

Guide to building your first Agent in Azure AI Foundry

1. Go to <https://portal.azure.com/>

The screenshot shows the Microsoft Azure portal homepage. At the top, it greets the user "Hi Uvika, see what more you can get from your Azure free account." It indicates 23 days left of a \$199.79 free credit and links to "See what's included". Below this, there are four cards: "Take a free online course on Microsoft Learn", "Watch a demo and attend a live Q&A", "See Azure services suggested for you", and "Explore support resources". A "Create a resource" button is located at the bottom left. A "Try the new Azure" toggle switch is on the right. A navigation bar below the main content includes icons for "Create a resource", "Azure AI Foundry", "Quickstart Center", "Kubernetes services", "Virtual machines", "App Services", "Storage accounts", "SQL databases", "Azure Cosmos DB", and "More services".

2. Click on Azure AI Foundry and you should see a screen below:

The screenshot shows the "AI Foundry" overview page. The left sidebar has a "Overview" section with "All resources" and links to "Use with AI Foundry", "More services", "Classic AI services", and "Help". The main content area features a heading "Innovate Anywhere with AI" with the subtext "Build intelligent apps faster using prebuilt and custom models, scalable infrastructure, and tools optimized for developers and data teams". There are three cards: "Create an AI Foundry Resource" (with an icon of a laptop and cloud), "Manage AI Resources" (with an icon of server racks), and "Explore Best Practices and Guidance" (with an icon of a person working). At the bottom, there are buttons for "Create a resource", "View all resources", and "View documentation".

3. In the left navigation click on “Use with AI Foundry”

Sharing this tab to meet.google.com Stop sharing View tab: meet.google.com

Microsoft Azure Upgrade Search resources, services, and docs (G+)

Home > AI Foundry intlida.com

Overview All resources Use with AI Foundry

- AI Foundry
- AI Hubs
- Azure OpenAI
- AI Search

> More services > Classic AI services > Help

Create an AI Foundry Resource Manage AI Resources Explore Best Practices and Guidance

Start building an AI Foundry resource to start building, customizing and evaluating AI solutions using AI Foundry.

View and manage all your AI services.

Learn how to securely design, deploy, and manage AI solutions.

Create a resource View all resources View documentation

4. Click on “AI Hubs”

Microsoft Azure Upgrade Search resources, services, and docs (G+)

uvika.sharma INTLIDA.COM INR

Home > AI Foundry

AI Foundry | AI Hubs intlida.com

Search Create Manage view Refresh Export to CSV Open query Assign tags

You are viewing a new version of Browse experience. Some features may be missing. Click here to access the old experience.

Name ↑	Resource Group	Type	Location	Subscription
AIHUB	... AICONYC	Azure AI hub	East US 2	Azure subscription 1
uvikasharma-1612	... AICONYC	Azure AI project	East US 2	Azure subscription 1

5. Create a Hub, by clicking on “Create” in the top navigation & selecting “Hub”

Home > AI Foundry

The screenshot shows the AI Foundry | AI Hubs interface. On the left, there's a sidebar with options like Overview, All resources, Use with AI Foundry, AI Foundry, AI Hubs (which is selected), Azure OpenAI, AI Search, More services, Classic AI services, and Help. The main area has a search bar and navigation buttons (Create, Manage view, Refresh, Export to CSV, Open query, Assign). A modal window is open over the list of hubs, showing details for 'Project' and 'Hub'. The 'Hub' section lists two entries: 'AICOHUB' and 'uvikasharma-1612', both under the 'Resource Group' column (AICONYC) and 'Type' column (Azure AI Hub).

6. Create a new Resource Group. You can type in “<yourname>-rg”

The screenshot shows the 'Create an Azure AI hub resource' page. It has tabs for Basics, Storage, Inbound Access, Outbound Access, Encryption, Identity, Tags, and Review + create. Under 'Organization', it says 'Select the subscription to manage deployed resources and costs. Use resource groups like folders to organize and manage all your resources. An AI hub is a collaboration environment for a team to share project work, model endpoints, compute, (data) connections, security settings, govern usage.' There are fields for Subscription (set to 'Azure subscription 1'), Resource group (with a dropdown and a 'Create new' button), Region (Region *), and Resource details (Name * and Friendly name). A modal window titled 'Create new' is open, explaining what a resource group is and prompting for a Name (with a placeholder 'hub').

7. Add the Hub name. You can type in “<yourname>-hub”. You can add in a Friendly anime for your hub. Do not change any default values.

Microsoft Azure Upgrade Search resources, services, and docs (G+/-) Copilot

Home > AI Foundry | AI Hubs > Azure AI hub ...

Create an Azure AI hub resource

Basics Storage Inbound Access Outbound Access Encryption Identity Tags Review + create

Organization

Select the subscription to manage deployed resources and costs. Use resource groups like folders to organize and manage all your resources. An AI hub is a collaboration environment for a team to share project work, model endpoints, compute, (data) connections, security settings, govern usage.

Subscription * Resource group * Create new

Region *

Resource details

Name * Friendly name Default project resource group Same as hub resource group

8. Click on “**Next:Storage**”. Leave all the default values as they are.
9. Click on “**Next: Inbound Access**”. Leave all the default values as they are.
10. Click on “**Next: Outbound Access**”. Leave all the default values as they are.
11. Click on “**Next: Encryption**”. Leave all the default values as they are.
12. Click on “**Next: Identity**”. Leave all the default values as they are.
13. Click on “**Next: Tags**”. We are not creating any tags for now.
14. Click on “**Next: Review + Create**”.
15. Click on “**Create**”

Home > AI Foundry | AI Hubs > Azure AI hub ...

Create an Azure AI hub resource

Validation passed

Basics Storage Inbound Access Outbound Access Encryption Identity Tags **Review + create**

Basics

Subscription	Azure subscription 1
Resource group	(New) Uvika-rg
Name	uvika-hub
Default project resource group	(New) Uvika-rg

Resources

Region	East US 2
AI Services	(new) uvikahub1302783727
Storage account	aicohub8743675602 (AICONYC)
Key vault	(new) uvikahub4166505363
Application insights	None
Container registry	None

Actions

Create < Previous Next > Download a template for automation

16. Your AI Hub will be deployed shortly and you will get a message saying “Your deployment is complete”

The screenshot shows the Microsoft Azure Deployment Overview page for a Microsoft.MachineLearningServices deployment. The main message is "Deployment is in progress". Deployment details table:

Resource	Type	Status	Operation details
uvika-hub	Microsoft.MachineLearningService	Accepted	Operation details
uvikahub1302783727	Microsoft.CognitiveServices/account	Created	Operation details
uvikahub4166505363	Key vault	OK	Operation details

17. Click on “Go to resource”

The screenshot shows the Microsoft Azure Deployment Overview page for a Microsoft.MachineLearningServices deployment. The main message is "Your deployment is complete". Deployment details table:

Resource	Type	Status	Operation details
uvika-hub	Microsoft.MachineLearningService	Accepted	Operation details
uvikahub1302783727	Microsoft.CognitiveServices/account	Created	Operation details
uvikahub4166505363	Key vault	OK	Operation details

[Go to resource](#)

18. Click on “Launch Azure AI Foundry”

Microsoft Azure Upgrade Search resources, services, and docs (G+)

Home > Microsoft.MachineLearningServices | Overview >

uvika-hub Azure AI hub

Search Create project Download config.json Delete

Overview

Activity log Access control (IAM) Tags Diagnose and solve problems Resource visualizer Events Settings Monitoring Automation Support + troubleshooting

Resource group : Uvika-rg Location : East US 2 Subscription : Azure subscription 1 Subscription ID : 51c939a7-f1e7-4f95-9ec7-46b4e097c41c Key Vault : uvikahub416650363

Project resource group... : Uvika-rg Storage : aicohub8743675602 Container Registry (edit) : ... Application Insights (edit) : ... Provisioning State : Succeeded

Govern the environment for your team in AI Foundry

Your Azure AI hub provides enterprise-grade security, and a collaborative environment to build AI solutions. Centrally audit usage and cost, and set up connections to your company resources that all projects can use. [learn more about the Azure AI Foundry](#)

Launch Azure AI Foundry

20. We are now in our AI Hub space. Click on “New Project”

Azure AI Foundry | Management center / Hub overview

Management center

All resources Quota

Hub (uvika-hub) Overview Users Models + endpoints Connected resources Compute

uvika-hub

+ New project Refresh Delete project Reset view

Description Add a hub description here

Hub properties

Name	Location
uvika-hub	eastus2
Subscription	Resource Group
Azure subscription 1	Uvika-rg

Manage in Azure Portal Get API endpoints and keys View subscription quota

Delete hub

Create your first project

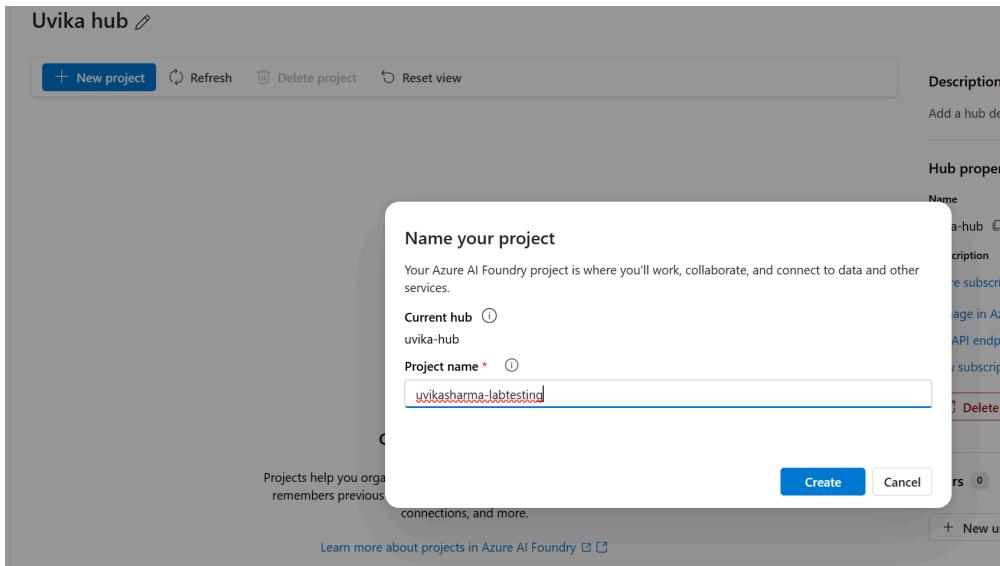
Projects help you organize your AI assets and save "state" (when a system remembers previous events or interactions) across different tools, data connections, and more.

Learn more about projects in Azure AI Foundry

Users 0

+ New user

21. A pop-up will open. Give a project name. You can type in “<yourname>-project” and click on “Create”

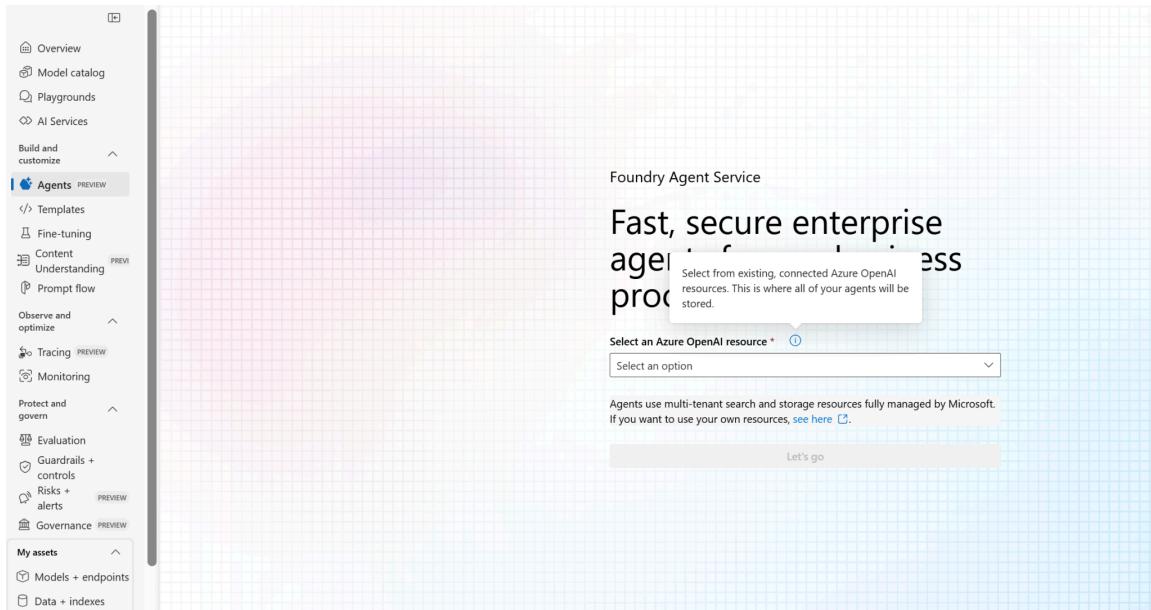


22. You will now be presented with your project dashboard

The screenshot shows the Azure AI Foundry project dashboard for the 'uvikasharma-labtesting' project. The left sidebar contains navigation links for Overview, Model catalog, Playgrounds, AI Services, Build and customize, Agents, Templates, Fine-tuning, Content Understanding, Prompt flow, Observe and optimize, Tracing, Monitoring, Evaluation, Guards + controls, Risks + alerts, and Governance. The main area displays the project details, including the API key, included capabilities (Azure AI inference, Azure OpenAI, Azure AI Services), and the Azure OpenAI endpoint URL (<https://uvikahub1302783727.openai.azure.com/>). The 'Project details' section also lists the project connection string, subscription information, and location. Below these, there are four steps: 'Define + explore', 'Build + customize', 'Observe + optimize', and 'Protect + govern', each with a corresponding icon and a '→' arrow.

23. We are now ready to create our first agent! Click on “Agents” in the left navigation

24. Select the AOOI resource. This is where all your agents will be stored. Click on “Let’s go”



25. We have to pick a model for our agent. Select a model to create a new deployment. Select “gpt-4o-mini” and click “Confirm”

Deploy a model

Choose a model to create a new deployment. For flows and other resources, create a deployment from their respective list. [Go to model catalog.](#)

Models 8 Collections Inference tasks: Chat completion Show description

Model	Type	Status
gpt-4o	Chat completion	<input type="radio"/>
gpt-4o-mini	Chat completion	<input checked="" type="radio"/>
gpt-4	Chat completion	<input type="radio"/>
gpt-3.5-turbo	Chat completion	<input type="radio"/>

gpt-4o-mini

Task: Chat completion

GPT-4o mini enables a broad range of tasks with its low cost and latency, such as applications that chain or parallelize multiple model calls (e.g., calling multiple APIs), pass a large volume of context to the model (e.g., full code base or conversation history), or interact with customers through fast, real-time text responses (e.g., customer support chatbots).

Today, GPT-4o mini supports text and vision in the API, with support for text, image, video and audio inputs and outputs coming in the future. The model has a context window of 128K tokens and knowledge up to October 2023. Thanks to the improved tokenizer shared with GPT-4o, handling non-English text is now even more cost effective.

GPT-4o mini surpasses GPT-3.5 Turbo and other small models on academic benchmarks across both textual intelligence and multimodal reasoning, and supports the same range of languages as GPT-4o. It also demonstrates strong performance in function calling, which can enable developers to build applications that fetch data or take actions with external systems, and improved long-context performance compared to GPT-3.5 Turbo.

Prev Next >

Confirm Cancel

26. Deploy the selected model by clicking on “Deploy”

Deploy gpt-4o-mini

Deployment name* eye icon
gpt-4o-mini

Deployment type
Global Standard dropdown arrow

Global Standard: Pay per API call with the highest rate limits. Learn more about [Global deployment types](#).
Data might be processed globally, outside of the resource's Azure geography, but data storage remains in the AI resource's Azure geography. Learn more about [data residency](#).

Deployment details Customize

Model version 2024-07-18	Connected AI resource uvikahub1302783727_aoai
Project uvikasharma-labtesting	Authentication type Key
Capacity 100K tokens per minute (TPM)	Resource location East US 2
Content safety DefaultV2	Version upgrade policy Once a new default version is available

Deploy Cancel

27. You will now be navigated to the “My agents” screen

The screenshot shows the Azure AI Foundry interface. In the top navigation bar, it says "uvikasharma-labtesting / Agents". A green success message at the top right says "Success: Agent with id asst_jIQ9zfIwOSRAm92dBypkGqhzZD created successfully". On the left, there's a sidebar with various project sections like Overview, Model catalog, Playgrounds, AI Services, and Agents (which is currently selected). The main content area is titled "Agents" and shows a table with one row:

Name	ID	Model	Created	Description
Agent966	asst_jIQ9zfIwOSRAm92dBypkGqhzZD	gpt-4o-mini	Jun 2, 2025 4...	

28. Select your agent & in the right navigation, go to Knowledge & click on “Add”

You are a helpful course tutor that will help students answer questions related to

Agent Description

Knowledge (0) + Add

Knowledge gives the agent access to data sources for grounding responses. [Learn more](#)

Actions (0) + Add

Actions give the agent the ability to perform tasks. [Learn more](#)

Connected agents (0) + Add

Hand-off thread context to other agents to focus on specialized tasks. [Learn more](#)

✓ Last saved: today 4:35 PM

29. Select “files” to add your PDF document. Upload your file and click on “Upload and save”. Your PDF will then be added to the vector store.

The screenshot shows a user interface for adding files to a vector store. At the top, there's a header "Adding files". Below it, a sub-header says "Back to select knowledge type". A note states: "Add your own files to augment the agent with specialized knowledge. Files will be added to a vector store that the search index can reference for quick information retrieval. Encrypted or sensitivity-labeled files are not supported. [Learn more](#)".

On the left, under "Vector store *", there's a dropdown menu set to "Create a new vector store" and a text input field containing "AgentVectorStore_13451". On the right, under "Add files *", there's a dropdown menu set to "Upload local" and a button labeled "Select local files". A note specifies supported file types: ".c, .cs, .cpp, .doc, .docx, .html, .java, .json, .md, .pdf, .php, .pptx, .py, .rb, .tex, .txt, .css, .js, .sh, .ts".

A table lists the uploaded file:

Name	Status	Error	Size	File type	Uploaded ↓
Agentic RAG MavenCourse.pdf		Not Started	722.41 KB	Local	Jun 2, 2025 4:37 ...

At the bottom, there are navigation links "[Prev](#)" and "[Next](#)". On the far right, there are two buttons: "Upload and save" and "Cancel".

30. Now it is time to test your model in the playground. Hit the “Try in Playground button”

The screenshot shows the 'Agents' section of a software interface. On the left, a list of agents is displayed with columns for Name, ID, Model, and Created. Two agents are listed: 'AgenticRAGCourseHelper' (selected) and 'TariffPromptHelper'. On the right, a detailed view of 'AgenticRAGCourseHelper' is shown under the 'Setup' tab. It includes fields for Agent id, Agent name, Azure OpenAI resource connection, Deployment (set to 'gpt-4o (version:2024-11-20)'), and Instructions (containing a placeholder text about being a helpful agent for AGENTIC RAG). A 'Try in playground' button is also present.

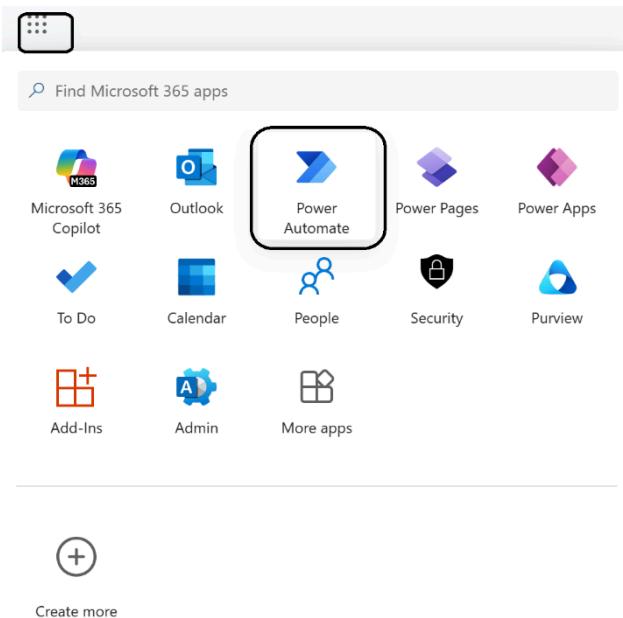
31. Write a query in the user query box and see how your agent responds to your question based on the knowledge base. We typed in to tell us about Agentic RAG as that was our document that we uploaded.

The screenshot shows the 'Agents playground' interface. At the top, there's a toolbar with 'New agent', 'View code', 'Delete', and 'Edit connected resources'. Below it, a thread info bar shows 'Thread: thread_uuycdfNZ9iHkoPYvsw2TTDAE' and '7033t'. The main area has a message input field with the placeholder 'Type user query here. (Shift + Enter for new line)'. A message from the agent is shown: 'Can you tell me what is Agentic RAG?'. The response is a detailed explanation of Agentic Retrieval-Augmented Generation (RAG), mentioning its iterative nature, dynamic cycle of LLM calls, and integration of multiple tools like vector searches and databases. The response ends with a note about exploring practical use cases and links to 'Agentic RAG MavenCourse.pdf' (links 1 and 2). A footer note states that messages are visible to anyone with access to the API.

Powerful Agentic Workflows Using Power Automate

Note: This should only be developed after you have successfully created your Agent in Azure AI Foundry with relevant information and role you want the Agent to assume.

1. Go to your Microsoft365 Account:
 - a. <https://m365.cloud.microsoft/>
2. Once you are logged in, go to select Apps and click on PowerAutomate



3. Now select Create as we will be creating a New Flow.

The screenshot shows the Power Automate interface with the title "Create your automation with Copilot". On the left is a sidebar with options like Home, Create, Templates, Learn, My flows, Approvals, Solutions, Process mining, AI hub, Automation center, Desktop flow activity, and More. The main area has a large "Create" button and three examples of automation ideas:

- Every month, copy all files from OneDrive folder to another OneDrive folder
- Copy all rows from an Excel file to another excel file with a click of a button
- When a new item is created in SharePoint, send me an email

Below these examples is a text input field labeled "Describe in detail how you want your automation to work" and a "Generate" button.

4. Now select Instant Cloud Flows as we for today we will be building one that we want to trigger manually.

The screenshot shows a section titled "Three ways to make a flow" with an "Install" button. It lists five options:

- Automated cloud flow**: Triggered by a designated event.
- Instant cloud flow**: Triggered manually as needed.
- Scheduled cloud flow**: You choose when and how often it runs.
- Desktop flow**: Automates processes on your desktop environment.
- Process mining**: Evaluate and optimize your existing processes and tasks.

5. We'll select a Manual Trigger for simplicity and click on create

Build an instant cloud flow

Triggered manually from any device, easy-to-share instant flows automate tasks so you don't have to repeat yourself.

Examples:

- Get an automatic mobile alert whenever a VIP client emails you
- Save all your email attachments to a folder automatically

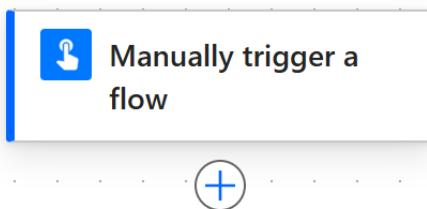
Flow name
Add a name or we'll generate one

Choose how to trigger this flow *

- Manually trigger a flow
Flow button for mobile
- When Power Apps calls a flow (V2)
Power Apps
- When an agent calls the flow
Skills
- When Power Virtual Agents calls a fl...
Power Virtual Agents
- When a flow step is run from a busin...
Microsoft Dataverse
- When a row is selected
Microsoft Dataverse
- For a selected message (V2)

Skip Create Cancel

6. Click on Manually Trigger a flow button box



7. Select on Add and Input and select Text

Manually trigger a flow

Parameters Settings Code view About

+ Add an input

UserQuery

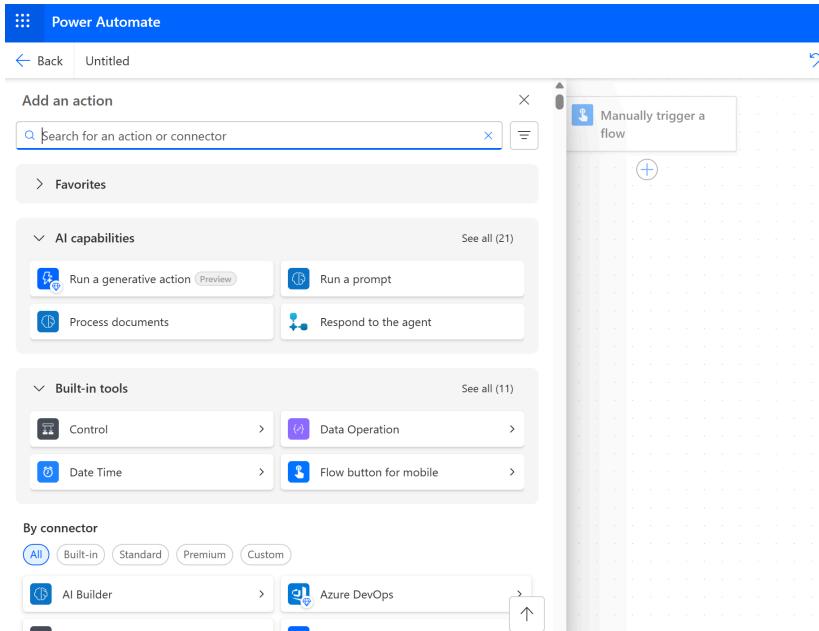
8. Type in the words “UserQuery”

Manually trigger a flow

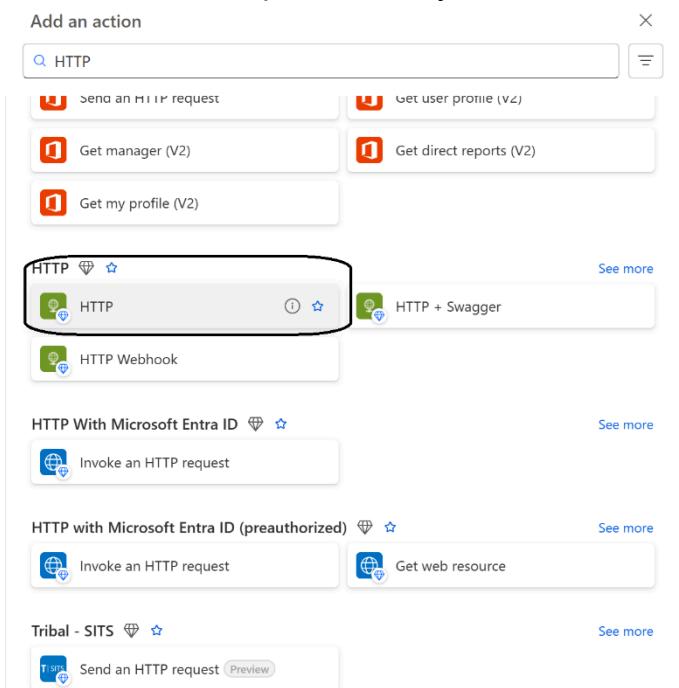
Parameters Settings Code view About

Input UserQuery

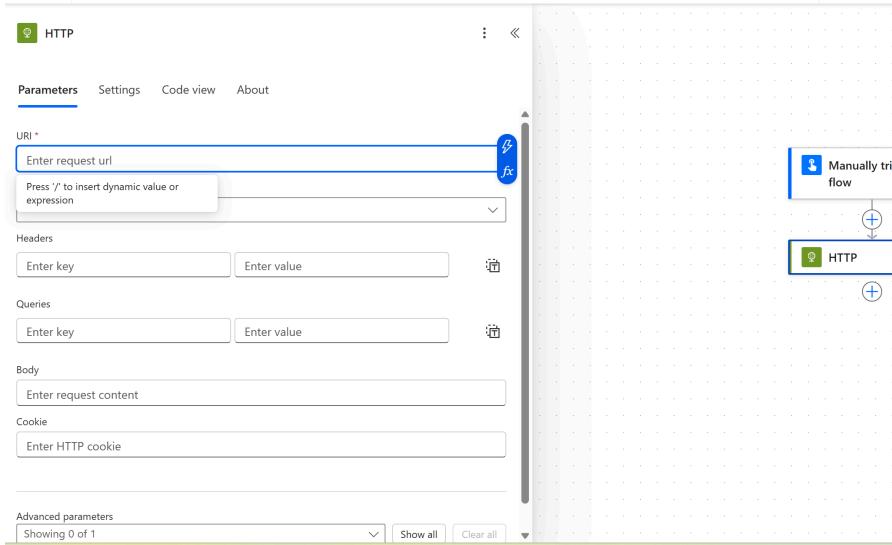
9. Click outside so it saves automatically. Then click on the + button under the Manually trigger a flow and we will add an action, search for HTTP



10. Select the HTTP option where you see a diamond



11. Now let's configure the HTTP option on how it will establish the connection with the agent you built



12. In the URL, enter the endpoint URL from your Agent.

- In order to get there, in AzureFoundry AI, go to Models and Endpoints as seen in the screen below:

Name	Model name	Model version	State	Model retirement date	Content filter
aicohub6257433964.aoai	AgenticRAGCourseHelper	gpt-4	turbo-2024-04-09	Succeeded	DefaultV2
	gpt-4o	gpt-4o	2024-11-20	Succeeded	DefaultV2

- b. Select gpt-4o and then copy the URL address listed there and paste it in the workflow URL value field

13. Select the Method as Post

Method *

DELETE

GET

PATCH

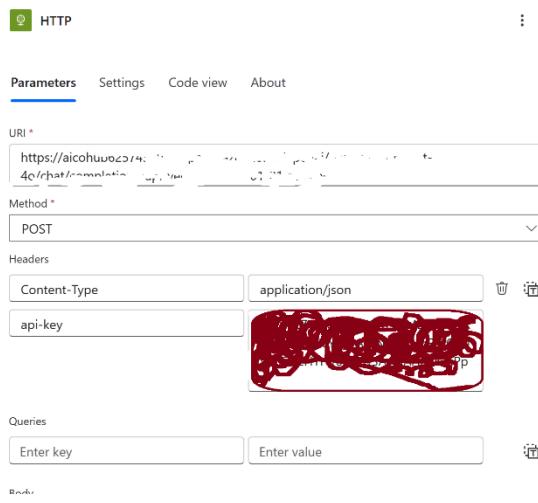
POST

PUT

[Enter custom value](#)

14. In Headers we will populate two values:

- Content-Type will be the header name and for value you will put application/json



- b. api-key will be the second header name and for value you will put the open ai api key that you will grab from Azurefoundry, the same place where you got your target URL from

The screenshot shows the deployment details for 'AgenticRAGCourseHelper'. The 'Endpoint' section shows a 'Target URI' of 'https://aicohu...' and an 'Authentication type' of 'Key' with a redacted 'Key'. The 'Deployment info' section shows the following data:

Name	Provisioning state
AgenticRAGCourseHelper	Succeeded
Deployment type	Created on
Global Standard	2025-06-01T13:53:12.0574578Z
Created by	Modified on
df64307c-03b5-49a6-903b-6744ad631ce5	Jun 1, 2025 9:54 AM
Modified by	Version upgrade policy
df64307c-03b5-49a6-903b-6744ad631ce5	Once a new default version is available

15. In the Body, enter the following text with the right indentation:

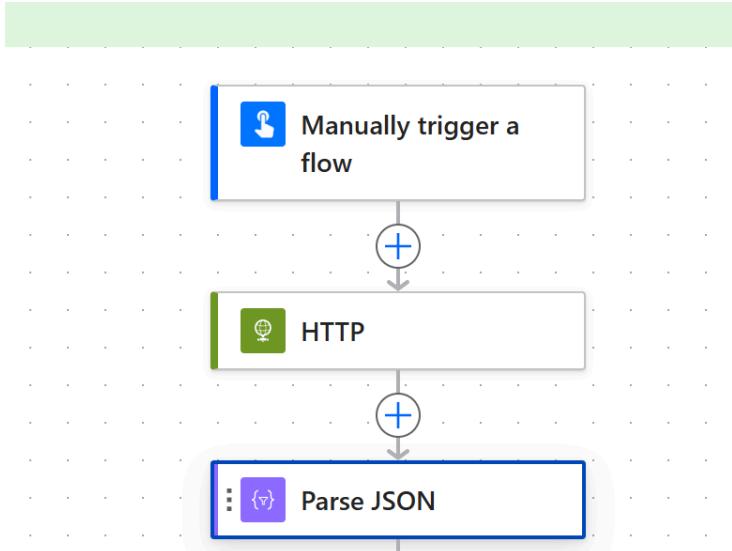
- a. For the Input variable, you will need to click on the lightening button and search for Input, it is basically the input variable with user query you created when you started the flow. This will basically be your input or question/query you want to send to the agent.

```
{
  "messages": [
    {
      "role": "system",
      "content": "You are a helpful assistant that helps users find answers in PDF documents and provide concise, accurate answers."
    },
    {
      "role": "user",
      "content": "Input"
    }
  ],
  "temperature": 0.7,
  "max_tokens": 300
}
```

The screenshot shows the configuration interface for an HTTP request. At the top, there's a green button labeled 'HTTP'. Below it, a navigation bar has 'Parameters' underlined and other options like 'Settings', 'Code view', and 'About'. The main area is titled 'Body' and contains a JSON editor. A blue box highlights the 'content' field, which is currently set to 'Input'. To the right of the JSON editor is a blue circular icon with a 'fx' symbol, likely a placeholder or a function editor. At the bottom, there's a 'Cookie' section with a text input field containing 'Enter HTTP cookie'.

```
{
  "messages": [
    {
      "role": "system",
      "content": "You are a helpful assistant that helps users find answers in PDF documents and provide concise, accurate answers."
    },
    {
      "role": "user",
      "content": "Input"
    }
  ],
  "temperature": 0.7,
  "max_tokens": 300
}
```

- Once your HTTP is configured. Now we will Go back to our flow and hit the + button under HTTP and select JSON



17. Let's configure the JSON Node now. In the Content, look for the Body tag under HTTP using the lightening button shown and in the Schema, value, enter the following text:

```
{  
  "id": "chatcmpl-12345",  
  "choices": [  
    {  
      "message": {  
        "role": "assistant",  
        "content": "Here is the AI response."  
      }  
    }  
  ]  
}
```

Parameters Settings Code view About

Content *

Body X

Schema *

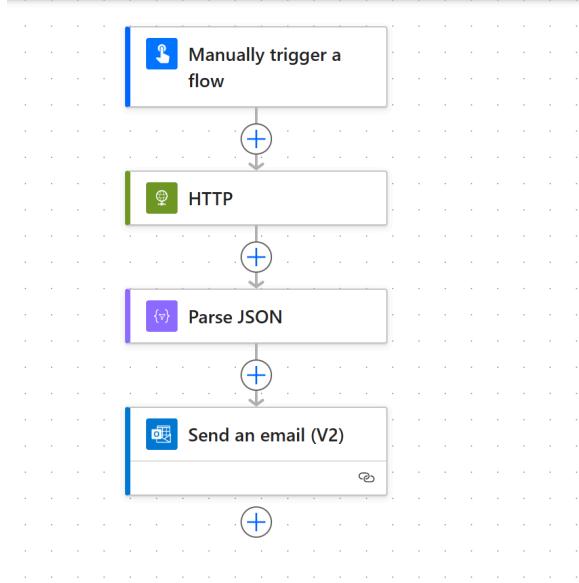
```
{
  "id": "chatcmpl-12345",
  "choices": [
    {
      "message": {
        "role": "assistant",
        "content": "Here is the AI response."
      }
    }
  ]
}
```

fx

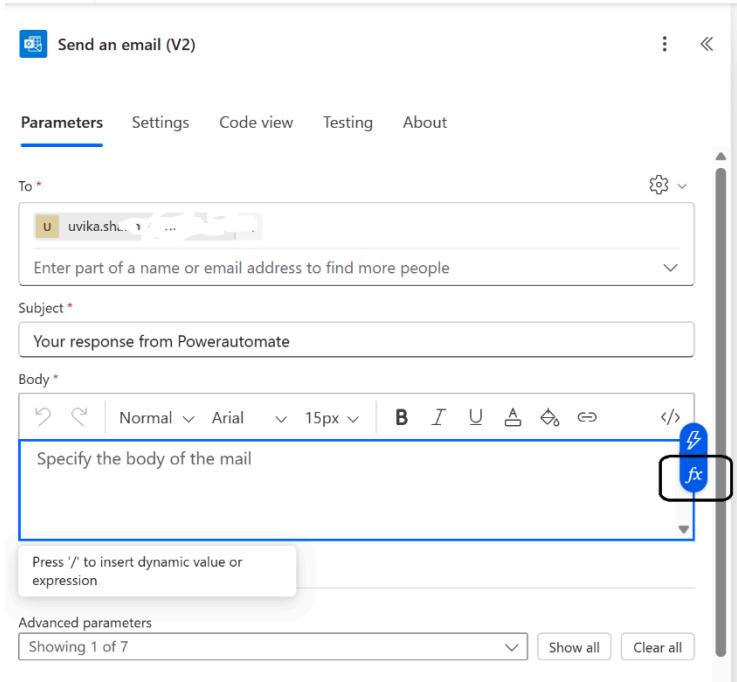
Enter the data from previous step. You can al:

Use sample payload to generate schema

18. Now let's add the last node by clicking the + icon under JSON and select Send an email (V2)



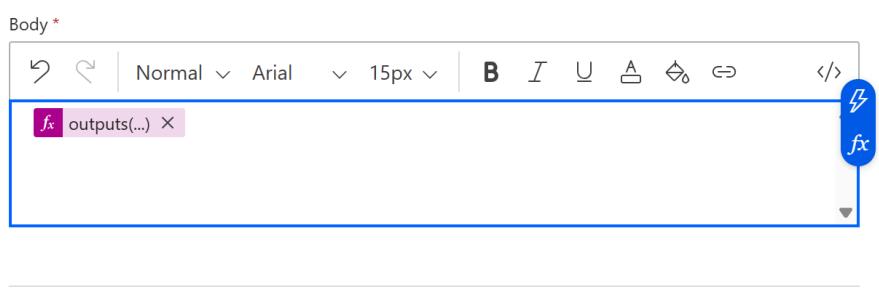
19. Let's configure the Send an email node now. In the To field, specify where you want to send an email and also specify the subject, and then for body, we will select the fx function button, where we are telling the powerflow to take the parsed json output from the agent and plug it inside the body.



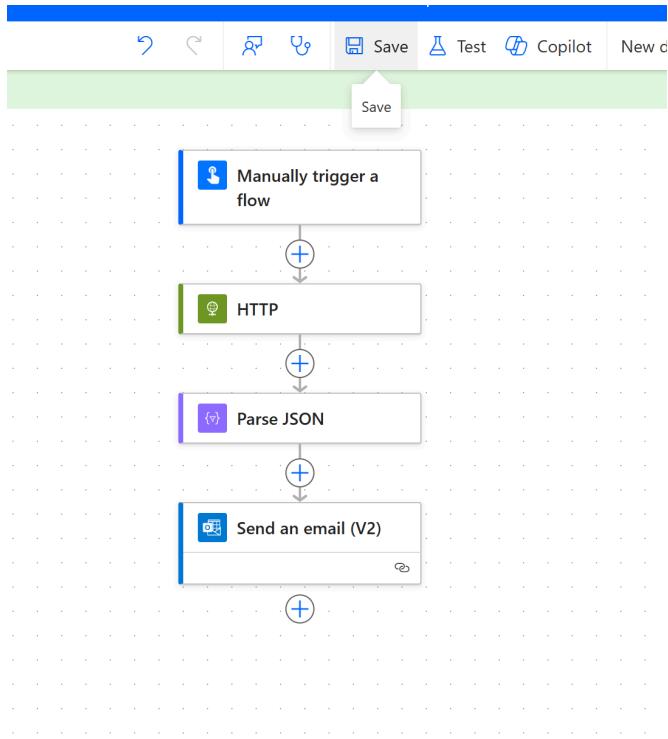
20. Enter the following text as is in the place shown in text and then hit add.

```
outputs('Parse_JSON')?['body']?['choices'][0]['message']['content']
```

21. Final Body should look like this



22. Save your Flow



23. Now Let's test our flow, next to save button, click on Test and select Test Flow Manually

Test Flow

Manually

Perform the starting action to trigger it.

Automatically

There are no runs for this flow.

24. And you will get an info that looks like this as I'm granting permission to use my outlook

Run flow

X

Button -> HTTP,Parse JSON,Send an email (V2)

Owner: Uvika Sharma

Sign in *

This flow uses the following apps. A green check means you're ready to go.



Office 365 Outlook

Permissions



...

Continue

Cancel

25. Here you write a query that you want the agent to look for in your document that you had uploaded into your agent in AzureAIFoundry

Run flow



Button -> HTTP,Parse JSON,Send an email (V2)

Owner: Uvika Sharma

Input *

UserQuery

Input is required

This flow uses Office 365 Outlook.

[Review connections and actions](#)

[Run flow](#)

[Cancel](#)

26. You should get a final message that looks like this and if all worked then you should have received an email. Or else we will go to the Flow Runs page to troubleshoot any errors we received:

Run flow

X



Your flow run successfully started. To monitor it, go to the
[Flow Runs Page](#).

Done