



Azure Functions

CSCI E-94

Fundamentals of Cloud Computing - Azure

Joseph Ficara

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Agenda

- Azure Functions
 - Overview
 - Serverless API
 - TimerTrigger
 - BlobTrigger
 - QueueTrigger



Overview

- Azure functions:
 - “code” that run “Serverless”
 - Still tied to a service plan
 - New plan “Consumption”
 - Can still use traditional app service plan(s)
 - Based on WebJobs
 - Inexpensive when using Consumption plan
 - 1 million executions per month for FREE!
 - 400,000 GB-s
 - See [Azure Calculator](#)



Overview

■ Pricing calculation

■ Executions * (Duration in seconds)

■ = Execution Duration (in seconds)

■ Resource consumption (GB-s)

Unit of measure: Gigabyte seconds

■ Resource Consumption in GB * Execution Duration in Seconds

■ = Total GB-s



Overview

■ Example:

- Executions: 3 million
- Duration: 1 second per execution
- = 3 million seconds
- 512 MB per execution (.5 GB)
- Total GB-s = $.5 * 3 \text{ million seconds}$
 - = **1.5 million GB-s**



Overview

- What does it cost you?
 - 3 Million Executions
 - 1 Second Per Execution
 - 0.512 GB Per Execution
 - $(3,000,000 * 1 * 0.512) = \sim 1.5 \text{ Million GB-s}$
 - - 400,000 GB-s (Monthly free grant)
 - $(1.5 \text{ Million GB-s} - 400,000 \text{ GB-s}) = 1.1 \text{ million GB-s}$
 - \$0.000016/GB-s Resource consumption price per GB-s
 - $(\$0.000016 \text{ GB-s} * 1.1 \text{ million GB-s}) = \17.60
 - Execution cost = 0.20 per million, 1st million is free
 - Execution cost: 3 Million - 1 Million = 2 Million = $2 * 0.20 = 0.40$
 - Resulting cost is $\$17.60 + 0.40 = \sim \18.00



Overview

■ What does it cost you? – Azure Calculator

Azure Functions

Region:

East US

Tier:

Consumption

The first 400,000 GB/s of execution and 1,000,000 executions are free.

Executions

Memory size:

512

×

1000

×

3000000

=

\$17.60

Execution time (in
milliseconds)

Executions per month

Requests

3,000,000

Execution count

=

\$0.40

Upfront cost

\$0.00

Monthly cost

\$18.00



Overview

- Why do you care?
 - Inexpensive
 - Pay per use model
 - Push you towards single responsibility
 - Formal support for many languages
 - Support for Durable functions
 - Stateful functions
 - Open-source <http://bit.ly/2Td2ii7>



Overview

Framework & Language Support Matrix

Language	1.x EOL 09/14/2026	2.x EOL 12/13/2022	3.X EOL 12/13/2022	4.x Current
C#	GA (.NET Framework 4.8)	GA (.NET Core 2.1)	GA (.NET Core 3.1)	GA (.NET 8) GA (.NET 9) GA (.NET Framework 4.8.1)
JavaScript Node.js TypeScript	GA (Node 6)	GA (Node 10 & 8)	GA (Node 14,12, & 10)	GA (18, 20) 22 Preview
F#	GA (.NET 4.8)	GA (.NET Core 2.1)	GA (.NET Core 3.1)	GA (.NET 8) GA (.NET 9) GA (.NET Framework 4.8.1)
Java	N/A	GA (Java 8)	GA (Java 11 & 8)	GA (Java 8, 11, 17) (Java 21 Linux only)
PowerShell	N/A	N/A	N/A	GA (7.4) 7.2 EOL November 8, 2024
Python	N/A	GA (Python 3.7)	GA (Python 3.8,3.7,3.6)	GA (3.11, 3.10, 3.9) 3.8 EOL October 2024
Go/Rust/Other	N/A	Linux/Windows <u>Custom Handlers</u>	Linux/Windows <u>Custom Handlers</u>	Linux/Windows <u>Custom Handlers</u>

See: <http://bit.ly/3cnsC0C>



Overview

- **Consumption** plan notes
 - See: <http://bit.ly/3bRgkOK>
 - Function can run for a max of 10 minutes
 - The **default timeout is 5 minutes**
 - Set in `host.json` via `functionTimeout`
 - When triggering you may see a delay
 - This **can be up to 10 minutes**
 - If faster triggering is needed
 - Switch to a traditional app service plan
 - Ensure its set to **always on**



Overview

- App Service Plans are also supported
 - Triggering is faster
 - Can be set to unlimited execution time
 - Note on the **premium plan**
 - Functions 2.0 - 4.0 default is **30 minutes**
 - Functions 2.0 - 4.0 support never timeout (unlimited)
- Containers
 - Working with containers & Azure Functions
- Kubernetes
 - Azure Functions on Kubernetes with KEDA



Overview

- HTTP Triggered function must respond
 - **230 seconds Windows / 240 on Linux**
Application performance FAQs for Web Apps in Azure
 - Azure Load Balancer timeout dependent
 - Options:
 - Use Durable Functions Async pattern
 - Defer actual work and return immediately



Overview

- Azure functions require
 - General Azure Storage Account
 - Supports Azure Blob, Queue, Files and Table
 - Some storage accounts don't support
 - Queues & Tables
 - Always On to have fast triggering support
 - This requires a traditional app service plan



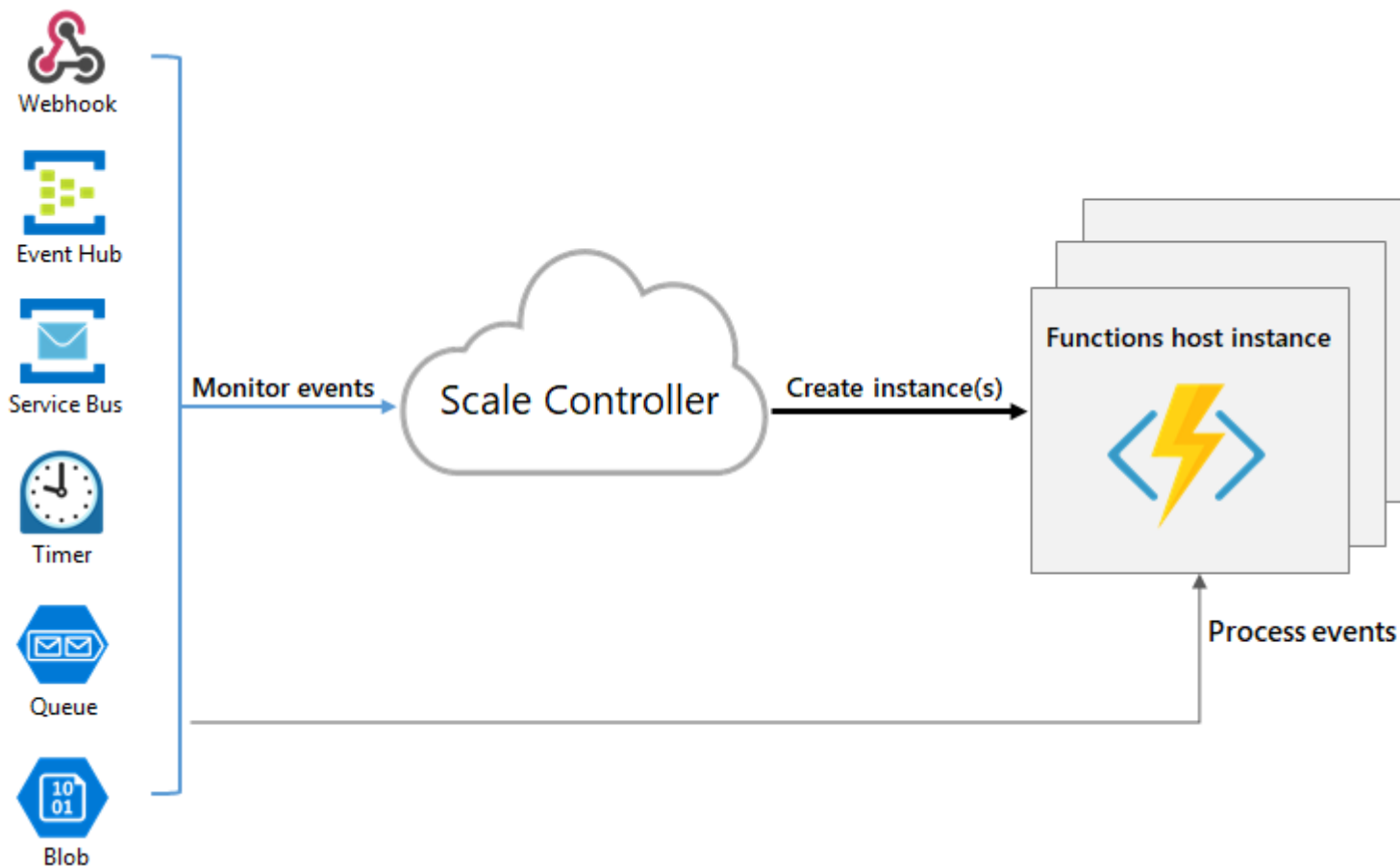
Overview

- Scaling [Azure Functions hosting options](#)
[Event-driven scaling in Azure Functions](#)
 - Is automatic with Consumption Plan
 - Uses the “Scale Controller”
 - To monitor rate of events and scale out or in
 - `SCALE_CONTROLLER_LOGGING_ENABLED`
[Scale controller logs](#)
 - Max of 200 instances
 - Single function can handle more than one request
 - [New Instance Rate](#)
 - HTTP Triggers: Max once per second
 - Non-HTTP Triggers: Max once every 30 seconds
 - Scaling is faster in the premium plan



Overview

Scaling ...

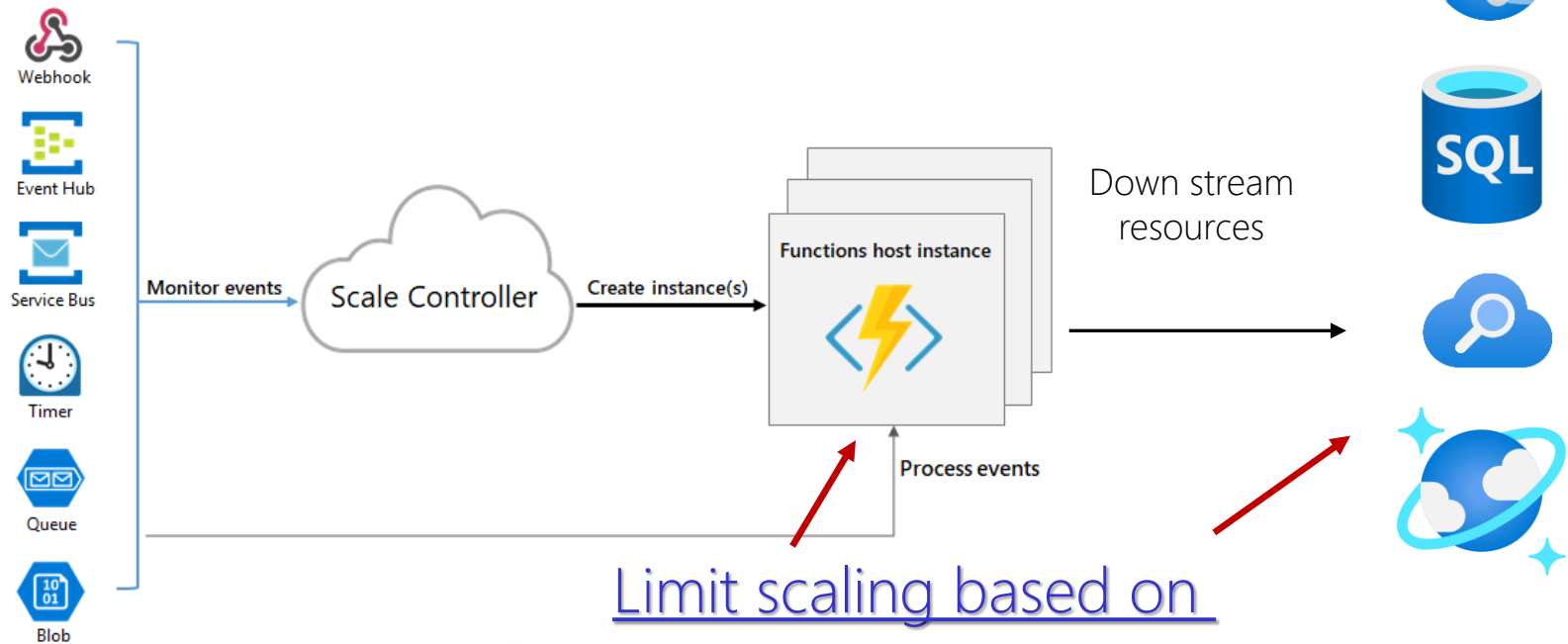


Courtesy Microsoft: [Event-driven scaling in Azure Functions](#)

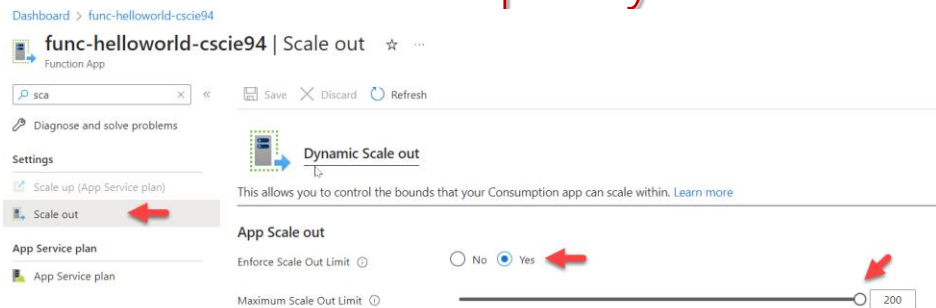


Overview

Scaling ...



Limit scaling based on
Down stream resource capacity





Overview

- Azure functions support triggers
 - Triggers cause function execution
 - Blob Storage
 - Cosmos DB
 - Event Grid
 - Event Hub
 - HTTP
 - SignalR Service
 - Microsoft Graph Events
 - Queue storage
 - Service bus
 - Timer
 - Webhooks
 - Many more see [Trigger and binding definitions](#)



Overview

- Azure functions input/output binding
 - Binding causes retrieval and “storage”
 - Configured in `function.json`
 - Input / Output:
 - Blob Storage
 - Cosmos DB
 - Event Hubs
 - Microsoft Graph Events
 - And many more
 - See: [Azure Functions triggers and bindings concepts](#)



Overview

- Durable Functions & Logic Apps
 - Manage state transition between functions
 - Another option
 - Storage queues
- Event hubs are suited for
 - High volume communications



Overview

■ Best practices

■ Do

- Use `async` methods
- Share HTTP Client instances
- Receive messages in batches when possible
- Configure host to better handle concurrency
 - `host.json`
- Make functions stateless
- Write defensive functions
 - Handle poison queue messages



Overview

- Best practices
 - Don't
 - Use blocking calls
 - Create long running functions



Questions ?





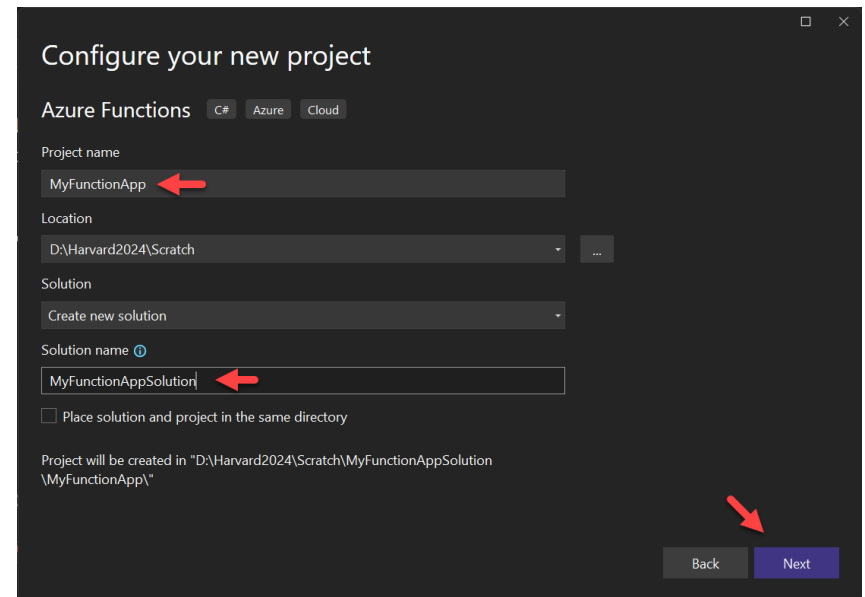
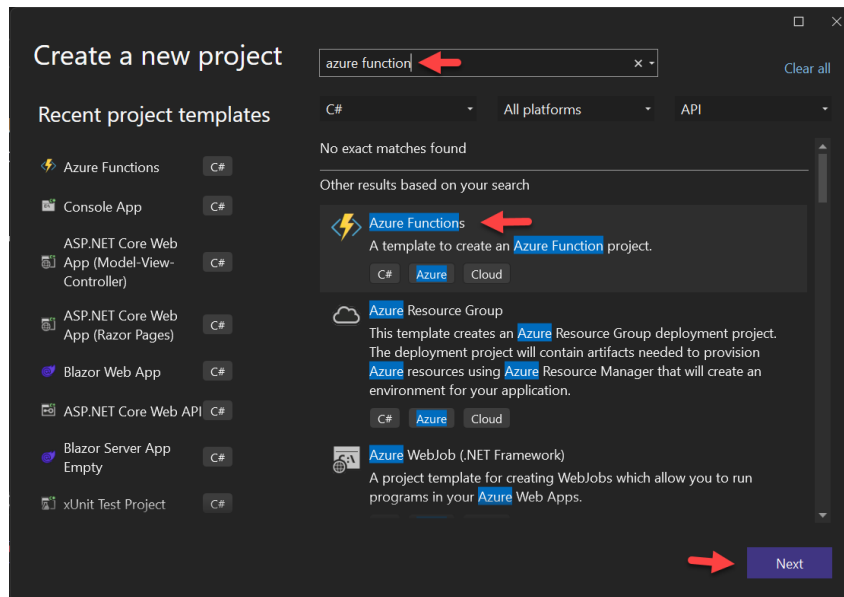
Hello World

- Let's look at some code...
- Simple Azure Function
 - Handles HTTP GET and POST
 - Using a single method
 - Returns "Hello *<inputdata>*"



Hello World

- To create an Azure Function project
 - Create a new project -> and type function





Hello World

- To create an Azure Function project
 - Http trigger and Function Authorization

Additional information

Azure Functions C# Azure Cloud

Functions worker ⓘ

.NET 9.0 Isolated < > < >

Function ⓘ

Http trigger < > < >

☐ Enlist in .NET Aspire orchestration (Preview) ⓘ

☐ Use Azurite for runtime storage account (AzureWebJobsStorage) ⓘ

☐ Enable container support ⓘ

Authorization level ⓘ

Function

Back Create



Demo

Hello World Demo

MyFunctionAppSolution

HelloWorldAzureFunctionSolution

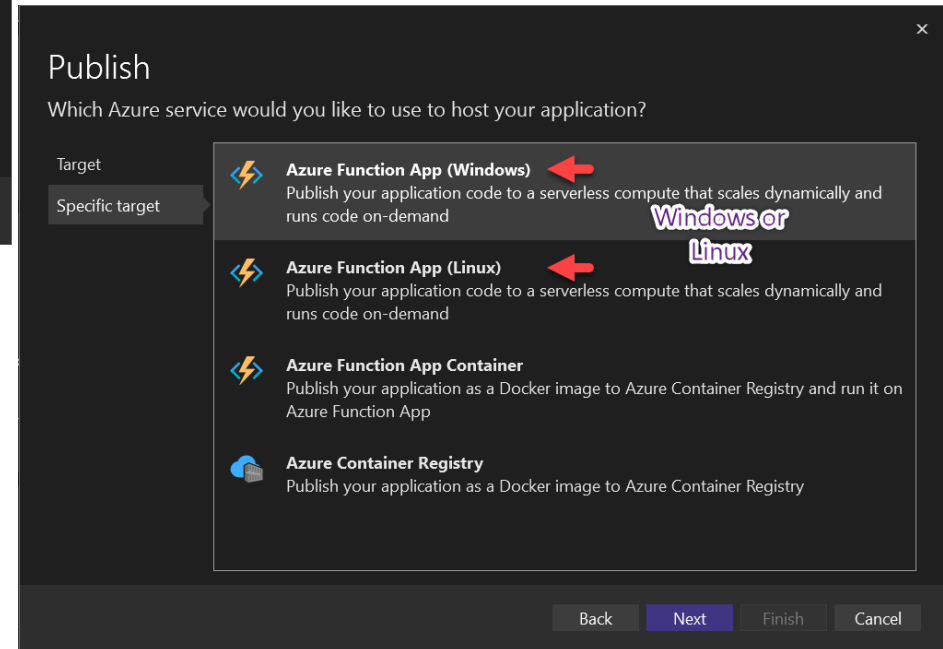
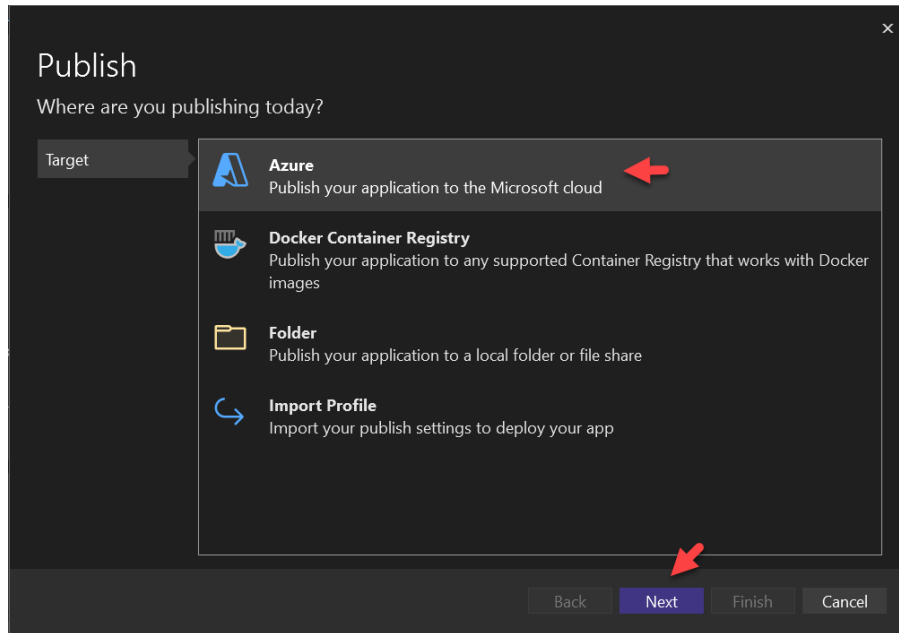


Deploying an Azure Function

- Deployment
 - Consumption plan
 - Premium plan
 - App service plan Windows / Linux
- Create via
 - Visual Studio
 - Portal



Deploying an Azure Function





Deploying an Azure Function

Publish

Select existing or create a new Azure Function

Target: Subscription name
01-Lab_Joe_Ficara Student

Specific target: Functions instance
Search + Create new

Deployment type: There are no existing instances available
[Create a new instance](#)

☒ Run from package file (recommended)
☐ Turn on Basic Authentication (not recommended)

Back Next Finish Cancel

Function App (Linux)

Create new

jficara2025@outlook.com [Filtered] (Micr

Name: func-HelloWorldAzureFunctions-cscie94

Subscription name: 01-Lab_Joe_Ficara Student

Resource group: rg_06_lecture* New...

Plan Type: Consumption

Location: East US

Azure Storage: stazurefunctionscscie94* (East US) New...

Application Insights: appi-func-HelloWorldAzureFunctions-cscie94-linux* (East US) New...

Export... Create Cancel



Deploying an Azure Function

- To get URL to send requests to

HelloWorldAzureFunctions-cscie94 Function App

Search << Browse Refresh Stop Restart Swap Get publish profile Reset publish profile Download app content >>>

Overview

- Activity log
- Access control (IAM)
- Tags
- Diagnose and solve problems
- Microsoft Defender for Cloud
- Events (preview)
- Log stream

Functions

- App keys
- App files
- Proxies

Deployment

- Deployment slots
- Deployment Center

Settings

- Configuration
- Authentication

Essentials [JSON View](#)

Resource group ([move](#)) [rg_lecture06](#)

Status: Running

Location ([move](#)): East US

Subscription ([move](#)): [CSCIE94 Staff Joe 2024 Ficara](#)

Subscription ID: 9458ba88-d3e9-43ed-84db-b00e9ea84153

Tags ([edit](#)): CreatedAt : 2024-02-27T16:36:33.5162035Z

URL: <https://helloworldazurefunctions-cscie94.azurewebsites.net>

Operating System: Windows

App Service Plan: [EastUSPlan \(Y1: 0\)](#)

Runtime version: 4.30.0.22097

Functions Metrics Properties Notifications (0)

{ } Set up local environment Refresh

Filter by name...

Name	Trigger	Status	Monitor
HelloWorld	HTTP	Enabled	Invocations and more



Deploying an Azure Function

- To get URL to send requests to

Dashboard > HelloWorldAzureFunctions-cscie94 >

HelloWorld Function

Search

Overview

Developer

- Code + Test
- Integration
- Monitor
- Function Keys

Enable Disable Delete Get Function Url Refresh

Editing .NET isolated Function Apps is not supported in the Azure portal. Use your local development environment to edit this Function App.

JSON View

Essentials

Resource group (move)
[rg_lecture06](#)

Application Insights
[appi-appinsightsdemo-cscie94-linux](#)

Location
East US

Subscription (move)
[CSCIE94 Staff Joe 2024 Ficara](#)

Subscription ID
9458ba88-d3e9-43ed-84db-b00e9ea84153

Function app
[HelloWorldAzureFunctions-cscie94](#)

Tags (edit)
[Add tags](#)

See more

HelloWorld Function

Search

Overview

Developer

- Code + Test
- Integration

Enable Disable Delete Get Function Url Refresh

Get Function Url

default (fu...)

<https://helloworldazurefunctions-cscie94.azurewebsites.net...>

OK

Location



Deploying an Azure Function

- Blade now looks like standard App Service

HelloWorldAzureFunctions-cscie94 Function App

Search < > Browse Refresh Stop Restart Swap Get publish profile Reset publish profile Download app content

Overview

- Activity log
- Access control (IAM)
- Tags
- Diagnose and solve problems
- Microsoft Defender for Cloud
- Events (preview)
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- Configuration**
- Authentication

Essentials [JSON View](#)

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Name	Trigger	Status	Monitor
HelloWorld	HTTP	Enabled	Invocations and more



Deploying an Azure Function

- Storage configuration information
 - Via Environment Variables

Microsoft Azure

Search resources, services, and docs (G+/)

Copilot

jficara2025@outlook.com
JOSEPH FICARA 2025 STUDENT

Dashboard > func-HelloWorldAzureFunctions-cscie94

[x] func-HelloWorldAzureFunctions-cscie94 | Environment variables ☆ ...

Function App

Search

App settings Connection strings

Search

+ Add Refresh Show values Advanced edit Pull reference values

Name	Value	Deployment slot setting	Source	Delete
APPLICATIONINSIGHTS_CONNECTION_STRING	Show value		App Service	
AzureWebJobsStorage	Show value		App Service	
FUNCTIONS_EXTENSION_VERSION	Show value		App Service	
FUNCTIONS_WORKER_RUNTIME	Show value		App Service	
SCM_DO_BUILD_DURING_DEPLOYMENT	Show value		App Service	
WEBSITE_USE_PLACEHOLDER_DOTNETISOLATED	Show value		App Service	

Used by the SDK

Environment variables



Deploying an Azure Function

■ Function Keys – defined under **App keys**

Dashboard > HelloWorldAzureFunctions-cscie94

HelloWorldAzureFunctions-cscie94 | App keys ☆ ...

Function App

Search << + New host key Refresh

System keys
System keys are automatically managed by the Function runtime. System Keys provide granular access to functions runtime features.

Name	Value
------	-------

Host keys (all functions)
Use Host keys with your clients to access all your HTTP functions in the app. _master key grants admin access to Functions Runtime APIs.

Name	Value			
_master	Show value	Renew key value	
default	Show value	Renew key value	

Navigation menu:

- Overview
- Activity log
- Access control (IAM)
- Tags
- Diagnose and solve problems
- Microsoft Defender for Cloud
- Events (preview)
- Log stream
- Functions**
 - App keys**
 - App files
 - Proxies
- Deployment
 - Deployment slots
 - Deployment Center



Deploying an Azure Function

- Two types of Keys
 - **Function** keys
 - Specific to a function
 - **Host** Keys
 - All functions
- 5 Authorization Levels
 - Anonymous
 - User
 - Function
 - System
 - Admin



Deploying an Azure Function

5 Authorization Levels

```
[FunctionName("Function1")]
```

0 references | Joseph Ficara, 2 days ago | 1 author, 1 change

```
public static async Task<IActionResult> Run(  
    [HttpTrigger(AuthorizationLevel.Function, "get", "post", Route = null)] HttpRequest req, ILogger log)
```

- Anonymous
 - No authentication
- Function
 - Scope is a function – Is a Function key
- Admin
 - Requires a host key
 - Scope all functions



Deploying an Azure Function

5 Authorization Levels

- System

- Scope all functions
- Requires a master key
 - Named _master

- User

- User based authentication
 - Azure Active Directory
 - Microsoft
 - Facebook
 - Google
 - Twitter



Demo

Deployment

HelloWorldAzureFunctionSolution



Serverless API

- Azure functions support
 - HTTP triggers
 - Think
 - REST API
 - Webhook
 - Authentication
 - Multi-verb methods
 - HTTP POST, GET all on same method
 - I am not a fan..
 - Except perhaps webhooks



Serverless API

- Should you create REST APIs this way?
 - If standalone
 - For infrequent usages, its ok
 - For complex REST interfaces likely no
 - If with API Management
 - Way to create microservice REST implementations



Serverless API

- How do you do it?
 - Using a C# Attribute
 - `HttpTrigger`
 - Specify
 - Authorization Level
 - HTTP Verb(s)
 - Route



Serverless API

- Authorization Levels
 - Anonymous
 - No authentication
 - Function
 - Function Key based
 - Admin
 - Host Key Based



Serverless API

■ Authorization Levels

■ System

- Master Key Based (Special host key)
- Can't be revoked
- Can be renewed so older value won't be used



Serverless API

■ Authorization Levels

■ User

- User authentication
- Token based
- Supports:
 - Azure Active Directory
 - Facebook
 - Google
 - Twitter
 - Microsoft Account



Serverless API

- We are using NET Core
 - Routing and Constraint syntax
 - See: [Routing in ASP.NET Core](#)
- Data sent via the
 - URL can be accessed through
 - Parameters or the request's Query property
- Data sent via the request body
 - Retrieved via the request Content property



Serverless API

- Configuration is done in the host.json file
 - host.json reference for Azure Functions 2.x and later
 - routePrefix
 - Default is: **api**
 - maxOutstandingRequests
 - Default is: **200** (unbounded -1 for ver 1.x)
 - maxConcurrentRequests
 - Default is: **100** (unbounded -1 for ver 1.x)
 - dynamicThrottlesEnabled
 - Default is: **true** (false for ver 1.x)
 - Checks performance counters reject if too busy (429)
 - If > 80% threshold



Demo

HTTP Triggers

ServerlessAPIAzureFunctionSolution



Blob Trigger

- Blob triggers
 - Think Queue based on blobs
 - When a blob is added to a container
 - A function is Invoked
- Why do you care?
 - Simple way to process data
 - Without adding another “component”



Blob Trigger

- How do you set it up?
 - Use the BlobTrigger attribute
 - Specify
 - The container you want to monitor
 - The parameters you want
 - You can get the BlobClient object
 - The Stream of the blob uploaded
 - The name of the blob
 - Implement your function!



Blob Trigger

■ Caveats

- There is no built-in poison “blob” handling
- Consumption plan
 - May have up to a 10-minute delay in notifying you
- Blobs don’t automatically get removed
- Need to be creative in handling “meta-data”
 - Use separate containers
 - To process blobs differently
 - Use blob metadata
 - To provide additional processing information



Blob Trigger

- When creating the azure function project
 - Choose
 - Blob trigger
 - Storage account
 - Name for storage account connection string
 - Path to monitor (Container...)
 - Notes:
 - Can also add functions to an existing project



Blob Trigger

Additional information

Azure Functions C# Azure Cloud

Functions worker ⓘ
.NET 8.0 Isolated (Long Term Support)

Function ⓘ
Blob trigger

Empty
Blob trigger
Cosmos DB Trigger
Dapr Publish Output Binding
Dapr Service Invocation Trigger
Dapr Topic Trigger
Durable Functions Orchestration
Event Grid trigger
Event Hub trigger
Http trigger
Kusto input binding isolated
Kusto output binding isolated
Queue trigger
RabbitMQ trigger
Service Bus Queue trigger

Back Create

Additional information

Azure Functions C# Azure Cloud

Functions worker ⓘ
.NET 9.0 Isolated

Function ⓘ
Blob trigger

☐ Enlist in .NET Aspire orchestration (Preview) ⓘ
☐ Use Azure for runtime storage account (AzureWebJobsStorage) ⓘ
☐ Enable container support ⓘ

Connection string setting name ⓘ
StorageConnectionString

Path ⓘ
imagestoconverttograyscale

☒ Configure dependencies ⓘ

Back Create

Connect to Azure Storage

Select a service dependency to add to your application.

[Filtered] Microsoft a...
jficara2025@outlook.com

Search...

Subscription name
01-Lab_Joe_Ficara Student

Storage accounts + Create new ⓘ

Name	Resource group	Location
staicscie94hub	rg_aihub	East US
stazurefunctionscsie94	rg_06_lecture	East US
stcsie94demo	rg_shareddemoresources	East US

Back Next Finish Cancel

Connect to dependency

Select a service dependency to add to your application.

Search service dependency ⓘ

- Storage Azure on container (Local)**
Container with open-source emulator that provides a local environment for testing Azure blob and queue storage applications.
- Storage Azure emulator (Local)**
Node.js based open-source emulator that provides a local environment for testing Azure blob and queue storage applications.
- Azure Storage**
Cloud storage that is highly available, secure, durable, scalable, and redundant. Includes Azure Blob, File, Queue, and Table services.

Back Next Finish Cancel



Blob Trigger

Connect to Azure Storage

Provide connection string name and specify how to save it

Connection string name
StorageConnectionString

Connection string value

Tip: avoid pasting application secrets directly into your code.

Save connection string value in

- ☒ Local user secrets file
- ☐ Azure Key Vault
- ☐ Do not save value anywhere

[Learn more about managing secrets](#)

Back Next Finish Cancel

Dependency configuration progress

Ensuring you have permissions to access resource 'stazurefunctionscsie94' from this machine...

Installing NuGet packages to project...

Installing package 'Azure.Storage.Blobs' with version '12.13.1'.

Installing package 'Azure.Storage.Files.Shares' with version '12.1.0'.

Installing package 'Azure.Storage.Queues' with version '12.11.1'.

Installing package 'Microsoft.Extensions.Azure' with version '1.5.0'.

Uninstalling package 'Azure.Storage.Files'.

Adding code file to project...

Preparing code file from template: Azure.Function.BlobTrigger

Creating code file 'Function1'...

Adding code file to project...

Create Azure Service Connector resource result: Succeeded, resource id: /subscriptions/9458ba88-d3e9-43ed-84db-b00e9ea84153/resourceGroups/rg_lecture06/providers/Microsoft.ServiceLinker/locations/eastus/connectors/StorageConnectionString_661A48BC71.

Serializing new Azure Storage dependency metadata to disk...

Generating ARM template...

Complete. Azure Storage storage1 is configured.

☐ Automatically close when succeeded

Back Next Close Cancel



Demo

Blob Triggers

BlobTriggerDemoSolution



Queue Trigger

- Same mental model as web jobs
 - Message arrives in a Queue
 - Function is invoked
 - Process the message
- Automatic poison message handling
 - A queue is automatically created
 - *<your queue name>-poison*
 - Poison message is put in that queue



Queue Trigger

- By default, the poison message count is 5
 - Meaning if the message fails 5 times
 - It moves into the poison queue
- Configuration is done in the host.json file
 - [host.json reference for Azure Functions 2.x and later](#)
 - maxPollingInterval
 - visibilityTimeout
 - batchSize
 - maxDequeueCount
 - newBatchThreshold



Queue Trigger

Configure your new project

Azure Functions C# Azure Cloud

Project name
AzureFunctionsQueueDemo

Location
D:\Harvard2024\Scratch

Solution
Create new solution

Solution name
AzureFunctionsQueueDemoSolution

☐ Place solution and project in the same directory

Project will be created in "D:\Harvard2024\Scratch\AzureFunctionsQueueDemoSolution\AzureFunctionsQueueDemo\"

Back Next

Additional information

Azure Functions C# Azure Cloud

Functions worker
.NET 8.0 Isolated (Long Term Support)

Function
Queue trigger

Queue trigger

Back Create

Additional information

Azure Functions C# Azure Cloud

Functions worker
.NET 8.0 Isolated (Long Term Support)

Function
Queue trigger

☐ Use Azurite for runtime storage account (AzureWebJobsStorage)

☐ Enable Docker

Connection string setting name
StorageConnectionString

Queue name
myqueue-items

☒ Configure dependencies

Back Create

Connect to dependency

Select a service dependency to add to your application.

Search service dependency

Storage Azurite on container (Local)
Container with open-source emulator that provides a local environment for testing Azure blob and queue storage applications.

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Back Next Finish Cancel



Queue Trigger

Connect to Azure Storage

Select a service dependency to add to your application.

Subscription name
CSCIE94_Staff_Joe_2024_Ficara

Storage accounts + Create new

Name	Resource group	Location
stazurefunctionscsie94	rg_lecture06	East US
stcsie94demo	rg_storage	East US
stgclassdemo20240222	rg_classdemo42	East US

Back Next Finish Cancel

Connect to Azure Storage

Provide connection string name and specify how to save it

Connection string name
StorageConnectionString

Connection string value

Tip: avoid pasting application secrets directly into your code.

Save connection string value in

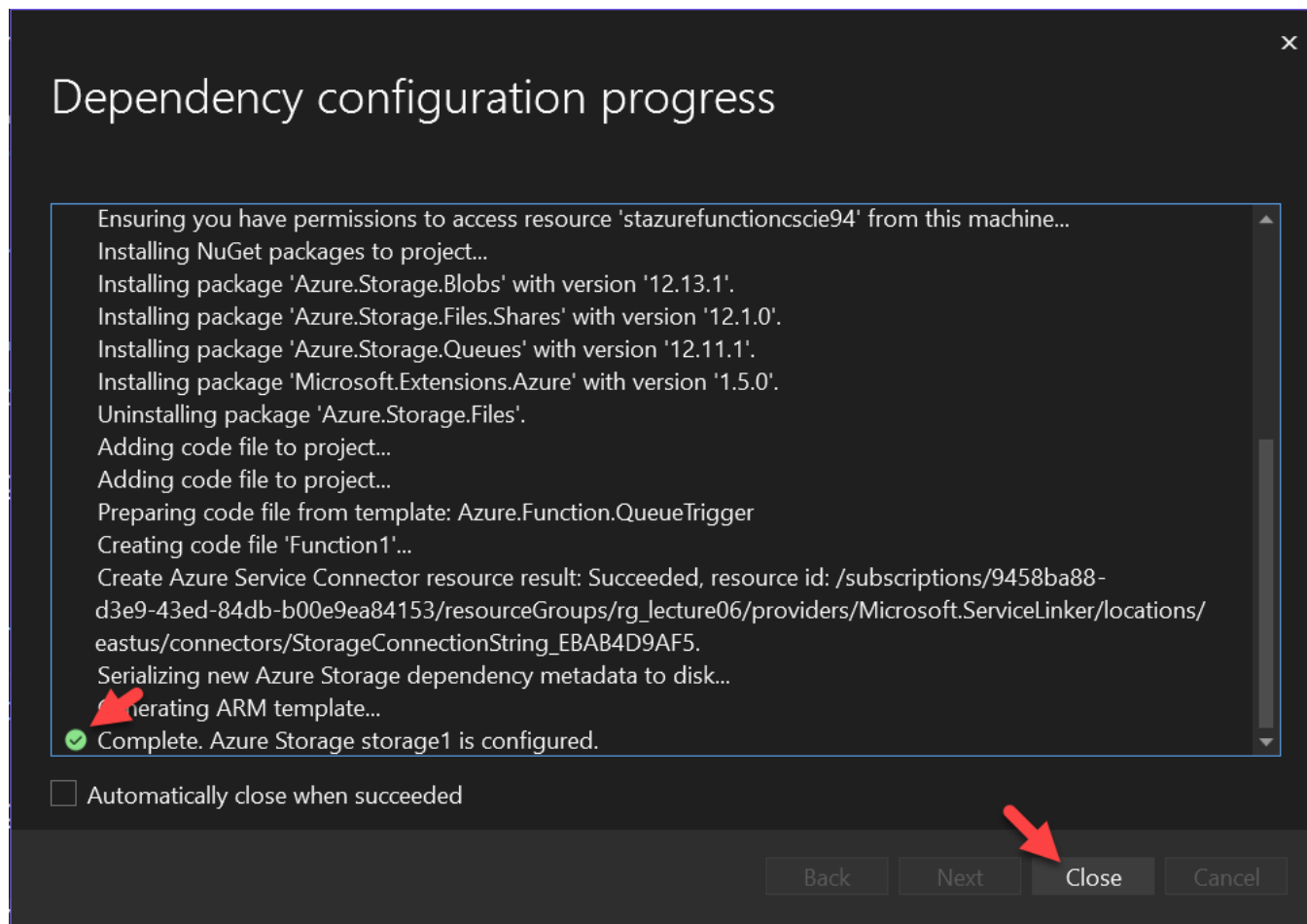
- ☒ Local user secrets file
- ☐ Azure Key Vault
- ☐ Do not save value anywhere

[Learn more about managing secrets](#)

Back Next Finish Cancel



Queue Trigger





Demo

Queue Trigger

QueueTriggerDemoSolution



Timer Trigger

- Mental Model
 - Think scheduled web jobs
- The Azure Scheduler is not used
 - But you could if you wanted to
 - How might you do that?
- How does it work?
 - Use the TimerTrigger



Timer Trigger

- You specify
 - A CRON expression
 - Indicates the schedule the function will be invoked
 - Format:
 - {second} {minute} {hour} {day} {month} {day-of-week}
 - Example:
 - */5 * * * * *
 - Indicates run every 5 seconds
 - https://en.wikipedia.org/wiki/Cron#CRON_expression



Timer Trigger

- To Create a Timer Trigger Azure Function

Configure your new project

Azure Functions C# Azure Cloud

Project name
AzureFunctionTimerDemo

Location
D:\Harvard2024\Scratch

Solution name ⓘ
AzureFunctionTimerDemoSolution

☐ Place solution and project in the same directory

Project will be created in "D:\Harvard2024\Scratch\AzureFunctionTimerDemoSolution\AzureFunctionTimerDemo\"

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Additional information

Azure Functions C# Azure Cloud

Functions worker ⓘ
.NET 9.0 Isolated

Function ⓘ
Timer trigger
Http trigger
Kusto input binding isolated
Kusto output binding isolated
MySQL input binding isolated
MySQL output binding isolated
MySQL trigger
Queue trigger
RabbitMQ trigger
Service Bus Queue trigger
Service Bus Topic trigger
SignalR
SQL input binding isolated
SQL output binding isolated
SQL trigger
Timer trigger

Back Create



Timer Trigger

□ ×

Additional information

Azure Functions C# Azure Cloud

Functions worker ⓘ

.NET 9.0 Isolated ←--→

Function ⓘ

Timer trigger ←--→

☐ Use Azurite for runtime storage account (AzureWebJobsStorage) ⓘ

☐ Enable container support ⓘ

Schedule ⓘ

0 */5 * * * * ←--→

Back Create



Demo

Timer Triggers

AzureFunctionTimerDemoSolution



Questions ?





Further Reading

- Creating your first function app
 - [Getting started with Azure Functions](#)
- Azure Functions Documentation
 - [Azure Functions documentation](#)
- Best practices for scaling
 - [Best practices for reliable Azure Functions](#)
- Function Scaling
 - [Azure Functions hosting options](#)



Further Reading

- HTTP Client usage notes
 - Improper Instantiation antipattern
- `host.json` reference for azure functions
 - host.json reference for Azure Functions 2.x and later
- Azure Functions F# Developer Reference
 - Using Azure Functions with F#
 - Note: The F# documentation seems to be missing as of 2025-03-05



Further Reading

- Azure Functions runtime version overview
 - [Azure Functions runtime versions overview](#)