

Crafting Custom Copilots with Azure AI Studio

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Agenda

- Introduction to Azure AI Studio
- How Azure AI Studio works?
- Core Components of Azure AI Studio
- Features of Azure AI Studio
- Demo
- Q & A

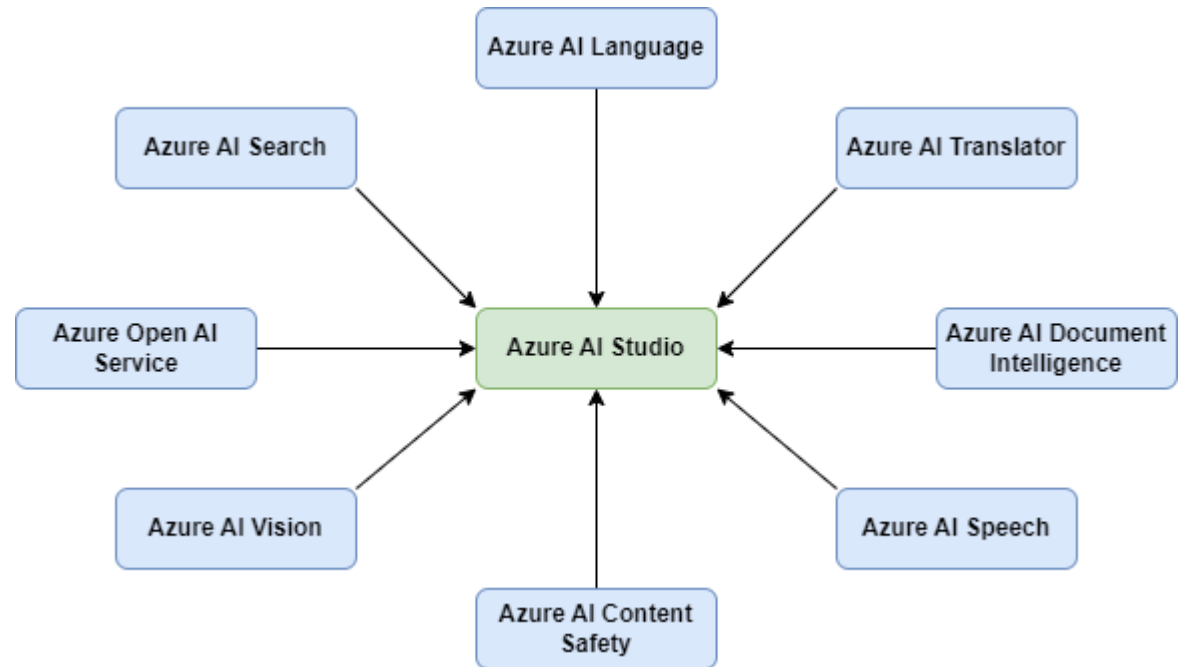
Introduction to Azure AI Studio

What is Azure AI Studio?

- Cloud based platform – like IDE / web portal.
- Combines various Azure AI services into one unified development environment

Azure AI Studio combines

- Model catalog and prompt flow development from Azure Machine Learning service.
- Generative AI model deployment, testing, and custom data integration from Azure OpenAI service.
- Integration with Azure AI Services for speech, vision, language, document intelligence, and content safety.



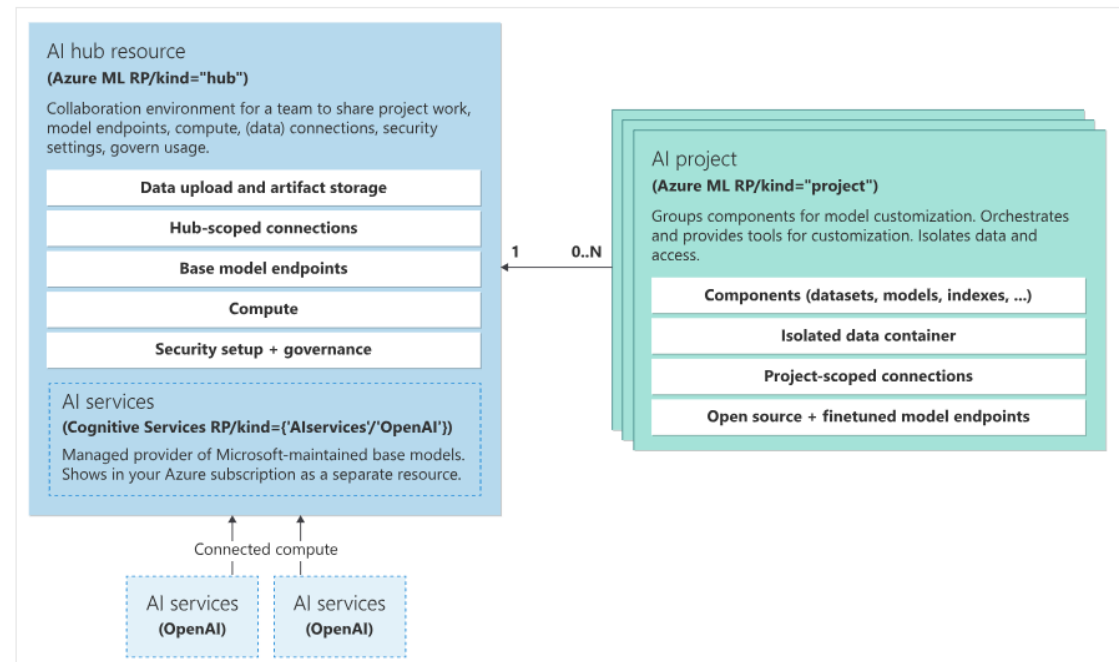
How Azure AI Studio works?

AI Studio Hub

- The hub is the top-level resource in Azure AI Studio.
- It provides the collaborative environment for a team to build and manage AI applications.

AI Studio Project

- A project is a child resource of the hub.
- It inherits the hub's connections, and compute resources.
- It serves as an organizational container with tools for AI customization and orchestration.



How Azure AI Studio works? Cont..

Features of AI Studio Hub

- Data upload and artifact storage.
- Hub-scoped connections to Azure services such as Azure OpenAI, Azure AI services, and Azure AI Search.
- Base model endpoints for Azure OpenAI, Speech, and Vision.
- Compute resources.
- Security and governance.

AI hub resource

(Azure ML RP/kind="hub")

Collaboration environment for a team to share project work, model endpoints, compute, (data) connections, security settings, govern usage.

Data upload and artifact storage

Hub-scoped connections

Base model endpoints

Compute

Security setup + governance

Features AI Studio Project

- Groups of components such as datasets, models, and indexes.
- An isolated data container (within the storage inherited from the hub).
- Project-scoped connections. For example, a project might need access to data stored in a separate Azure Storage account.
- Open source model deployments from catalog and fine-tuned model endpoints.
- A hub can have multiple child projects. Each project can have its own set of project-scoped connections.

AI project

(Azure ML RP/kind="project")

Groups components for model customization. Orchestrates and provides tools for customization. Isolates data and access.

Components (datasets, models, indexes, ...)

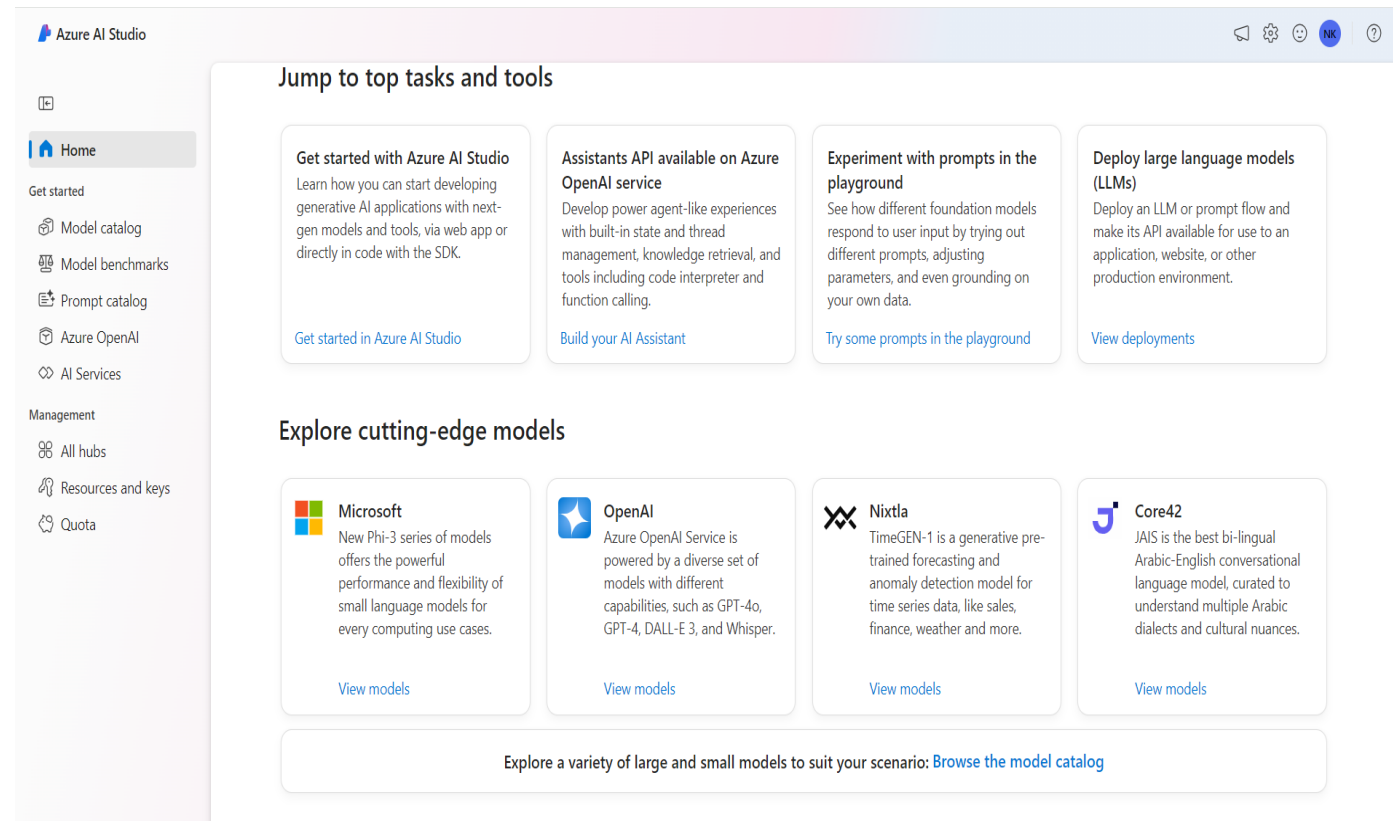
Isolated data container

Project-scoped connections

Open source + finetuned model endpoints

Core Components of Azure AI Studio

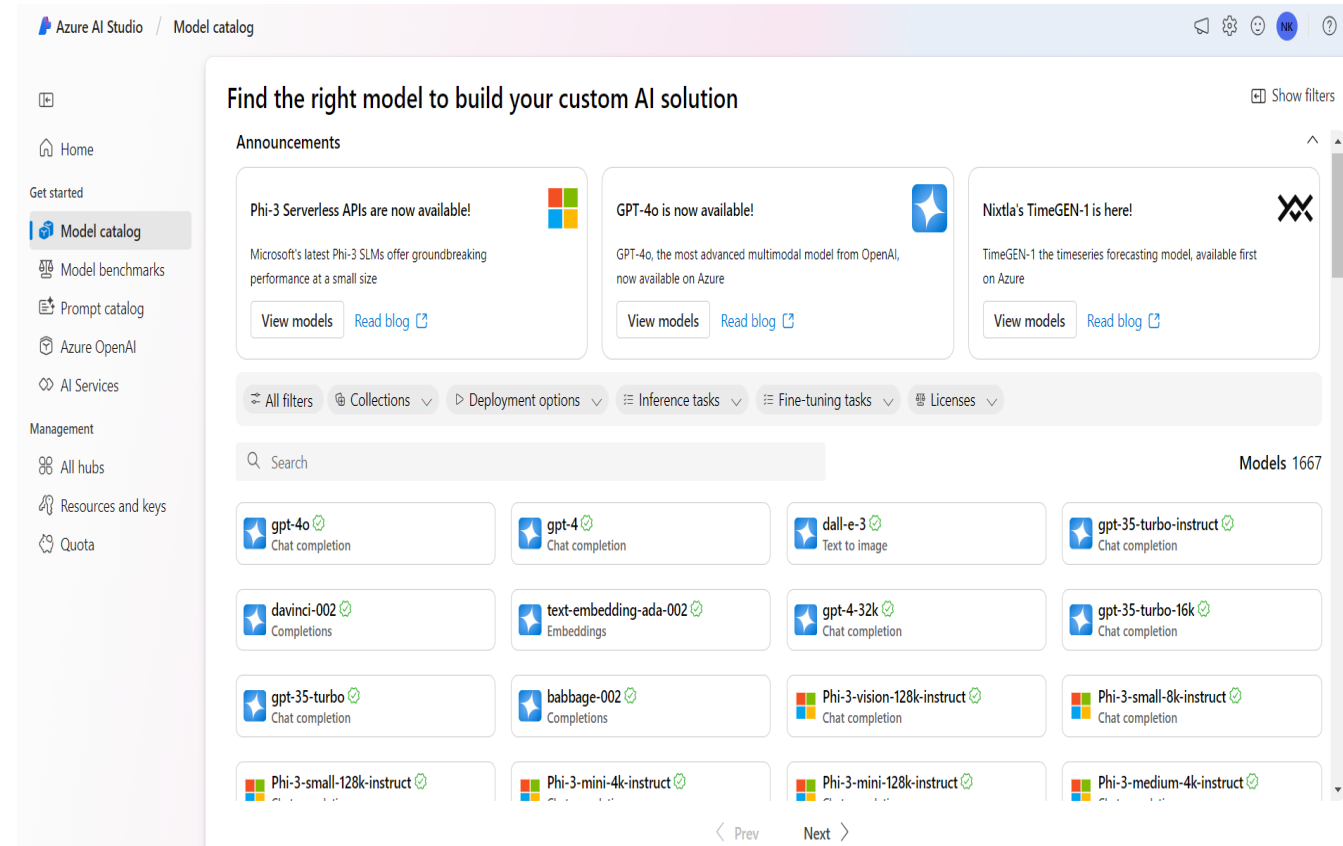
- Model Catalog
- Model Benchmarks
- Prompt Catalog
- Azure OpenAI
- AI Services



Core Components of Azure AI Studio Cont...

Model Catalog

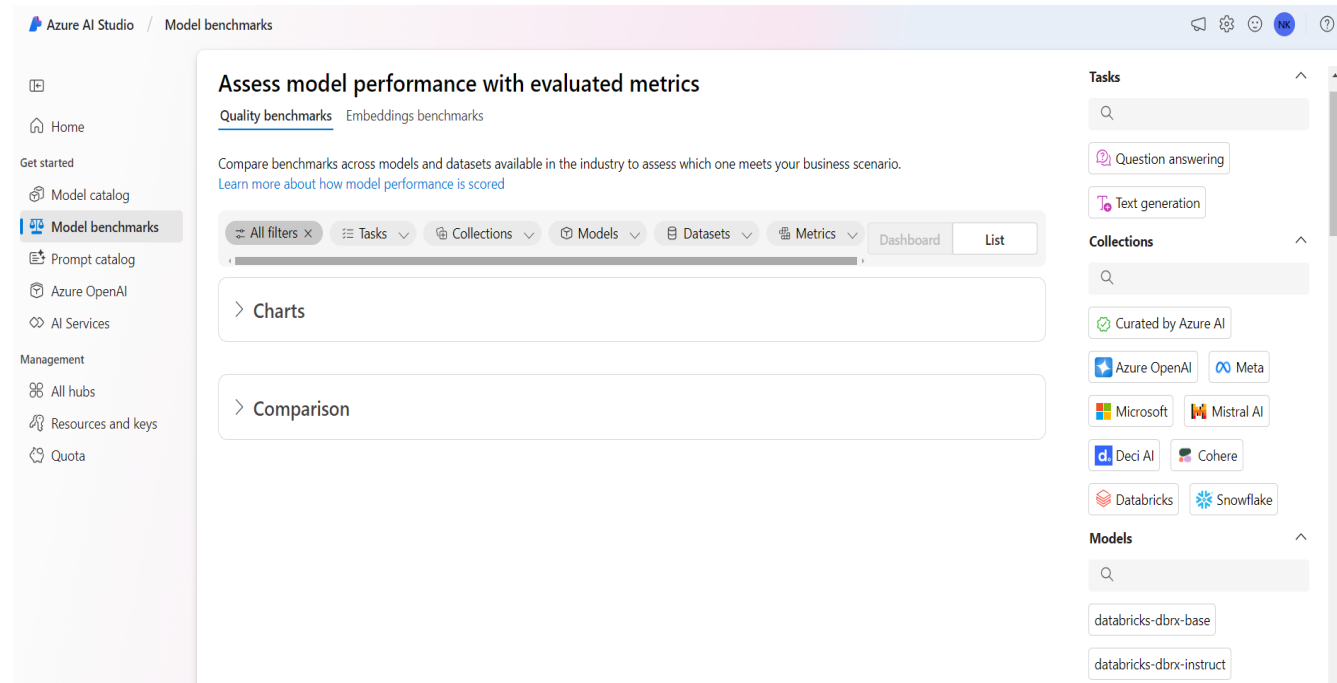
- ❑ Curated collection of pre-built machine learning models from Microsoft and other sources.
- ❑ Serves as a hub for discovering and utilizing a wide range of models.
- ❑ These models enable you to build generative AI applications.
- ❑ It features hundreds of models from various providers, including Azure OpenAI service, Mistral, Meta, Cohere, Nvidia, and Hugging Face.



Core Components of Azure AI Studio Cont...

Model Benchmarks

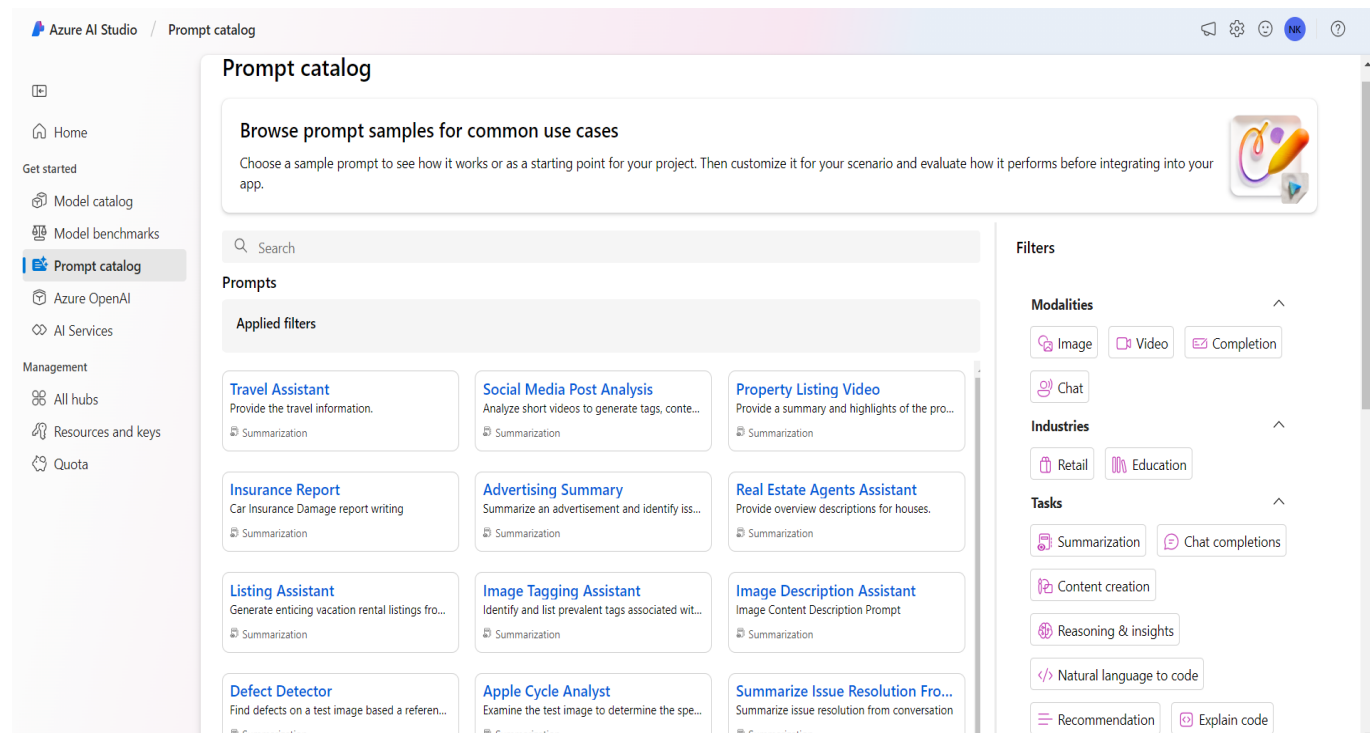
- ❑ Allow you to compare the performance of different models and datasets available in the industry.
- ❑ Helps in selecting the most suitable model for a particular task based on factors such as accuracy, speed, and resource consumption



Core Components of Azure AI Studio Cont...

Prompt Catalog

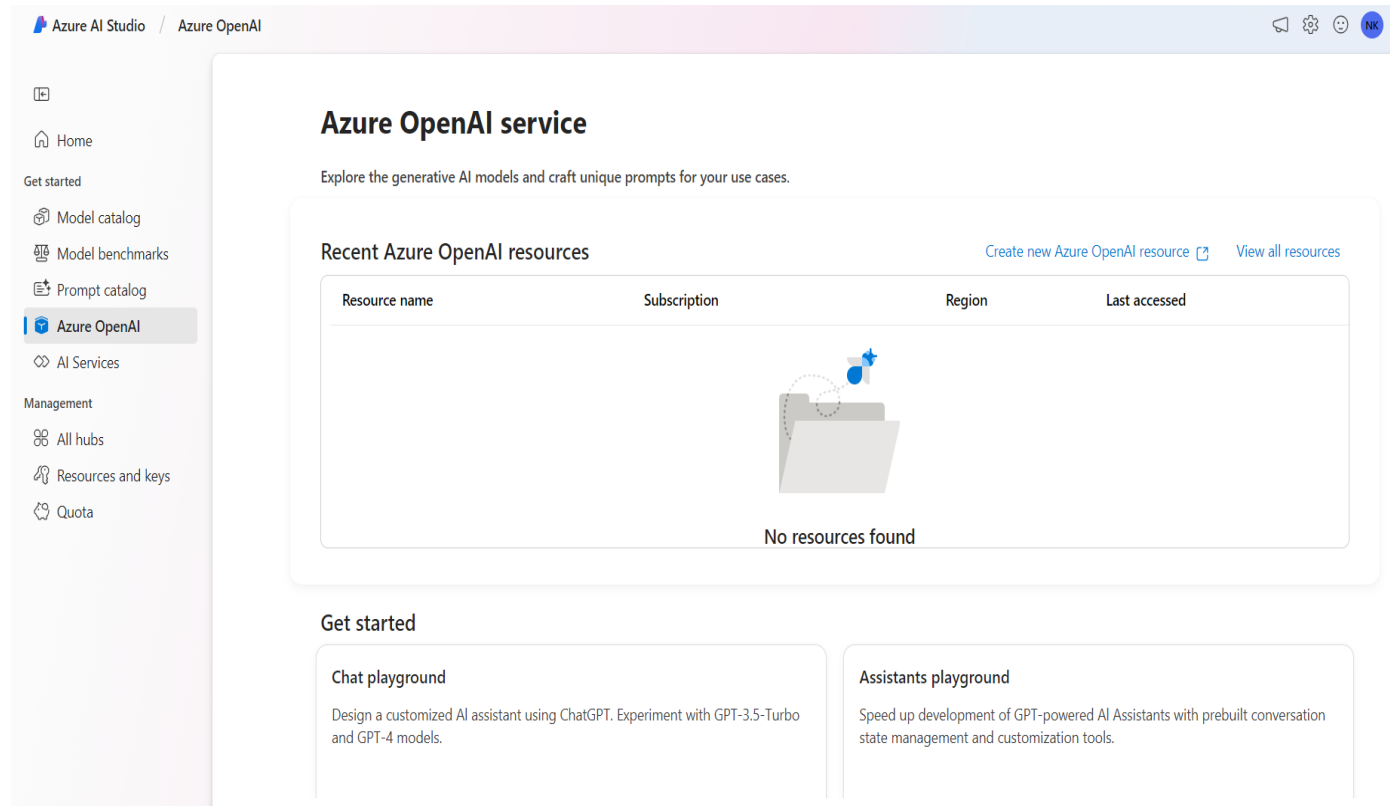
- ❑ Collection of predefined prompts for common use cases, such as generating text or images.
- ❑ Filter prompts by
 - Modality (e.g., chat, completions, image, video)
 - Industry (e.g., retail, education)
 - Task (e.g., summarization, chat completion).



Core Components of Azure AI Studio Cont...

Azure OpenAI

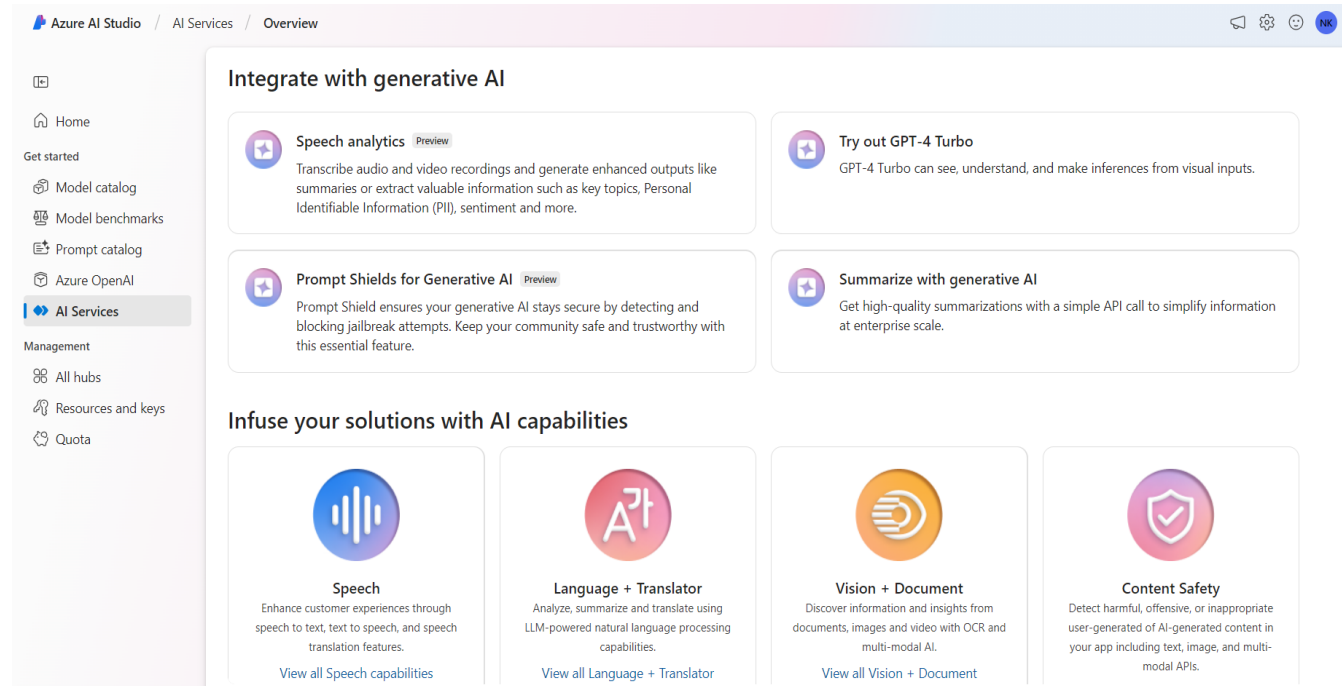
- ❑ Provides REST API access to powerful language models, including GPT-4, GPT-4 Turbo with Vision, GPT-3.5-Turbo, and Embedding's series.
- ❑ Can be adapted for various tasks, such as content generation, summarization, image understanding, semantic search, and natural language to code translation



Core Components of Azure AI Studio Cont...

AI Services

- ❑ Encompass a wide range of pre-built, customizable AI solutions.
- ❑ NLP, Computer Vision, Speech, Language, Document, Translator.
- ❑ Empower developers to create intelligent applications using out-of-the-box and customizable APIs and models.
- ❑ Developers can integrate these services via REST APIs or client library SDKs in popular programming languages.



Features of Azure AI Studio

- **Build your own copilot:** Allows users to interact with devices, chatbots and applications
- **Enable enterprise chat:** Build a chatbot that uses your own data to provide informed and custom responses to customer questions.
- **Incorporate multimodality:** Enhance apps with models that integrate various data types like text, images, video, and audio.
- **Analyze Speech:** Transform voice data into actionable insights using transcription, text-to-speech, and speaker recognition features.
- **Secure Data Handling:** Customize models using fine-tuning with your protected data. Contextually relevant retrieval augmented generation.
- **User-Friendly Interface:** Navigating intricate AI workflows is made easier with Azure AI Studio's intuitive interface.
- **Pre-Trained Models:** Get started quickly with pre-trained models for various AI tasks.
- **Scalability:** Azure AI Studio ensures scalability from proof of concept to production.
- **Continuous Monitoring and Governance:** Manage solutions with continuous monitoring and governance in production.

DEMO



LOADING...

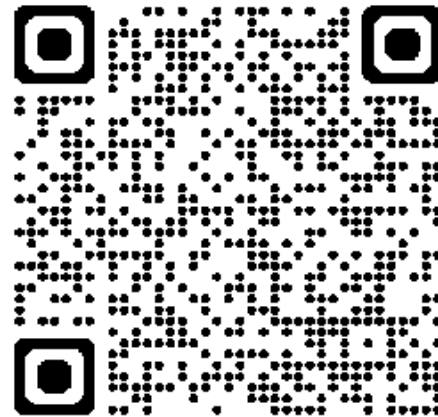




Naveen Kumar M

has successfully completed

Introduction to Azure AI Studio



A handwritten signature in black ink, reading "Satya N.".

Satya Narayana Nadella

*Thank
you*



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