



Hands-on Lab - Creating an AWS Lambda

Estimated Time: 20 minutes

In this lab, you will become familiar with creating and testing AWS Lambda functions in Node.js.

exclamation: This lab requires use of credit card exclamation:

Learning Objectives:

After completing this exercise, you should be able to perform the following tasks:

- Create an AWS Lambda function
- Test the output of an AWS Lambda function

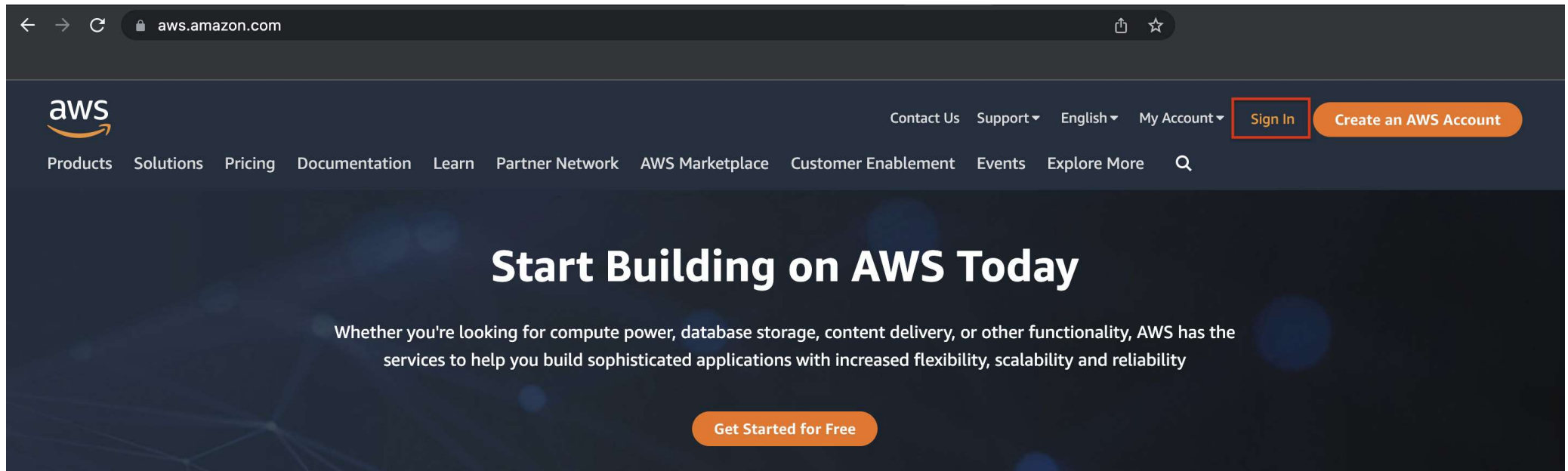
Pre-requisites

- You must have an AWS account.
- You should be familiar with Node.js.

exclamation: Please note that any usage beyond the free tier will be charged to the credit card you used for creating the AWS account. exclamation: exclamation:

Task 1 - Sign into your AWS account

1. If you are already signed into your AWS account, you can skip this task. Go to <https://aws.amazon.com>.
2. Click **Sign In** to sign into your AWS account.



3. Enter the email address you registered with to sign in as root user.



Sign in

☒ **Root user**

Account owner that performs tasks requiring unrestricted access. [Learn more](#)

☐ **IAM user**

User within an account that performs daily tasks.
[Learn more](#)

Root user email address

Next

4. Enter the password and click the **Sign In** button. This will take you to the **AWS Console Home**.



Root user sign in ⓘ

Email: [redacted]@[redacted].com

Password

[Forgot password?](#)

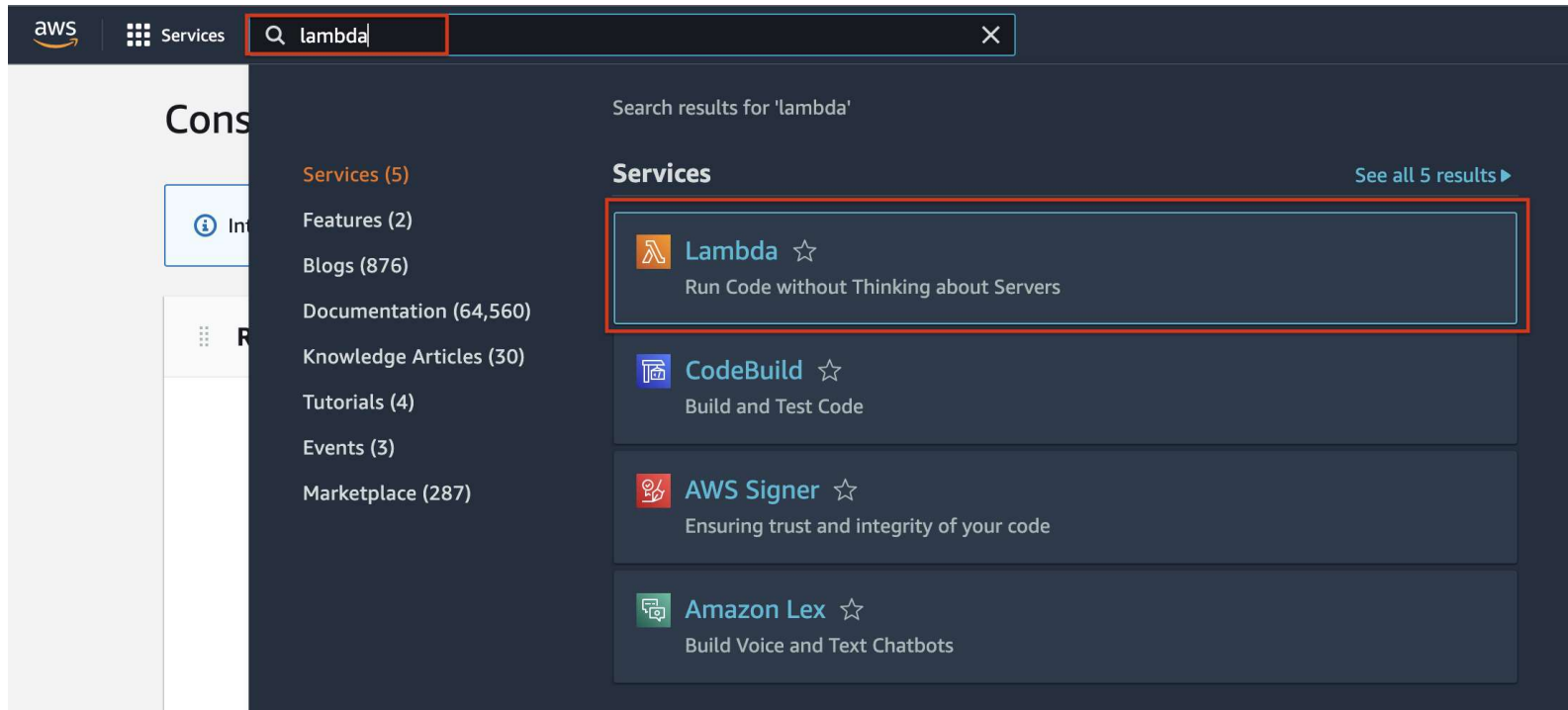
Sign in

[Sign in to a different account](#)

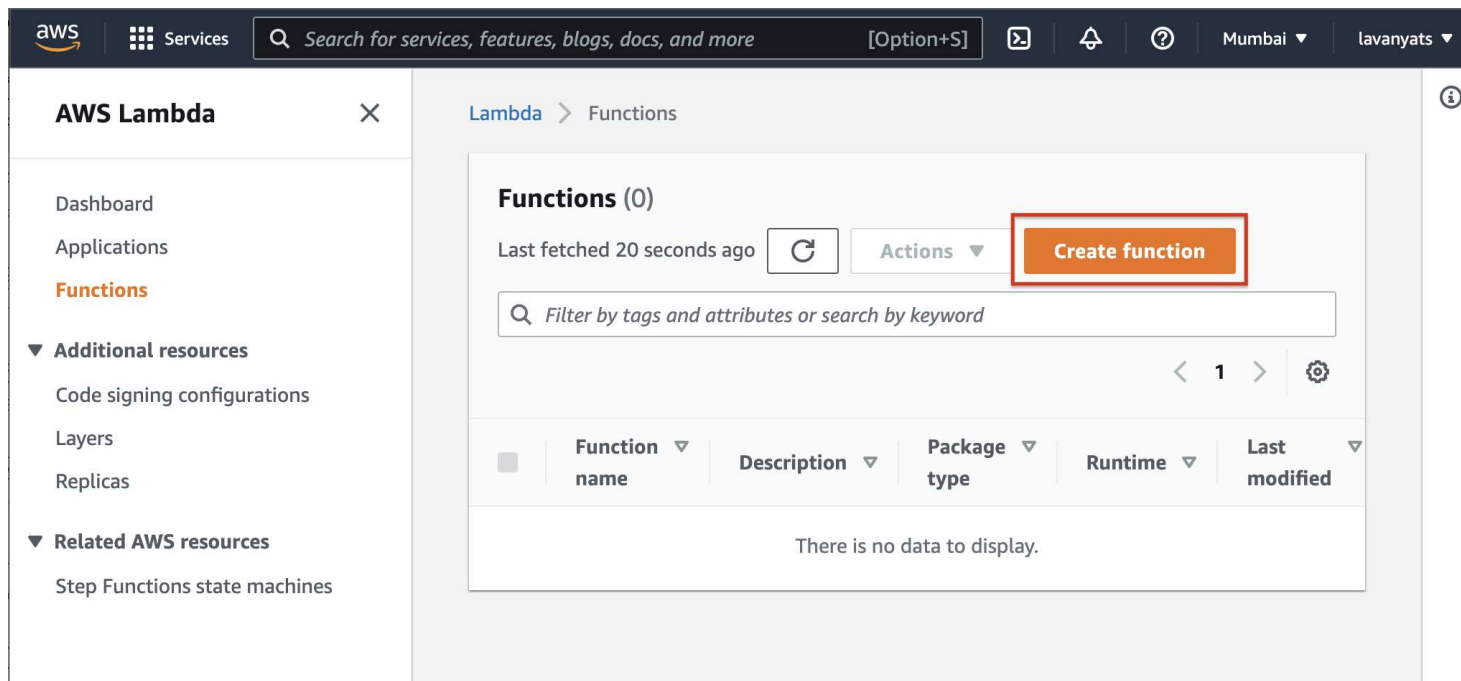
[Create a new AWS account](#)

Task 2 - Create AWS Lambda function

1. When the AWS Console Home loads up, on the top search bar, type **Lambda**, and you will see that the Lambda service is listed as the first choice. Choose **Lambda**.



2. Action is chosen by default. Click **Create Function** to start creating your AWS Lambda function.



3. You can choose to **Author from Scratch** as you will be adding your own code to it.

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.

Browse serverless app repository ☐
Deploy a sample Lambda application from the AWS Serverless Application Repository.

4. Provide basic information for your function - name of the function, runtime. You will be creating a Node.js function. So the runtime will be **Node.js 16.x**. Allow the rest to be default and click the **Create Function** button.

Basic information

Function name
Enter a name that describes the purpose of your function.

Use only letters, numbers, hyphens, or underscores with no spaces.

Runtime [Info](#)
Choose the language to use to write your function. Note that the console code editor supports only Node.js, Python, and Ruby.

Architecture [Info](#)
Choose the instruction set architecture you want for your function code.
☒ x86_64
☐ arm64

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**

► **Advanced settings**

Cancel

Create function

5. After a few seconds, you will see the function details page once the function is created.

Lambda > Functions > helloworld

helloworld

Throttle

Copy ARN

Actions

▼ Function overview

Info

helloworld

Layers

(0)

+ Add trigger

+ Add destination

Description

-

Last modified

56 seconds ago

Function ARN

arn:aws:lambda:ap-south-1:047349323453:function:hello world

Function URL

Info

-

Code

Test

Monitor

Configuration

Aliases

Versions

6. Scroll down on the same page to see the default **Hello Lambda** code prewritten in the **Code** tab.

Code

Test

Monitor

Configuration

Aliases

Versions

Code source

Info

File

Edit

Find

View

Go

Tools

Window

Test

Deploy

Go to Anything (⌘ P)

Environment

helloworld

index.js

1

2

3

4

5

6

7

8

9

exports.handler = async (event) => {

// TODO implement

const response = {

statusCode: 200,

body: JSON.stringify('Hello from Lambda!'),

};

return response;

}

7. Replace the code with the following custom code. This code will take the **name** parameter from the event and return a personalized **Hello**. Click **Deploy** once you add the script.

```
1. 1
2. 2
3. 3
4. 4
5. 5
6. 6
7. 7

1. exports.handler = async (event) => {
2.   const response = {
3.     statusCode: 200,
4.     body: JSON.stringify('Hello ' + event['name'] + '!')
5.   };
6.   return response;
7. }
```

Code Test Monitor Configuration Aliases Versions

Code source Info

File Edit Find View Go Tools Window Test Deploy

Go to Anything (⌘ P)

Environment

helloworld - / index.js

1 exports.handler = async (event) => {
2 const response = {
3 statusCode: 200,
4 body: JSON.stringify('Hello ' + event['name'] + '!')
5 };
6 return response;
7 };
8

Task 3 - Test the Lambda function

1. Once the code is deployed, you should configure an event and test the output of the Lambda function. Click the dropdown next to the **Test** button and choose **Configure Event**.

Code Test Monitor Configuration Aliases Versions

Code source Info Upload from ▼

File Edit Find View Go Tools Window Test Deploy

Go to Anything (⌘ P)

Environment

helloworld - / index.js

1 exports.handler = async (event) => {
2 const response = {
3 statusCode: 200,
4 body: JSON.stringify('Hello ' + event['name'] + '!')
5 };
6 return response;
7 };
8

Configure test event ⌘ ⬆ C

2. Give the event a name and then enter or copy and paste the JSON below to add the parameter you want to pass to the event. This event is triggered when you want to test your Lambda function. Add the **Event JSON** and click **Save**.

```
1. {  
2.   "name": "Eliot"  
3. }
```

Copied!

Test event action

☒ Create new event ☐ Edit saved event

Event name

sayHelloToMe

Maximum of 25 characters consisting of letters, numbers, dots, hyphens and underscores.

Event sharing settings

☒ Private

This event is only available in the Lambda console and to the event creator. You can configure a total of 10. [Learn more](#)

☐ Shareable

This event is available to IAM users within the same account who have permissions to access and use shareable events. [Learn more](#)

Template - optional

hello-world

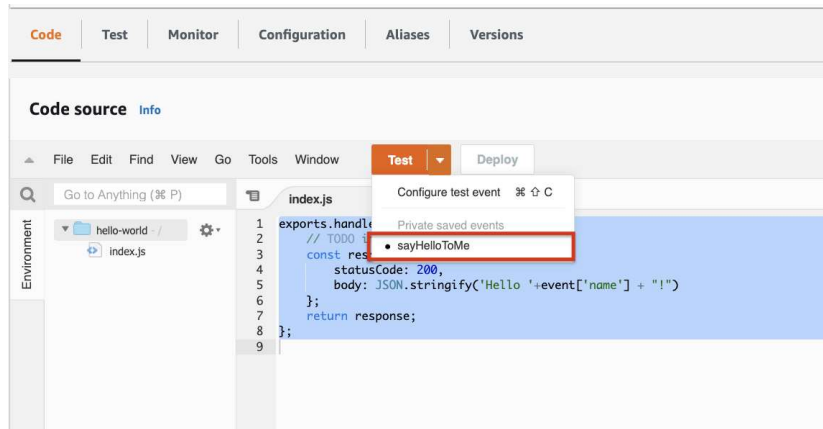
Event JSON

Format JSON

```
1 - {
2   "name": "Eliot"
3 }
```

Cancel Save

3. Check if the event has been created by clicking the dropdown next to **Test** again.



4. Click **Test** to invoke the Lambda function and see the response. You should see the response as shown in the image below.



Task 4 - Delete the Lambda function

1. Now that you have created a Lambda function and successfully tested it, you can delete it. On the top right, click the **Action** menu and choose the **delete** option.

Lambda > Functions > hello-world

hello-world

Throttle

Copy ARN

Actions

- Publish new version
- Create alias
- Export function
- Delete function

Function overview

hello-world

Layers (0)

+ Add trigger

+ Add destination

Description

-

Last modified

9 minutes ago

Function ARN

arn:aws:lambda:ap-south-1:047349323453:function:hello-world

Function URL

Info

-

Code

Test

Monitor

Configuration

Aliases

Versions

Code source

Upload from

File Edit Find View Go Tools Window

Test

Deploy

Go to Anything (% P)

Environment

- hello-world
 - index.js

index.js

Execution results

Execution results

Status: Succeeded Max memory used: 57 MB Time: 8.26 ms

Test Event Name

sayHelloToMe

Response

"statusCode": 200,

"body": "\Hello Eliot!"

Function Logs

START RequestId: cdb0ba6e-fa1f-47e0-bf60-57b6a6d63a97 Version: \$LATEST

END RequestId: cdb0ba6e-fa1f-47e0-bf60-57b6a6d63a97

REPORT RequestId: cdb0ba6e-fa1f-47e0-bf60-57b6a6d63a97 Duration: 8.26 ms Billed Duration: 9 ms Memory Size: 128 MB Max Memory Used: 57 MB Init Duration: 146.50 ms

Request ID

cdb0ba6e-fa1f-47e0-bf60-57b6a6d63a97

2. When it asks for confirmation, you can confirm that you want to delete the action.

Delete function hello-world

⚠

Deleting a function permanently removes the function code. The related logs, roles, test event schemas, and triggers are retained in your account.

Cancel

Delete

Congratulations! You just created your first AWS Lambda function.

Tutorial details

Author: Lavanaya T S

Contributors: Pallavi Rai

Change Log

Date	Version	Changed by	Change Description
2023-01-18 3.0		Lavanaya Rajalingam	Updated for minor corrections based on Beta testing
2022-12-02 2.0		Steve Hord	QA pass & edits
2022-09-14 1.0		Lavanaya T S	Initial version created

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