Evaluate Generative AI Apps With Azure AI Studio (AI Foundry)

NAVEEN KUMAR M

DATA ENGINEER | C# CORNER MVP | BLOGGER

Agenda

- Introduction to Azure AI Studio
- How Azure AI Studio works?
- Evaluation of GenAI Applications
- Choose and Utilise Mertics
- Q & A

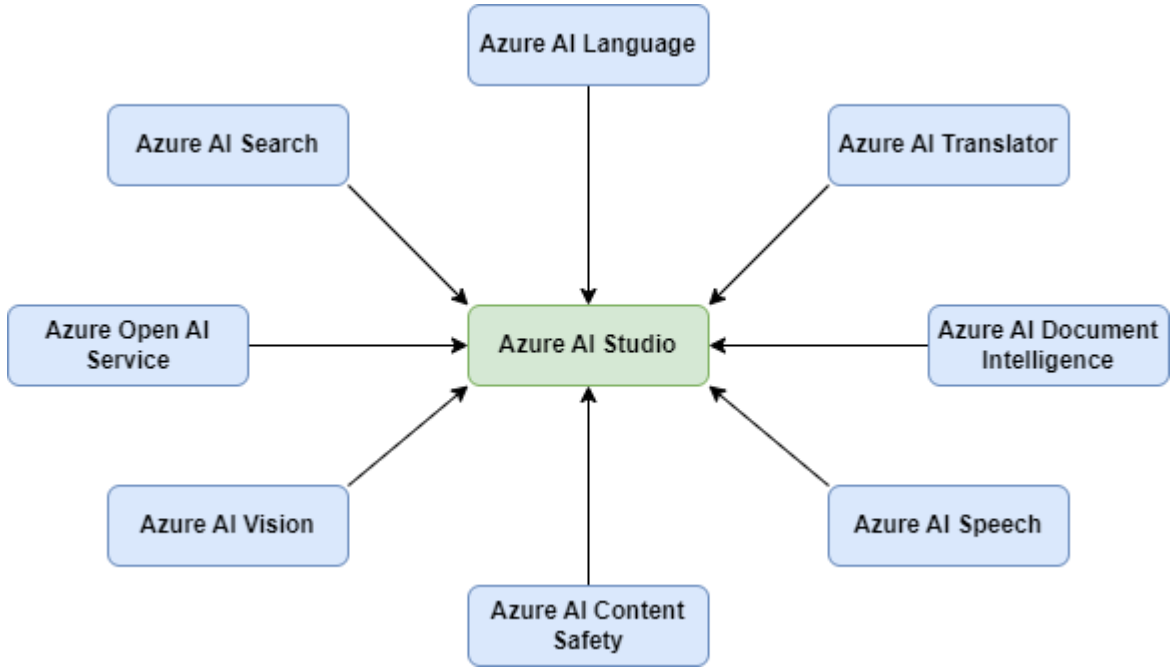
Introduction to Azure AI Studio

What is Azure AI Studio?

- Cloud bases 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.



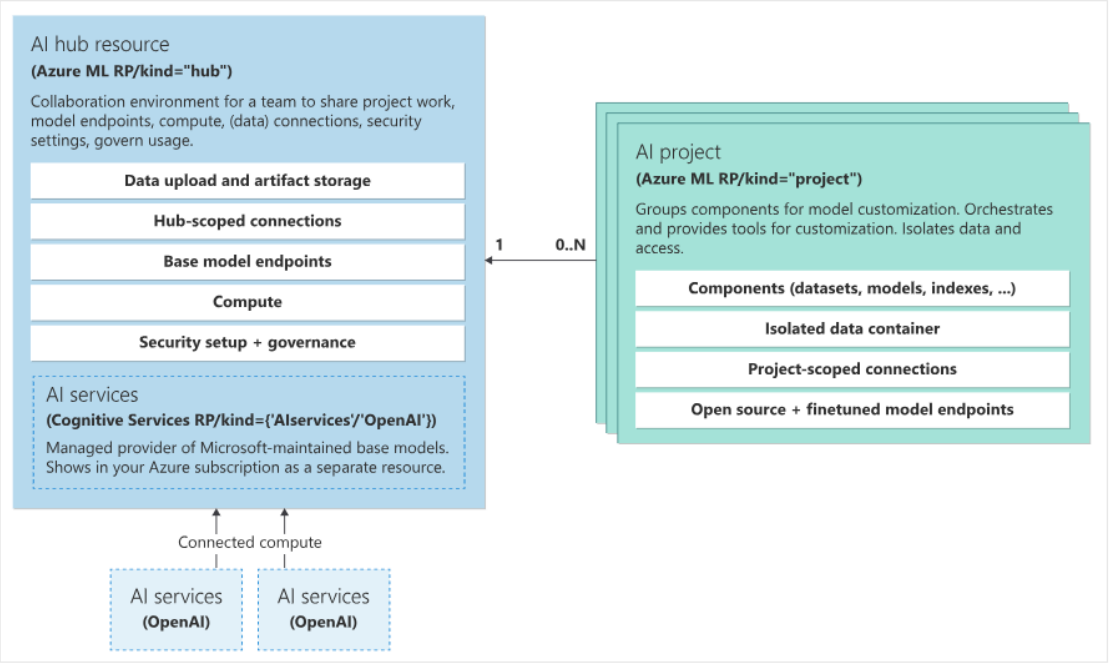
How Azure AI Studio works?

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

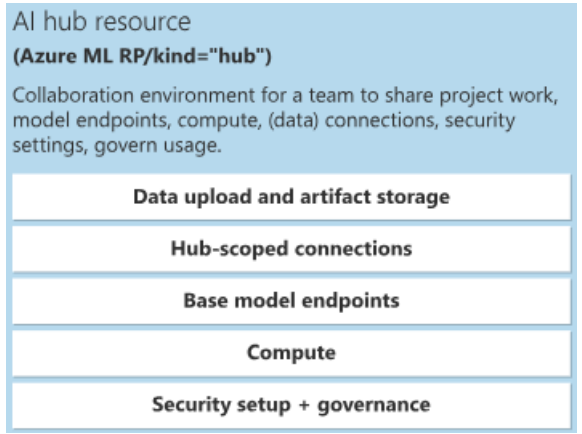
- A project is a child resource of the hub.
- It inherits the hub's connections, and compute resources.
- It serves as an organizational container with tools for AI customization and orchestration.



How Azure AI Studio works? Cont..

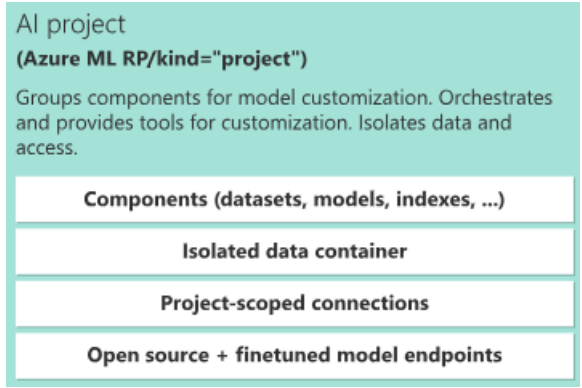
Features of AI Studio Hub

- 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.



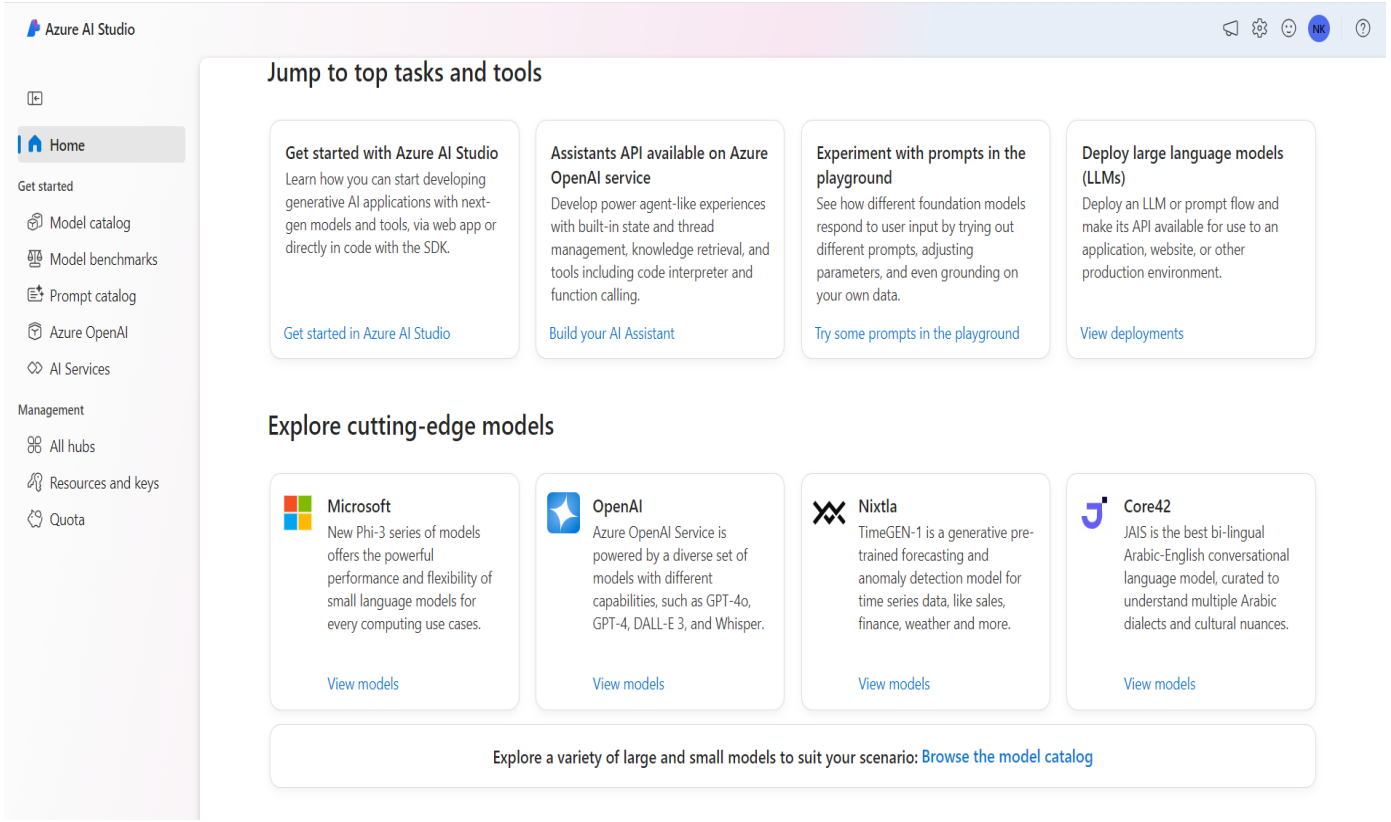
Features AI Studio Project

- 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.

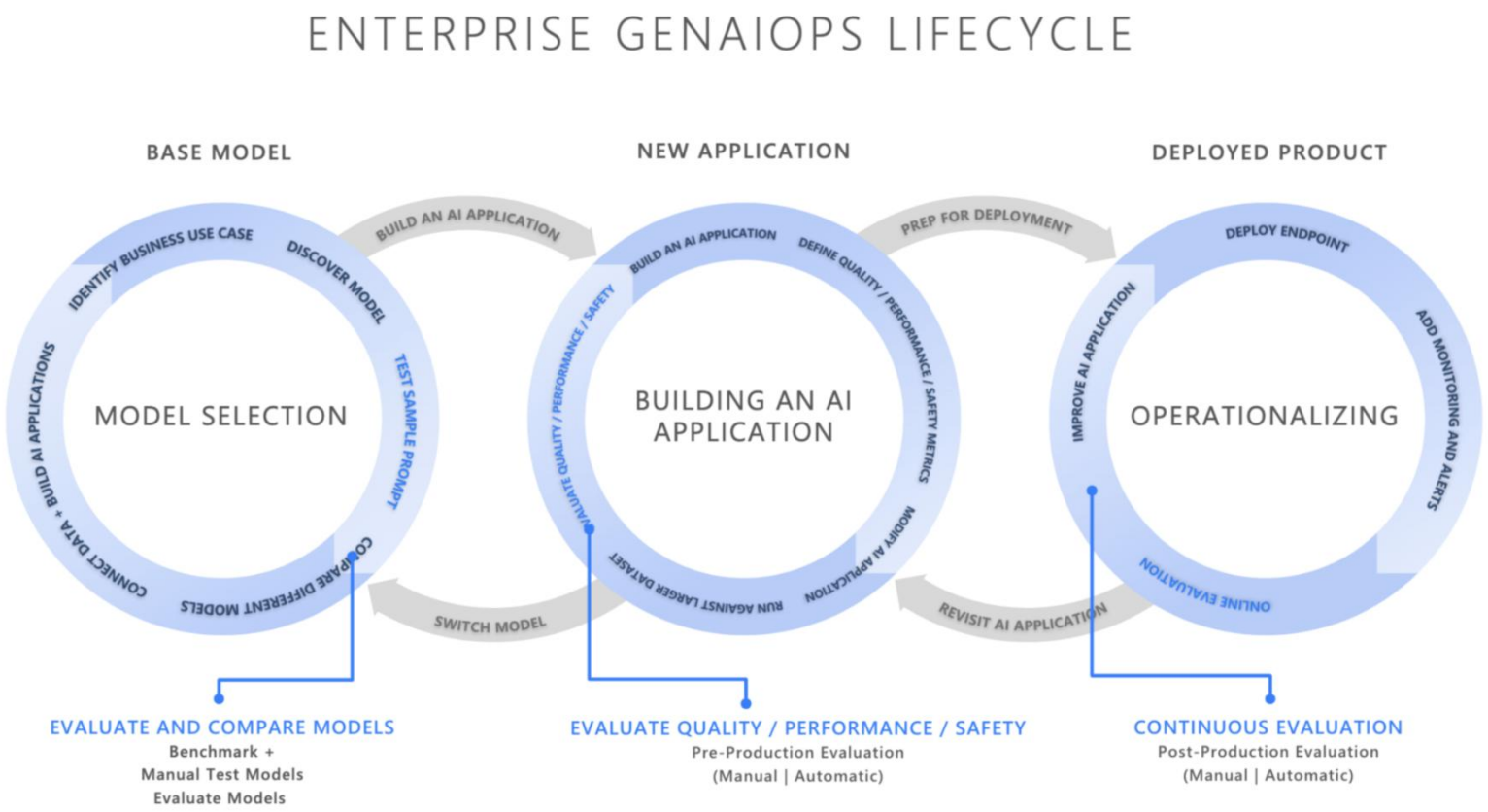


Core Components of Azure AI Studio

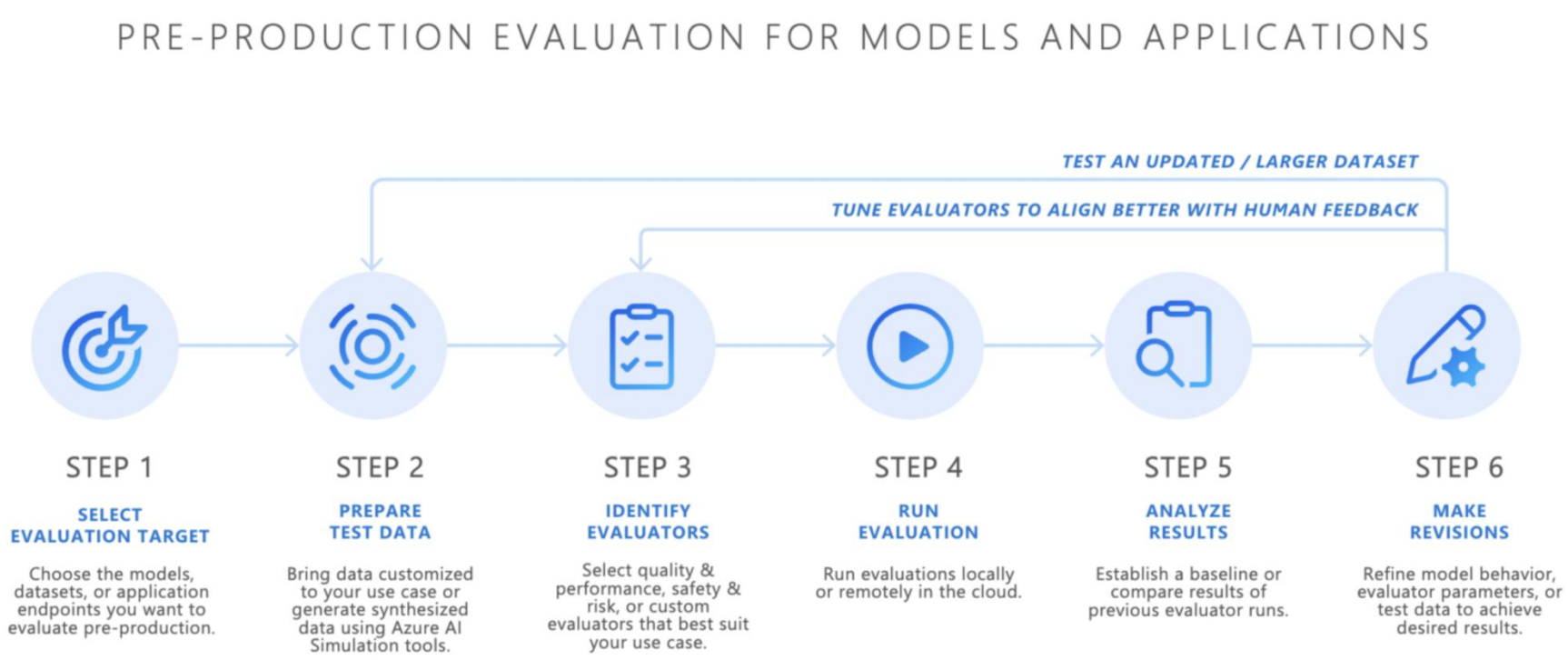
- Model Catalog
- Model Benchmarks
- Prompt Catalog
- Azure OpenAI
- AI Services



Evaluation of Generative AI Applications



Evaluation of Generative AI Applications



Choose and Utilise Metrics

Qualitative metrics

- Coherence
- Fluency
- Groundedness
- Relevance
- Similarity
- F1 Score

Qualitative metrics

- ROUGE
- BLEU
- METEOR
- GLEU

Qualitative metrics

- Hateful and Unfair Content Defect Rate
- Sexual Content Defect Rate
- Violent Content Defect Rate
- Self-Harm Related Content Defect Rate
- Jailbreak Defect Rate
- Indirect Attack Rate
- Protected Material Defect Rate

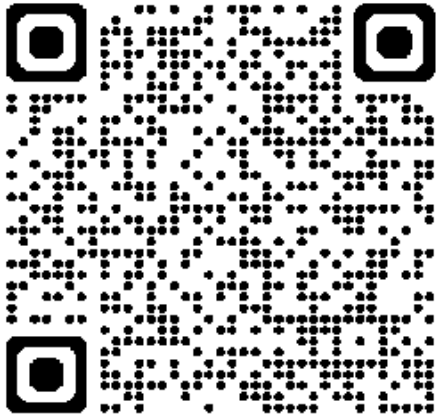
Q
&
A

Microsoft

Naveen Kumar M

has successfully completed

Introduction to Azure AI Studio



Satya Narayana Nadella

Naveen Kumar M

Data Engineer | SQL / ETL Lead |
C# Corner MVP