Microsoft Power Platform
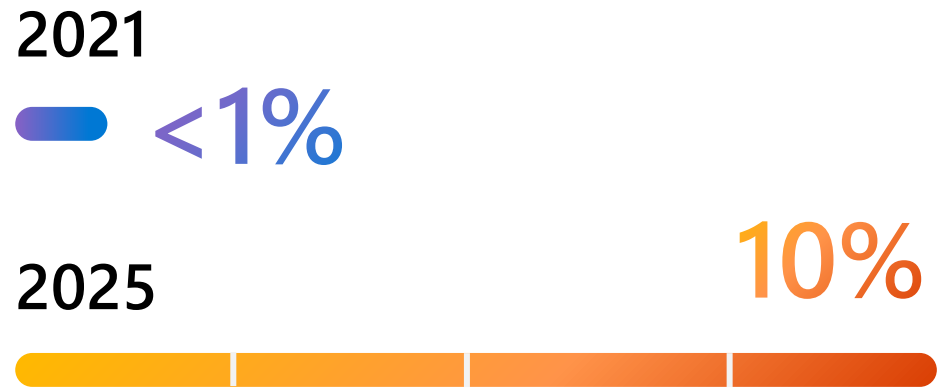
Low Code and AI

The world is changing.

Industries are transforming rapidly

The drivers of economic growth are evolving

The world is more connected than ever

The opportunity is yours to
lead the AI transformation

AI and low code are the future

2021

<1%

2025

10%

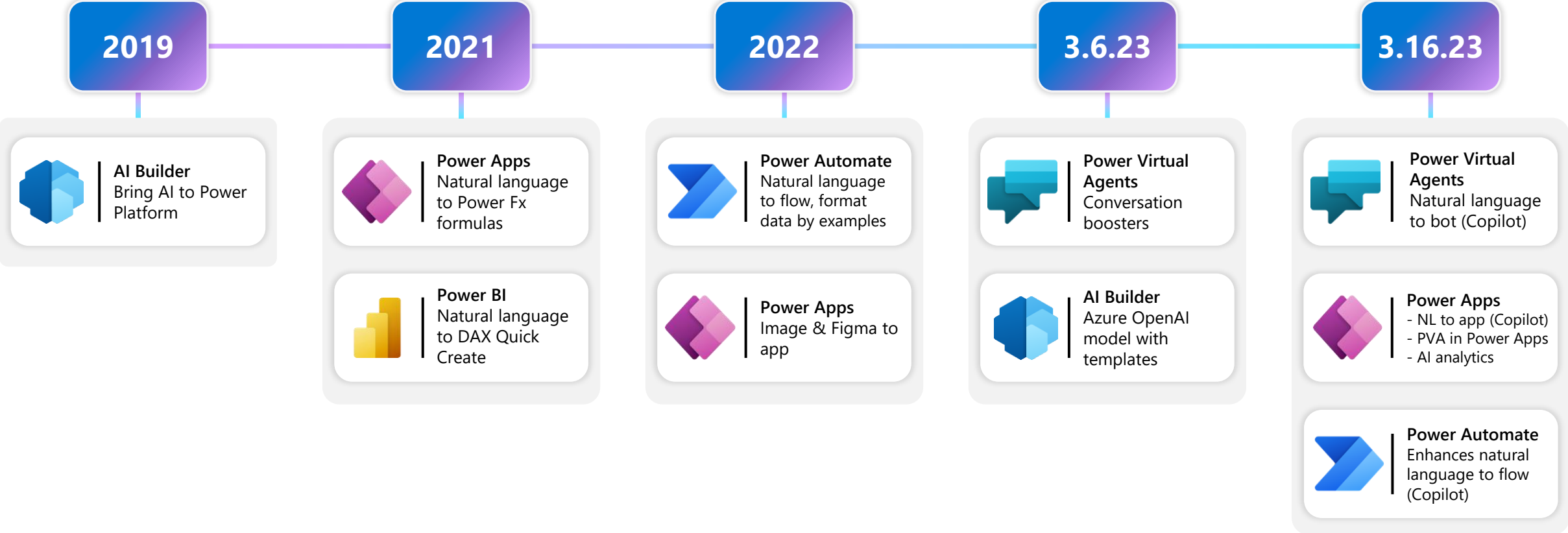The percentage of the world's data produced by **generative AI** will jump from under 1% in 2021 to around 10% in 2025.[1]

65%+

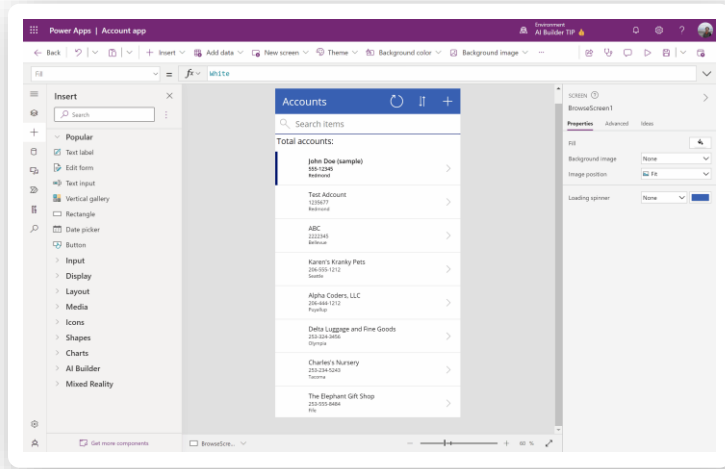More than 65% of application development activity **will be low-code** by 2024.[2]

Infusing AI in low code since 2019

2019 — **2021** — **2022** — **3.6.23** — **3.16.23**

2019

AI Builder
Bring AI to Power Platform

2021

Power Apps
Natural language to Power Fx formulas

Power BI
Natural language to DAX Quick Create

2022

Power Automate
Natural language to flow, format data by examples

Power Apps
Image & Figma to app

3.6.23

Power Virtual Agents
Conversation boosters

AI Builder
Azure OpenAI model with templates

3.16.23

Power Virtual Agents
Natural language to bot (Copilot)

Power Apps
- NL to app (Copilot)
- PVA in Power Apps
- AI analytics

Power Automate
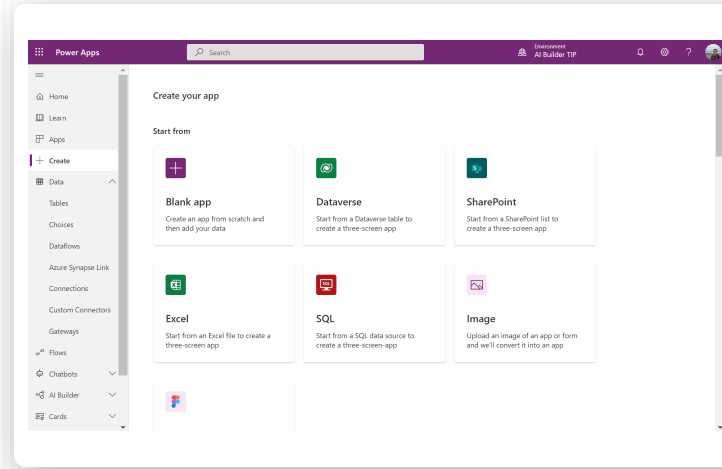Enhances natural language to flow (Copilot)

Power Apps

Ideas

Makers only need to describe their goal using natural language and Power Apps will generate code.
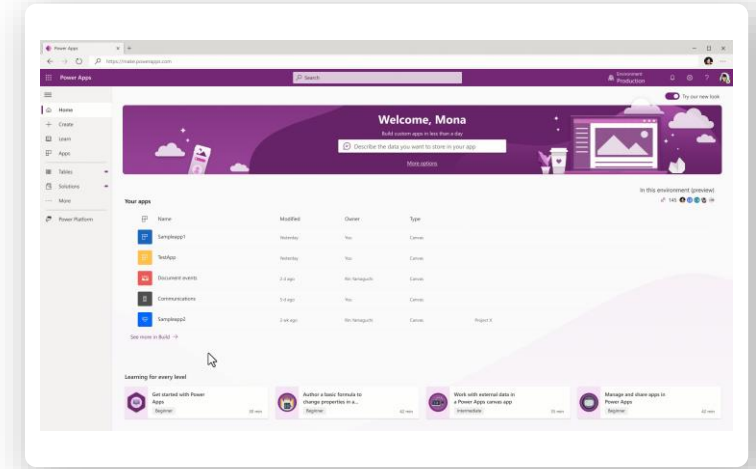
Save time and build more complex solutions by using natural language to give commands.

Express design

Auto-generate working apps and data within seconds from images and design files.

Accelerate app development and enable anyone to easily create a new app to scale development.
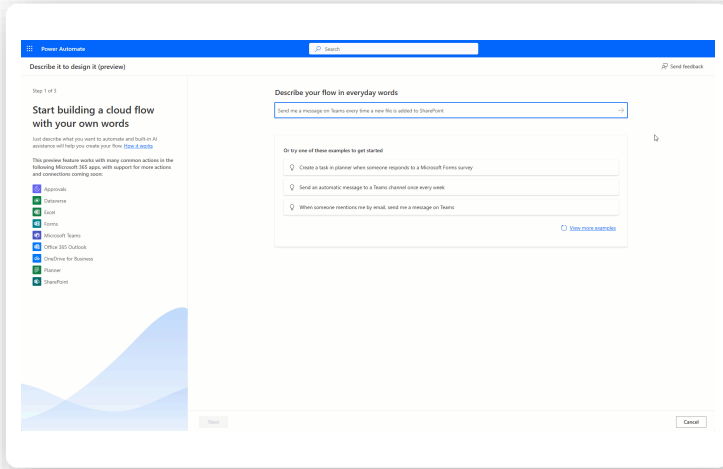
Copilot

Makers can build a complete app just by describing what they need in natural language.

Build, reimagine, and deploy business applications all through intuitive natural language.
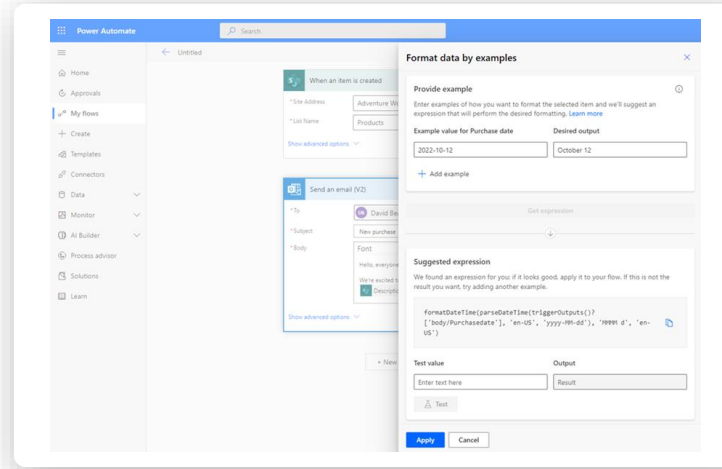
Power Automate

Natural language to flow

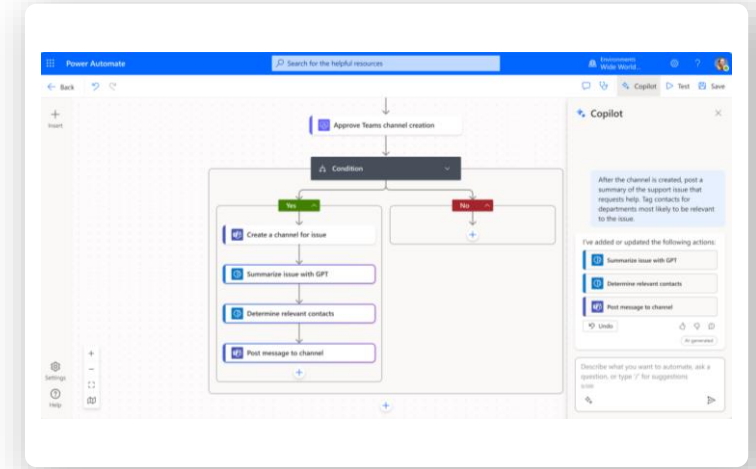Describe what you want to automate, and an AI copilot will build your flow in seconds.

Speed up development by quickly creating flows from natural language descriptions.

Format data by examples

Provide examples of the desired output format and the copilot will automatically generate the formula.

Reduce time spent formatting your data by having the AI-based copilot clean up your data for you.
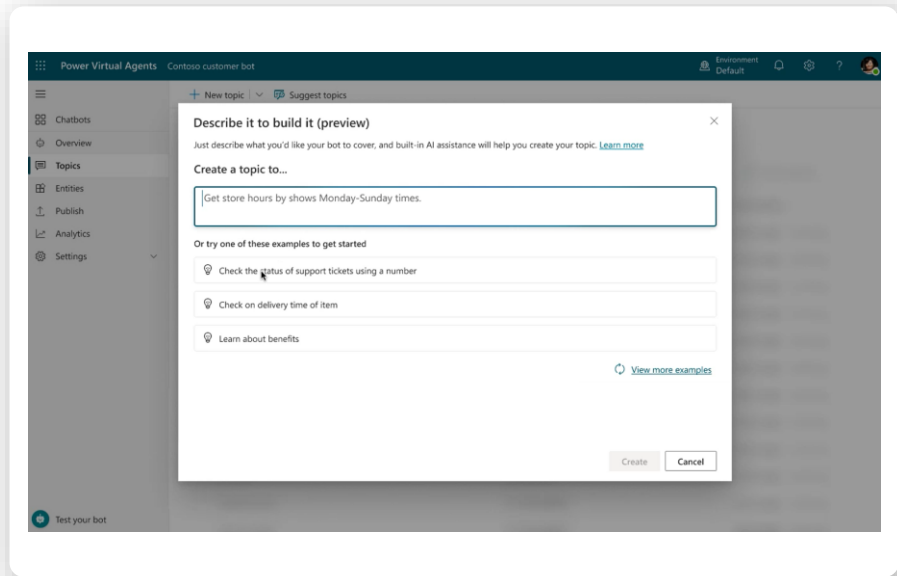
Copilot

Use natural language to edit and extend flows with an AI-based copilot.

Easily build and iterate on flows as the copilot helps remove blockers or extend your flow.
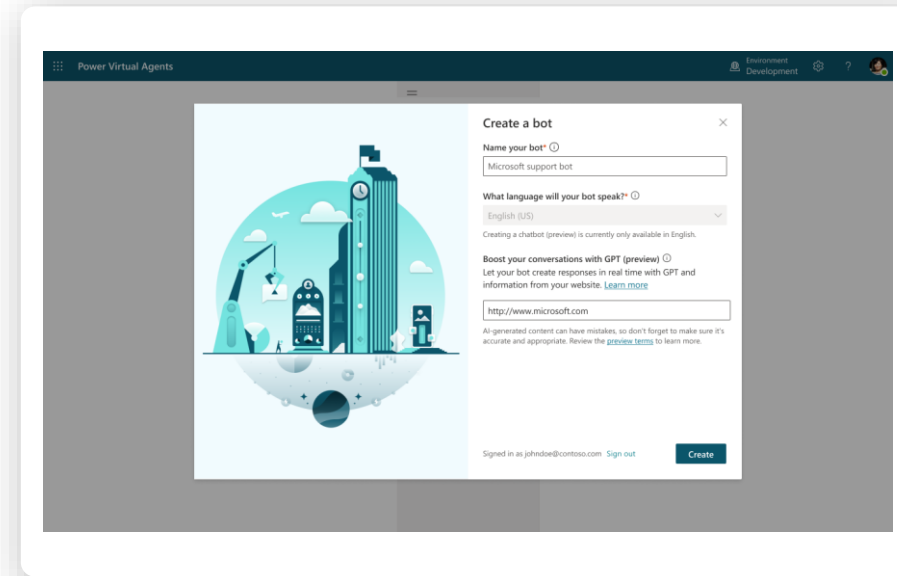
Power Virtual Agents

Copilot in Power Virtual Agents

Makers can quickly create and refine topics using natural language by "describing it to build it."

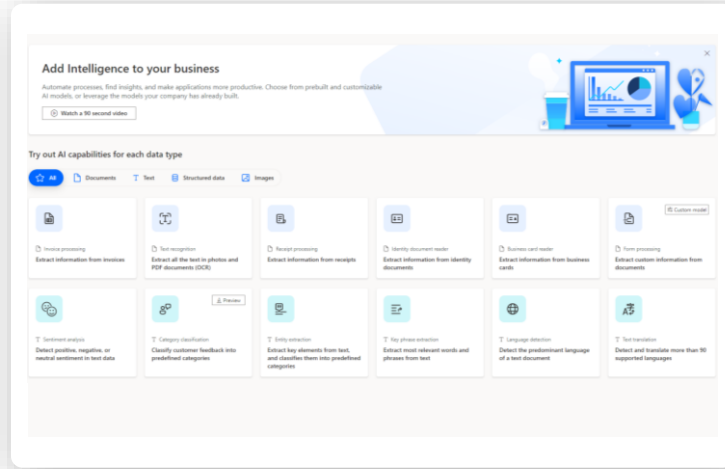Reduce bot-generation time down to hours or even minutes by leveraging Power Virtual Agents copilot.

Conversation booster

Connect bots to the most current and useful data sources, like company websites, to answer questions in minutes, right out of the box.

Quickly create and deploy a functional bot, without having to manually author multiple topics.
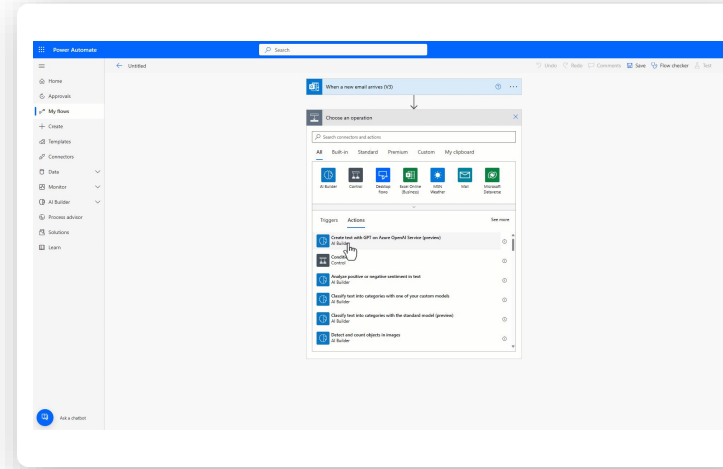
AI Builder

AI models

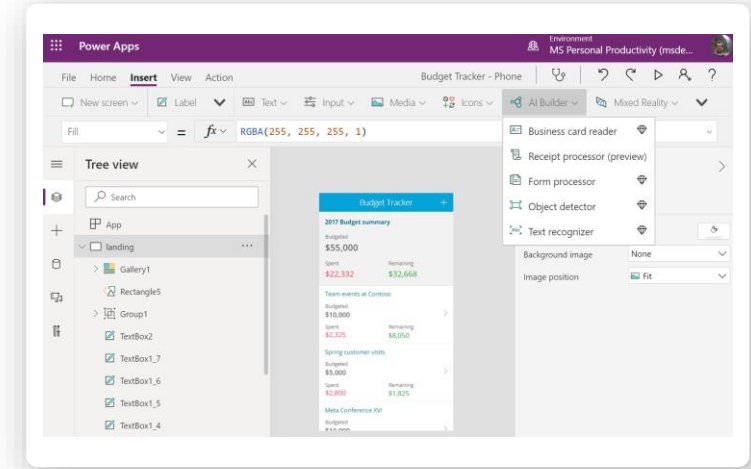Democratized access to complex AI models including object detection, sentiment analysis, and many more.

Simplify tasks, increase productivity and reduce time spent developing by easily applying AI models.

Create text with GPT model

The Azure OpenAI Service model enables users to embed intelligent text generation features with a few clicks.

Makers can interact with the model and build prompts for their workflow, reducing development time.

Integrate into your solutions

Easily embed generative AI into your low code solutions across Power Apps and Power Automate.

Reduce time to market by quickly and easily adding AI models to your applications and workflows.

Next steps

- [Power Platform Announcement Blog](#)
- [Power Apps Announcement Blog](#)
- [Power Virtual Agents Announcements Blog](#)

Microsoft Power Platform

Thank you

OpenAI

AI made possible by large scale foundation models

DALL-E
Creating images from text

Codex
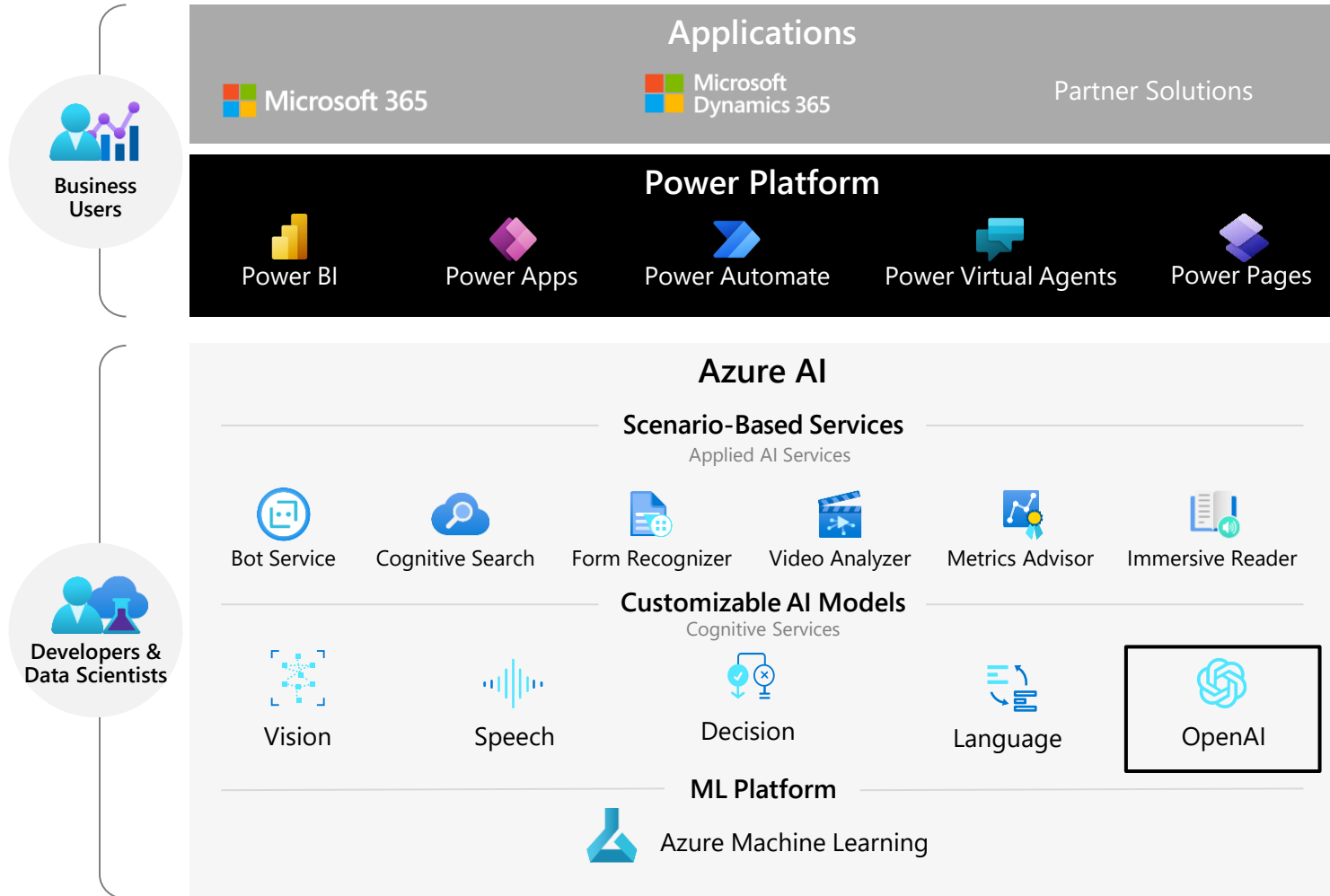Understand and generate code

Whisper
Automatic speech recognition

ChatGPT
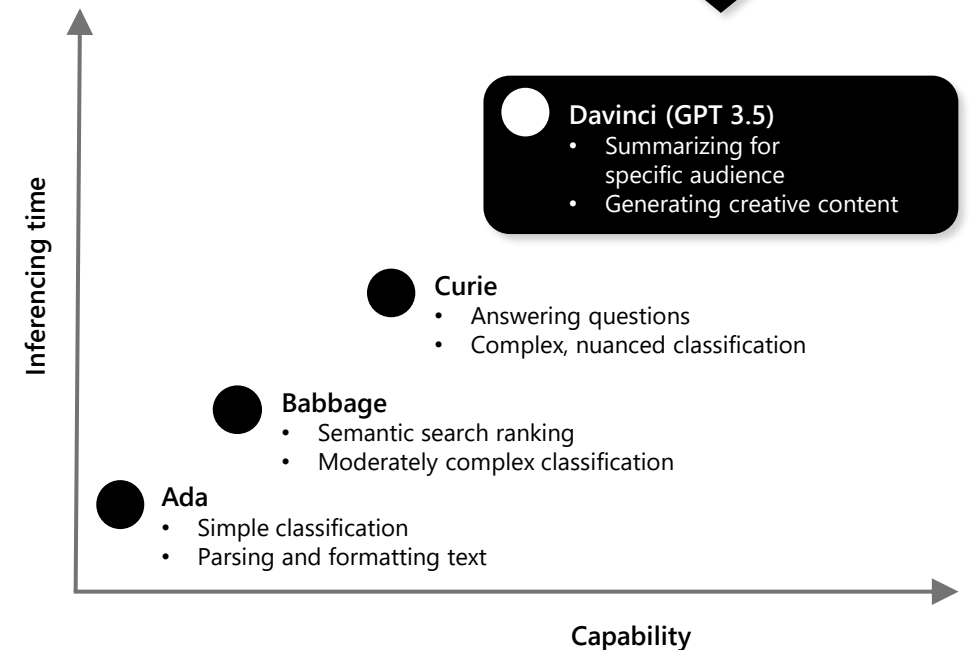Conversational AI chatbot

GPT-3
Understand and generate
natural language

Microsoft Portfolio for AI

Business Users

Applications

| Microsoft 365 | Microsoft Dynamics 365 | Partner Solutions |

Power Platform

| Power BI | Power Apps | Power Automate | Power Virtual Agents | Power Pages |

Developers & Data Scientists

Azure AI

Scenario-Based Services
Applied AI Services

| Bot Service | Cognitive Search | Form Recognizer | Video Analyzer | Metrics Advisor | Immersive Reader |

Customizable AI Models
Cognitive Services

| Vision | Speech | Decision | Language | OpenAI |

ML Platform

Azure Machine Learning

OpenAI

OpenAI is an AI research and deployment company.

Azure Open AI Service brings together OpenAI API and Azure enterprise-level security, compliance, and regional availability.

Open AI Models

Whisper
Automatic speech recognition system

Codex
AI system that translates natural language into code

DALL-E 2
Images from text

GPT-3/Chat GPT
Optimizing language models for dialogue

+ many more

Inferencing time (vertical axis) / *Capability* (horizontal axis)

Davinci (GPT 3.5)
- Summarizing for specific audience
- Generating creative content

Curie
- Answering questions
- Complex, nuanced classification

Babbage
- Semantic search ranking
- Moderately complex classification

Ada
- Simple classification
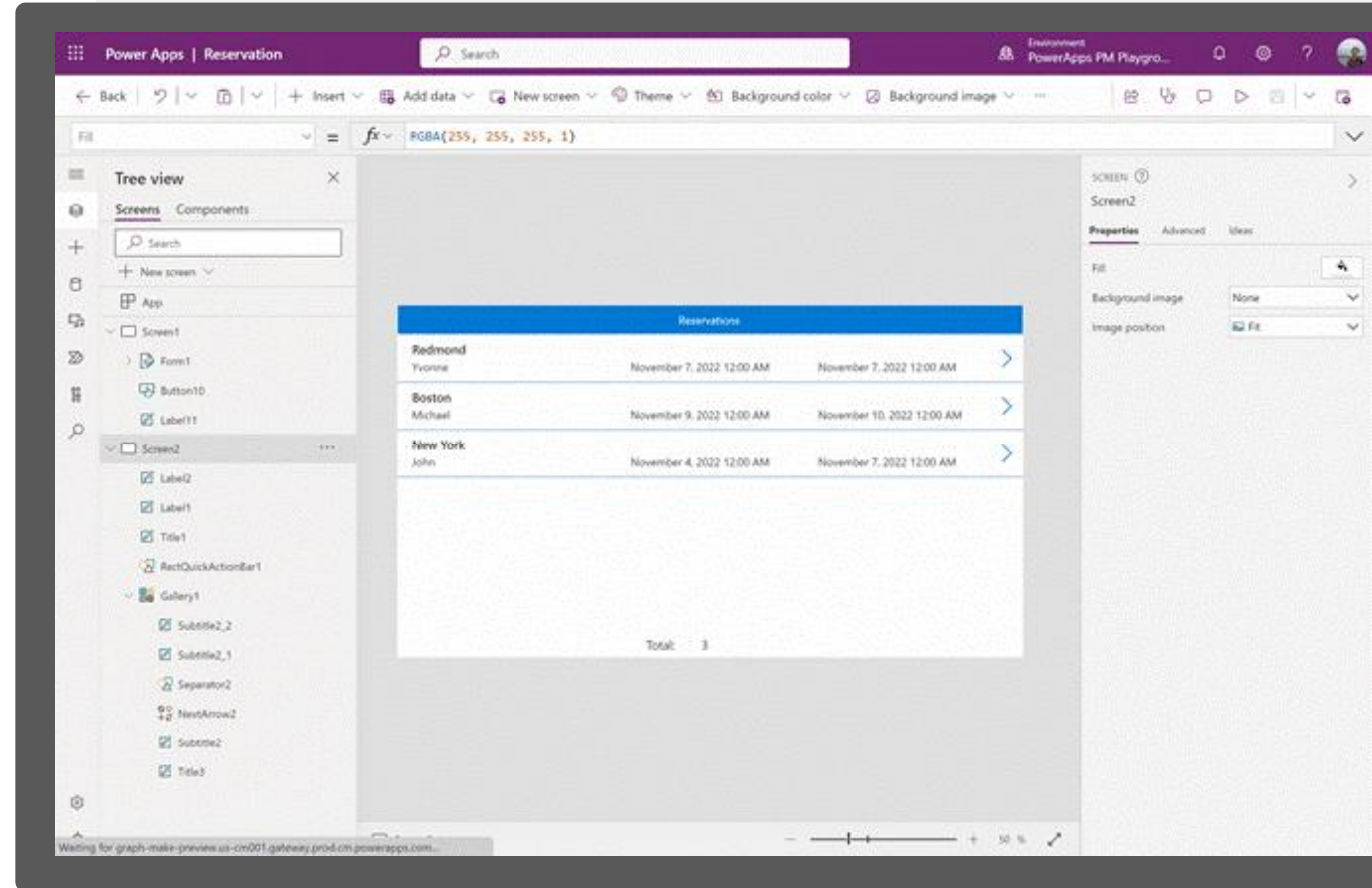- Parsing and formatting text

Power Apps

Power Apps ideas

Available in gallery, data table, labels, text input and dropdown controls

It now supports more formulas like counting and conditional formatting

Powered by GPT-3 for natural language understanding, and PROSE for by examples programming

Power Apps express design – Figma to app

Design your app using our **create apps from Figma UI kit**

Upload the link into Power Apps and name your app
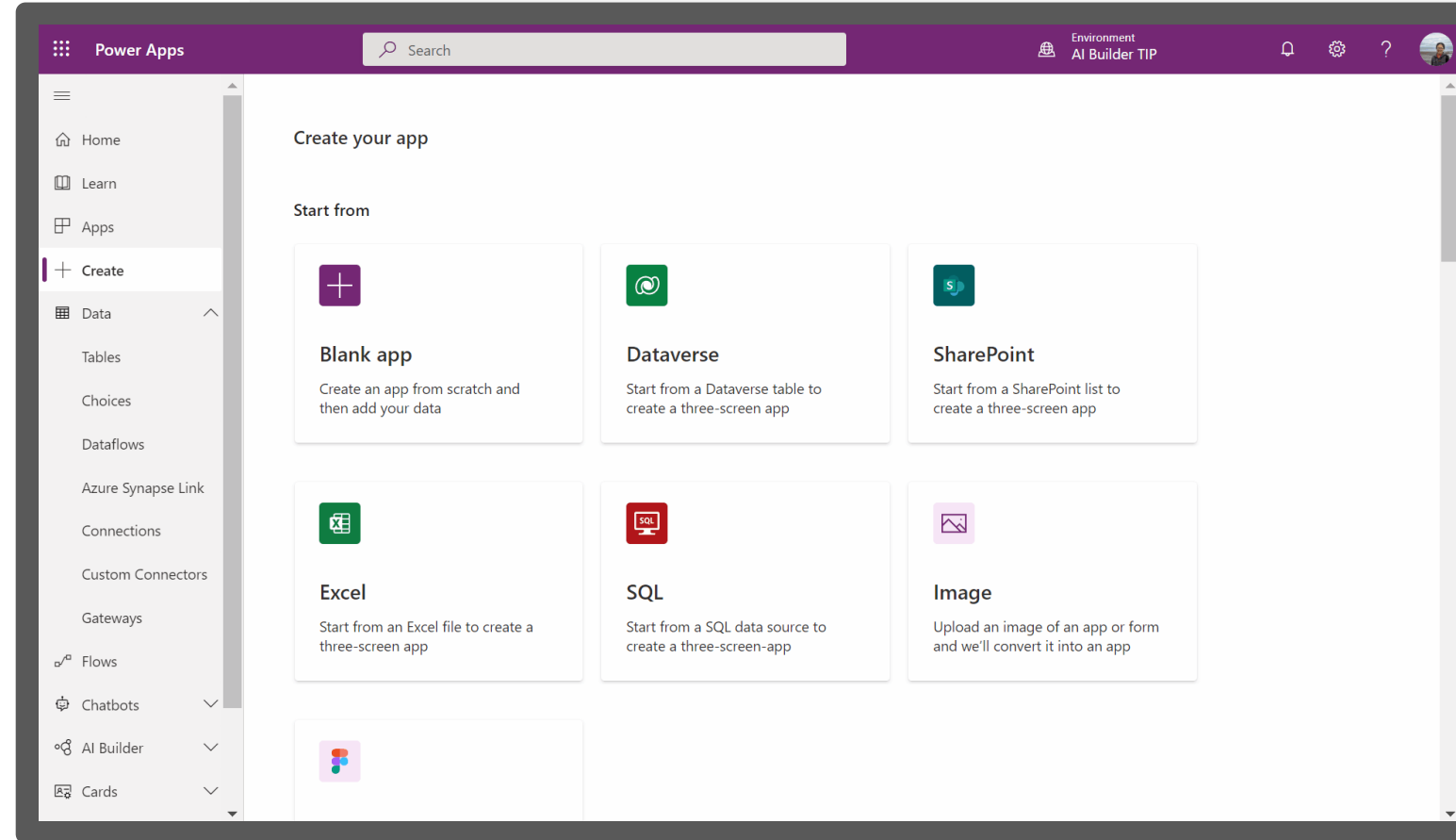
A pixel perfect app will be generated for you based on your Figma design

Power Apps express design – image to app

Upload an image and map its elements to Power Apps components

Manages most common controls like inputs, buttons, check box, drop downs, text inputs, etc.

Provides optional data set up steps for you to extract fields from the image and create a Dataverse table right away

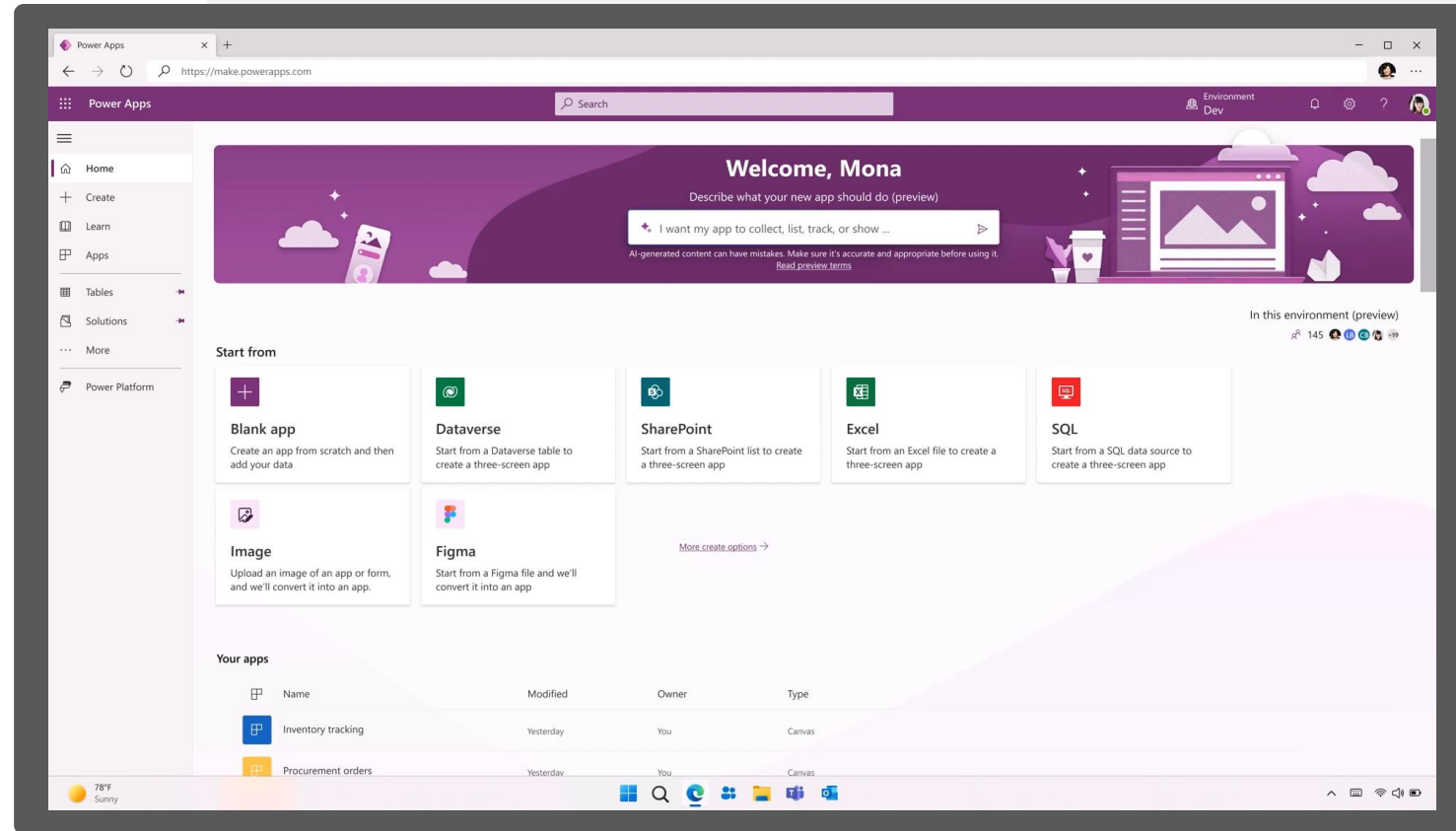A working app based off of the image content is generated automatically

Introducing natural language development with copilot

Build new apps just by describing in natural language what you need

Multi-turn, multi-step conversation through the process of creating data and customizing UX

Makers can build a complete app over Dataverse by starting with natural language
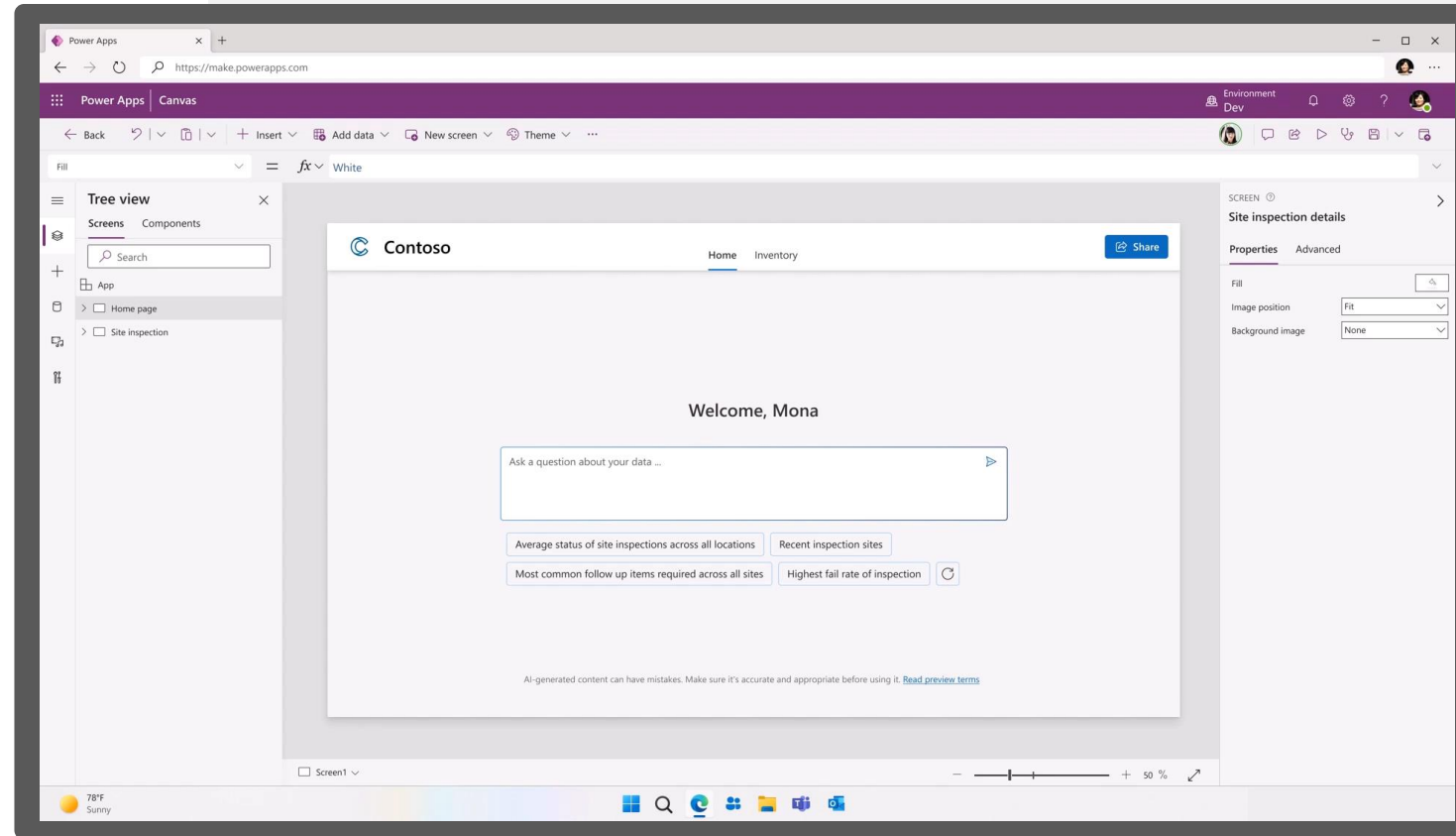
No friction to use

Preview March 2023

Copilot control adds a personal copilot to any app

Add a copilot experience to any custom Power App

Empower users to generate intelligent insights and analytics

Write queries and refine analysis with the help of a next-generation AI assistant
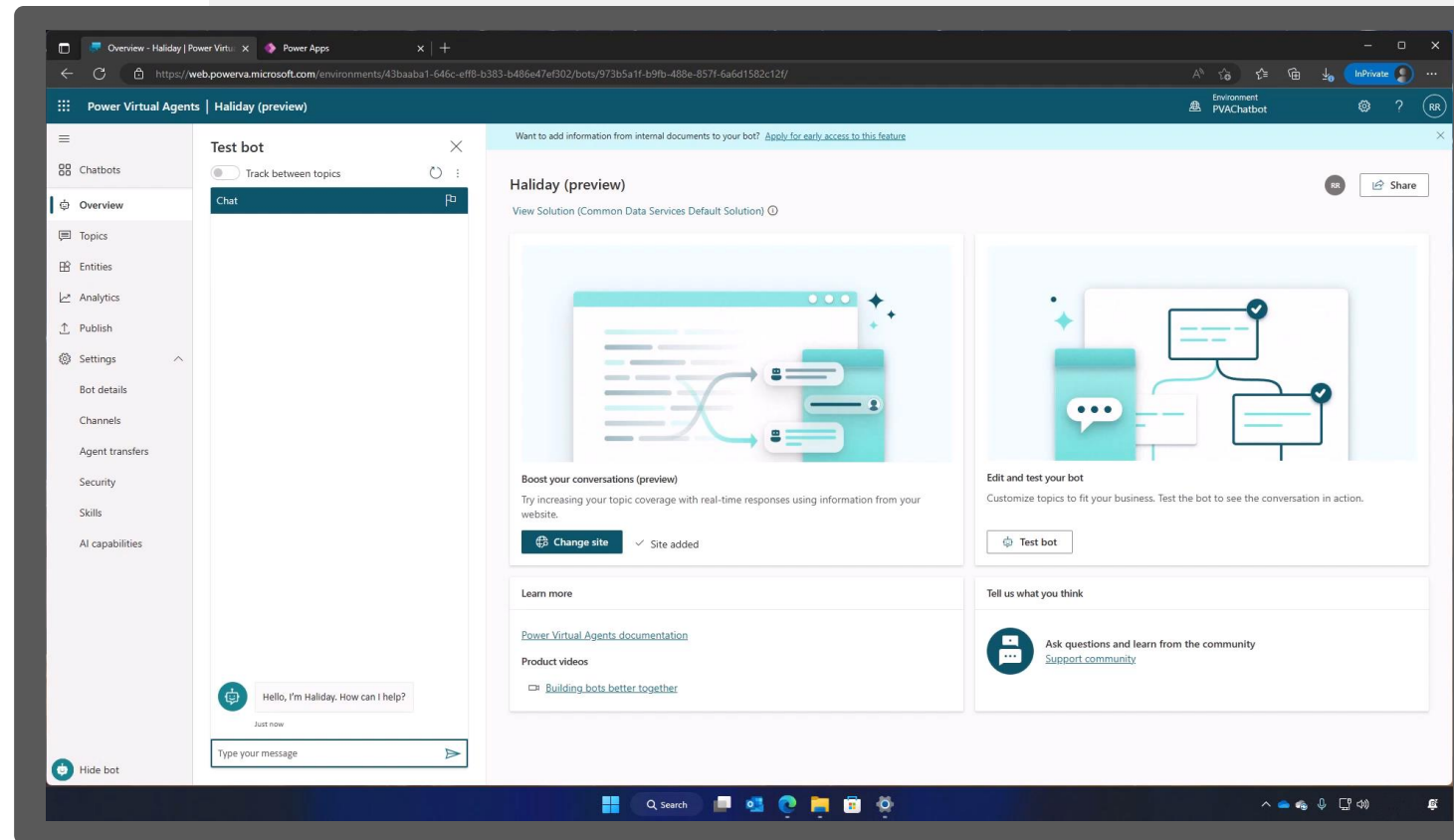
Preview March 2023

Makers can now natively embed PVAs in their Power Apps

Add a GPT-powered Power Virtual Agent to any custom Power App

GPT can intuit what data to talk about and can be easily instructed by makers

Includes all the latest features for Power Virtual Agents like conversation boosters and natural language bot building

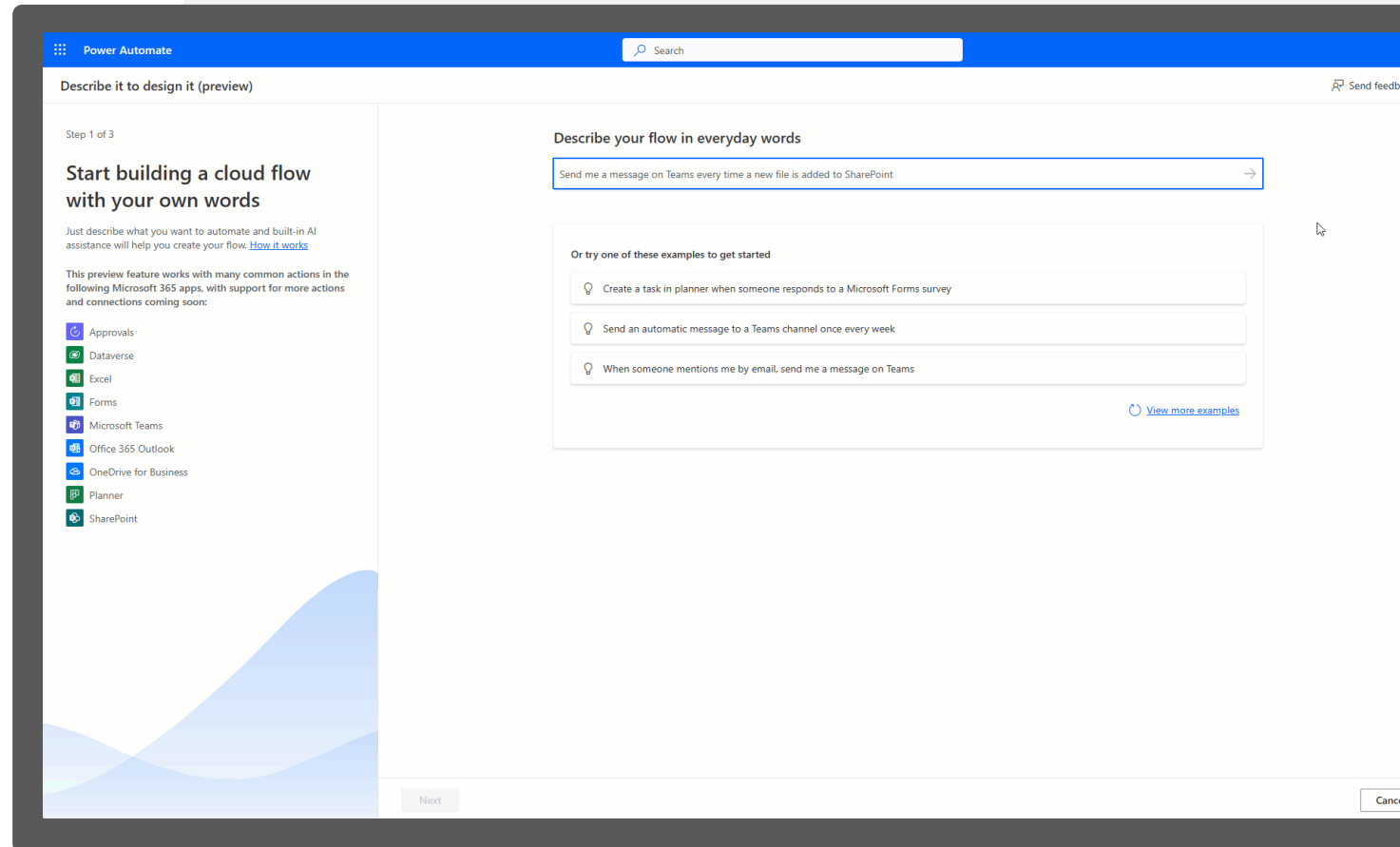
Preview March 2023

Power Automate

Transform natural language to automation

Bring ideas to life with AI powered automation development

Now you can describe what you want to automate in a sentence, and an AI-based copilot will build your flow in seconds

This new way to create flows runs on OpenAI Codex, an AI model descendant of GPT-3 that can translate natural language to code, in this case, Power Automate cloud flows

Format data by examples

Bring ideas to life with AI powered automation development

Now, it's simple for users to format data by examples with AI assistance

When you want to format text, dates, and numbers within your cloud flow, you can just provide examples of the desired output format and the copilot will automatically generate the expression formula to use

Power Virtual Agents

Conversation booster

Allow customers to create a bot and specify a single web address. It will search the web address using Bing and summarize relevant results using GPT.

Traditionally, bots had a limited number of manually-authored topics and escalated to human agents when asked about anything else
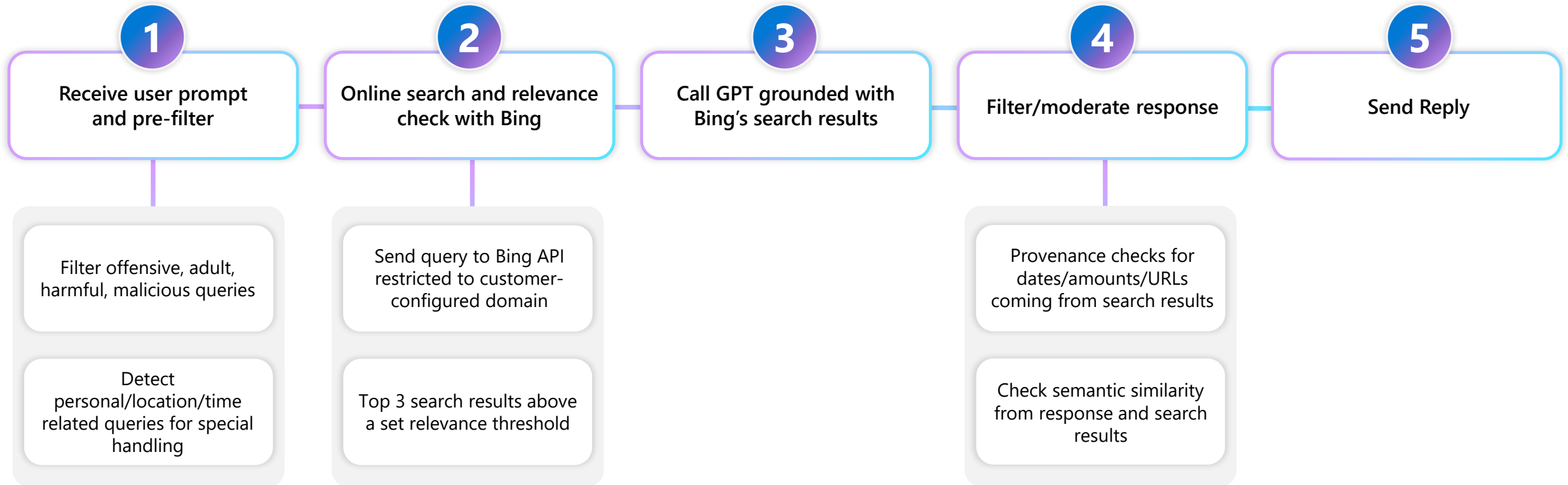
Boosting your conversations with GPT addresses this by first querying over the tenant's website, support materials, agent manuals, KBs etc.– and then using GPT to summarize the relevant results

Bots will be able to answer tenant-specific questions out of the box. Longer-term, we can build per-tenant models as access and cost improves

Preview March 2023

Conversations boosters – 5 steps

1 Receive user prompt and pre-filter

2 Online search and relevance check with Bing

3 Call GPT grounded with Bing's search results

4 Filter/moderate response

5 Send Reply

Filter offensive, adult, harmful, malicious queries

Detect personal/location/time related queries for special handling

Send query to Bing API restricted to customer-configured domain

Top 3 search results above a set relevance threshold

Provenance checks for dates/amounts/URLs coming from search results

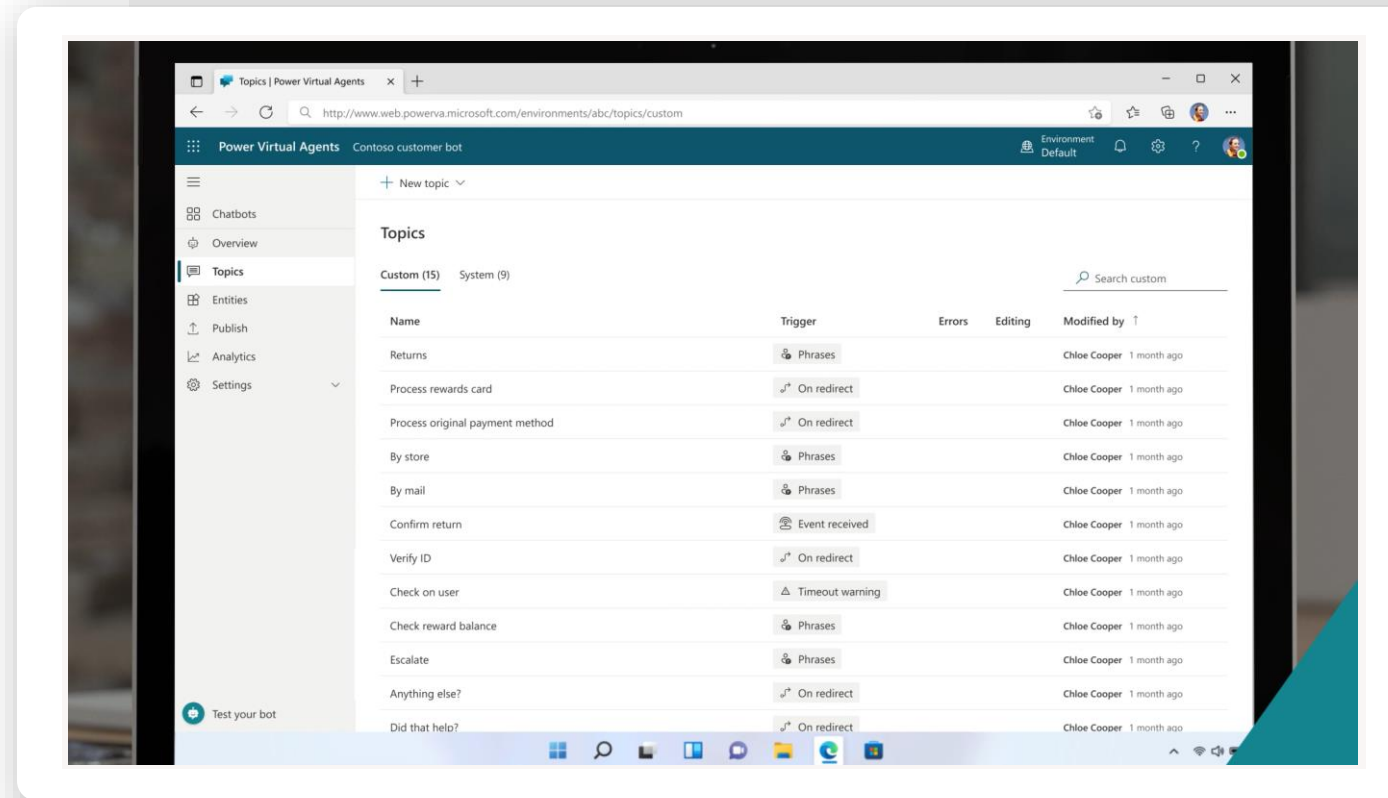Check semantic similarity from response and search results

Copilot

AI assistance in building topics, designing and modifying the bot all through natural language.

Pro code bots took months to author PVA bots took days to weeks to author

A user can provide a prompt that will result in a fully-functional dialog created in the tooling

The user can then select part of the dialog and use additional prompts to refine it – or use PVA's graphical UX to tweak it manually

Preview March 2023

Copilot with GPT – 5 Steps

1 Maker describes what to build with natural language

2 PVA constructs prompt and calls GPT

3 GPT returns PVA's YAML code and loads graphical and text-based PVA editor

4 Maker can refine the topic with natural language

5 Maker provides feedback

What do you want to build?

Ask the user for their name, date of birth, SSN, gross income, and show a summary in a card. And ask them to confirm. Get SS in XX-XX-XXXX format


```
19  actions:
20    - kind: Question
21      id: Question_i3vZgv
22      variable: Topic.Name
23      prompt: What is your name?
24      entity: PersonNamePrebuiltEntity
25
26    - kind: Question
27      id: Question_nJVorK
28      variable: Topic.DOB
29      prompt: What is your date of birth?
30      entity: DatePrebuiltEntity
31
32    - kind: Question
33      id: Question_dCev4W
34      variable: Topic.SSN
35      prompt: What is your Social Security Number (XXX-XX
36      entity: StringPrebuiltEntity
37
38    - kind: Question
39      id: Question_JSVaKA
40      variable: Topic.GrossIncome
41      prompt: What is your gross income?
42      entity: NumberPrebuiltEntity
43
44    - kind: SendMessage
45      id: SendMessage_qp5yEs
46      message:
47        attachments:
48          - kind: AdaptiveCardTemplate
49            cardContent: |-
```
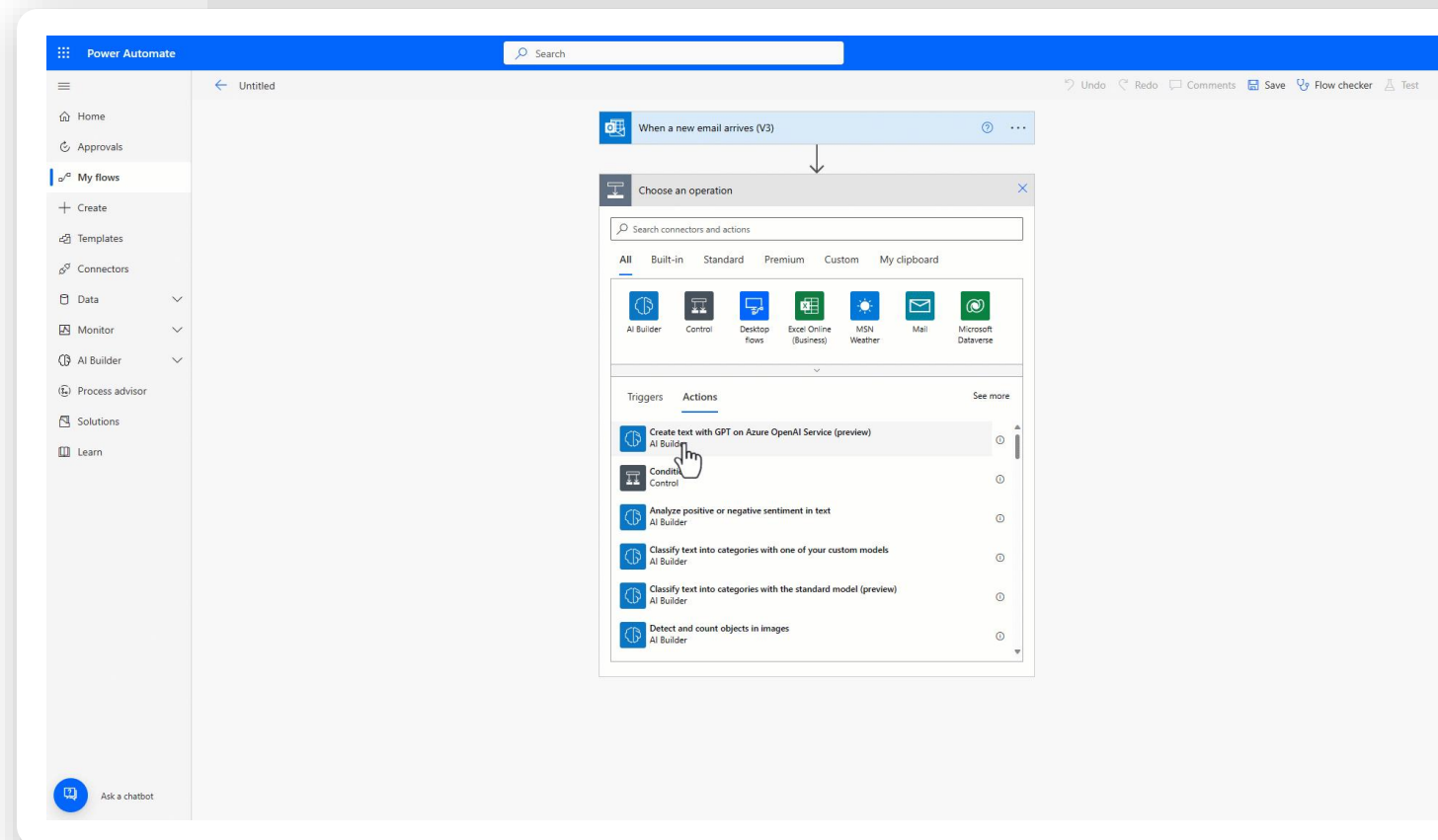
AI Builder

Create text with AI Builder

New AI Builder model built on Azure OpenAI service's large language (LLM) capability that can generate text, summarize documents, answer questions, and more.

Easily **embed generative AI** into Power Apps and Power Automate

Break barrier of entry to **access cutting-edge AI models**

Reduce time to market by adding AI models to your workflow with just a few clicks
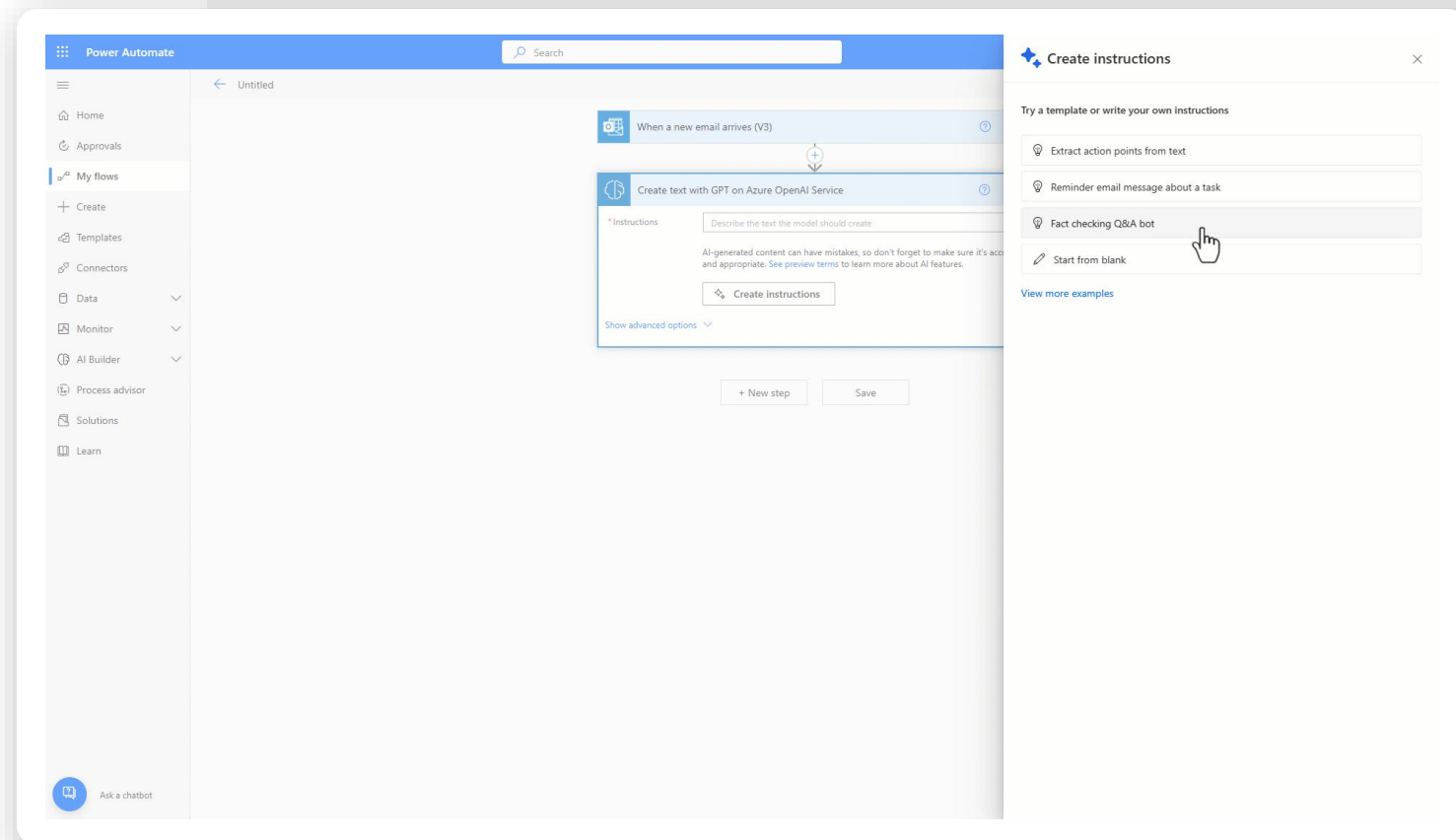
Preview March 2023

Easily instruct your model

Select from a set of pre-built templates or write your own instructions for greater customization.

Use pre-built templates to help guide instructions for the model to perform

Craft your own set of instructions for more specific actions like classifying or extracting keywords & information from text

Preview March 2023