AWS Lambda:

- event-driven, serverless computing platform provided by Amazon as a part of Amazon Web Services.
- the code is executed based on the response of events in AWS services such as add/delete files in S3 bucket, HTTP request from Amazon API gateway, etc.
- can only be used to execute background tasks.
- helps you to focus on your core product and business logic instead of managing operating system (OS) access control, OS patching, right-sizing, provisioning, scaling, etc.

Events that trigger AWS Lambda:

- Insert, updating and deleting data Dynamo DB table
- To include push notifications in SNS
- To search for log history in CloudTrail
- Entry into an S3 object
- DynamoDB can trigger AWS Lambda whenever there is data added, modified, and deleted in the table.
- Helps you to schedule the event to carry out the task at regular time pattern.
- Modifications to objects in S3 buckets
- Notifications sent from Amazon SNS.
- AWS Lambda can be used to process the CloudTrail logs
- API Gateway allows you to trigger AWS Lambda on GET/POST methods.

AWS Lambda Concepts:

1. Function:
   A function is a program or a script which runs in AWS Lambda. Lambda passes invocation events into your function, which processes an event and returns its response.

2. Runtimes:

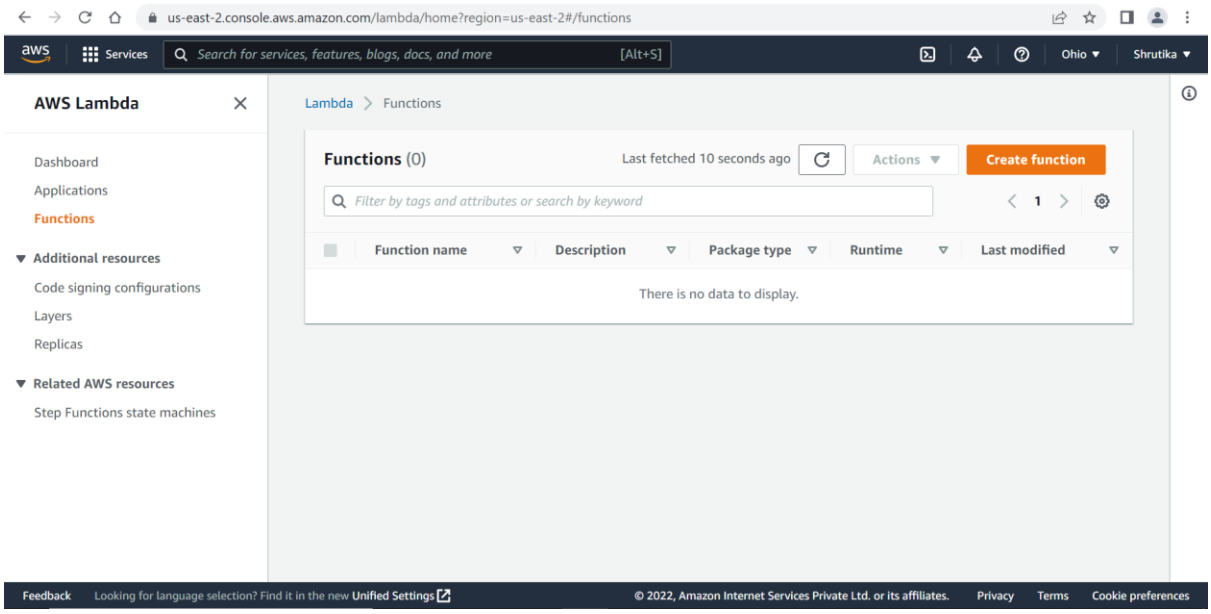
   Runtime allows functions in various languages which runs on the same base execution environment. This helps you to configure your function in runtime.

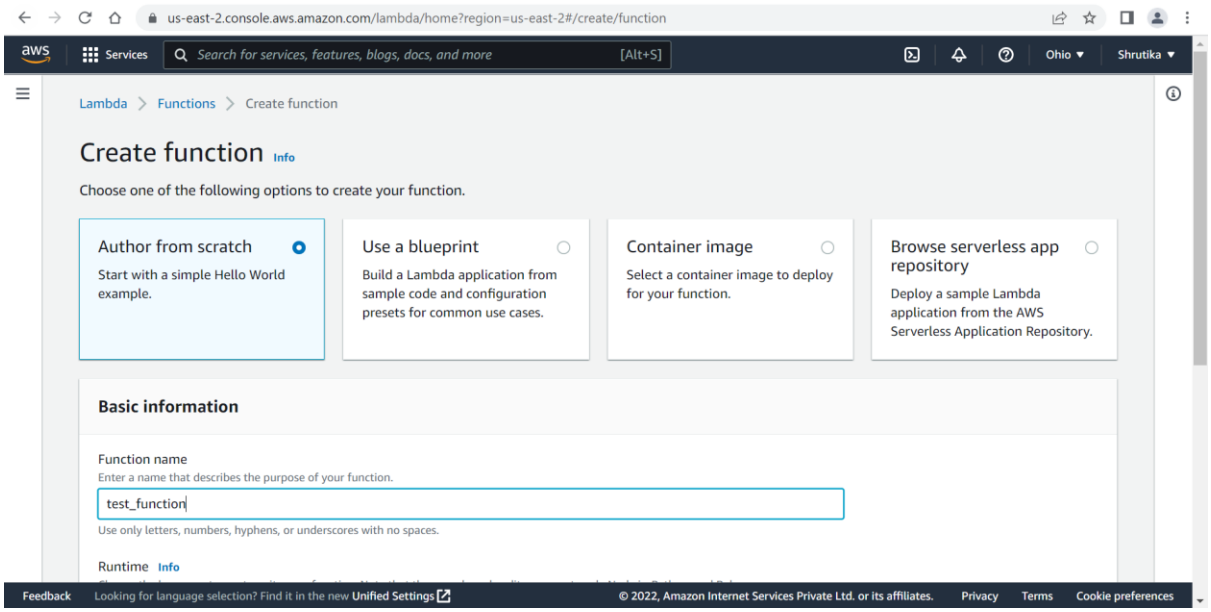
3. Event source
   An event source is an AWS service, such as Amazon SNS, or a custom service. This triggers function helps you to executes its logic.

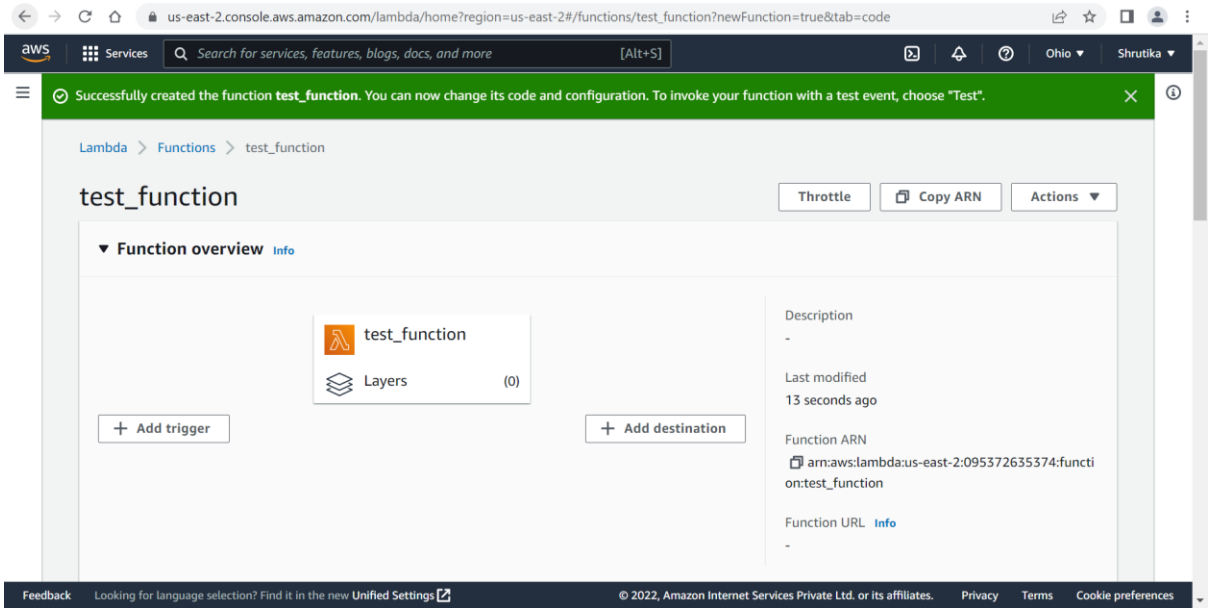
4. Lambda layers:
   Lambda layers are an important distribution mechanism for libraries, custom runtimes, and other important function dependencies. This AWS component also helps you to manage your development function code separately from the unchanging code and resources that it uses.

5. Log streams:
   Log stream allows you to annotate your function code with custom logging statements which helps you to analyse the execution flow and performance of your AWS Lambda functions.

Demo:
Creating AWS lambda:






us-east-2.console.aws.amazon.com/lambda/home?region=us-east-2#/functions/test_function?newFunction=true&tab=code
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Ohio
Shrutika
Successfully created the function test_function. You can now change its code and configuration. To invoke your function with a test event, choose "Test".
Lambda > Functions > test_function
test_function
Throttle
Copy ARN
Actions
Function overview Info
test_function
Layers (0)
Add trigger
Add destination
Description
-
Last modified
13 seconds ago
Function ARN
arn:aws:lambda:us-east-2:095372635374:function:test_function
Function URL Info
-
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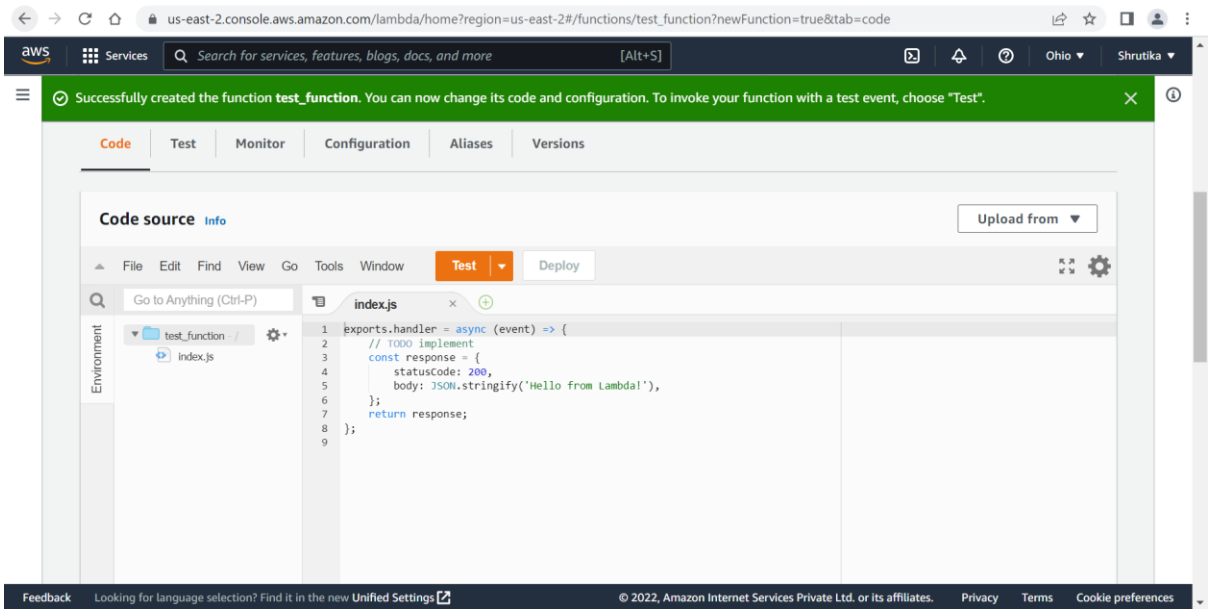
us-east-2.console.aws.amazon.com/lambda/home?region=us-east-2#/functions/test_function?newFunction=true&tab=code
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Code
Test
Monitor
Configuration
Aliases
Versions
Code source Info
Upload from
File
Edit
Find
View
Go
Tools
Window
Test
Deploy
Go to Anything (Ctrl-P)
index.js
Environment
test_function
index.js
exports.handler = async (event) => {
// TODO implement
const response = {
statusCode: 200,
body: JSON.stringify('Hello from Lambda!'),
};
return response;
};
Feedback
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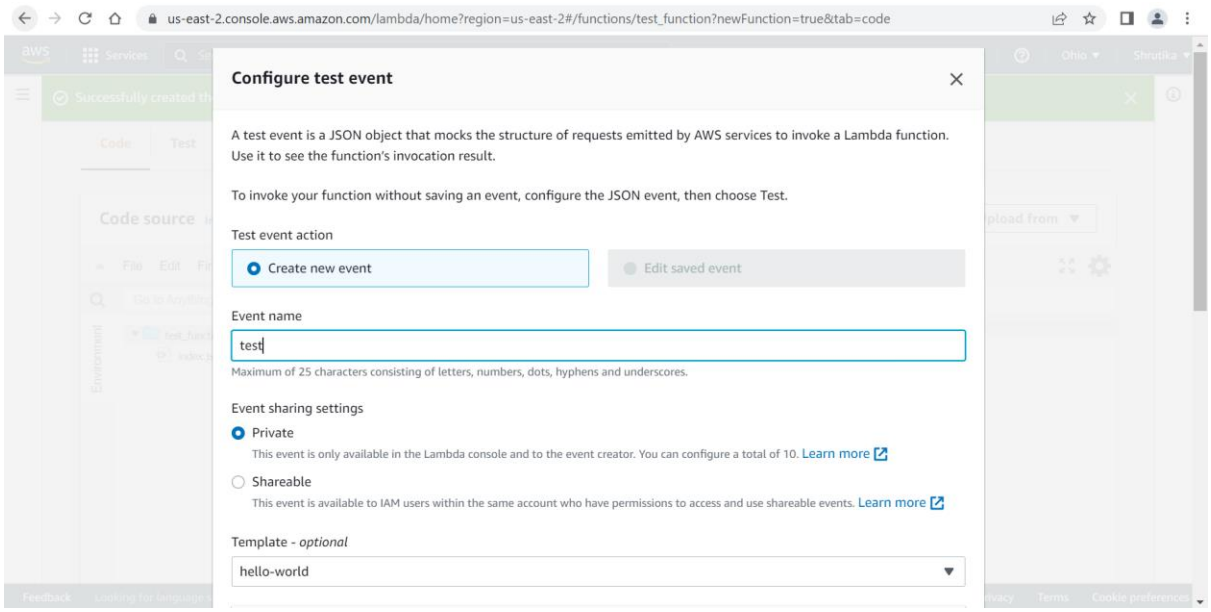

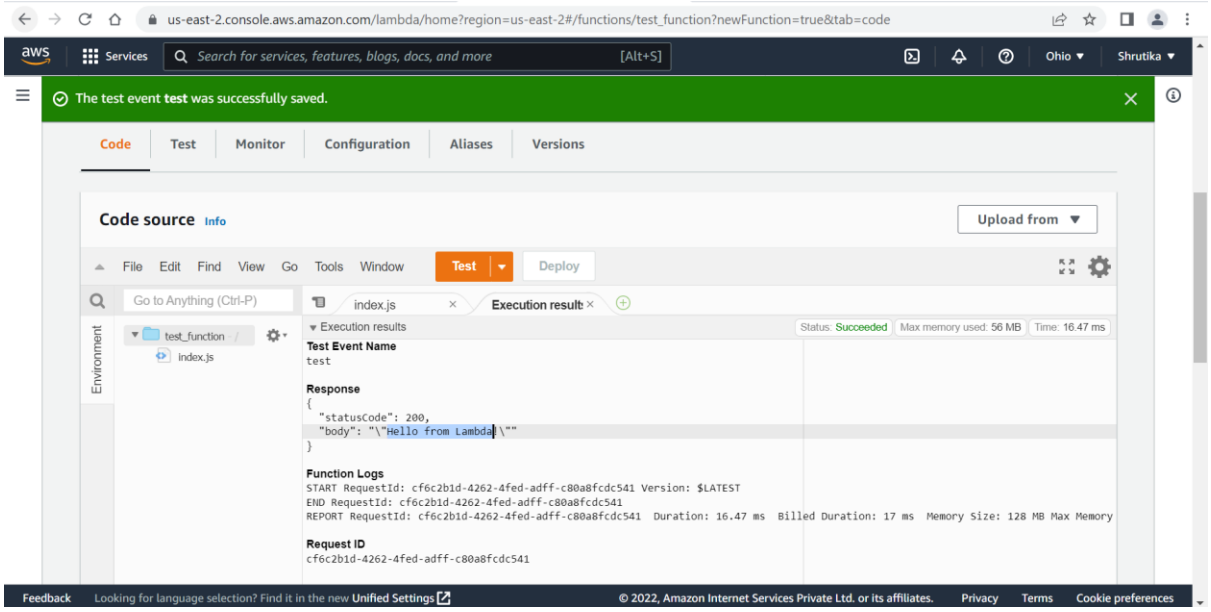

Best practices of lambda function:

- Use the right "timeout."
- Utilize the functions of local storage which is 500MB in size in the /temp folder
- Minimizing the use of start-up code which is not directly related to processing the current event.
- You should use built-in CloudWatch monitoring of your Lambda functions to view and optimize request latencies.