

School: CLOUDBOOSTA	Course: Cloud Computing & DevOps
Name: AKOSA SAMUEL ONYEJEKWE	Module: Serverless Computing & Database
	Class 6: Assignment 1 of 6_ Serverless_0
Student No: CBALC0168	Issue Date: April 1, 2026

Tasks:

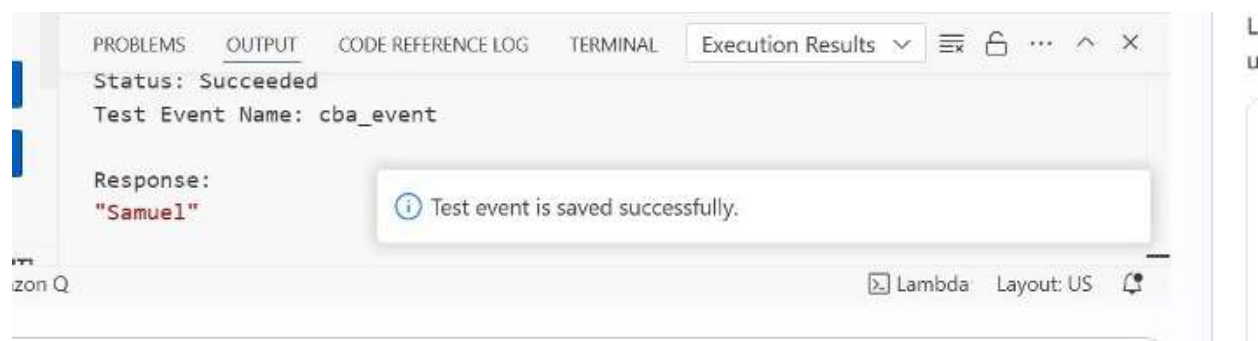
1. Create a Lambda function using a blueprint
2. Modify and deploy Lambda function code
3. Create and configure test events
4. Execute Lambda function and view output
5. Create a Lambda function from scratch
6. Debug and fix code errors
7. Delete all created resources

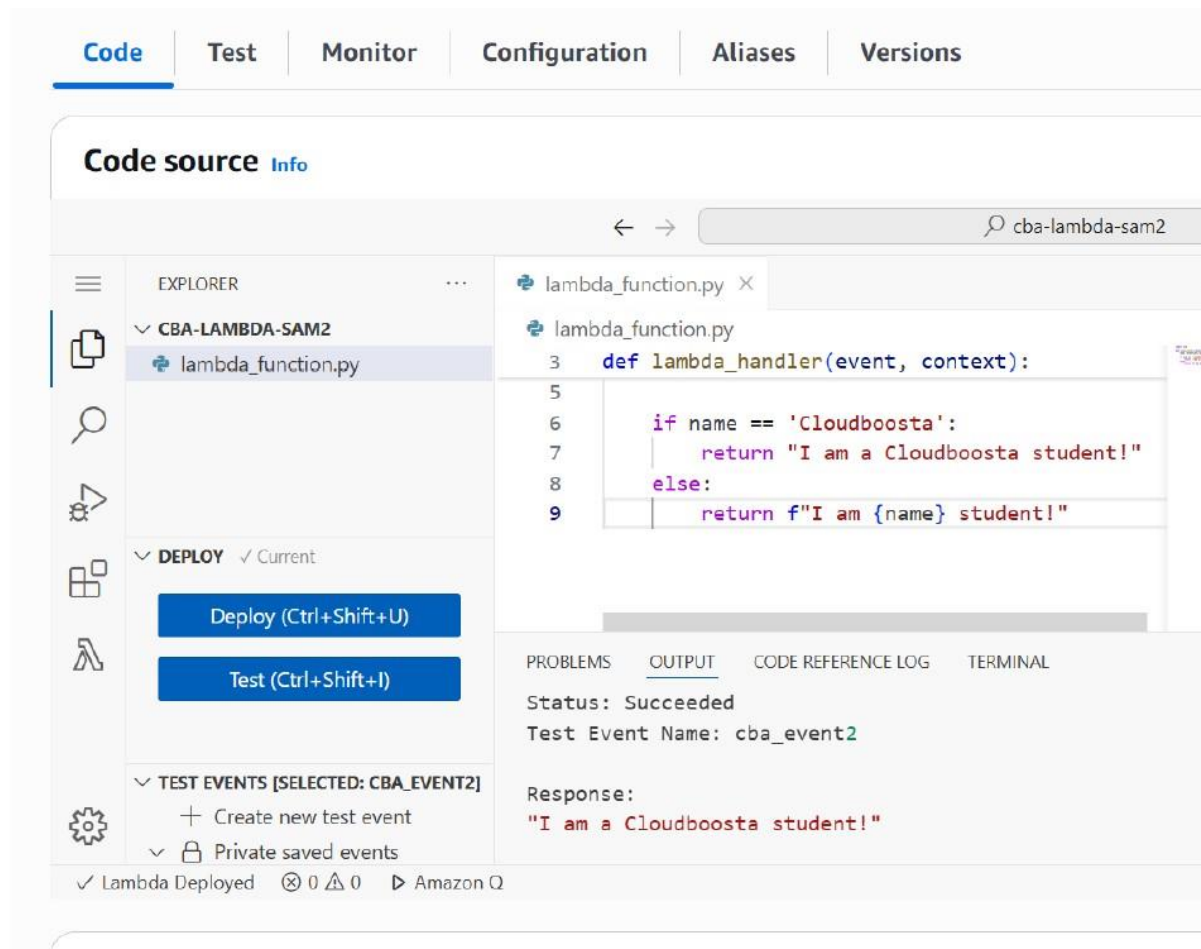
Goal:

To create AWS Lambda functions using both blueprint and custom (from scratch) methods and test their execution.

Result:

- Lambda function successfully created using blueprint
- Function code modified and deployed successfully
- Test event created and executed
- Output returned successfully from Lambda execution
- Second Lambda function created from scratch
- Errors identified and corrected
- Correct output generated after debugging
- All resources deleted successfully





Evidence from screenshots:

- Lambda function creation interface
- Function successfully created
- Test event created and saved
- Successful execution result showing response
- Second function output “I am a Cloudboosta student!”
- Function deletion confirmation

Action:

Step 1: Created Lambda Function from Blueprint

- Logged into AWS account
- Navigated to Lambda service
- Selected **Use a blueprint**
- Selected:
 - Hello World function

- Runtime: Python 3.14
- Function name: **cba-lambda-sam**

Step 2: Deployed and Modified Function Code

- Edited default code values (key/value pairs)
- Clicked **Deploy** to save changes

Step 3: Created and Configured Test Event

- Clicked **Test**
- Created new test event
- Edited JSON input with user details
- Saved event

Step 4: Executed Lambda Function

- Ran test event
- Output displayed in execution results

Step 5: Created Lambda Function from Scratch

- Selected **Author from scratch**
- Function name: **cba-lambda-sam**
- Runtime: Python 3.10
- Cleared default code and added custom logic

Step 6: Tested and Debugged Function

- Created new test event with:
 - "name": "Cloudboosta"
- Ran function and identified errors
- Fixed code errors
- Redeployed function

Step 7: Verified Correct Output

- Executed function after fixing errors
- Output returned:
 - "I am a Cloudboosta student!"

Step 8: Deleted Resources

- Selected created Lambda functions
- Used **Actions** → **Delete**
- Confirmed deletion

Screenshots follow.

Summary

- Two Lambda functions were created:
 - Using blueprint
 - From scratch
- Functions were tested using JSON event inputs
- Outputs were generated and verified
- Errors were identified and corrected
- All created resources were deleted at the end

✓ Lab objective achieved:

“Created Lambda functions using blueprint and from scratch and test execution”

Create function [Info](#)

Choose one of the following options to create your function.

☐ Author from scratch

Start with a simple Hello World example.

☒ Use a blueprint

Build a Lambda application from sample code and configuration presets for common use cases.

☐ Container image

Select a container image to deploy for your function.

Basic information [Info](#)

Blueprint name

Hello world function

python3.12



A starter AWS Lambda function.

Function name

Enter a name that describes the purpose of your function.

cba-lambda-sam

Function name must be 1 to 64 characters, must be unique to the Region, and can't include spaces. Valid characters are a-z, A-Z, 0-9, hyphens (-), and underscores (_).

Runtime

python3.12

Architecture

x86_64

Execution role

To access other AWS services and resources your function needs an IAM role. Choose a role with the right permissions for your function.

☒ Create default role

☐ Use another role

A new role will be created named "cba-lambda-sam-role-ry4bfhx9" to give your function permission to upload logs to Amazon CloudWatch Logs.

Lambda function code

Code is preconfigured by the chosen blueprint. You can configure it after you create the function. [Learn more](#) about deploying Lambda functions.

[i](#) This function contains external libraries.

```
1 import json
2
3 print('Loading function')
4
5
6 def lambda_handler(event, context):
7     #print("Received event: " + json.dumps(event, indent=2))
8     print("value1 = " + event['key1'])
9     print("value2 = " + event['key2'])
10    print("value3 = " + event['key3'])
11    return event['key1'] # Echo back the first key value
12    #raise Exception('Something went wrong')
13
```

1:1 Python

Cancel

Create function

Learn how to implement common use cases in AWS Lambda.

Create a simple web app [^](#)

In this tutorial you will learn how to:

- Build a simple web app, consisting of a Lambda function with a function URL that outputs a webpage
- Invoke your function through its function URL

[Learn more](#)

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

cba-lambda-sam

Throttle

Copy ARN

Actions

Function overview

Export to Infrastructure Composer

Download

Diagram

Template



+ Add trigger

+ Add destination

Function ARN

arn:aws:lambda:eu-west-2:009850210027:function:cba-lambda-sam

Description

A starter AWS Lambda function.

Last modified

6 minutes ago

Code Test Monitor Configuration Aliases Versions

Code source

Open in Visual Studio Code

Upload from

```
lambda function.py
lambda function.py
3 print('Loading function')
4
5
6 def lambda_handler(event, context):
7     #print("Received event: " + json.dumps(event, indent=2))
8     print("First Name = " + event['firstname'])
9     print("Last Name = " + event['lastname'])
10    print("School = " + event['school'])
11    return event['firstname'] # Echo back the first key value
12    #raise Exception('Something went wrong')
13
```

Code properties

Package size
440 byte

SHA256 hash

Vu8b62uAAPMHnhBen518zsYd96
AwcZzzjU3hLUC9HWM=

Last modified

6 minutes ago

Runtime settings

Edit

Edit runtime management configuration

Runtime
Python 3.12

Handler

lambda_function.lambda_handler

Architecture

x86_64

Runtime management configuration

Runtime version ARN

arn:aws:lambda:eu-west-2::runtime:ffd8d8a0ee4551835e06b2706a3a0b06584e348ae2397a7414e9fda79f0976a0

Update runtime version

Auto

Layers (0)

Last fetched 3/28/2026, 1:21:43 PM

Edit

Search by attributes or search by keyword

Merge order Name Layer version Compatible runtimes Compatible architectures Version ARN

There is no data to display.

Learn how to implement common use cases in AWS Lambda.

Create a simple web app

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- Build a simple web app, consisting of a Lambda function with a function URL that outputs a webpage
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Lambda > Functions > cba-lambda-sam

Successfully updated the function cba-lambda-sam.

cba-lambda-sam

Throttle

Copy ARN

Actions

Function overview

Diagram

Template



cba-lambda-sam



Layers (0)

+ Add trigger

+ Add destination

Export to Infrastructure Composer

Download

Function ARN

arn:aws:lambda:eu-west-2:009850210027:function:cba-lambda-sam

Description

A starter AWS Lambda function.

Last modified

7 minutes ago

Code

Test

Monitor

Configuration

Aliases

Versions

Code source

Open in Visual Studio Code

Upload from



```
lambda_function.py
lambda_function.py
3 print('Loading function')
4
5
6 def lambda_handler(event, context):
7     #print("Received event: " + json.dumps(event, indent=2))
8     print("First Name = " + event['firstname'])
9     print("Last Name = " + event['lastname'])
10    print("School = " + event['school'])
11    return event['firstname'] # Echo back the first key value
12    #raise Exception('Something went wrong')
13
```

Successfully updated the function cba lambda sam.

Code properties

Package size
454 byte

SHA256 hash

Sj1TWe9CeD87o8gkGH/ZjE50Dk
GefN1VaSRikfivUo=

Last modified

26 seconds ago

Runtime settings

Edit

Edit runtime management configuration

Runtime
Python 3.12

Handler

lambda_function.lambda_handler

Architecture

x86_64

Runtime management configuration

Runtime version ARN

arn:aws:lambda:eu-west-2::runtime:ffdb8d8a0ee4551835e06b2706a3a0b06584e348ae2397a7414e9fda79f0976a0

Update runtime version

Auto

Layers (0)

Last fetched 3/28/2026, 1:21:43 PM



Edit

Search by attributes or search by keyword

< 1 >



Merge order

Name

Layer version

Compatible runtimes

Compatible architectures

Version ARN

There is no data to display.

Create a simple web app

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Learn more

Start tutorial

The test event "cba_event" was successfully saved.

cba-lambda-sam

Throttle

Copy ARN

Actions

Function overview

Diagram

Template



cba-lambda-sam



Layers (0)

+ Add trigger

+ Add destination

Export to Infrastructure Composer

Download

Function ARN

arn:aws:lambda:eu-west-2:009850210027:function:cba-lambda-sam

Description

A starter AWS Lambda function.

Last modified

13 minutes ago

Code

Test

Monitor

Configuration

Aliases

Versions

Code source

Open in Visual Studio Code

Upload from

+

Visual Studio Code interface showing the code editor for lambda_function.py. The code contains a lambda_handler function that prints event details. A sidebar on the left shows the Explorer view with the file structure. A bottom panel shows the 'Create new test event' dialog with the event name 'cba_event' and a 'Save' button. A status bar at the bottom indicates 'Test event is saved successfully.'

Code properties

Package size
454 byte

SHA256 hash

Sj1TWf9CeD87o8gkGH/ZjE50Dk
GefN1VaSRikfivUo=

Last modified

6 minutes ago

Runtime settings

Edit

Edit runtime management configuration

Runtime
Python 3.12

Handler

lambda_function.lambda_handler

Architecture

x86_64

Runtime management configuration

Runtime version ARN

arn:aws:lambda:eu-west-2::runtime:ffd8d8a0ee4551835e06b2706a3a0b06584e348ae2397a7414e9fda79f0976a0

Update runtime version

Auto

Layers (0)

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Edit

Search by attributes or search by keyword

< 1 >

Merge order

Name

Layer version

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Version ARN

There is no data to display.

Info

Tutorials

Learn how to implement common use cases in AWS Lambda.

Create a simple web app

In this tutorial you will learn how to:

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- Invoke your function

PROBLEMS

OUTPUT

CODE REFERENCE LOG

TERMINAL

Execution Results ▾



Status: Succeeded

Test Event Name: cba_event

Response:

"Samuel"



Test event is saved successfully.

Amazon Q

▢ Lambda

Layout: US



Create function [Info](#)

Choose one of the following options to create your function.

- **Author from scratch**
Start with a simple Hello World example.
 - **Use a blueprint**
Build a Lambda application from sample code and configuration presets for common use cases.
 - **Container image**
Select a container image to deploy for your function.

Basic information

Function name

Enter a name that describes the purpose of your function.

cba-lambda-sam2

Function name must be 1 to 64 characters, must be unique to the Region, and can't include spaces. Valid characters are a-z, A-Z, 0-9, hyphens (-), and underscores (_).

Runtime Info

Choose the language to use to write your function. Note that the console code editor supports only Node.js, Python, and Ruby.

Python 3.14

Architecture [Info](#)

Choose the instruction set architecture you want for your function code.

- ☐ arm64
- ☒ x86_64

Permissions [Info](#)

By default, Lambda will create an execution role with permissions to upload logs to Amazon CloudWatch Logs. You can customize this default role later when adding triggers.

- **Change default execution role**

► Additional configurations

Use additional configurations to set up networking, security, and governance for your function. These settings help secure and customize your Lambda function deployment.

Cancel

Create function

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[Learn more](#) [Start tutorial](#)

Code

Test

Monitor

Configuration

Aliases

Versions

Code source [Info](#)



🔍 cba-lambda-sam2



EXPLORER



▼ CBA-LAMBDA-SAM2

🔗 lambda_function.py



▼ DEPLOY ✓ Current

Deploy (Ctrl+Shift+U)

Test (Ctrl+Shift+I)



▼ TEST EVENTS [SELECTED: CBA_EVENT2]

+ Create new test event

▼ 🔒 Private saved events

✓ Lambda Deployed 0 0 Amazon Q

🔗 lambda_function.py x

🔗 lambda_function.py

```
3 def lambda_handler(event, context):
5
6     if name == 'Cloudboosta':
7         return "I am a Cloudboosta student!"
8     else:
9         return f"I am {name} student!"
```

PROBLEMS

OUTPUT

CODE REFERENCE LOG

TERMINAL

Status: Succeeded

Test Event Name: cba_event2

Response:

"I am a Cloudboosta student!"

