Guided Lab: Invoking Lambda functions through Function URL

Description

AWS Lambda is a serverless computing service that lets you run code without provisioning or managing servers, paying only for the compute time you consume. This means you can write and deploy code without the overhead of maintaining infrastructure.

Lambda Function URLs are a powerful feature introduced to simplify the invocation of Lambda functions. They allow you to call your serverless functions directly via HTTPS endpoints, which can be configured with or without authentication. This directly exposes Lambda functions to the web, making it easy to integrate them into web applications, mobile backends, or any service that can make HTTP requests.

Function URLs support various use cases, such as handling HTTP requests from a web application, integrating with third-party services that require webhook support, and allowing simpler, quicker inter-service communication without the need for additional API Gateway configuration.

This guided lab aims to provide a practical introduction to Lambda Function URLs, guiding you through creating a simple Lambda function, enabling and configuring its Function URL, and invoking it to see how effortlessly serverless functions can be integrated with the broader internet.

Prerequisites

This lab assumes you have experience creating an AWS Lambda function and has familiarity with simple programming concepts.

If you find any gaps in your knowledge, consider taking the following labs:

- Creating an AWS Lambda function

Objectives

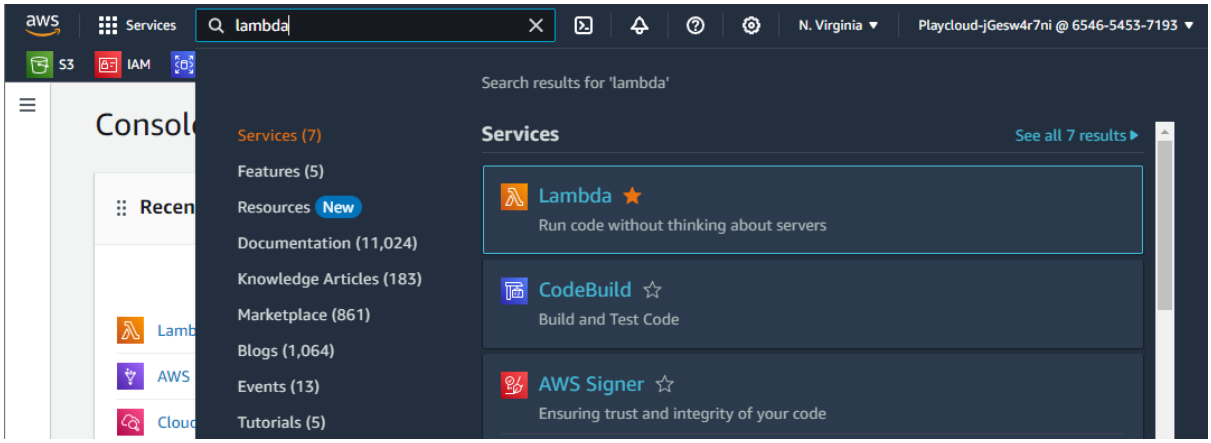
In this lab, you will:

- Understand the purpose and use of Lambda Function URLs.
- Learn how to create a Lambda function with an associated Function URL.
- Invoke the Lambda function through its URL and observe the response.

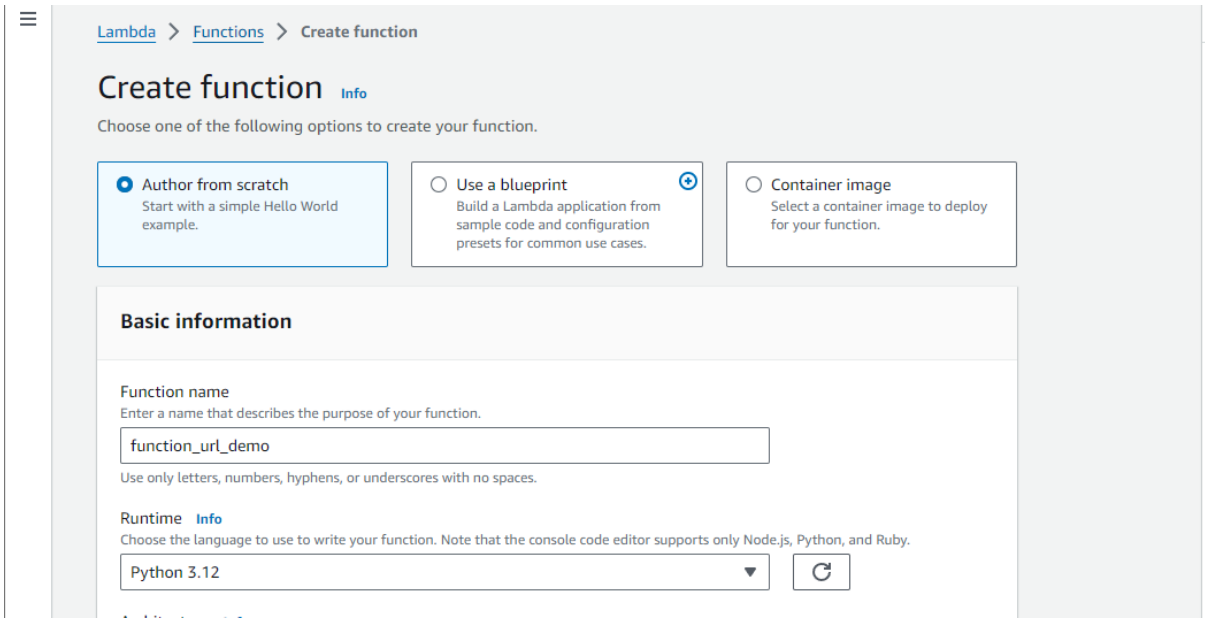
Lab Steps

Creating your Lambda Function

1. Navigate to the Lambda service and select “Create function”.

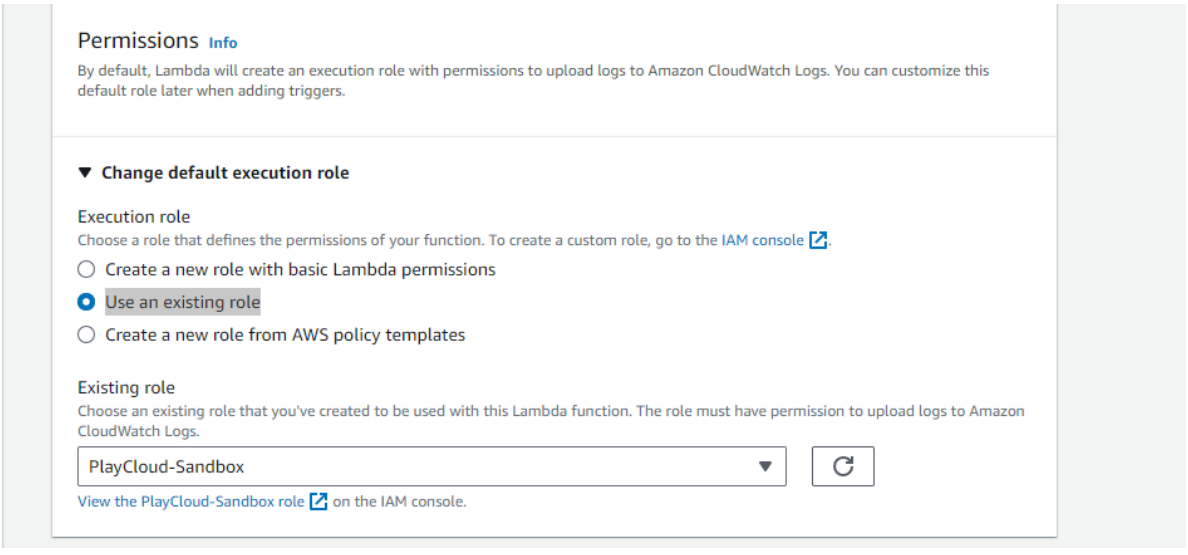


2. Choose “Author from scratch”, enter a function name, and select a runtime (e.g., Python 3.12).



3. Scroll down and click the dropdown **Change default execution role**

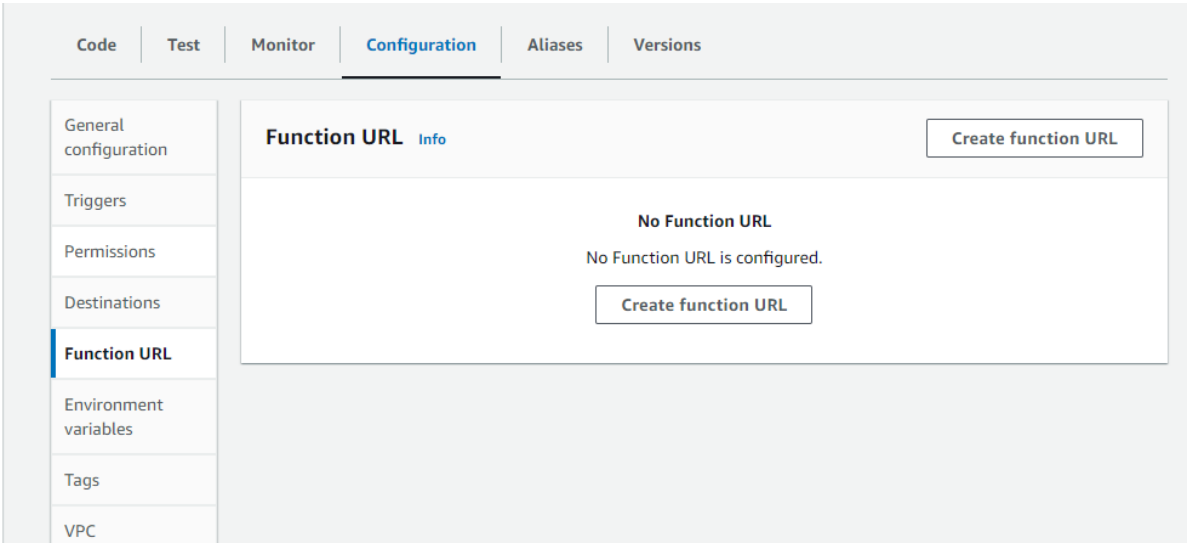
- Tick the **Use an existing role** and choose **PlayCloud-Sandbox**



4. Click “Create function”.

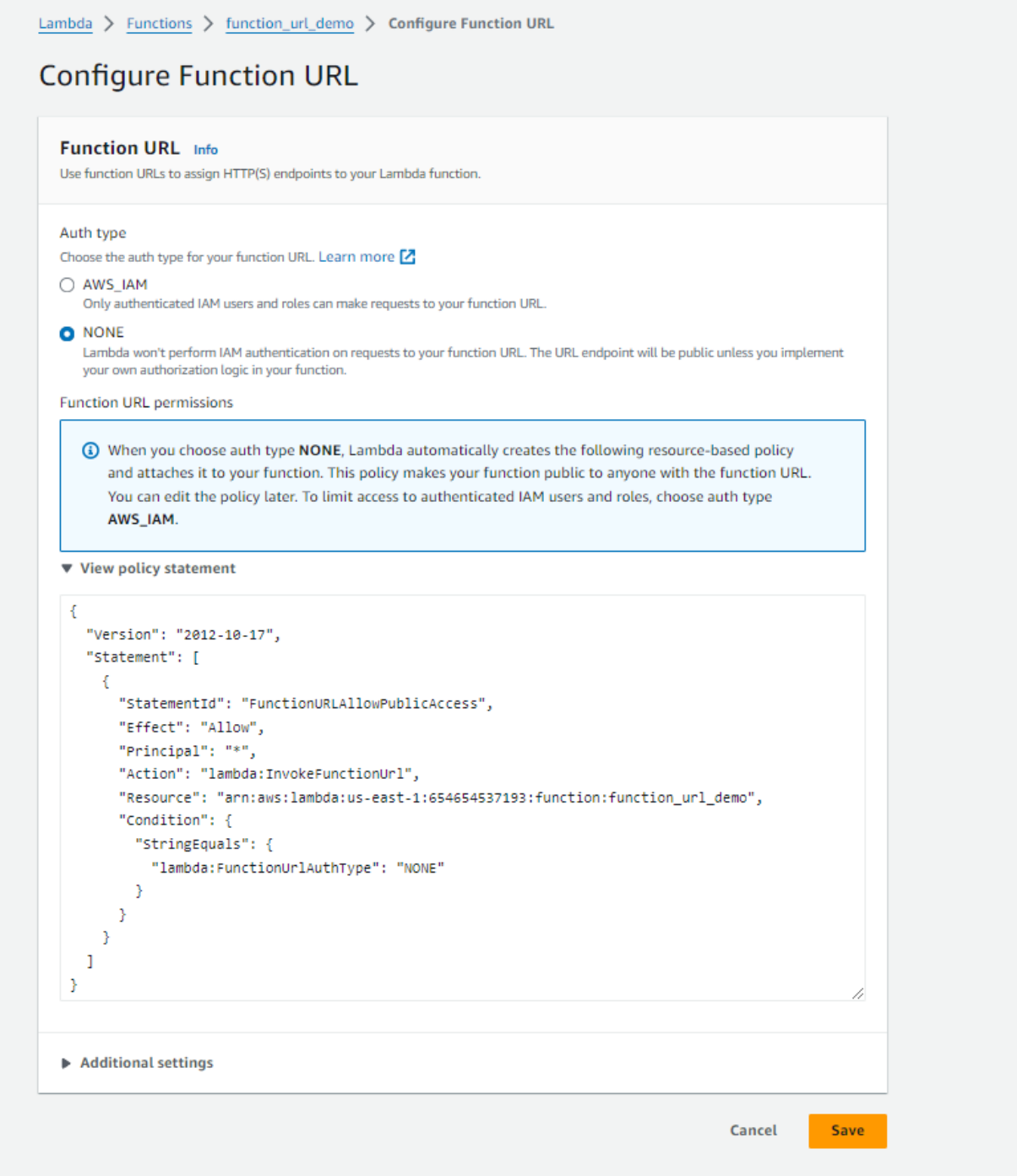
Enabling Function URL and Writing Function Code

1. Navigate to **“Configuration” tab**, and find the “Function URL” section.



2. Click “Create function URL”.

3. Configure the authentication method as “NONE” for public access (Note: This is for demonstration purposes. Consider security implications in production).



4. Click “Save”.

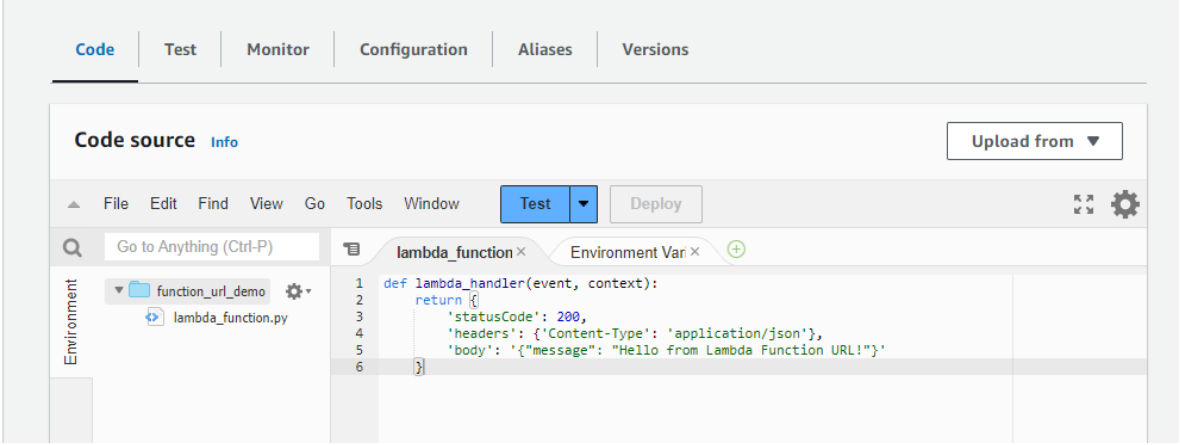
5. In the function code editor, replace the existing code with the following Python example:

***Note**: We are using the **old console editor** for this lab. You can switch to the **new editor** as you desire; the process remains the same, but the interface may look slightly different.*

```
def lambda_handler(event, context):
    return {
        'statusCode': 200,
        'headers': {'Content-Type': 'application/json'},
```

'body': '{"message": "Hello from Lambda Function URL!"}'

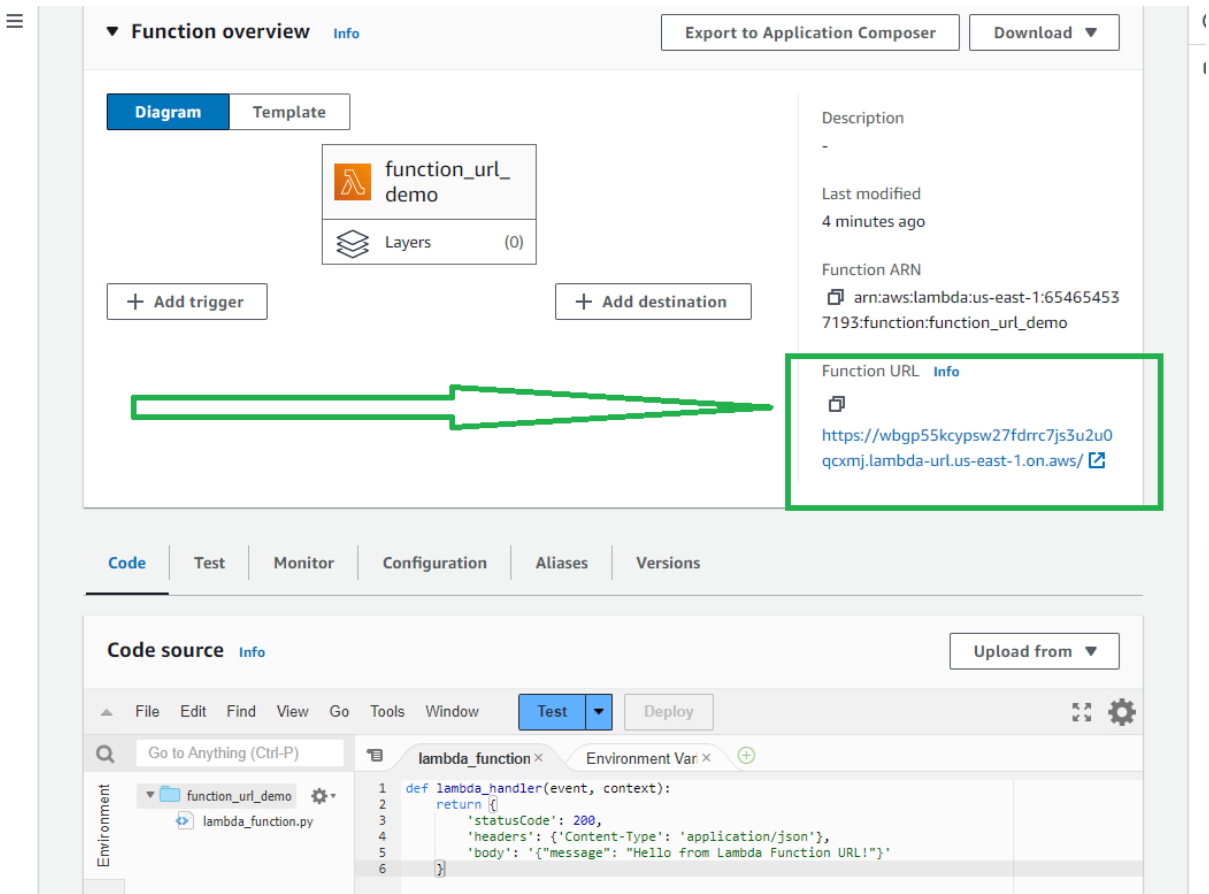
}



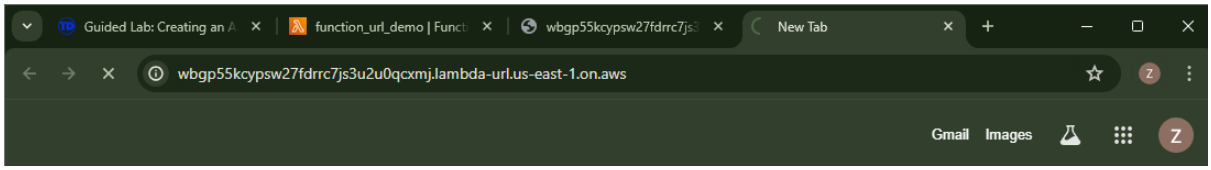
6. Click “Deploy” to save the changes.

Invoke Lambda via URL

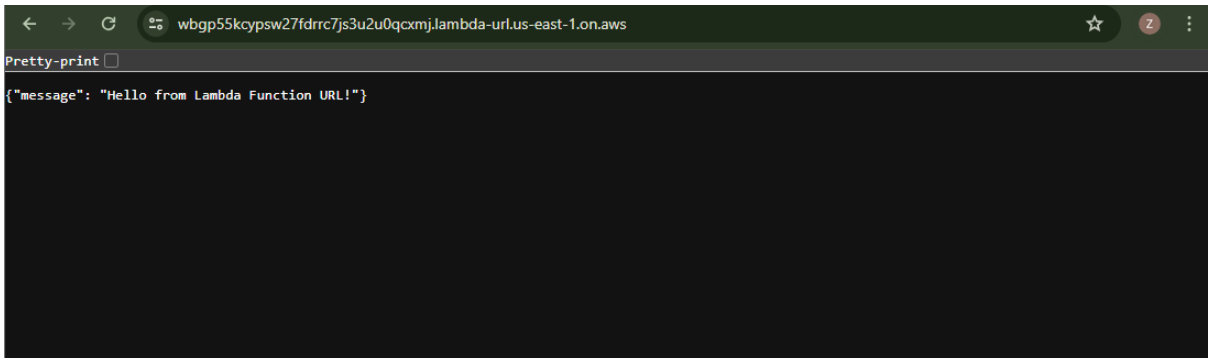
1. Scroll up and you will find your Function URL. Copy that in to your clipboard.



2. Open a new browser tab, paste your **Function URL**, and press ENTER



3. Observe the response from your Lambda function.



That’s it! Congratulations!

This lab demonstrated how to set up and invoke an AWS Lambda function using a Function URL. This feature simplifies calling Lambda functions from any client that can send HTTPS requests, broadening the integration possibilities for serverless computing.

By completing this lab, you should now understand how Function URLs can be utilized to easily expose Lambda functions over the web.

One last thing! It is a good practice to clean up the resources created during this lab. Not only will it make you a better professional, but you will also become a more organized person. Happy learning!