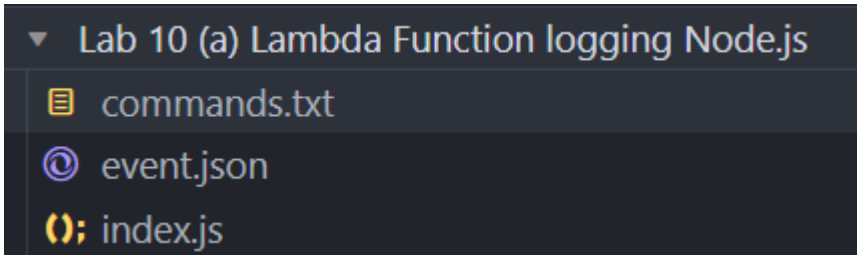
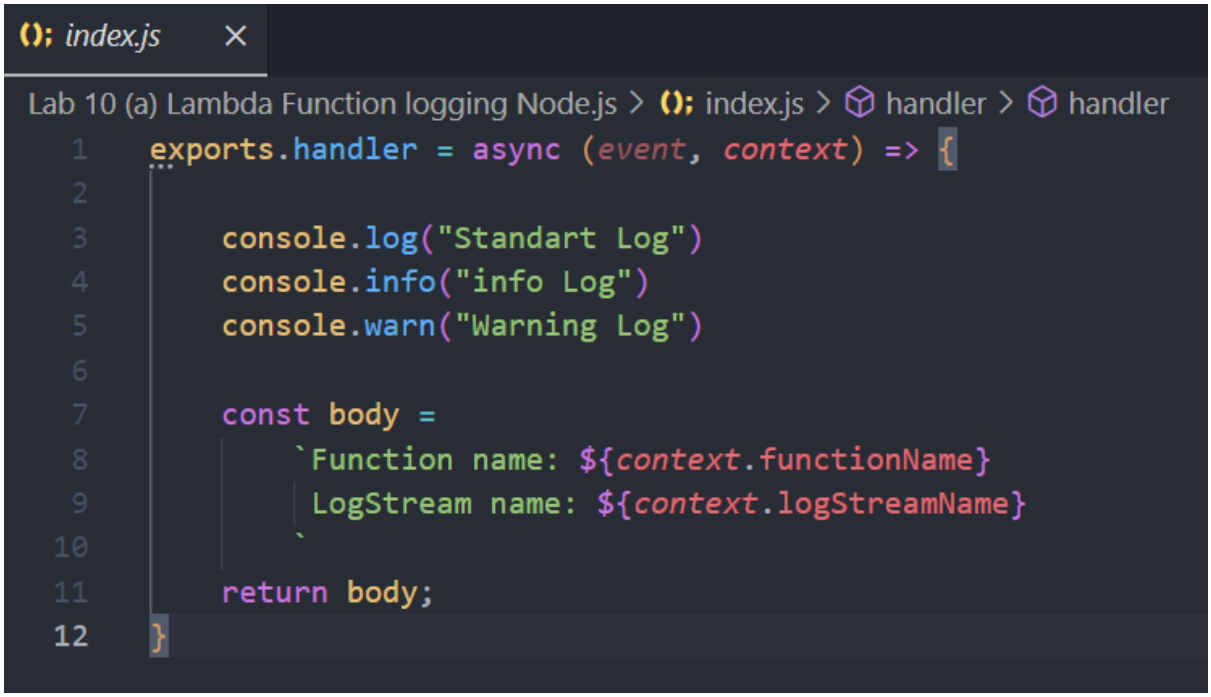
😊 Lambda Function logging and errors in Node.js

1. In this lab we are going to update our lambda function to have the logging where we will invoke our function and in the CloudWatch logs we will have logs for what we have defined in our index.js code file.
2. First you need to create a lab folder in your VS Code then create the same files which you can see in the snapshot.
3. The event.json file is the same and it is copied from the previous lab.



4. This is the code; we'll be using to update our lambda function. So now create a zip file out of this index.js file.



5. First, I zipped the index.js file and than ran the command to update my function.

```
PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL  PORTS
TERMINAL                                   pwsh - Lab 10 (a) Lambda Function logging Node.js
PS C:\Serverless\Lab 10 (a) Lambda Function logging Node.js> Compress-Archive index.js function.zip
PS C:\Serverless\Lab 10 (a) Lambda Function logging Node.js> aws lambda update-function-code `
>>     --function-name my-function3 `
>>     --zip-file fileb://function.zip
Architectures:
- x86_64
CodeSha256: 38+rgktFeN5Br+jxHP+CG8/ofqswyH5EK95rqigIZeE=
CodeSize: 283
Description: ''
EphemeralStorage:
  Size: 512
FunctionArn: arn:aws:lambda:us-east-1:878893308172:function:my-function3
```

6. Now I am going to run the invoke command to have the latest logs. Below you can see that my function has invoked successfully.

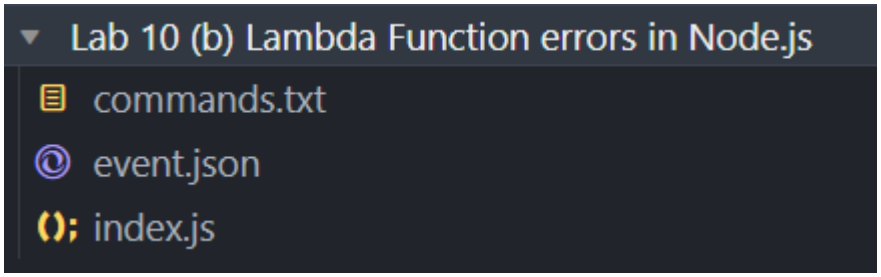
```
PS C:\Serverless\Lab 10 (a) Lambda Function logging Node.js> aws lambda invoke `
>>     --function-name my-function3 `
>>     --cli-binary-format raw-in-base64-out `
>>     --payload file://event.json `
>>     response.json
>>
ExecutedVersion: $LATEST
StatusCode: 200
```

7. In the CloudWatch if I open the latest log events for my function then there are the logs for what we have defined in the code. We have the standard log, Info log, and the warning log.

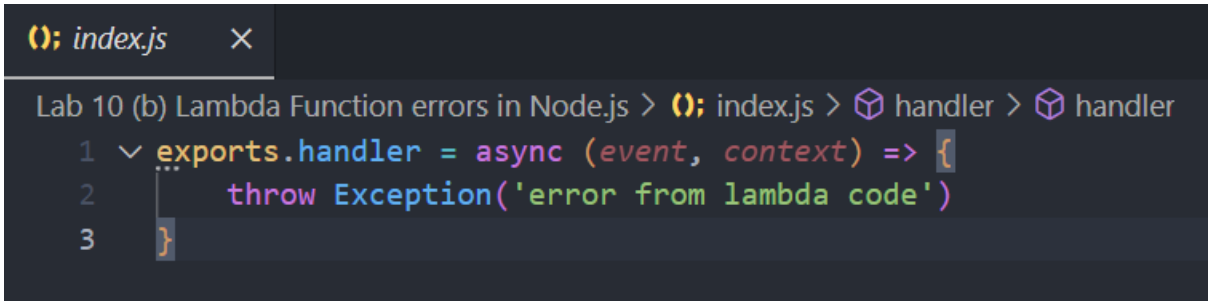
Timestamp	Message
	No older events at this moment. Retry
2024-11-12T18:19:44.389+05:30	INIT_START Runtime Version: nodejs:18.v49 Runtime Version ARN: arn:aws:lambda:us-east-1::runtime:
2024-11-12T18:19:44.561+05:30	START RequestId: 0a3cc5e1-d65e-4504-b585-ef82901ac65a Version: $LATEST
2024-11-12T18:19:44.562+05:30	2024-11-12T12:49:44.562Z 0a3cc5e1-d65e-4504-b585-ef82901ac65a INFO Standart Log
	2024-11-12T12:49:44.562Z 0a3cc5e1-d65e-4504-b585-ef82901ac65a INFO Standart Log
2024-11-12T18:19:44.563+05:30	2024-11-12T12:49:44.563Z 0a3cc5e1-d65e-4504-b585-ef82901ac65a INFO info Log
	2024-11-12T12:49:44.563Z 0a3cc5e1-d65e-4504-b585-ef82901ac65a INFO info Log
2024-11-12T18:19:44.563+05:30	2024-11-12T12:49:44.563Z 0a3cc5e1-d65e-4504-b585-ef82901ac65a WARN Warning Log
	2024-11-12T12:49:44.563Z 0a3cc5e1-d65e-4504-b585-ef82901ac65a WARN Warning Log
2024-11-12T18:19:44.578+05:30	END RequestId: 0a3cc5e1-d65e-4504-b585-ef82901ac65a

😄 Errors in Node.js

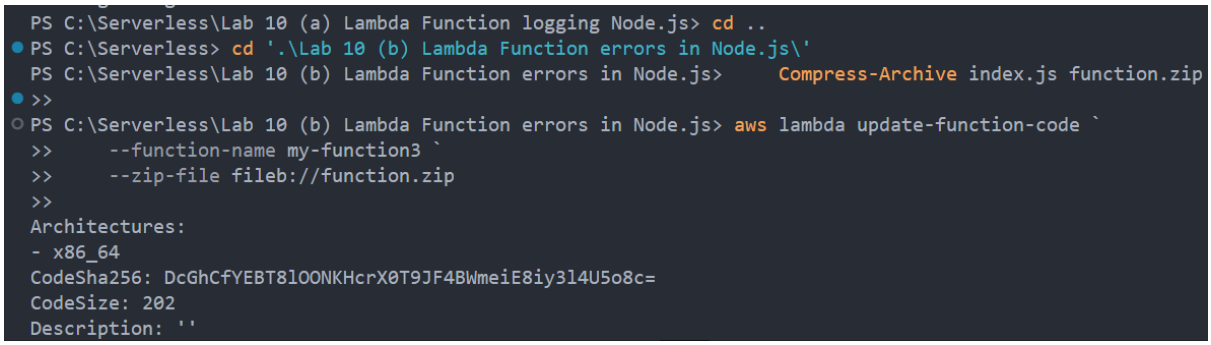
8. Now we will again update our function to have an error in it. First, we created the lab folder in VS Code then we created the commands text file. The event.json file was copied from the previous lab.



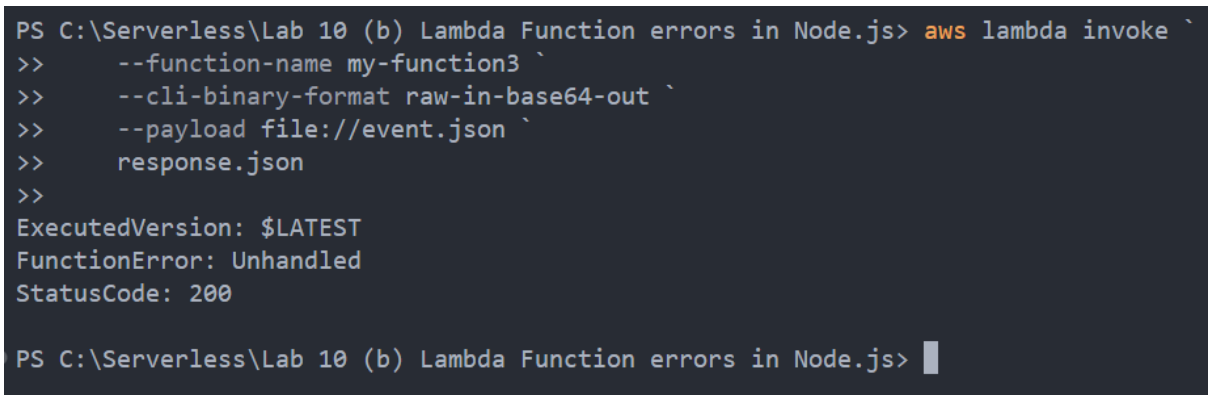
9. Below is the code used in index.js.



10. Now the steps are the same as above first we will zip the index.js file and then update our lambda function then we will invoke it as well.



11. Here you can see that when we invoked our lambda function we get the status code 200 but we also got the function error unhandled.



12. In the response file as well, you can read the error.

commands.txt | response.json

Lab 10 (b) Lambda Function errors in Node.js > response.json > ...

```
1  {"errorType":"ReferenceError","errorMessage":"Exception is not defined","trace":["ReferenceError: Exception is not
   defined","    at exports.handler (/var/task/index.js:2:5)","    at Runtime.handleOnceNonStreaming (file:///var/runtime/
   index.mjs:1173:29)"]}
```

13. If you open the CloudWatch logs then you can see the error.