

Python (V2 Model) Based Azure Function

Introduction:

This POC aims to do the following:

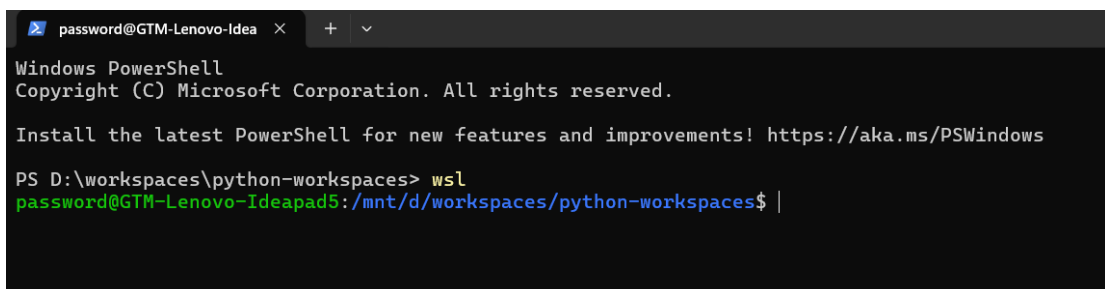
- Creation of a python (v2 model) based azure function which will work in local as well as in azure environment
- This function will be triggered through azure event-hub trigger - whenever any data is published to azure event-hub. For running in local, azure event-hub emulator has been used.
- The function will also publish the data to azure blob storage. For running in local, azurite has been used.
- Creation of a http trigger-based helper azure function as well – it will publish the data into the azure event-hub. This function will be used for testing the main function.

Pre-requisites:

- In local, everything is done in WSL environment. So, windows subsystem for Linux (WSL) installation is must.
- Docker Engine is installed in WSL
- Dotnet is installed in WSL
sudo apt-get install -y dotnet-sdk-9.0
- Python version >=3.10 is installed
- VSCode (as IDE) is available
- Azure Functions Core Tools is installed in WSL (<https://learn.microsoft.com/en-us/azure/azure-functions/functions-run-local?tabs=windows%2Cisolated-process%2Cnode-v4%2Cpython-v2%2Chttp-trigger%2Ccontainer-apps&pivots=programming-language-python>)
- Azure EventHub emulator (<https://github.com/Azure/azure-event-hubs-emulator-installer>) and azurite (for azure storage emulator) should be available.

Steps:

- Open WSL in PowerShell



```
password@GTM-Lenovo-Idea x + v
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

Install the latest PowerShell for new features and improvements! https://aka.ms/PSWindows

PS D:\workspaces\python-workspaces> wsl
password@GTM-Lenovo-Ideapad5:/mnt/d/workspaces/python-workspaces$ |
```

- Create a Function App

```
func init MyPFunctionApp --python -m v2
```

Python (V2 Model) Based Azure Function

```
password@GTM-Lenovo-Ideapad5:/mnt/d/workspaces/python-workspaces$ func init MyPFunctionApp --python -m v2
Found Python version 3.10.12 (python3).
The new Python programming model is generally available. Learn more at https://aka.ms/pythonprogrammingmodel
Writing requirements.txt
Writing function_app.py
Writing .gitignore
Writing host.json
Writing local.settings.json
Writing /mnt/d/workspaces/python-workspaces/MyPFunctionApp/.vscode/extensions.json
password@GTM-Lenovo-Ideapad5:/mnt/d/workspaces/python-workspaces$
```

- Create a virtual environment

```
password@GTM-Lenovo-Idea x + v
password@GTM-Lenovo-Ideapad5:/mnt/d/workspaces/python-workspaces$ cd MyPFunctionApp/
password@GTM-Lenovo-Ideapad5:/mnt/d/workspaces/python-workspaces/MyPFunctionApp$ ls -l
total 0
-rwxrwxrwx 1 password password 99 Apr  9 19:15 function_app.py
-rwxrwxrwx 1 password password 288 Apr  9 19:15 host.json
-rwxrwxrwx 1 password password 117 Apr  9 19:15 local.settings.json
-rwxrwxrwx 1 password password 203 Apr  9 19:15 requirements.txt
password@GTM-Lenovo-Ideapad5:/mnt/d/workspaces/python-workspaces/MyPFunctionApp$ python3 -m venv .venv
password@GTM-Lenovo-Ideapad5:/mnt/d/workspaces/python-workspaces/MyPFunctionApp$ ls -l
total 0
-rwxrwxrwx 1 password password 99 Apr  9 19:15 function_app.py
-rwxrwxrwx 1 password password 288 Apr  9 19:15 host.json
-rwxrwxrwx 1 password password 117 Apr  9 19:15 local.settings.json
-rwxrwxrwx 1 password password 203 Apr  9 19:15 requirements.txt
password@GTM-Lenovo-Ideapad5:/mnt/d/workspaces/python-workspaces/MyPFunctionApp$ ls -a
. .gitignore .venv function_app.py host.json local.settings.json requirements.txt
password@GTM-Lenovo-Ideapad5:/mnt/d/workspaces/python-workspaces/MyPFunctionApp$
```

- Open the project in an IDE & switch to IDE Terminal & Activate the virtual environment

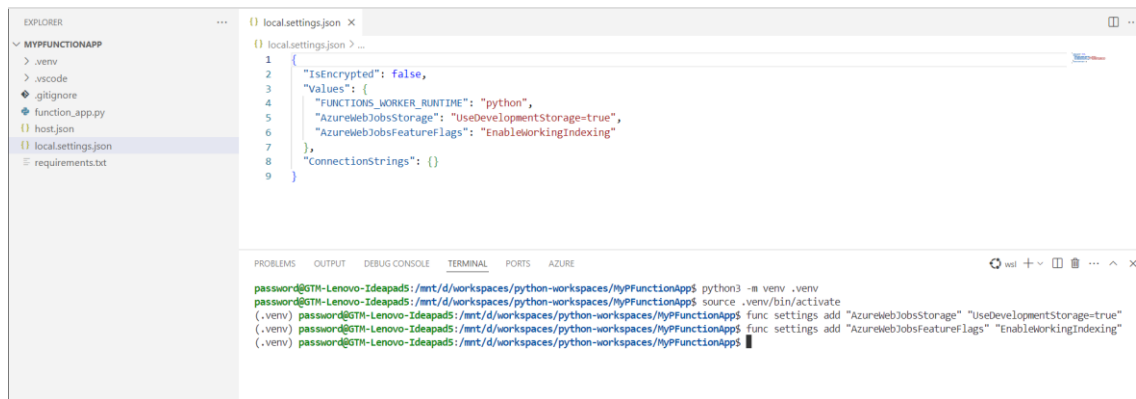


The screenshot shows the Visual Studio Code (VS Code) interface. On the left, the Explorer sidebar displays the project structure for 'MYPFUNCTIONAPP'. The file tree includes a '.venv' directory, which contains a 'bin' subdirectory with files like 'activate', 'activate.csh', 'activate.fish', 'Activate.ps1', 'pip', 'pip3', 'pip3.10', 'include', 'lib', and 'pyvenv.cfg'. Other files in the project include '.vscode', '.gitignore', 'function_app.py', 'host.json', 'local.settings.json', and 'requirements.txt'. On the right, the TERMINAL panel is active, showing the command prompt output from the previous steps, including the creation of the virtual environment and the activation command: `source .venv/bin/activate`.

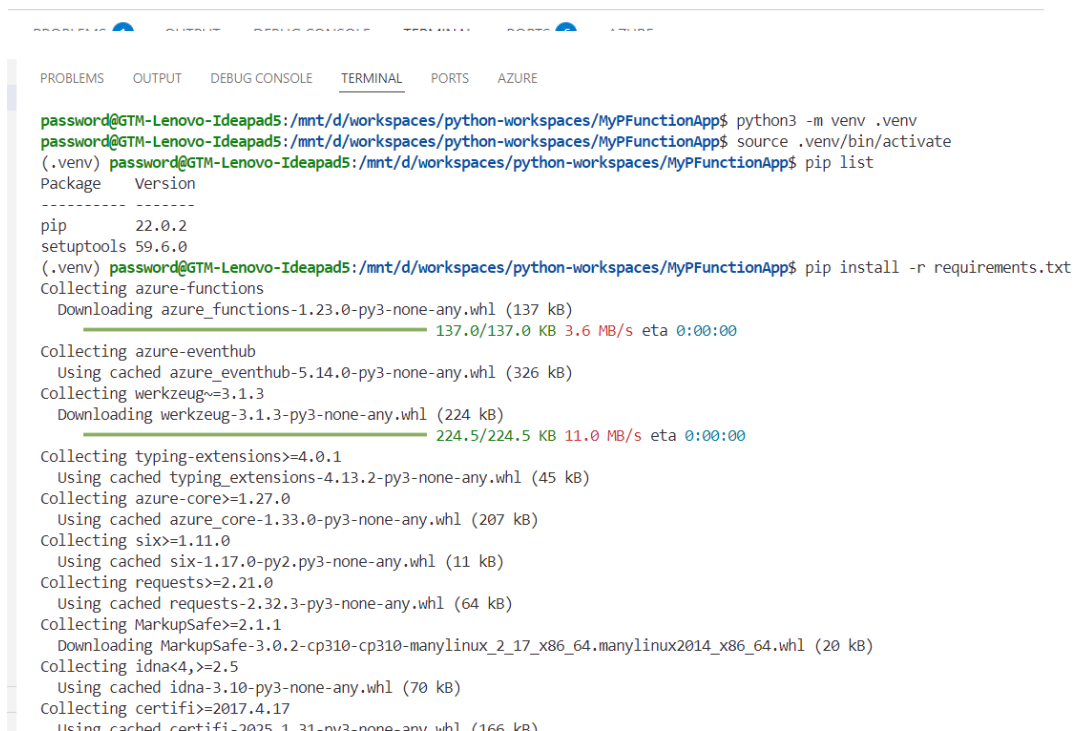
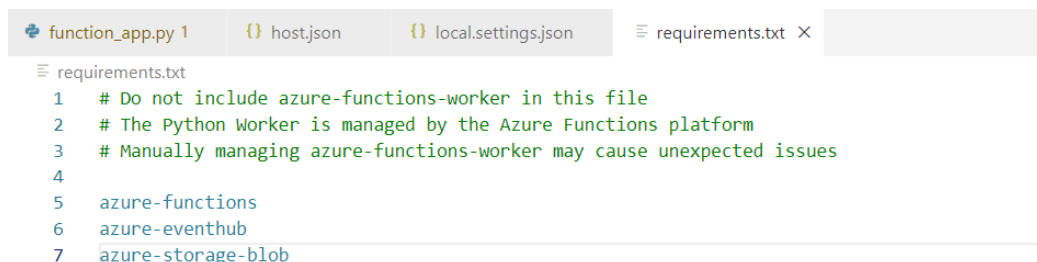
- Update local setting, using func command

```
{ } local.settings.json x
{ } local.settings.json > ...
1  {
2    "IsEncrypted": false,
3    "Values": {
4      "FUNCTIONS_WORKER_RUNTIME": "python",
5      "AzureWebJobsStorage": ""
6    }
7  }
```

Python (V2 Model) Based Azure Function



- Install packages



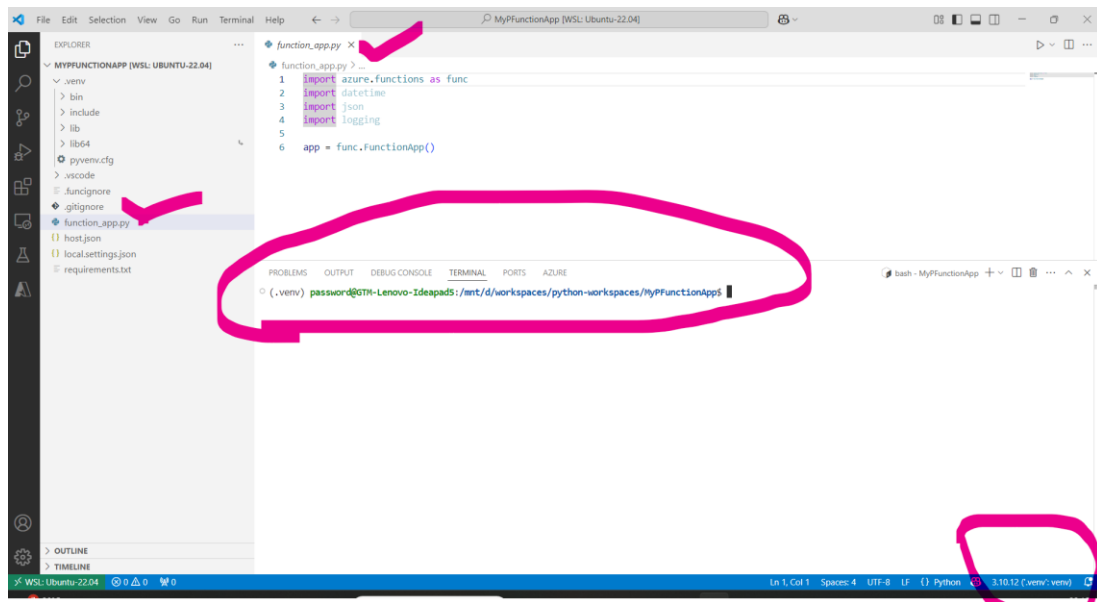
Python (V2 Model) Based Azure Function

```
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS AZURE

Downloading MarkupSafe-3.0.2-cp310-cp310-manylinux_2_17_x86_64.manylinux2014_x86_64.whl (20 kB)
Collecting idna<4,>=2.5
Using cached idna-3.10-py3-none-any.whl (70 kB)
Collecting certifi>=2017.4.17
Using cached certifi-2025.1.31-py3-none-any.whl (166 kB)
Collecting charset-normalizer<4,>=2
Using cached charset_normalizer-3.4.1-cp310-cp310-manylinux_2_17_x86_64.manylinux2014_x86_64.whl (146 kB)
Collecting urllib3<3,>=1.21.1
Using cached urllib3-2.4.0-py3-none-any.whl (128 kB)
Installing collected packages: urllib3, typing-extensions, six, MarkupSafe, idna, charset-normalizer, certifi, werkzeug, requests
Successfully installed MarkupSafe-3.0.2 azure-core-1.33.0 azure-eventhub-5.14.0 azure-functions-1.23.0 certifi-2025.1.31 charset-normalizer-3.4.1 idna-3.10 isodate-0.7.2 MarkupSafe-3.0.2 pip-22.0.2 pycparser-2.22 requests-2.32.3 setuptools-59.6.0 six-1.17.0 typing_extensions-4.13.2 urllib3-2.4.0 werkzeug-3.1.3
(.venv) password@GTM-Lenovo-Ideapad5: /mnt/d/workspaces/python-workspaces/MyPFunctionApp$ pip list
Package Version
-----
azure-core 1.33.0
azure-eventhub 5.14.0
azure-functions 1.23.0
azure-storage-blob 12.25.1
certifi 2025.1.31
cffi 1.17.1
charset-normalizer 3.4.1
cryptography 44.0.2
idna 3.10
isodate 0.7.2
MarkupSafe 3.0.2
pip 22.0.2
pycparser 2.22
requests 2.32.3
setuptools 59.6.0
six 1.17.0
typing_extensions 4.13.2
urllib3 2.4.0
werkzeug 3.1.3
(.venv) password@GTM-Lenovo-Ideapad5: /mnt/d/workspaces/python-workspaces/MyPFunctionApp$
```

- Add python interpreter to virtual env
 - o Restart VSCode and open it in WSL mode:
 - o Install the WSL Extension: To work with WSL2 in VS Code, you need to install the WSL extension:
 - o Open VS Code.
 - o Go to the Extensions view by clicking the Extensions icon in the Activity Bar on the side of the window or by pressing Ctrl+Shift+X.
 - o Search for “WSL” and click “Install.”
 - o Activate WSL and open your project folder
 - o Once the WSL extension is installed, you can activate WSL.
 - o Open the Command Palette (Ctrl+Shift+P) in VS Code and Type “WSL: Connect to WSL”
 - o VS Code will reopen with your project folder in the WSL environment.
 - o Click on your python file and you will see that it is considering virtual environment’s python
 - o If the project folder doesn’t open automatically, please remember to open it in wsl form (NOT like D:/... , it should be like /mnt/d/...)

Python (V2 Model) Based Azure Function



- Start Azure Event Hub Emulator in WSL:

- o Follow instructions written here - <https://learn.microsoft.com/en-us/azure/event-hubs/test-locally-with-event-hub-emulator?tabs=automated-script%2Cusing-kafka>
- o Download installer from <https://github.com/Azure/azure-event-hubs-emulator-installer>
- o Run Launchemulator.sh

```
PS D:\workspaces\Azure\Azure_EventHub_Emulator\azure-event-hubs-emulator-installer-main\azure-event-hubs-emulator-installer-main\EventHub-Emulator\Scripts\C
common> wsl
password@GTN-Lenovo-Ideapad5: /mnt/d/workspaces/Azure/EventHub_Emulator/azure-event-hubs-emulator-installer-main/azure-event-hubs-emulator-installer-ma
in/EventHub-Emulator/Scripts/Common$ ./LaunchEmulator.sh
By pressing "Y", you are expressing your consent to the End User License Agreement (EULA) for Event-Hubs Emulator: https://github.com/Azure/azure-event-hubs
-emulator-installer/blob/main/EMULATOR_EULA.md
Y
EULA has been accepted. Proceeding with launching containers..
[+] Running 1/1
  ✓ Network microsoft-azure-eventhubs_ah-emulator  Removed                                0.8s
[+] Running 2/2
  ✓ emulator Pulled                                0.5s
  ✓ azureite Pulled                                0.5s
[+] Building 0.0s (0/0)
[+] Running 3/3
  ✓ Network microsoft-azure-eventhubs_ah-emulator  Created                                0.1s
  ✓ Container azureite                             Started                                0.9s
  ✓ Container eventhubs-emulator                   Started                                1.2s
Emulator Service and dependencies have been successfully launched!
password@GTN-Lenovo-Ideapad5: /mnt/d/workspaces/Azure/EventHub_Emulator/azure-event-hubs-emulator-installer-main/azure-event-hubs-emulator-installer-ma
in/EventHub-Emulator/Scripts/Common$ docker ps -a
```

| CONTAINER ID | IMAGE | COMMAND | CREATED | STATUS | NAMES | PORTS |
|--------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|-------------------------|---------------|------------------------|--------------------|-------------|
| 3682aae4c254 | mcr.microsoft.com/azure-messaging/eventhubs-emulator:latest | "/Eventhubs_Emulator-" | 2 minutes ago | Up 2 minutes | eventhubs-emulator | 0.0.0.0:530 |
| 8->5300/tcp, [::]:5300->5300/tcp, 0.0.0.0:5672->5672/tcp, [::]:5672->5672/tcp, 0.0.0.0:9092->9092/tcp, [::]:9092->9092/tcp, 8888/tcp | | | | | | |
| 97ba22bf794f | mcr.microsoft.com/azure-storage/azurite:latest | "docker-entrypoint.s-" | 2 minutes ago | Up 2 minutes | azurite | 0.0.0.0:100 |
| 00-10002->10000-10002/tcp, [::]:10000-10002->10000-10002/tcp | | | | | | |
| aa9f5f0d4f1a8 | 7fd07ddae1b8 | "docker-entrypoint s -" | 5 weeks ago | Exited (0) 5 weeks ago | | |

- Write a basic function code (event hub trigger):

```
function_app.py x {} local.settings.json
function_app.py > eventhub_trigger1
1 import azure.functions as func
2 import logging
3
4 app = func.FunctionApp()
5
6 @app.event_hub_message_trigger(arg_name="azeventhub", event_hub_name="testtopic1",
7                               connection="myeventhubkafkanamespace_RootManagedAccessKey_EVENTHUB")
8 def eventhub_trigger1(azeventhub: func.EventHubEvent):
9     event_dec = azeventhub.get_body().decode('utf-8')
10     logging.info('Gtms new Python EventHub trigger processed an event: %s',
11                 event_dec)
```

- Update Connection string with Emulator connection to run it in local:

Python (V2 Model) Based Azure Function

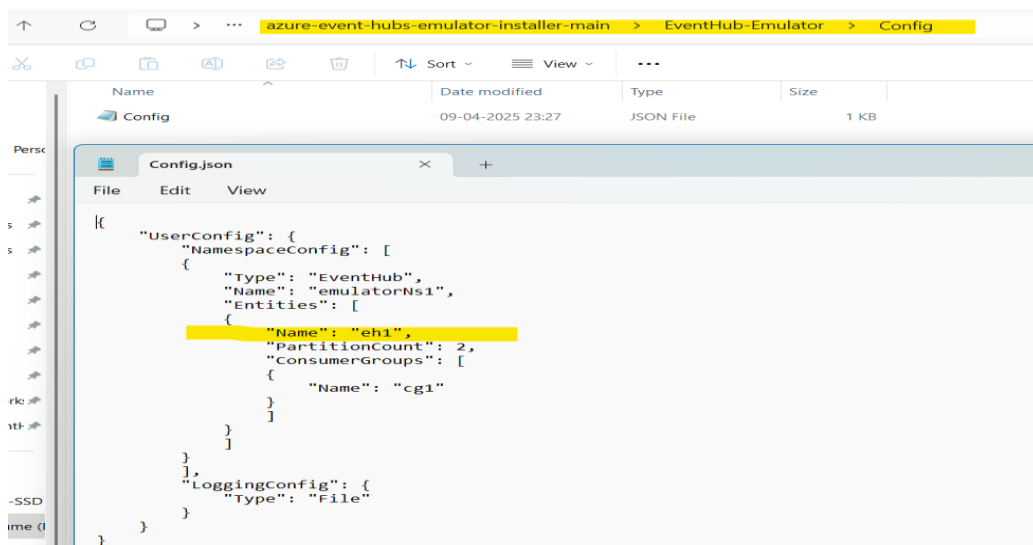


```
function_app.py • {} local.settings.json
function_app.py > eventhub_trigger1
1 func
2
3
4
5
6 gger(arg_name="azeventhub", event_hub_name="testtopic1",
7 connection="Endpoint=sb://localhost;SharedAccessKeyName=RootManageSharedAccessKey;SharedAccessKey=SAS_KEY_VALUE;UseDevelopmentEmulator=true;")
8 enthub: func.EventHubEvent):
9 .get_body().decode('utf-8')
10 'Python EventHub trigger processed an event: %s',
11
```

- Update event_hub_name with the name mentioned in config (Emulator):



```
function_app.py X {} local.settings.json
function_app.py > eventhub_trigger1
1 import azure.functions as func
2 import logging
3
4 app = func.FunctionApp()
5
6 @app.event_hub_message_trigger(arg_name="azeventhub", event_hub_name="eh1",
7 connection="Endpoint=sb://localhost;SharedAccessKeyName=RootManageSharedAccessKey;SharedAccessKey=SAS_KEY_VALUE;UseDevelopmentEmulator=true;")
8 def eventhub_trigger1(azeventhub: func.EventHubEvent):
9     event_dec = azeventhub.get_body().decode('utf-8')
10     logging.info('Gtms new Python EventHub trigger processed an event: %s',
11                 event_dec)
```



```
azure-event-hubs-emulator-installer-main > EventHub-Emulator > Config
Name Date modified Type Size
Config 09-04-2025 23:27 JSON File 1 KB

Config.json
File Edit View
{
  "UserConfig": {
    "NamespaceConfig": [
      {
        "type": "EventHub",
        "Name": "emulatorNs1",
        "Entities": [
          {
            "Name": "eh1",
            "PartitionCount": 2,
            "ConsumerGroups": [
              {
                "Name": "cg1"
              }
            ]
          }
        ]
      }
    ],
    "LoggingConfig": {
      "Type": "File"
    }
  }
}
```

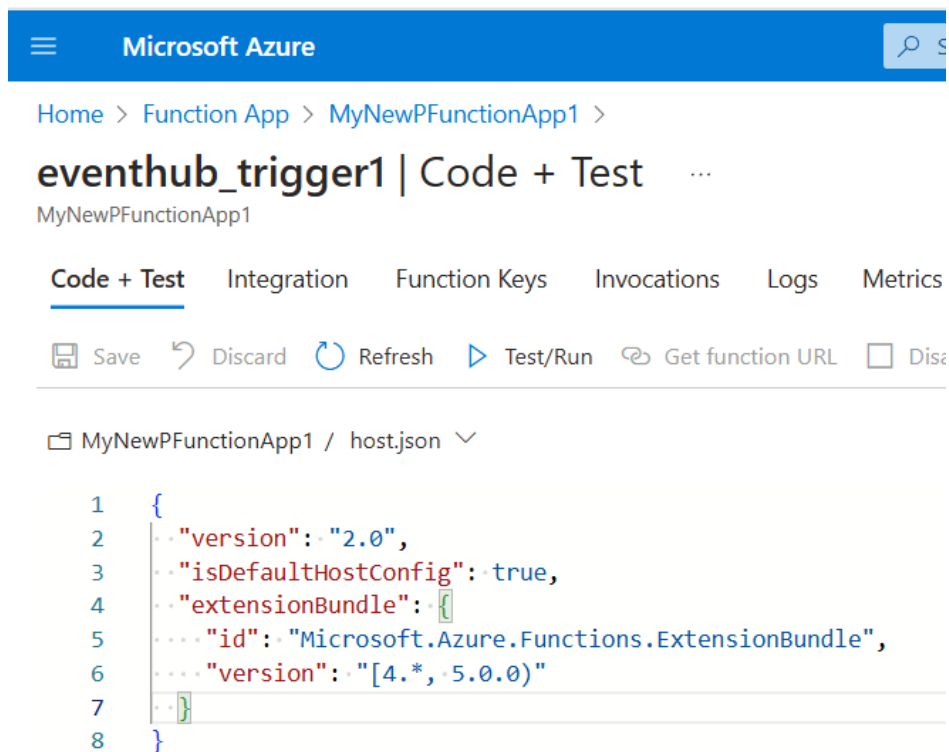
- Delete all extentionBundle from host.json (relevant only for running in local azurehub Emulator / not recommended when deploying in Azure):
 - o Local:



```
function_app.py {} host.json X {} local.settings.json
{} host.json > ...
1 {
2   "version": "2.0"
3 }
```

Python (V2 Model) Based Azure Function

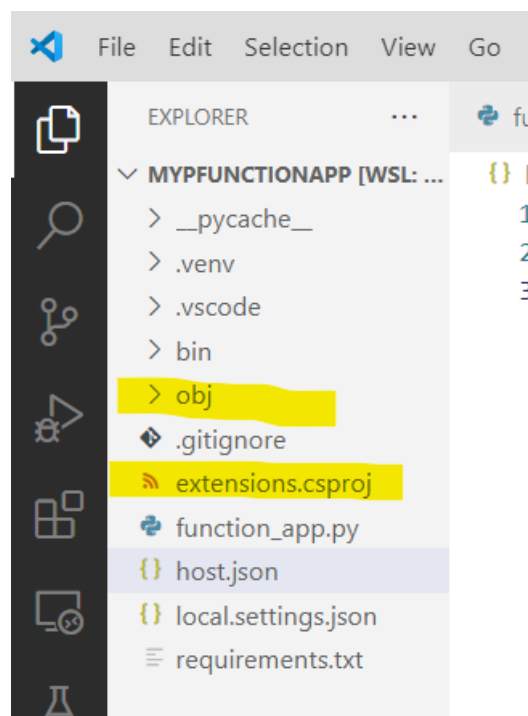
- In Azure:



- Run the following command from terminal (only for Local env):

func extensions install --package Microsoft.Azure.WebJobs.Extensions.EventHubs --version 6.3.0

We can see the following files and folders in local directory (needed only for local azurehub emulator)



Python (V2 Model) Based Azure Function

- Check ports which are running:

| PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS 8 AZURE | | | |
|----------------------------------------------------------------|-------------------|------------------------------------------------------------------------------|----------------|
| Port | Forwarded Address | Running Process | Origin |
| 5300 | localhost:5300 | /usr/bin/docker-proxy -proto tcp -host-ip 0.0.0.0 -host-port 5300 -contai... | Auto Forwarded |
| 5672 | localhost:5672 | /usr/bin/docker-proxy -proto tcp -host-ip 0.0.0.0 -host-port 5672 -contai... | Auto Forwarded |
| 7071 | localhost:7071 | func start --verbose (14788) | Auto Forwarded |
| 9092 | localhost:9092 | /usr/bin/docker-proxy -proto tcp -host-ip 0.0.0.0 -host-port 9092 -contai... | Auto Forwarded |
| 10000 | localhost:10000 | /usr/bin/docker-proxy -proto tcp -host-ip 0.0.0.0 -host-port 10000 -cont... | Auto Forwarded |
| 10001 | localhost:10001 | /usr/bin/docker-proxy -proto tcp -host-ip 0.0.0.0 -host-port 10001 -cont... | Auto Forwarded |
| 10002 | localhost:10002 | /usr/bin/docker-proxy -proto tcp -host-ip 0.0.0.0 -host-port 10002 -cont... | Auto Forwarded |
| 33849 | 127.0.0.1:33849 | func start --verbose (14788) | Auto Forwarded |
| <div>Add Port</div> | | | |

- Start your function in Local:

```
func start -verbose
```

[illegible]

- How to Test it?

1. Create a http function who can publish the data to eventhub emulator

Python (V2 Model) Based Azure Function

```
function_app.py X {} host.json {} local.settings.json
function_app.py > send_to_eventhub
9 @app.event_hub_message_trigger(arg_name="azeventhub", event_hub_name="eh1",
10                               connection="EventHubConnection")
11 def eventhub_trigger1(azeventhub: func.EventHubEvent):
12     event_dec = azeventhub.get_body().decode('utf-8')
13     logging.info('Gtms new Python EventHub trigger processed an event: %s',
14                 event_dec)
15
16
17 @app.function_name(name="HttpTriggerToEventHub")
18 @app.route(route="send-to-eventhub", auth_level=func.AuthLevel.ANONYMOUS, methods=["POST"])
19 def send_to_eventhub(req: func.HttpRequest) -> func.HttpResponse:
20     logging.info('HTTP trigger function processed a request.')
21
22     # Read data from the HTTP request
23     data = req.get_json()
24
25     # Event Hub connection string and name
26     connection_str = "Endpoint=sb://localhost;SharedAccessKeyName=RootManageSharedAccessKey;SharedAccessKey=SAS_KEY_VALUE;UseDevelopmentEmulator=true"
27     eventhub_name = "eh1"
28
29     # Create an Event Hub producer client
30     producer = EventHubProducerClient.from_connection_string(
31         conn_str=connection_str, eventhub_name=eventhub_name
32     )
33
34     # Send data to Event Hub
35     with producer:
36         event_data_batch = producer.create_batch()
37         event_data_batch.add(EventData(str(data)))
38         producer.send_batch(event_data_batch)
39
40     return func.HttpResponse("Data sent to Event Hub successfully!")
```

2. Start the function and fetch the URL from the console

```
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS 8 AZURE
[2025-04-12T20:39:18.549Z] "MaxOutstandingRequests": -1,
[2025-04-12T20:39:18.549Z] "RoutePrefix": "api"
[2025-04-12T20:39:18.550Z] }
[2025-04-12T20:39:18.550Z] Initializing function HTTP routes
[2025-04-12T20:39:18.551Z] Mapped function route 'api/send-to-eventhub' [POST] to 'HttpTriggerToEventHub'
[2025-04-12T20:39:18.551Z]
[2025-04-12T20:39:18.556Z] Host initialized (4526ms)

Functions:
    HttpTriggerToEventHub: [POST] http://localhost:7071/api/send-to-eventhub
    eventhub_trigger1: eventHubTrigger

[2025-04-12T20:39:18.905Z] Host started (4880ms)
[2025-04-12T20:39:18.906Z] Job host started
```

3. Publish data using postman or Bruno or equivalent

<http://localhost:7071/api/send-to-eventhub>

http://localhost:7071/api/send-to-eventhub

POST http://localhost:7071/api/send-to-eventhub

Params Authorization Headers (9) Body Pre-request Script Tests Settings

none form-data x-www-form-urlencoded raw binary GraphQL JSON

```
1 {
2   "Category": "Eventhub Publish testing",
3   "Environment": "Local",
4   "Name": "Test using python-based function"
5 }
```

Body Cookies Headers (4) Test Results

Status: 200 OK

Pretty Raw Preview Visualize Text

1 Data sent to Event Hub successfully!

Python (V2 Model) Based Azure Function

```
8
9 @app.event_hub_message_trigger(arg_name="azeventhub", event_hub_name="eh1",
10                               connection="EventHubConnection")
11 def eventhub_trigger1(azeventhub: func.EventHubEvent):
12     event_dec = azeventhub.get_body().decode('utf-8')
13     logging.info('Gtms new Python EventHub trigger processed an event: %s',
14                 event_dec)
15
16
17 @app.function_name(name="HttpTriggerToEventHub")
18 @app.route(route="send-to-eventhub", auth_level=func.AuthLevel.ANONYMOUS, methods=["POST"])
19 def send_to_eventhub(req: func.HttpRequest) -> func.HttpResponse:
20     logging.info('HTTP trigger function processed a request.')
21
22 # Read data from the HTTP request
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS AZURE

func - MyFunctionApp

```
[2025-04-12T20:46:46.009Z] Link state changed: <LinkState.DETACH_SENT: 4> -> <LinkState.DETACHED: 0>
[2025-04-12T20:46:46.010Z] Received FunctionInvocationRequest, request ID: 50b14fed-1d12-413e-8bdb-811b64064a71, function ID: 7dbf07eb-c78b-5bd7-8fc8-231308e56f05, function name:
eventhub_trigger1, invocation ID: 0201d548-bb15-48b8-87ca-bbf95649e41, function type: sync, timestamp (UTC): 2025-04-12 20:46:46.005913, sync threadpool max workers: 1000
[2025-04-12T20:46:46.011Z] Executed 'Functions.HttpTriggerToEventHub' (Succeeded, Id=99cbb852-68eb-4b4b-ba91-cfbb60b74209, Duration=557ms)
[2025-04-12T20:46:46.011Z] Gtms new Python EventHub trigger processed an event: {'Category': 'EventHub Publish testing', 'Environment': 'Local', 'Name': 'Test using python based
function:')}
[2025-04-12T20:46:46.012Z] Executed 'Functions.eventhub_trigger1' (Succeeded, Id=0201d548-bb15-48b8-87ca-bbf95649e41, Duration=12ms)
[2025-04-12T20:46:46.013Z] Executed HTTP request: {
  "requestId": "71c1590a-a648-4355-868b-14e7df83b4e6",
  "identities": "",
  "status": "200",
  "duration": "562"
}
```

4. Add code to writing the data to blob

```
function_app.py x {} local.settings.json
```

function_app.py > publish_to_blob

```
9
10 @app.event_hub_message_trigger(arg_name="azeventhub", event_hub_name="eh1",
11                               connection="EventHubConnection")
12 def eventhub_trigger1(azeventhub: func.EventHubEvent):
13     event_dec = azeventhub.get_body().decode('utf-8')
14     logging.info('Gtms new Python EventHub trigger processed an event: %s',
15                 event_dec)
16     publish_to_blob(event_dec)
17
18
19 def publish_to_blob(data):
20     localDemoContainer = str(uuid.uuid4())
21     try:
22         blob_service_client = BlobServiceClient.from_connection_string(os.environ["BlobConnectionString"])
23         container_client = blob_service_client.get_container_client(localDemoContainer)
24
25         # Create a container if not exists
26         if not container_client.exists():
27             container_client.create_container()
28
29         blob_client = blob_service_client.get_blob_client(container=localDemoContainer, blob=os.environ["BlobName"])
30
31         # Upload data to the blob
32         blob_client.upload_blob(data, overwrite=True)
33         logging.info(f"Blob created with data: {data}")
34     except Exception as ex:
35         logging.error(f"Failed to upload blob: {ex}")
36
37
```

function_app.py {} local.settings.json x

```
{
  "IsEncrypted": false,
  "Values": {
    "FUNCTIONS_WORKER_RUNTIME": "python",
    "AzureWebJobsStorage": "UseDevelopmentStorage=true",
    "AzureWebJobsDashboard": "UseDevelopmentStorage=true",
    "AzureWebJobsFeatureFlags": "EnableWorkingIndexing",
    "EventHubConnection": "Endpoint=sb://localhost;SharedAccessKeyName=RootManageSharedAccessKey;SharedAccessKey=SAS_KEY_VALUE;
    UseDevelopmentEmulator=true;",
    "BlobConnectionString": "DefaultEndpointsProtocol=http;AccountName=devstoreaccount1;
    AccountKey=Eby8vdM02XN0qFlqWJPLlMEt1CDX310UzFT50uSRZ6IFsuFq2UVERCz4I6tq/K1SZFPT0tr/KBHBeKsoGw==;BlobEndpoint=http://127.0.0.1:10000/
    devstoreaccount1;",
    "BlobName": "local-blob-eh1"
  },
  "ConnectionStrings": {}
}
```

5. Run the function again and test

Python (V2 Model) Based Azure Function

POST ▼ http://localhost:7071/api/send-to-eventhub

Params Authorization Headers (9) **Body** Pre-request Script Tests Settings

☐ none ☐ form-data ☐ x-www-form-urlencoded ☒ raw ☐ binary ☐ GraphQL **JSON** ▼

```
1 {
2   ... "Category": "Eventhub Publish testing",
3   ... "Environment": "Local",
4   ... "Name": "Test using python based function"
5 }
```

Body Cookies Headers (4) Test Results 🌐 Status: 200 OK

Pretty Raw Preview Visualize Text ▼ 🔍

1 Data sent to Event Hub successfully!

function_app.py x {} local.settings.json

function_app.py > publish_to_blob

19 def publish_to_blob(data):

29 blob_client = blob_service_client.get_blob_client(container=localDemoContainer, blob=os.environ["BlobName"])

30

31 # Upload data to the blob

32 blob_client.upload_blob(data, overwrite=True)

33 logging.info(f"Blob created with data: {data}")

34 except Exception as ex:

35 logging.error(f"Failed to upload blob: {ex}")

36

PROBLEMS OUTPUT DEBUG CONSOLE **TERMINAL** PORTS AZURE

func - MyFunctionApp + 🔍 🗑 ⌵ ⌶

[2025-04-15T07:27:28.939Z] 'Content-Length': '108'

[2025-04-15T07:27:28.939Z] 'x-ms-blob-type': 'REDACTED'

[2025-04-15T07:27:28.940Z] 'x-ms-version': 'REDACTED'

[2025-04-15T07:27:28.940Z] 'Content-Type': 'application/octet-stream'

[2025-04-15T07:27:28.940Z] 'Accept': 'application/xml'

[2025-04-15T07:27:28.940Z] 'User-Agent': 'azsdk-python-storage-blob/12.25.1 Python/3.10.12 (Linux-5.15.167.4-microsoft-standard-WSL2-x86_64-with-glibc2.35)'

[2025-04-15T07:27:28.940Z] 'x-ms-date': 'REDACTED'

[2025-04-15T07:27:28.941Z] 'x-ms-client-request-id': '161adf20-19cb-11f0-b7e7-5bd5df2203b'

[2025-04-15T07:27:28.941Z] 'Authorization': 'REDACTED'

[2025-04-15T07:27:28.941Z] A body is sent with the request

[2025-04-15T07:27:28.954Z] Response status: 201

[2025-04-15T07:27:28.954Z] Response headers:

[2025-04-15T07:27:28.954Z] 'Server': 'Azurite-Blob/3.34.0'

[2025-04-15T07:27:28.954Z] 'etag': '"0x201B03CA74BC500"'

[2025-04-15T07:27:28.955Z] 'last-modified': 'Tue, 15 Apr 2025 07:27:28 GMT'

[2025-04-15T07:27:28.955Z] 'content-md5': 'REDACTED'

[2025-04-15T07:27:28.955Z] 'x-ms-client-request-id': '161adf20-19cb-11f0-b7e7-5bd5df2203b'

[2025-04-15T07:27:28.955Z] 'x-ms-request-id': '54848809-9473-4902-9348-b4a1fe9d5d22'

[2025-04-15T07:27:28.956Z] 'x-ms-version': 'REDACTED'

[2025-04-15T07:27:28.956Z] 'date': 'Tue, 15 Apr 2025 07:27:28 GMT'

[2025-04-15T07:27:28.956Z] 'x-ms-request-server-encrypted': 'REDACTED'

[2025-04-15T07:27:28.956Z] 'Connection': 'keep-alive'

[2025-04-15T07:27:28.956Z] 'Keep-Alive': 'REDACTED'

[2025-04-15T07:27:28.957Z] 'Content-Length': '0'

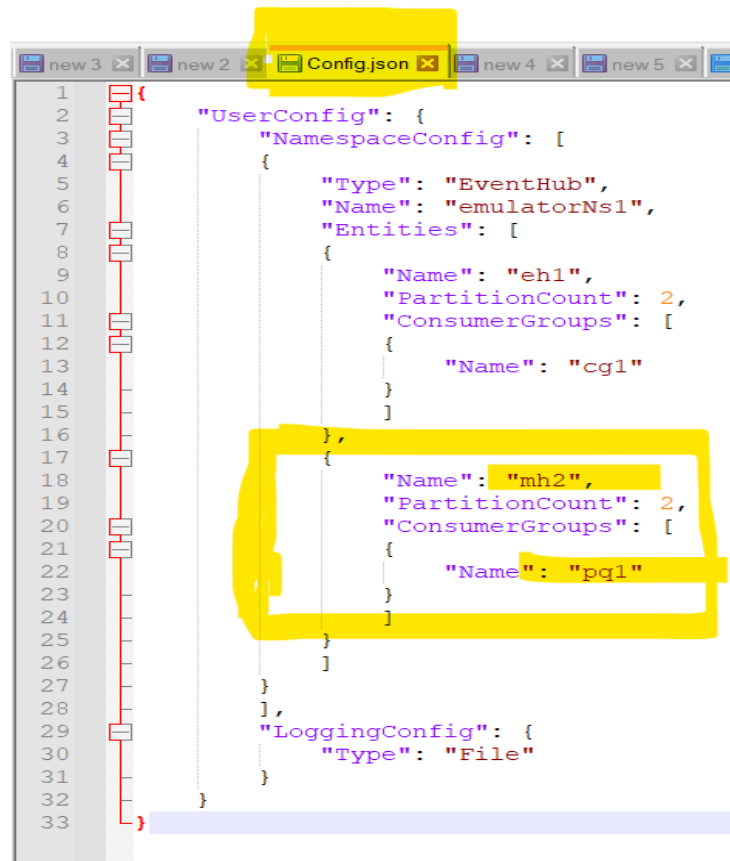
[2025-04-15T07:27:28.957Z] Blob created with data: {'Category': 'Eventhub Publish testing', 'Environment': 'Local', 'Name': 'Test using python based function'}

[2025-04-15T07:27:28.960Z] Executed "Functions.eventhub_trigger1" (Succeeded, Id=041dd910-792d-4643-b22e-4adcc2bf9bc3, Duration=613ms)

6. Consuming from two topics

- Add a new topic in azurehub emulator config file

Python (V2 Model) Based Azure Function



```
1 {
2   "UserConfig": {
3     "NamespaceConfig": [
4       {
5         "Type": "EventHub",
6         "Name": "emulatorNs1",
7         "Entities": [
8           {
9             "Name": "eh1",
10            "PartitionCount": 2,
11            "ConsumerGroups": [
12              {
13                "Name": "cg1"
14              }
15            ]
16          },
17          {
18            "Name": "mh2",
19            "PartitionCount": 2,
20            "ConsumerGroups": [
21              {
22                "Name": "pq1"
23              }
24            ]
25          }
26        ]
27      },
28      "LoggingConfig": {
29        "Type": "File"
30      }
31    }
32  }
33 }
```

- Add another function in the same file (beauty of V2 model)



```
function_app.py X local.settings.json
function_app.py > eventhub_trigger2
12 def eventhub_trigger1(azeventhub: func.EventHubEvent):
13     eh1, event_dec
14     publish_to_blob(event_dec, os.environ["BlobName1"])
15
16
17
18
19 @app.event_hub_message_trigger(arg_name="azeventhub", event_hub_name="mh2",
20                               connection="EventHubConnection")
21 def eventhub_trigger2(azeventhub: func.EventHubEvent):
22     event_dec = azeventhub.get_body().decode('utf-8')
23     logging.info('Gtms new Python EventHub trigger %s processed an event: %s',
24                 'mh2', event_dec)
25     publish_to_blob(event_dec, os.environ["BlobName2"])
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65
66
67
68
69
70
71
72
73
74
75
76
77
78
79
80
81
82
83
84
85
86
87
88
89
90
91
92
93
94
95
96
97
98
99
100
```

- Restart Azurite
- Restart Functions
- Test

Python (V2 Model) Based Azure Function

POST http://localhost:7071/api/send-to-eventhub

Params Authorization Headers (10) Body Pre-request Script Tests Settings

| | | | |
|-------------------------------------|-----------------|-----------------------|-------------|
| <input checked="" type="checkbox"/> | User-Agent | PostmanRuntime/7.28.4 | |
| <input checked="" type="checkbox"/> | Accept | */* | |
| <input checked="" type="checkbox"/> | Accept-Encoding | gzip, deflate, br | |
| <input checked="" type="checkbox"/> | Connection | keep-alive | |
| <input checked="" type="checkbox"/> | Content-Type | application/json | |
| <input checked="" type="checkbox"/> | eventhub_name | mh2 | |
| | Key | Value | Description |

Body Cookies Headers (4) Test Results Status: 200 OK

Pretty Raw Preview Visualize Text

1 Data sent to Event Hub successfully!

```
[2025-04-15T11:54:46.733Z] 'Keep-Alive': 'REDACTED'
[2025-04-15T11:54:46.733Z] 'Content-Length': '0'
[2025-04-15T11:54:46.734Z] Blob local-blob-mh2 created with data: {'Category': 'Eventhub Publish testing', 'Environment': 'Local', 'Name': 'Test using python based function'}
[2025-04-15T11:54:46.736Z] Executed 'Functions.eventhub_trigger2' (Succeeded, Id=a551249d-7aa5-4465-861d-c813d3f13224, Duration=126ms)
```

Ln 20, Col 65 Spaces: 4 UTF-8 LF Python 3.10.12 (.venv: venv)

azure-function / eh1-Azure-event-hub-http-trigger-local

POST http://localhost:7071/api/send-to-eventhub

Params Authorization Headers (10) Body Pre-request Script Tests Settings

| | | | |
|-------------------------------------|-----------------|-----------------------|-------------|
| <input checked="" type="checkbox"/> | User-Agent | PostmanRuntime/7.28.4 | |
| <input checked="" type="checkbox"/> | Accept | */* | |
| <input checked="" type="checkbox"/> | Accept-Encoding | gzip, deflate, br | |
| <input checked="" type="checkbox"/> | Connection | keep-alive | |
| <input checked="" type="checkbox"/> | Content-Type | application/json | |
| <input checked="" type="checkbox"/> | eventhub_name | eh1 | |
| | Key | Value | Description |

Body Cookies Headers (4) Test Results Status: 200 OK Time: 558 ms

Pretty Raw Preview Visualize Text

1 Data sent to Event Hub successfully!

```
[2025-04-15T11:55:23.551Z] 'Keep-Alive': 'REDACTED'
[2025-04-15T11:55:23.551Z] 'Content-Length': '0'
[2025-04-15T11:55:23.551Z] Blob local-blob-eh1 created with data: {'Category': 'Eventhub Publish testing', 'Environment': 'Local', 'Name': 'Test using python based function'}
[2025-04-15T11:55:23.552Z] Executed 'Functions.eventhub_trigger1' (Succeeded, Id=5c479b57-f07c-48c5-93ce-b843a52cccea, Duration=51ms)
```

Ln 20, Col 65 Spaces: 4 UTF-8 LF Python 3.10.12 (.venv: venv)