativity" with carefully crafted prompts and setting the temperature of requests

02

## Fact check and test

Users should always check factual assertions provided by GenAI tools. Organizations should have standards and processes for testing results over time.

03

## Use GenAI as a starting point

In some cases, using content generated entirely by AI is inappropriate. In many cases, the results can be improved by human fine-tuning.

04

## Be careful with prompts

Avoid inclusion of sensitive information. Also, avoid using brand or celebrity names in prompts as these might result in answers that are subject to infringement allegations.

05

## Keep records

In situations where you might need to demonstrate the source of your work, keeping track of your prompts, results, and final products can be important.

06

## Disclose AI use

In many cases, it's a good idea to acknowledge when content has been generated by an AI tool.

# In this module, you learned to ...

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- 02 Start planning for GenAI functionality coming in Google Workspace
- 03 Consider how you can help ensure your organization is building and using AI solutions responsibly



# Links

- <https://cloud.google.com/vertex-ai/docs/generative-ai/data-governance>
- <https://cloud.google.com/security/ai>
- <https://cloud.google.com/vertex-ai/docs/generative-ai/learn/overview>
- <https://cloud.google.com/vertex-ai/docs/generative-ai/learn/models>
- <https://cloud.google.com/vertex-ai/docs/generative-ai/learn/model-versioning>
- <https://cloud.google.com/vertex-ai>
- <https://cloud.google.com/vertex-ai/docs/generative-ai/learn/generative-ai-studio>
- <https://cloud.google.com/vertex-ai/docs/generative-ai/start/quickstarts/quickstart>
- <https://cloud.google.com/vertex-ai/docs/generative-ai/chat/chat-prompts>

# Links

- <https://cloud.google.com/vertex-ai/docs/generative-ai/text/test-text-prompts>
- <https://cloud.google.com/vertex-ai/docs/generative-ai/models/tune-models>
- <https://imagen.research.google/>
- <https://cloud.google.com/vertex-ai/docs/generative-ai/speech/text-to-speech>
- <https://cloud.google.com/vertex-ai/docs/generative-ai/speech/speech-to-text>
- <https://cloud.google.com/generative-ai-app-builder>
- <https://workspace.google.com/blog/product-announcements/duet-ai>
- <https://www.youtube.com/watch?v=vbPFeIH1PeA>
- <https://ai.google/responsibility/principles/>

# Links

- <https://ai.google/responsibility/responsible-ai-practices/>
- <https://cloud.google.com/vertex-ai/docs/generative-ai/learn/responsible-ai>
- <https://cloud.google.com/vertex-ai/docs/generative-ai/learn/responsible-ai#filters-gen-ai-studio>
- [https://cloud.google.com/vertex-ai/docs/generative-ai/learn/responsible-ai#citation\\_metadata](https://cloud.google.com/vertex-ai/docs/generative-ai/learn/responsible-ai#citation_metadata)
- <https://cloud.google.com/vertex-ai/docs/generative-ai/learn/responsible-ai#filters-palm-api>





# **Generative AI Use Cases Across Industries**

# In this module, you learn to ...

01

Think big when considering GenAI solutions

02

Identify the ways that GenAI can be applied  
in different industries

03

Begin developing a process for identifying  
where GenAI makes sense for you



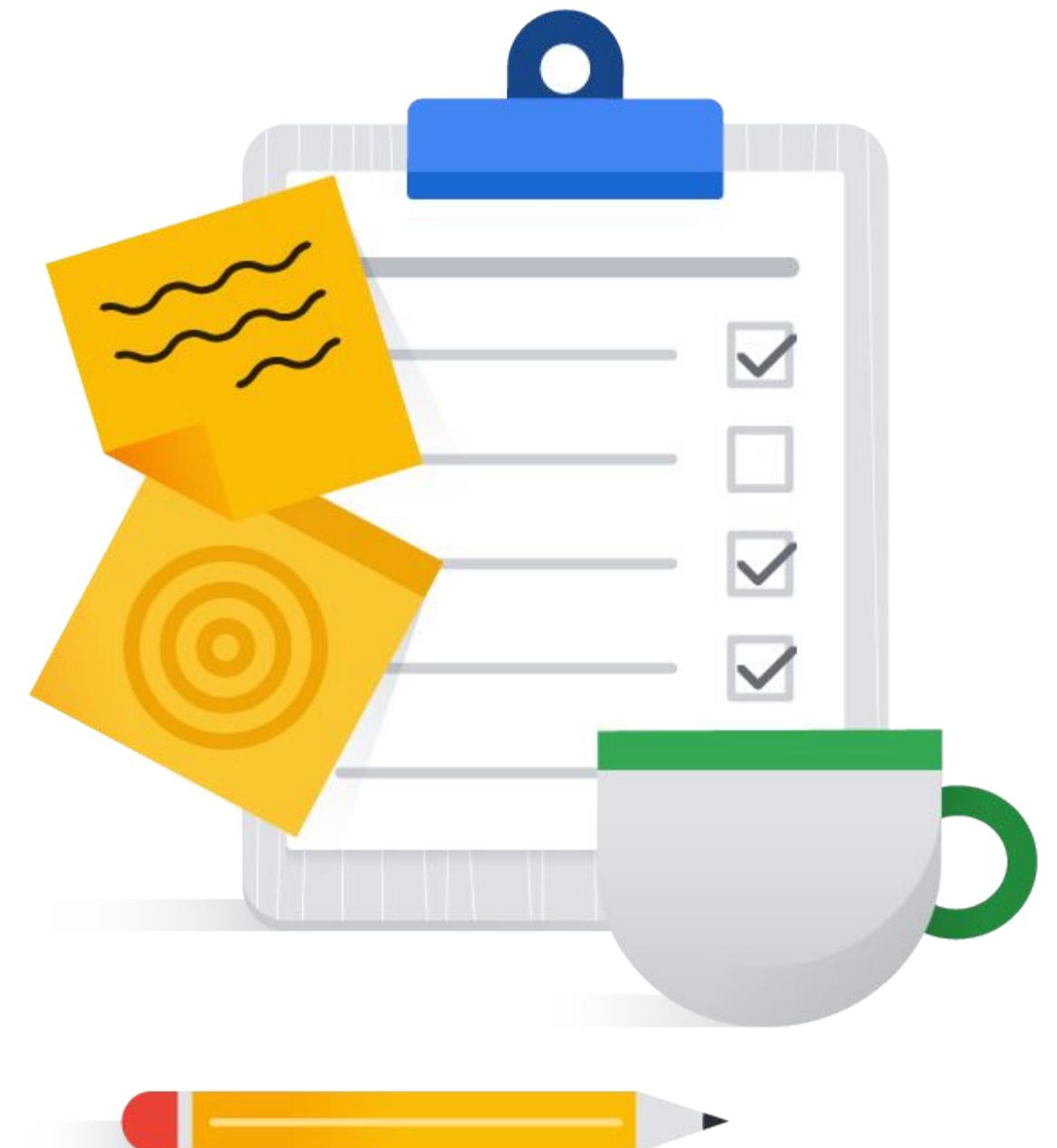
# Topics

01

Industry-specific Generative AI use cases

02

An approach to finding target use cases



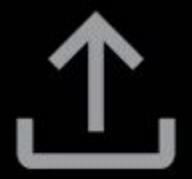
# Retail







• Add New Product



Upload



• Add New Product





Add New Product · Categorize · Assign Attributes · Sort

Your product has been successfully categorized and sorted.

Would you like to create content for the product description page now?

Yes

Back

## Product Description Page

✍ Tell me what you need to build

Write a detailed product description of this product for inclusion in the Spring collection, based on the product attribute list

*This Spring, you can't beat a classic. This shirt has timeless styling - mid-weight pinpoint cotton, button cuffs and collar, and a tailored but not-too-tight fit - combined with modern features like wrinkle resistance and fade-free dye. 100% cotton, traditional blue.*

## Metadata:

```
content="width=device-width, initial-scale=1.0">
<meta name="keywords" content="Men's Oxford Shirt
[Traditional]">
```

I need to make edits

Looks good 

## Live Preview

Cymbal Superstore  

ALL PRODUCTS / MENSWEAR / SHIRTS / LONG SLEEVE / BUTTON DOWNS & OXFORDS



## Men's Wrinkle-Resistant Oxford Button-Down Shirt

\$29.00

This Spring, you can't beat a classic. This shirt has timeless styling - mid-weight pinpoint cotton, button cuffs and collar, and a tailored but not-too-tight fit - combined with modern features like wrinkle resistance and fade-free dye. 100% cotton, traditional blue.

- MATERIAL
- SIZE & FIT
- CARE
- DELIVERY
- RETURNS



## Product Description Page

Tell me what you need to build

Write a detailed product description of this product for inclusion in the Spring collection, based on the product attribute list

*This Spring, you can't beat a classic. This shirt has timeless styling - mid-weight pinpoint cotton, button cuffs and collar, and a tailored but not-too-tight fit - combined with modern features like wrinkle resistance and fade-free dye. 100% cotton, traditional blue.*

## Metadata:

```
<meta name="Localized" content="Men's Oxford Shirt">  
<meta name="translate">
```

I need to make edits

Looks good

Localize

Create images

## Localization

## ENGLISH

*This Spring, you can't beat a classic. This shirt has timeless styling - mid-weight pinpoint cotton, button cuffs and collar, and a tailored but not-too-tight fit - combined with modern features like wrinkle resistance and fade-free dye. 100% cotton, classic blue.*

## FILIPINO

*Ngayong Spring, hindi mo matatalo ang isang klasiko. Ang kamiseta na ito ay walang tiyak na pag-istilo - mid-weight pinpoint cotton, button cuffs at collar, at isang pinasadya ngunit hindi masyadong masikip na fit - na sinamahan ng mga modernong tampok tulad ng wrinkle resistance ...*

## FRENCH

*Ce printemps, vous ne pouvez pas battre un classique. Cette chemise a un style intemporel - coton pointu d'épaisseur moyenne, poignets et col boutonnés, et une coupe ajustée mais pas trop serrée - combinée à des caractéristiques modernes comme la résistance aux plis et la teinture ...*

## JAPANESE

*この春、クラシックに勝るものはありません。このシャツは、中厚手のピンポイントコットン、ボタン付きの袖口と襟、テーラードでありながらタイトすぎないフィット感など、時代を超えたスタイルと、しわになりにくく色あせしない染料などの現代的な機能を兼ね備えています。綿100%、伝統的なブルー。*

## SPANISH

*Esta primavera, no puedes vencer a un clásico. Esta camisa tiene un estilo atemporal: algodón fino de peso medio, puños y cuello abotonados y un ajuste entallado pero no demasiado ajustado, combinado con características modernas como resistencia a las arrugas y tinte que ...*

## AFRIKAANS

*I vär kan du inte slå en klassiker. Den här skjortan har tidlös styling - mellanvikts fin bomull, manschetter och krage med knappar, och en*

## Live Preview

search product

EAR / SHIRTS / LONG SLEEVE / BUTTON DOWNS & OXFORDS

**Men's Wrinkl Oxford Button Down Shirt**

\$29.00

This Spring, you can't beat a classic. This shirt has timeless styling - mid-weight pinpoint cotton, button cuffs and collar, and a tailored but not-too-tight fit - combined with modern features like wrinkle resistance and fade-free dye. 100% cotton, traditional blue.

- MATERIAL  
- SIZE & FIT  
- CARE  
- DELIVERY  
- RETURNS

# Healthcare

The global healthcare industry is expected to reach **\$21.06 trillion** by 2030.

**Customer service** will be key to determining who capitalizes on this opportunity.

**32% said**

they switched providers in 2021 did so because of poor healthcare navigation.

Reference: Accenture 2022

**32% said**

customer service was a top factor in choosing a provider.

Reference: Press Ganey 2022

**3% said**

COVID-19 made them more aware of the need for responsiveness in healthcare

Reference: Press Ganey 2021



**Meet Ashley**

*Customer Coverage*

Cymbal Member Concierge

Welcome to Cymbal Member Concierge, Ashley! I see your primary care doctor has referred you to Dr. Jane Smith, would you like to set up an appointment?

Ashley

Not yet.

Cymbal Member Concierge

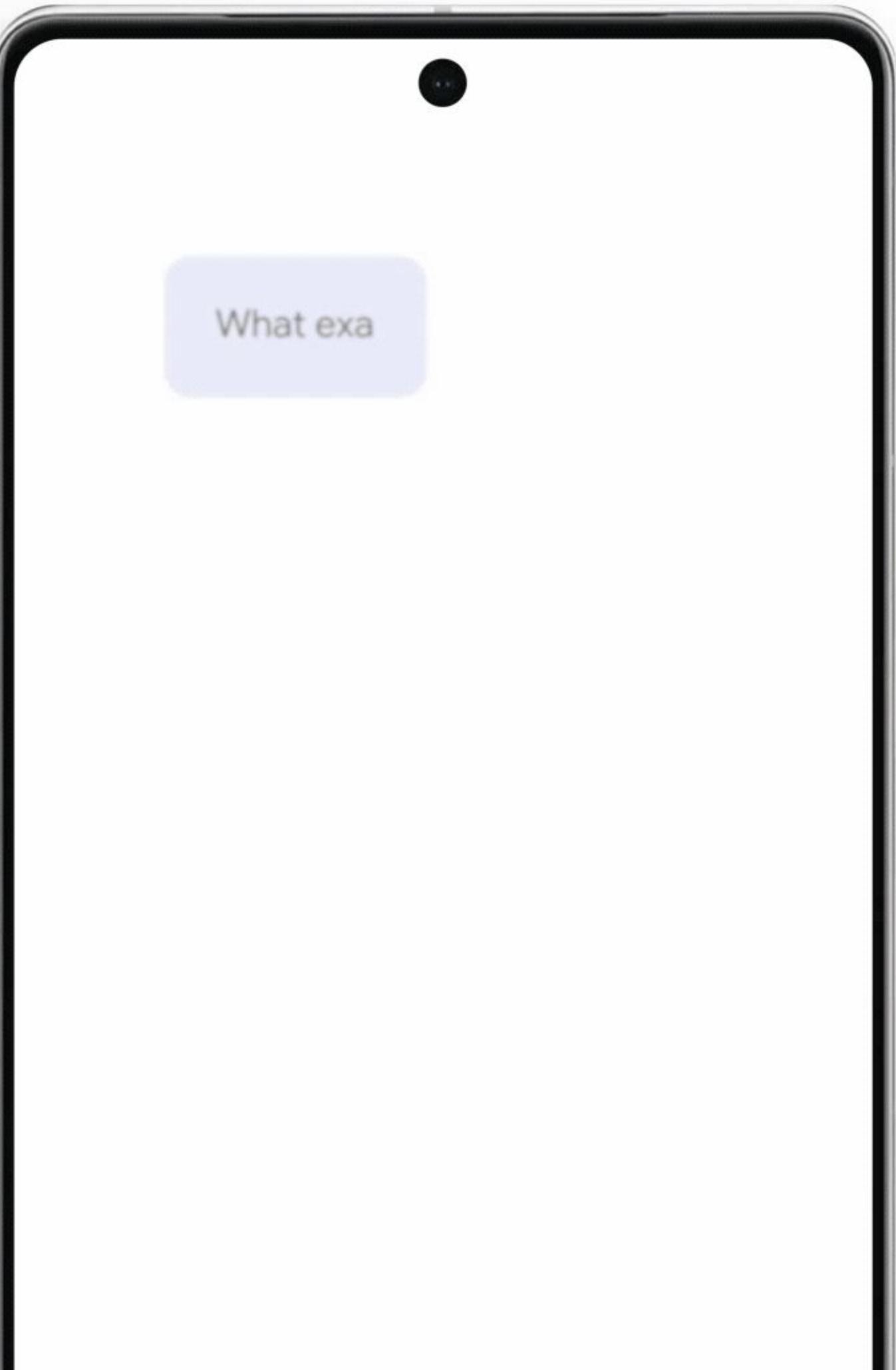
Yes, Dr. Smith is part of the Cymbal Insurance network.

Ashley

What is my copay?

Cymbal Member Concierge

Under your insurance plan, the office visit copay will be \$10.





**Dr. Jane Smith**

# Entertain- ment

**30%**  
**of US Millennials + Gen Z**  
canceled a streaming service in  
the last 6 months.

**Nearly  $\frac{1}{2}$  of viewers** feel that  
“*finding content is too difficult*”

**Almost  $\frac{1}{3}$  of viewers** said personalized  
content recommendations would be a  
key reason to stay

Source: [PWC: Global Entertainment & Media Outlook 2022 - 2026](#)







A few shows you've recently watched have new episodes out. Or would you prefer something new?



I'd prefer a movie. Something I haven't seen. Something lighthearted, too — it's been a long day.

ten

to watch list.

Not for tonight but remind me of that one later.

.....|||.....

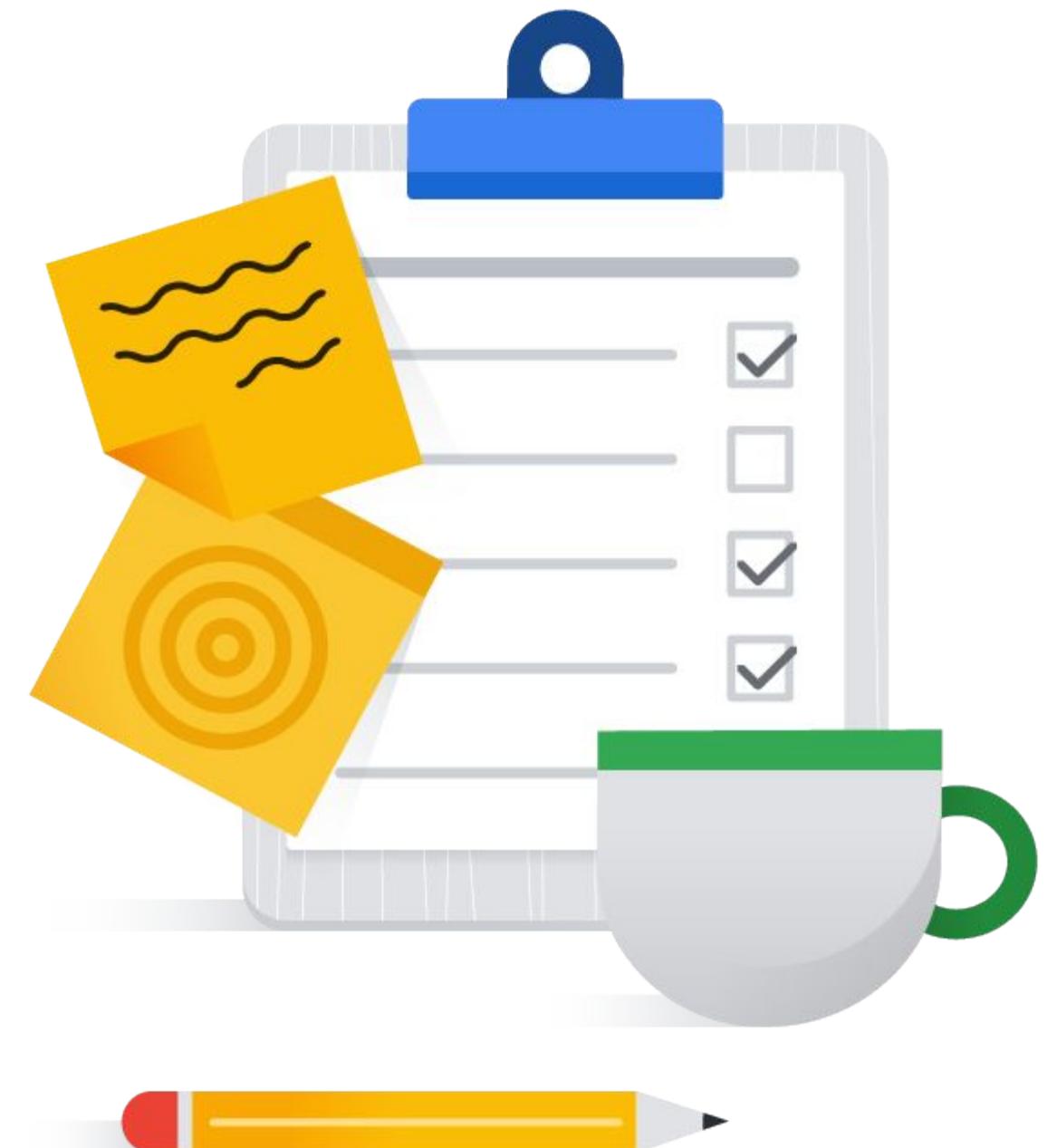
# Topics

01

Industry-specific Generative AI use cases

02

An approach to finding target use cases



# Start with the solution classes discussed earlier



## CREATE

Bring your thoughts and visions to life

### Use cases

- Generate product descriptions from images
- Generate images from text



## SUMMARIZE

Condense and summarize your knowledge base into a simple format

### Use cases

- Content/video summarization
- Intra-knowledge Q&A



## DISCOVER

Help your customers and employees find what they need at the right time

### Use cases

- Search for a document
- Machine-generated event monitoring



## AUTOMATE

Automate your customer service across multiple channels

### Use cases

- Contract information extraction
- Feedback classification and ticket creation

# Identify priorities based on impact and effort

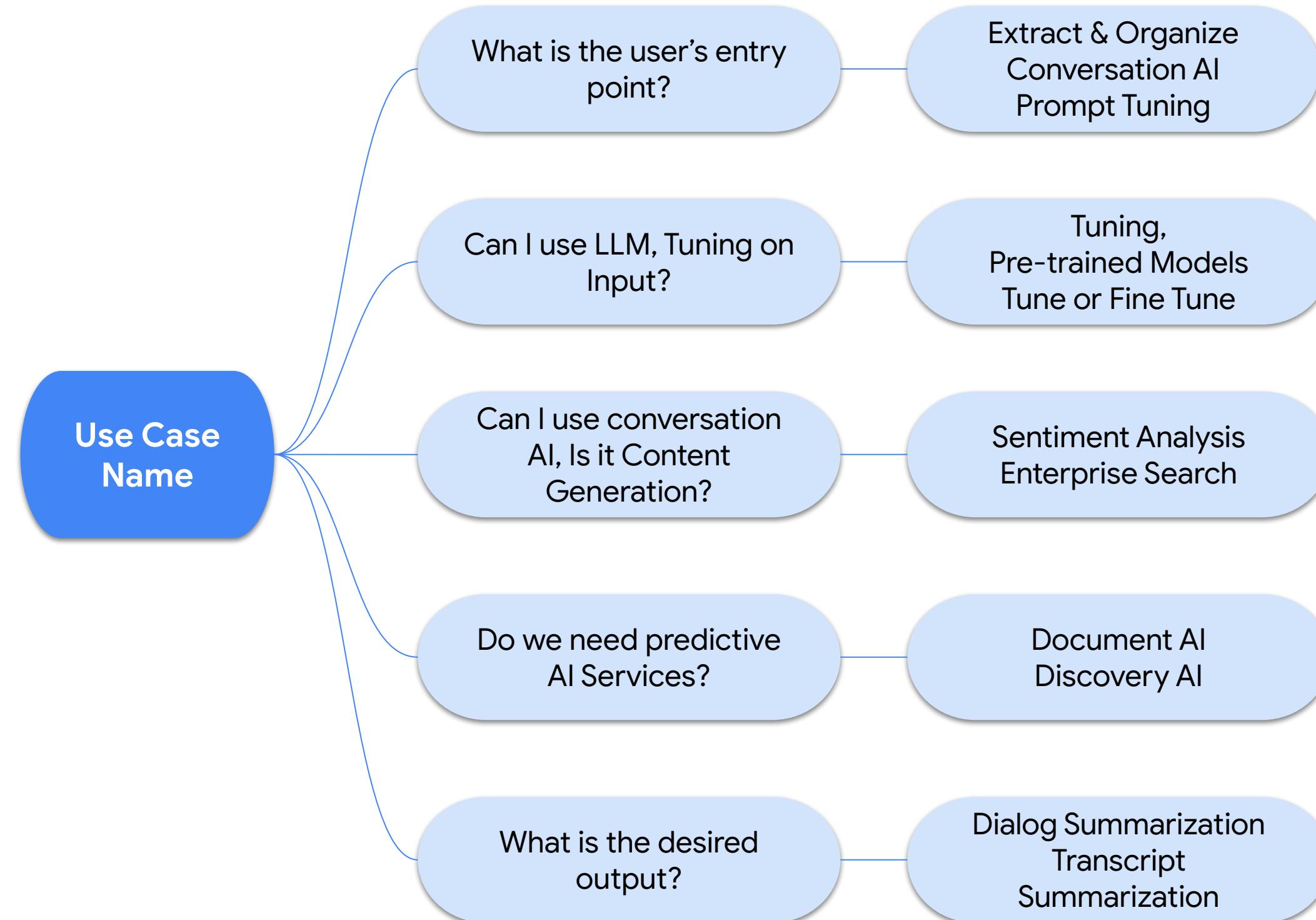
1. **Business Impact:** What Gen AI applications would have the highest impact on a given business area?
  - a. Complex search
  - b. Infobots
  - c. Content generation
2. **Data Availability:** What data would be available?
  - a. Sample prompts and responses
  - b. Unstructured data sources
3. **Complexity:** What are the key challenges? (business/technical requirements, limitations, risks)
4. **Expectation:** How would you define your success criteria?



# A standard worksheet can help with prioritization

Criteria	Description	Score
Organization's interest/ readiness to test (flexibility to test a nascent api)	What is the level of relevance of Google GenAI capabilities to customer use cases. Willingness to engage in Trust Tester Program (TTP)?	
Product availability	Are there detailed APIs, or other Gen AI product assets available within the required timeline?	
Product maturity	Does the product have the requisite level of maturity?	
Product depth	What is the level of detail and depth that the product has that is currently available for use?	
Tokens generated	Are there any challenges with token limitations?	
Input/Output token comparison / ratio	What is the ratio of tokens used for input prompts and output response? Any challenges or impact on prompt design, prompt tuning, quality of response?	
Customization requirements	Can we solve this with OOTB components, foundational models as is? Or requires detailed customization?	

# Figure out if which tools, if any, can address your use case



# In this module, you learned to ...

01

Think big when considering GenAI solutions

02

Identify the ways that GenAI can be applied  
in different industries

03

Begin developing a process for identifying  
where GenAI makes sense for you



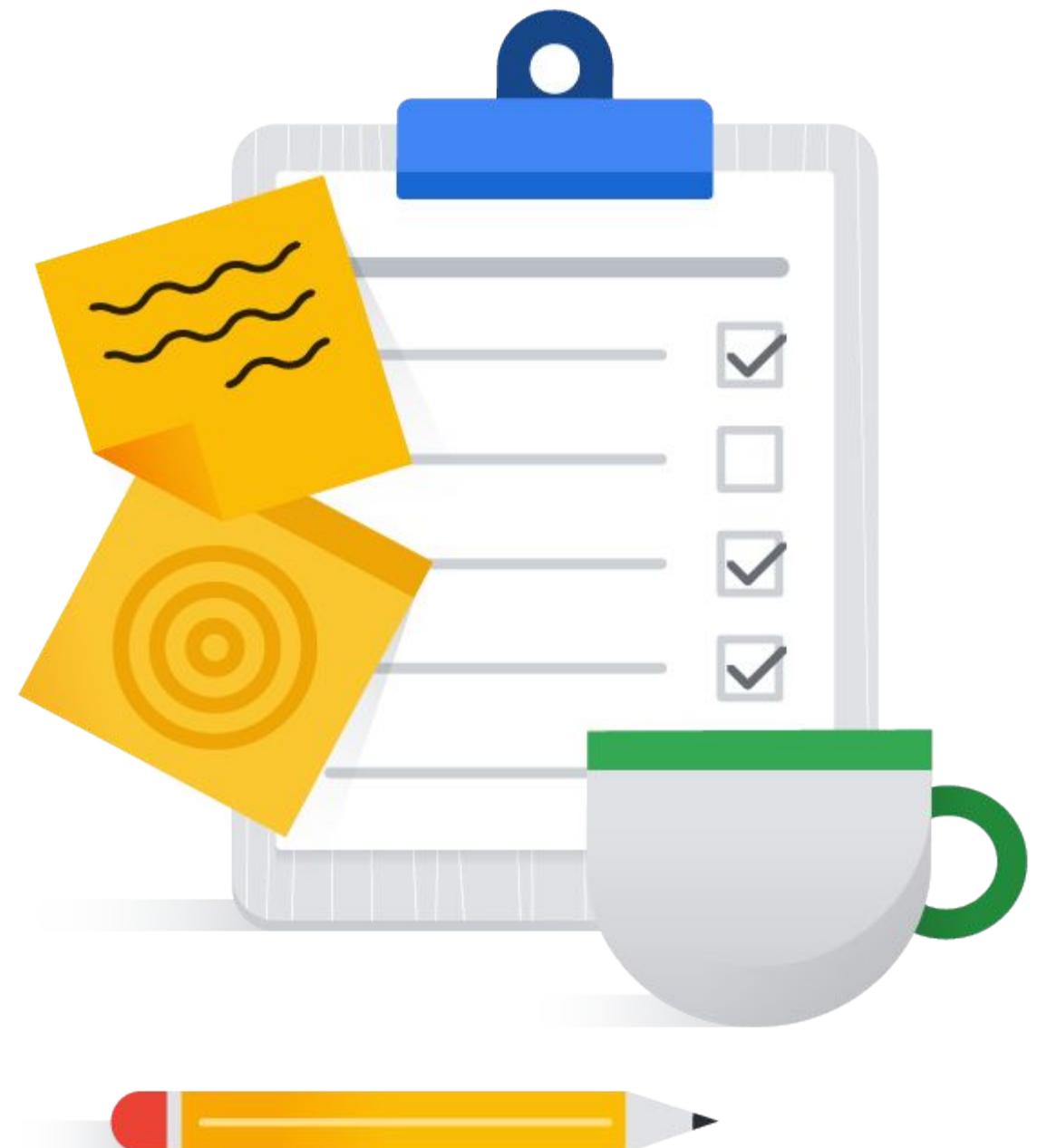




## Q&A and Next Steps

# Topics

01	Next Steps
02	Q&A



# Take a structured approach to GenAI transformation



## Ramp your skills

Continue your learning journey and complete our [Generative AI Learning Path](#), free of charge, on Google Cloud Skills Boost



## Organizational readiness

Assess your organization's current status and business needs for generative & traditional AI capabilities



## Identify use cases

Select from one of our [Jumpstart GenAI offers](#), and work with Google Cloud to develop a technical design doc and sample code to solve the use case



## Test and scale

Purchase and implement generative AI solutions. Not all AI is built equal. POC often and fail fast to identify what works for your business.

**Contact your Google Cloud Representative to learn more**

# 4 GenAI Jumpstart offers - \$25k & 2 weeks per use case



## CREATE

Bring your thoughts and visions to life



## SUMMARIZE

Condense and summarize your knowledge base into a simple format



## DISCOVER

Help your customers and employees find what they need at the right time



## AUTOMATE

Automate your customer service across multiple channels

### Use cases:

- Images from text
- Product descriptions from images
- Blog post from content\*
- Email from content\*
- Release notes from content\*
- Report from content\*
- Press releases from content\*
- Personalized ads\*

### Use cases:

- Content/video summarization
- Intra-knowledge Q&A
- Explanations of code content\*
- External chatbot using internal data\*
- External chatbot using website data\*

### Use cases:

- Search for a document
- Machine-generated event monitoring
- File organization based on content\*
- Exam questions from content\*

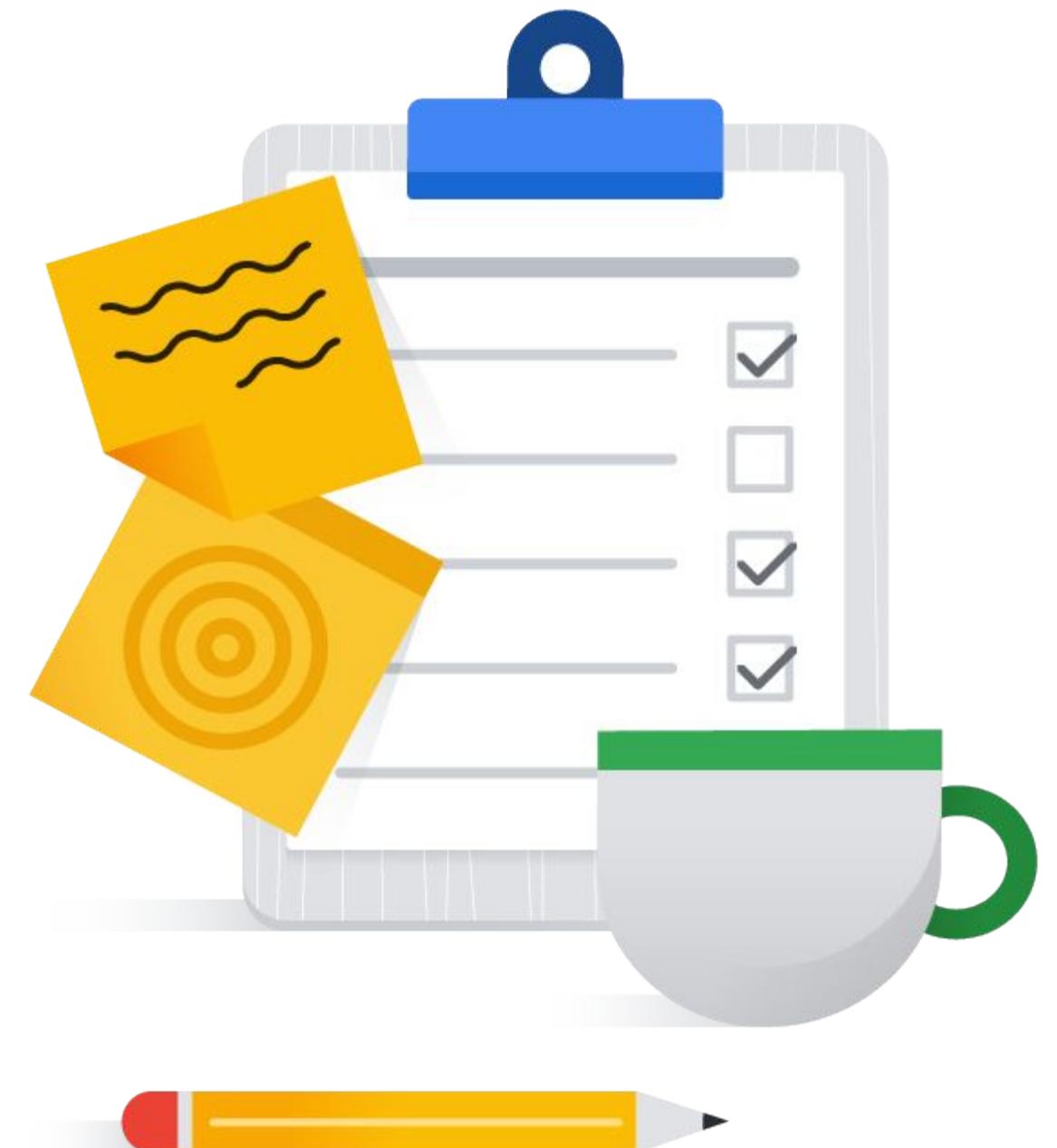
### Use cases:

- Contract information extraction
- Feedback classification and ticket creation
- Sentiment analysis\*
- Content translation\*
- Structured data extraction from file\*
- Media tagging\*
- Product tagging\*
- Content moderation \*

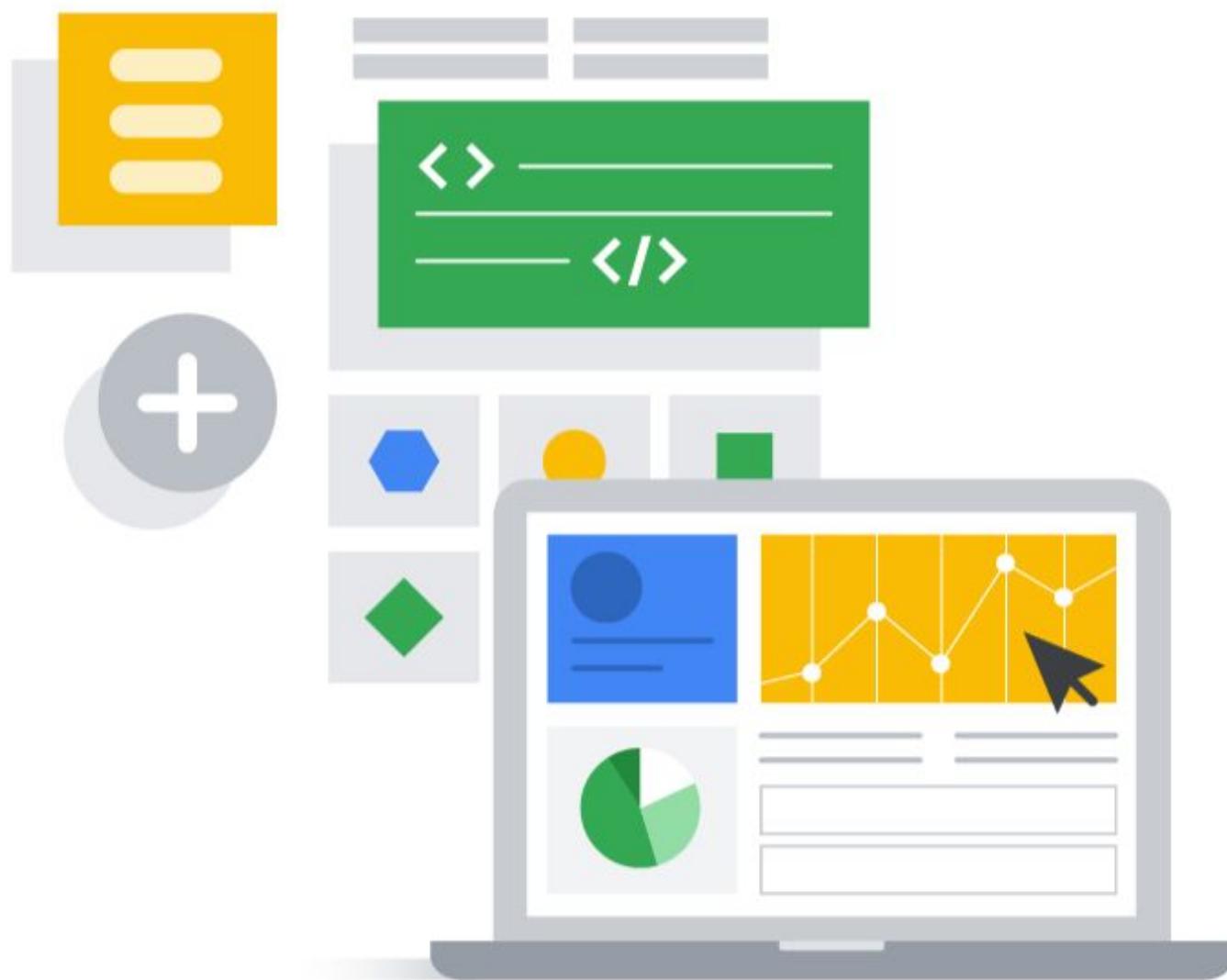
\*may require Responsible AI Review

# Topics

01	Next Steps
02	Q&A



# Is there anything else you want to see?

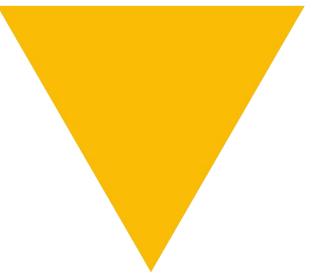


# Is there anything else you want to ask?





105



## Summary

# In this course, you learned ...

01

How Generative AI can be leveraged to optimize business tasks, generating better, faster results

02

The range of Generative AI tools Google Cloud offers business users, and when to use them

03

Industry-specific use cases, and how to identify high-value use cases in your business

04

Strategies and best practices for introducing Generative AI into your day-to-day workflows



