



AWS Lambda Calculator Project

1. In this lab we are going to create a lambda function and this function will work as a calculator when we invoke this function.
2. Now first, we need to create a folder and open it in VS Code. Then we need to create a command text file and then create an event.json file.
3. Then create an index.js file and then convert this file to a zip file so that we can use it to create our Lambda function.

The screenshot shows the VS Code interface with the following details:

- Folders:** AWS LAM...
- Files:** commands.txt, event.json, index.js
- index.js Content:**

```
1  exports.handler = async (event) => {
2      console.log('Received event:', JSON.stringify(event, null, 2));
3
4      if (event.a === undefined || event.b === undefined || event.op === undefined) {
5          throw new Error(`event should exist a-b-op: "${event}"`);
6      }
7
8      let result = 0;
9      switch (event.op) {
10         case "+":
11             result = event.a + event.b;
12             break;
13         case "-":
14             result = event.a - event.b;
15             break;
16         case "*":
17             result = event.a * event.b;
18             break;
19         case "/":
20             result = event.a / event.b;
21             break;
22     }
23
24     console.log('Result is : ', result);
25
26     return result;
27 }
```

4. Using the below command we have created the zip file.

```
● PS D:\AWS Serveless\AWS Lambda Calculator Project> Compress-Archive index.js function.zip
>>
○ PS D:\AWS Serveless\AWS Lambda Calculator Project>
```

5. The below command gives us the ARN of the role which we will use in our function.

```
● PS D:\AWS Serveless\AWS Lambda Calculator Project> aws iam get-role --role-name lambda-exec
Role:
Arn: arn:aws:iam::878893308172:role/lambda-exec
AssumeRolePolicyDocument:
Statement:
- Action: sts:AssumeRole
Effect: Allow
Principal:
Service: lambda.amazonaws.com
Version: '2012-10-17'
CreateDate: '2024-11-12T08:14:46+00:00'
MaxSessionDuration: 3600
Path: /
RoleId: AROA4ZIQ7TEGJKASFJB4E
RoleLastUsed:
LastUsedDate: '2024-11-13T10:29:34+00:00'
Region: us-east-1
RoleName: lambda-exec
```

- Now run the create lambda command and you will see that our function has been created.

```
PS D:\AWS Serveless\AWS Lambda Calculator Project> aws lambda create-function ` 
>>   --function-name calculator ` 
>>   --runtime nodejs18.x ` 
>>   --zip-file fileb://function.zip ` 
>>   --handler index.handler ` 
>>   --role arn:aws:iam::878893308172:role/lambda-exec
Architectures:
- x86_64
CodeSha256: UPV8AuZT62jHt0Jf9g8IdXnI60qsgBdd25s3E4ChS0g=
CodeSize: 395
Description: ''
EphemeralStorage:
Size: 512
FunctionArn: arn:aws:lambda:us-east-1:878893308172:function:calculator
FunctionName: calculator
Handler: index.handler
LastModified: 2024-11-13T10:59:07.462+0000
LoggingConfig:
LogFormat: Text
LogGroup: /aws/lambda/calculator
```

- Also go to the console and check for the newly created function.

Functions (2)					
<input type="checkbox"/> Filter by tags and attributes or search by keyword Actions ▾ Create function					
	Function name	Description	Package type	Runtime	Last modified
<input type="checkbox"/>	calculator	-	Zip	Node.js 18.x	5 minutes ago
<input type="checkbox"/>	greeting	-	Zip	Node.js 18.x	36 minutes ago

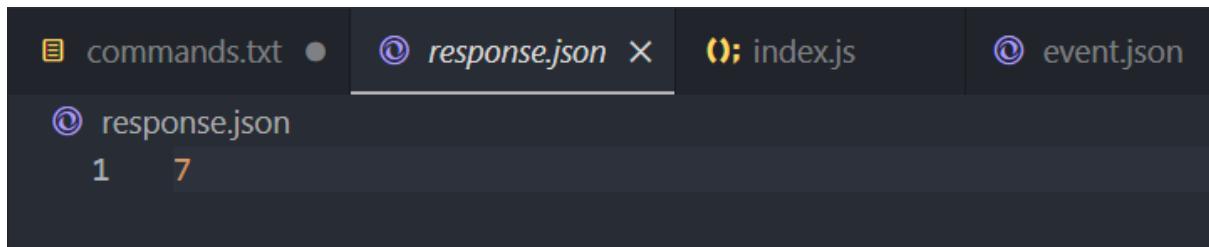
- After that we ran the invoke command and we get the status code as 200.

```

PS D:\AWS Serveless\AWS Lambda Calculator Project> aws lambda invoke \
>>      --function-name calculator \
>>      --cli-binary-format raw-in-base64-out \
>>      --payload file://event.json \
>>      response.json
ExecutedVersion: $LATEST
StatusCode: 200

```

- In the response file we can see that based on the code in our event.json file we have the output.



- Now go to CloudWatch logs to check for the events and you will see the logs as expected.

	Timestamp	Message
No older events at this moment. Retry		
▶	2024-11-13T16:29:54.028+05:30	INIT_START Runtime Version: nodejs:18.v49 Runtime Version ARN: arn:aws:lambda:us-east-1::runtime:13821268cdb8b1fd3647b6b7f...
▶	2024-11-13T16:29:54.198+05:30	START RequestId: 3a77ddac-600a-4e46-aea0-dd144d6d0bc4 Version: \$LATEST
▼	2024-11-13T16:29:54.199+05:30	2024-11-13T10:59:54.199Z 3a77ddac-600a-4e46-aea0-dd144d6d0bc4 INFO Received event: { "a": 2, "b": 5, "op": "+" }
	2024-11-13T10:59:54.199Z	3a77ddac-600a-4e46-aea0-dd144d6d0bc4 INFO Received event:
	{	
	"a": 2,	
	"b": 5,	
	"op": "+"	
	}	
▼	2024-11-13T16:29:54.200+05:30	2024-11-13T10:59:54.200Z 3a77ddac-600a-4e46-aea0-dd144d6d0bc4 INFO Result is : 7
	2024-11-13T10:59:54.200Z	3a77ddac-600a-4e46-aea0-dd144d6d0bc4 INFO Result is : 7
▶	2024-11-13T16:29:54.230+05:30	END RequestId: 3a77ddac-600a-4e46-aea0-dd144d6d0bc4
▶	2024-11-13T16:29:54.230+05:30	REPORT RequestId: 3a77ddac-600a-4e46-aea0-dd144d6d0bc4 Duration: 32.60 ms Billed Duration: 33 ms Memory Size: 128 MB Max M...