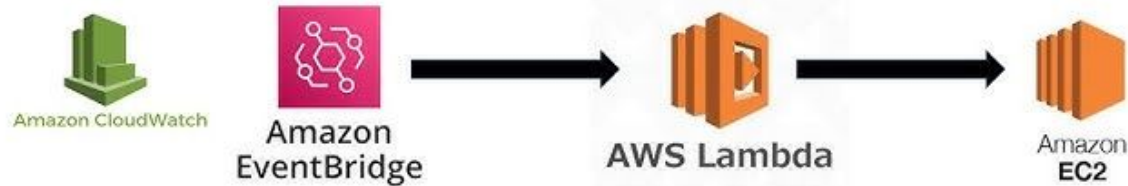


Exploring AWS Lambda, Cloudwatch And AWS EventBridge

Hands on Exercise with AWS simulearn



us-east-1.console.aws.amazon.com/lambda/home?region=us-east-1#/functions/MonitorLabInstance?newFunction=true&tab=code

Account ID: 0153-4631-5432
AWS Labs User - g3ysLjcsSlapdENLpuWQXX/60d9873...

Lambda > Functions > MonitorLabInstance

Successfully created the function **MonitorLabInstance**. You can now change its code and configuration. To invoke your function with a test event, choose "Test".

MonitorLabInstance

ThrottleCopy ARNActions

Function overviewInfo

DiagramTemplate

MonitorLabInstance

Layers(0)

Add triggerAdd destination

Description

-

Last modified

21 seconds ago

Function ARN

arn:aws:lambda:us-east-1:015346315432:function:MonitorLabInstance

Function URLInfo

-

Code

Test

Monitor

Configuration

Aliases

Versions

Code sourceInfo

Open in Visual Studio Code

Upload from

CloudShellFeedback

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Python Code in AWS Lambda function

```
import json

import boto3

from pprint import pprint

def lambda_handler(event, context):

    client = boto3.client("ec2")

    status = client.describe_instance_status(IncludeAllInstances = True)

    for i in status["InstanceStatuses"]:

        print("This is the Lambda function from Lab 1 - an EC2 instance has just  started running!")

        print("AvailabilityZone :", i["AvailabilityZone"])

        print("InstanceId :", i["InstanceId"])

        print("InstanceState :", i["InstanceState"])

        print("InstanceStatus", i["InstanceStatus"])

    return {

        'statusCode': 200,

        'body': json.dumps('Hello from Lambda!') }
```



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[Lambda](#) > [Functions](#) > [MonitorLabInstance](#) > Edit basic settings

Edit basic settings

Basic settings [Info](#)

Description - optional

Memory [Info](#)

Your function is allocated CPU proportional to the memory configured.

 MB

Set memory to between 128 MB and 10240 MB

Ephemeral storage [Info](#)

You can configure up to 10 GB of ephemeral storage (/tmp) for your function. [View pricing](#)

 MB

Set ephemeral storage (/tmp) to between 512 MB and 10240 MB.

SnapStart [Info](#)

Reduce startup time by having Lambda cache a snapshot of your function after the function has initialized. To evaluate whether your function code is resilient to snapshot operations, review the [SnapStart compatibility considerations](#). For Python and .NET runtimes, [view pricing](#).

Supported runtimes: .NET 8 (C#/F#/PowerShell), Java 11, Java 17, Java 21, Java 25, Python 3.12, Python 3.13, Python 3.14.

Timeout

 min sec

Execution role

Choose a role that defines the permissions of your function. To create a custom role, go to the [IAM console](#).

[Option+S]

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Amazon EventBridge > Rules



Amazon EventBridge



Dashboard

▼ Developer resources

Learn

Sandbox

Quick starts

▼ Buses

Event buses

[Rules](#) [Updated](#)

Global endpoints

Archives

Replays

▼ Pipes

Pipes

▼ Scheduler

Schedules

Schedule groups

▼ Integration

Partner event sources

API destinations

Rules

A rule watches for specific types of events. When a matching event occurs, the event is routed to the targets associated with the rule. A rule can be associated with one or more targets.

Select event bus

Event bus

Select or enter event bus name

default ▾

Rules on default event bus (5)



Delete

Enable

Edit

CloudFormation Template ▾

Create rule



Any status ▾

< 1 >



<input type="checkbox"/>	Name ▲	Status ▼	Type ▼	Event bus ▼	ARN ▼	Description ▼
<input type="checkbox"/>	LabStack-60d98734-faaa-4b-GblLabMonitoringmonitorin-6dl1wuwv0KTu	Enabled	Standard	default	arn:aws:events:us-east-1:015346315432:rule/LabStack-60d98734-faaa-4b-GblLabMonitoringmonitorin-6dl1wuwv0KTu	-
	LabStack-60d98734-faaa-4b-				arn:aws:events:us-east-1:015346315432:rule/LabStack-60d98734-faaa-4b-	

[Option+S]United States (N. Virginia) ▾Account ID: 0153-4631-5432 ▾AWS Labs User - g3ysLjcsSiapdENLpuWQXX/60d9873...Amazon EventBridge > Rules

Amazon EventBridge

Dashboard

▼ Developer resources

LearnSandboxQuick starts

▼ Buses

Event buses[Rules](#) [Updated](#)Global endpointsArchivesReplays

▼ Pipes

Pipes

▼ Scheduler

SchedulesSchedule groups

▼ Integration

Partner event sourcesAPI destinations✓ Rule EC2-Launched was created successfully

Rules

A rule watches for specific types of events. When a matching event occurs, the event is routed to the targets associated with the rule. A rule can be associated with one or more targets.

Select event bus

Event bus

Select or enter event bus name

default ▾

Rules on default event bus (6)

DeleteEnableEditCloudFormation Template ▾Create ruleAny status ▾< 1 >

<input type="checkbox"/>	Name	Status	Type	Event bus	ARN	Description
<input type="checkbox"/>	EC2-Launched	✓ Enabled	Standard	default	arn:aws:events:us-east-1:015346315432:rule/EC2-Launched	Call when an ec2 instance is launched
<input type="checkbox"/>	LabStack-				arn:aws:events:us-east-1:015346315432:rule/LabStack-	

[\[Option+S\]](#)[United States \(N. Virginia\)](#)[Account ID: 0153-4631-5432](#)[AWS Labs User - g3ysLjcsSiapdENLpuWQXX/60d9873...](#)[EC2](#) > [Instances](#) > [Launch an instance](#)**Success**Successfully initiated launch of instance [\(i-0f30d84e2cbaa35e3\)](#)[► Launch log](#)

Next Steps

[<](#) [1](#) [2](#) [3](#) [4](#) [5](#) [6](#) [>](#)

Create billing usage alerts

To manage costs and avoid surprise bills, set up email notifications for billing usage thresholds.

[Create billing alerts](#)

Connect to your instance

Once your instance is running, log into it from your local computer.

[Connect to instance](#)[Learn more](#)

Connect an RDS database

Configure the connection between an EC2 instance and a database to allow traffic flow between them.

[Connect an RDS database](#)[Create a new RDS database](#)[Learn more](#)

Create EBS snapshot policy

Create a policy that automates the creation, retention, and deletion of EBS snapshots

[Create EBS snapshot policy](#)

Manage detailed monitoring

Enable or disable detailed monitoring for the

Create Load Balancer

Create a application, network gateway or

Create AWS budget

AWS Budgets allows you to create budgets

Manage CloudWatch alarms

Create or update Amazon CloudWatch alarms

[Option+S]

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[EC2](#) > [Instances](#) > i-0f30d84e2cbaa35e3

EC2

[Dashboard](#)[EC2 Global View](#) [Events](#)

▼ Instances

[Instances](#)[Instance Types](#)[Launch Templates](#)[Spot Requests](#)[Savings Plans](#)[Reserved Instances](#)[Dedicated Hosts](#)[Capacity Reservations](#)[Capacity Manager](#) [New](#)

▼ Images

[AMIs](#)[AMI Catalog](#)

▼ Elastic Block Store

[Volumes](#)[Snapshots](#)[Lifecycle Manager](#)

Instance summary for i-0f30d84e2cbaa35e3 (TestMyLabInstance) [Info](#)

Updated less than a minute ago

Instance ID

i-0f30d84e2cbaa35e3

IPv6 address

-

Hostname type

IP name: ip-10-10-0-232.ec2.internal

Answer private resource DNS name

-

Auto-assigned IP address

98.82.3.189 [Public IP]

IAM Role

-

IMDSv2

Required

Public IPv4 address

 98.82.3.189 | [open address](#)

Instance state

Running

Private IP DNS name (IPv4 only)

ip-10-10-0-232.ec2.internal

Instance type

t3.micro

VPC ID

vpc-0b79afddfd0dcf4e9 (LabVPC)

Subnet ID

 subnet-09dd2cf0ecccfa81d
(CdkLabce0ea48bStack/LabVPC/public-subnetSubnet1)

Instance ARN

arn:aws:ec2:us-east-1:015346315432:instance/i-0f

[Connect](#)[Instance state ▾](#)[Actions ▾](#)

Private IPv4 addresses

10.10.0.232

Public DNS

ec2-98-82-3-189.compute-1.amazonaws.com | [open address](#)

Elastic IP addresses

-

AWS Compute Optimizer finding

Opt-in to AWS Compute Optimizer for recommendations.

[| Learn more](#)

Auto Scaling Group name

-

Managed

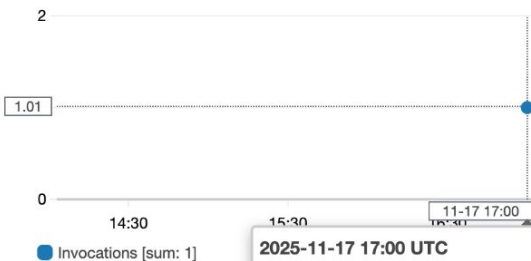
false

Lambda sends runtime metrics for your functions to Amazon CloudWatch. The metrics shown are an aggregate view of all function runtime activity. To view metrics for the unqualified or \$LATEST resource, choose **Filter metrics by**. To view metrics for a specific function version or alias, choose **Aliases** or **Versions**, select the alias or version, and then choose **Monitor**.

Invocations



Count



2025-11-17 17:00 UTC

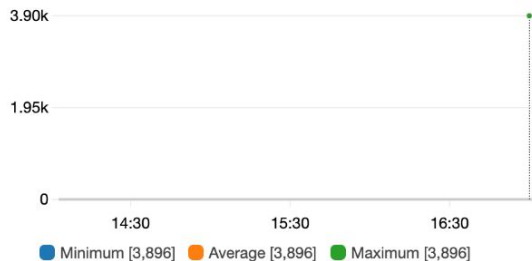
1. ● Invocations [sum: 1] 1



Duration



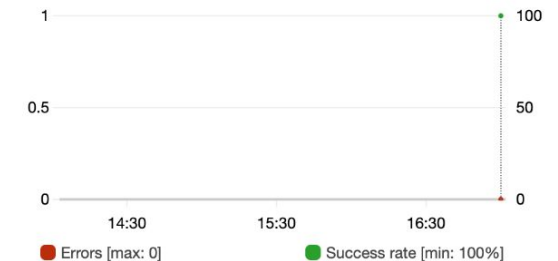
Milliseconds



Error count and success rate



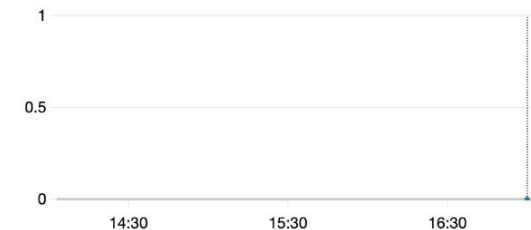
Count



Throttles



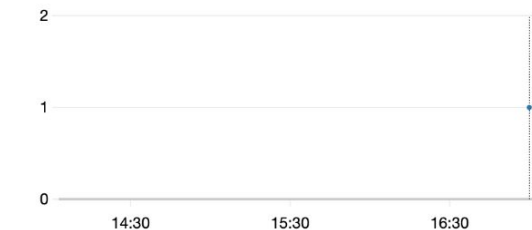
Count



Total concurrent executions



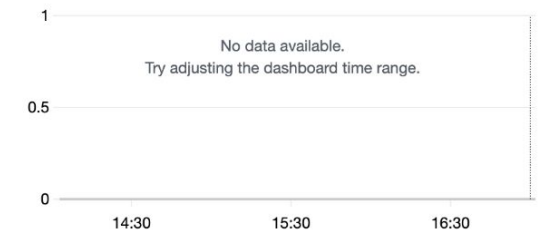
Count



Recursive invocations



Count



aws

Search

[Option+S]

United States (N. Virginia)

Account ID: 0153-4631-5432
AWSLabsUser-g3ysLjcsSiapdENLpuWQXX/60d9873...

CloudWatch

Log groups

/aws/lambda/MonitorLabInstance

2025/11/17/[\$LATEST]9c634d2de349415caad40e448c227fda

CloudWatch

Favorites and recents

Dashboards [New](#)

AI Operations [New](#)

Alarms

0

0

0

Logs

Log groups

Log Anomalies

Live Tail

Logs Insights

Contributor Insights

Metrics [New](#)

Application Signals [New](#) (APM)

GenAI Observability [New](#)

Network Monitoring [New](#)

Insights [New](#)

Log events

Actions

Start tailing

Create metric filter

Filter events - press enter to search

1m 1h

UTC timezone

Display

	Timestamp	Message
		No older events at this moment. Retry
	2025-11-17T17:00:32.672Z	INIT_START Runtime Version: python:3.14.v24 Runtime Version ARN: arn:aws:lambda:us-east-1::runtime:3faf84aa0c...
	2025-11-17T17:00:33.175Z	START RequestId: ccdbfac7-12da-43ba-9a03-9bc7a6377e2c Version: \$LATEST
	2025-11-17T17:00:37.043Z	This is the Lambda function from Lab 1 - an EC2 instance has just started running!
	2025-11-17T17:00:37.043Z	AvailabilityZone : us-east-1a
	2025-11-17T17:00:37.043Z	InstanceId : i-0f30d84e2cbaa35e3
	2025-11-17T17:00:37.043Z	InstanceState : {'Code': 16, 'Name': 'running'}
	2025-11-17T17:00:37.043Z	InstanceStatus {'Details': [{'Name': 'reachability', 'Status': 'initializing'}], 'Status': 'initializing'}
	2025-11-17T17:00:37.072Z	END RequestId: ccdbfac7-12da-43ba-9a03-9bc7a6377e2c
	2025-11-17T17:00:37.072Z	REPORT RequestId: ccdbfac7-12da-43ba-9a03-9bc7a6377e2c Duration: 3896.48 ms Billed Duration: 4394 ms Memory S...
		No newer events at this moment. Auto retry paused. Resume