Documentation of serverless assignment

1st Step

- Creating the AWS account for access the Lambda service.
- Creating access key.

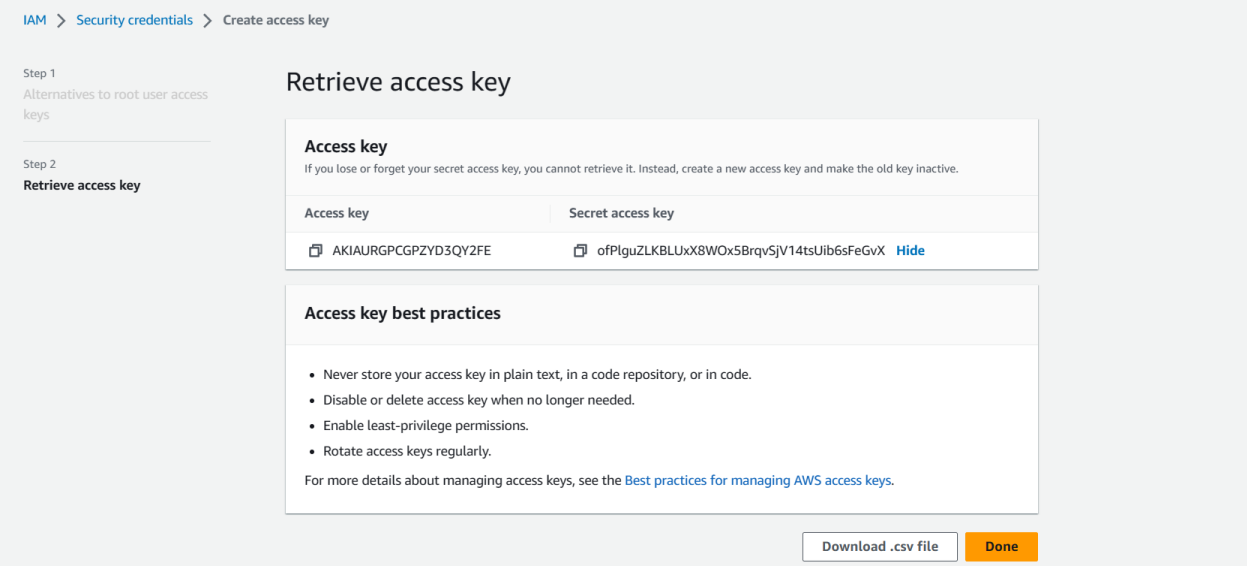

Figure 1: Retrieve access key

2nd Step

- Installing terraform to the environment (Vscode).
  v1.4.2 (latest version)

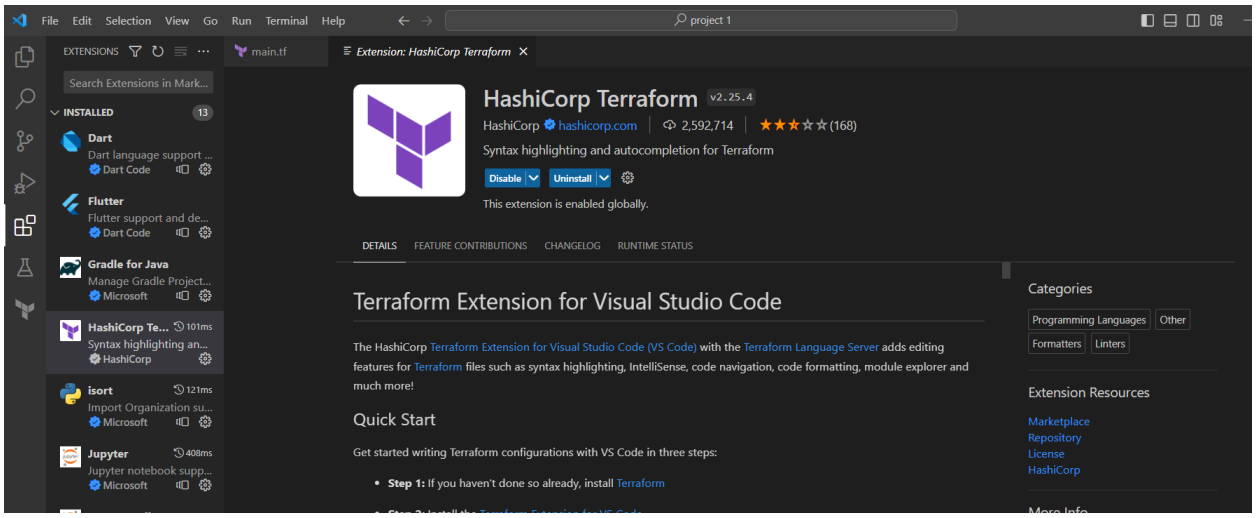

Figure 2: HashiCorp Terraform

3rd Step

- Installing AWS provider to the working environment.
- Installed AWS provider latest version 4.59.0v

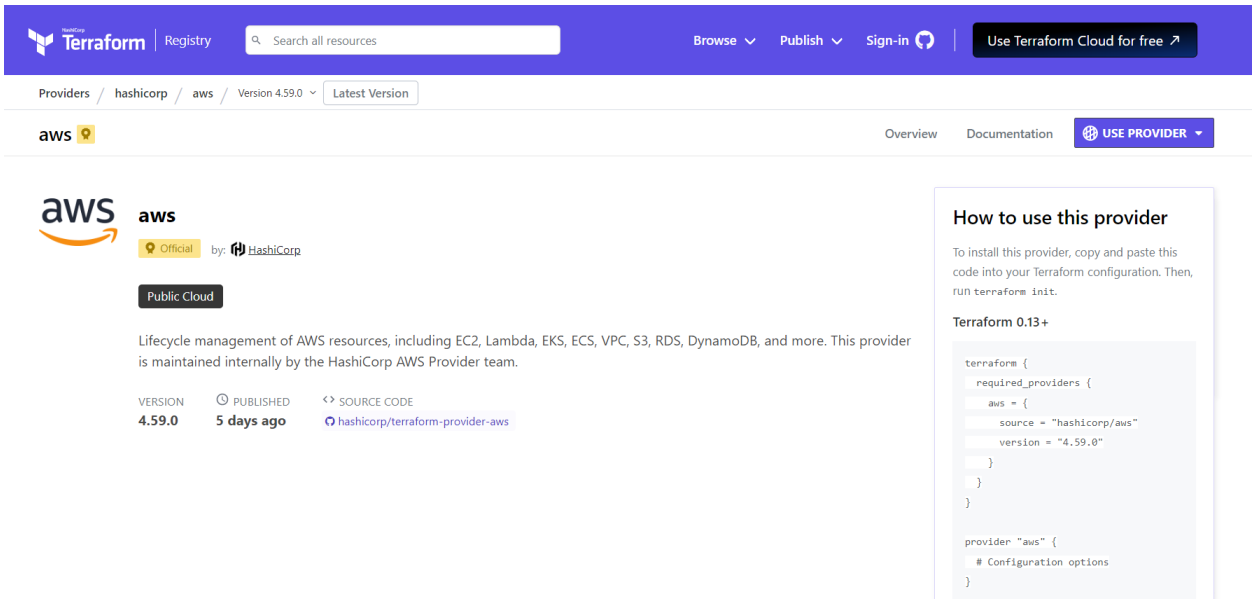

Figure 3: version 4.59.0v

- But when using the latest version of AWS provider got an error.

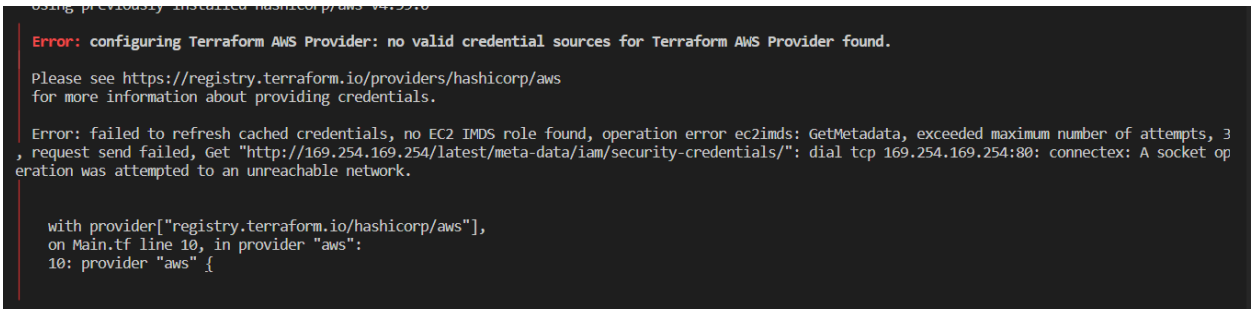

Figure 4: Error to connect with AWS console by my credentials

Solution:

When searching for a solution for this error I discover that there is a problem with latest versions of AWS provider 4.0.0+v. Therefore, I have reinstalled AWS provider Version 3.7.0

Source- https://github.com/hashicorp/terraform-provider-aws/issues/13057

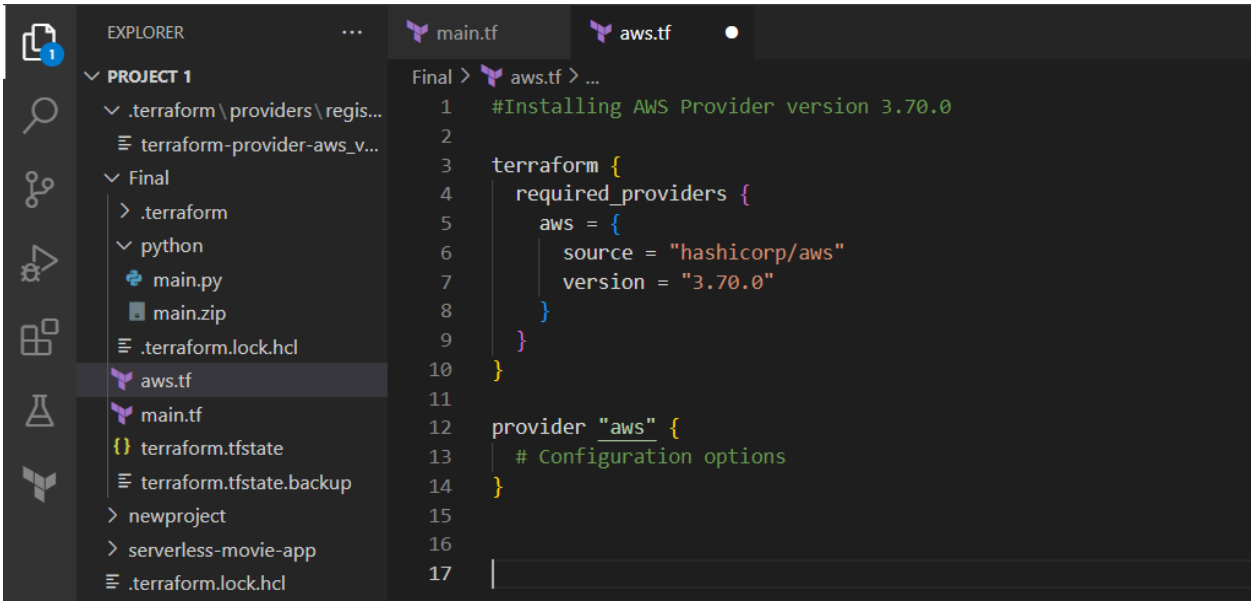

Figure 5: Code for Installing AWS provider

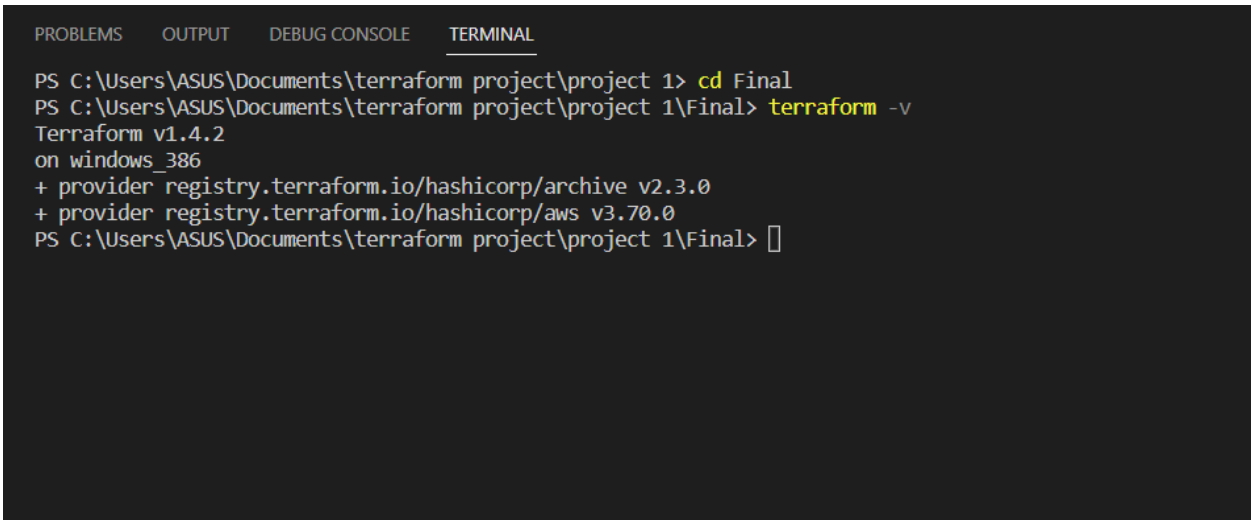

Figure 6: Checking the version

4th Step

- Develop a terraform code to manage AWS Lambda resources.
- Develop a lambda function using python.

- Successfully added AWS Lambda resources through Terraform.

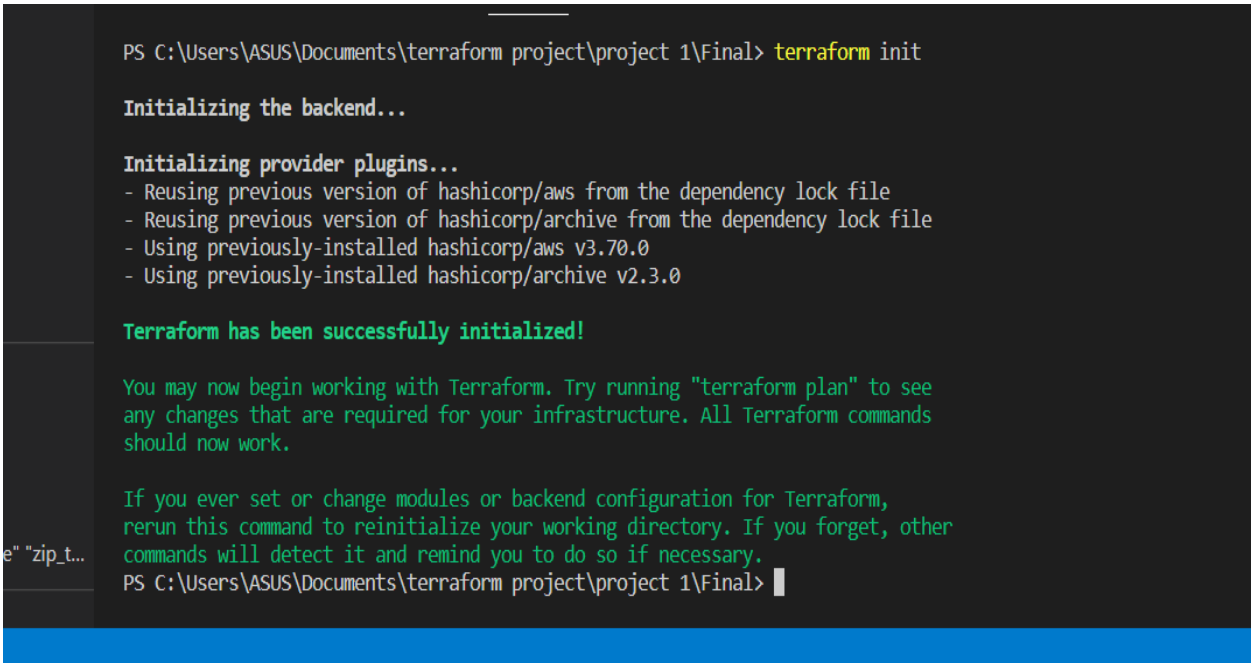

Figure 7: Initializes Terraform Code

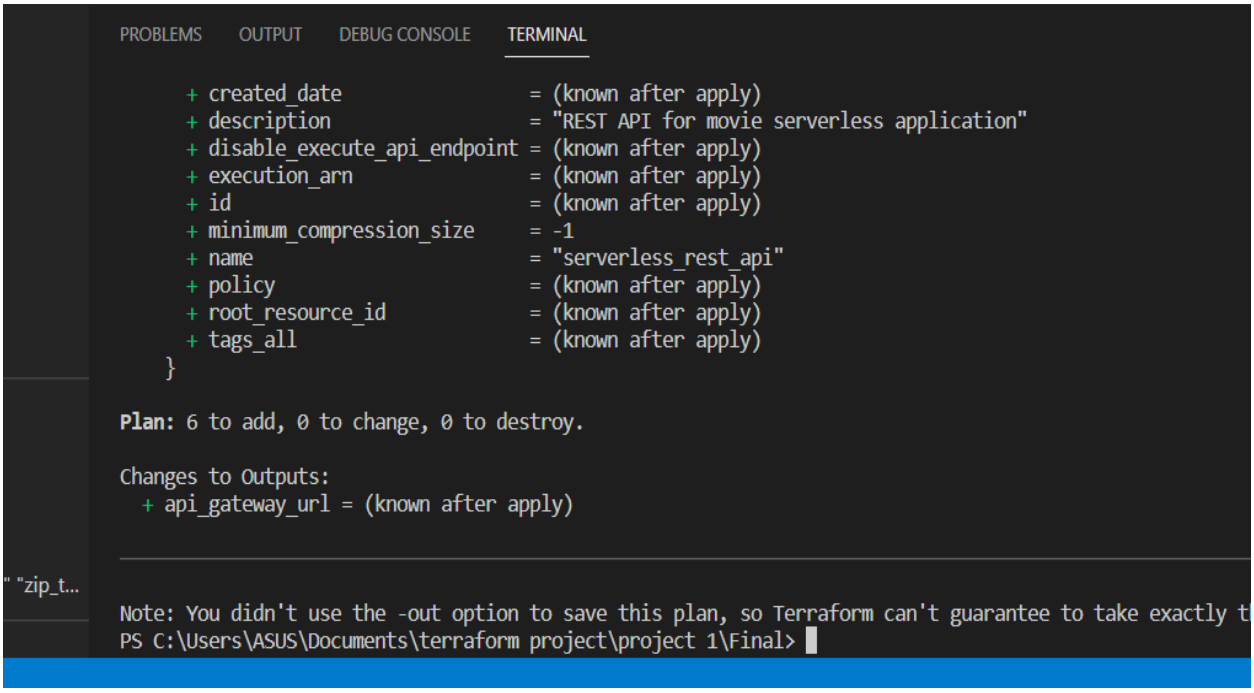

Figure 8: preview the actions of the Terraform Code

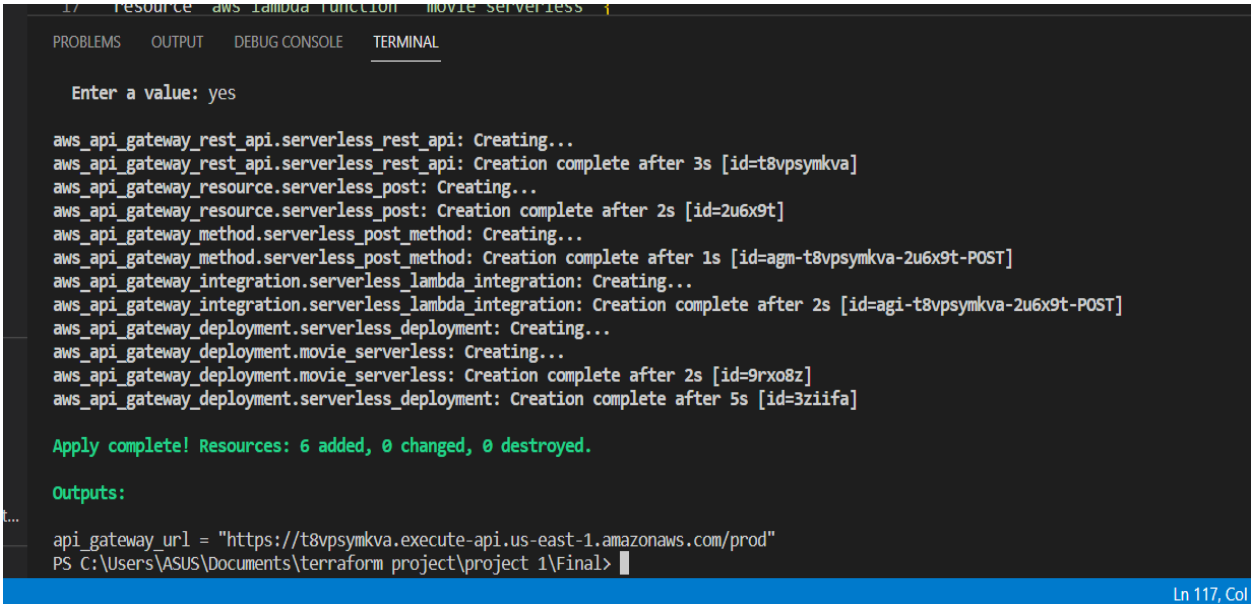

Figure 9: Successfully adding the AWS Lambda resources

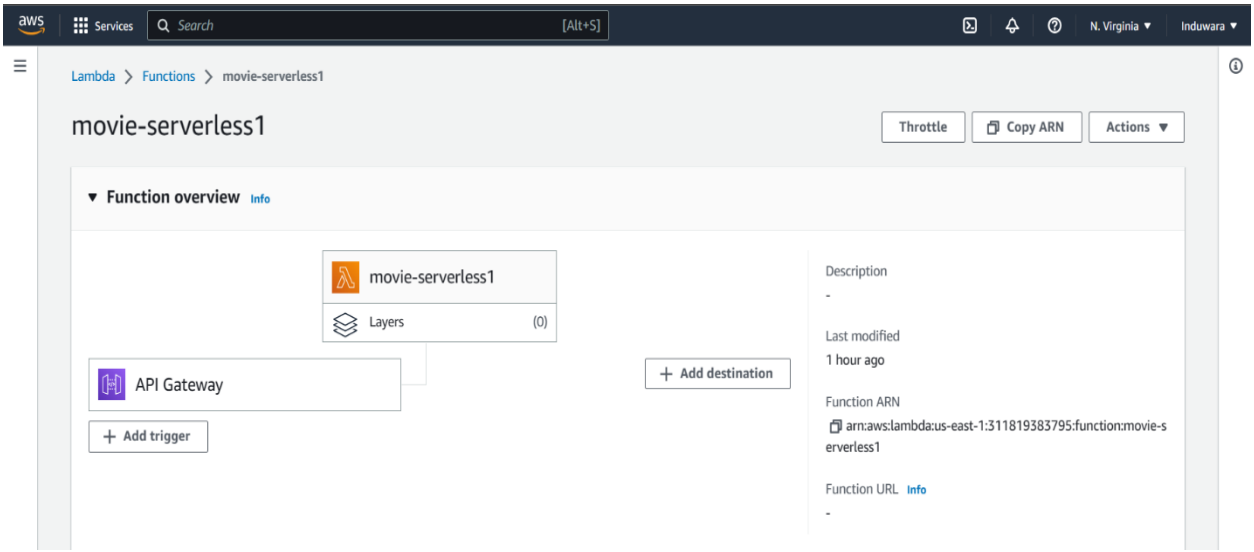

Figure 10: Overview of the AWS Lambda console after adding the resources.

5th Step

- Trigger the Rest API.

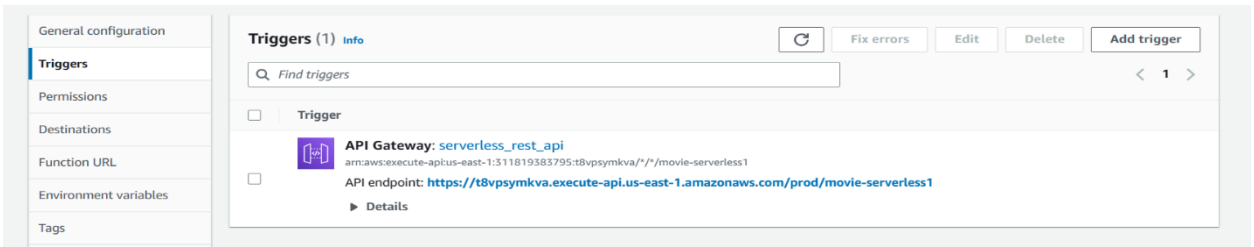

Figure 11: Added Rest API

- Testing the Lambda Function.

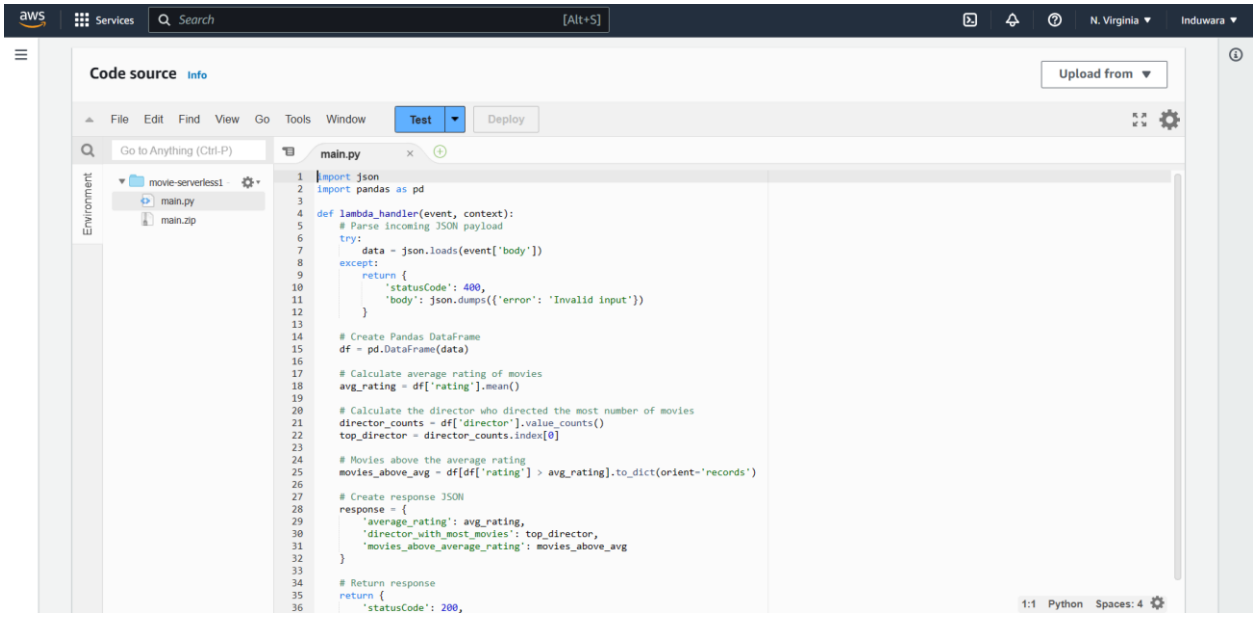

Figure 12: Successfully Lambda function Code have delivered

- Submitting JSON request to the Lambda function

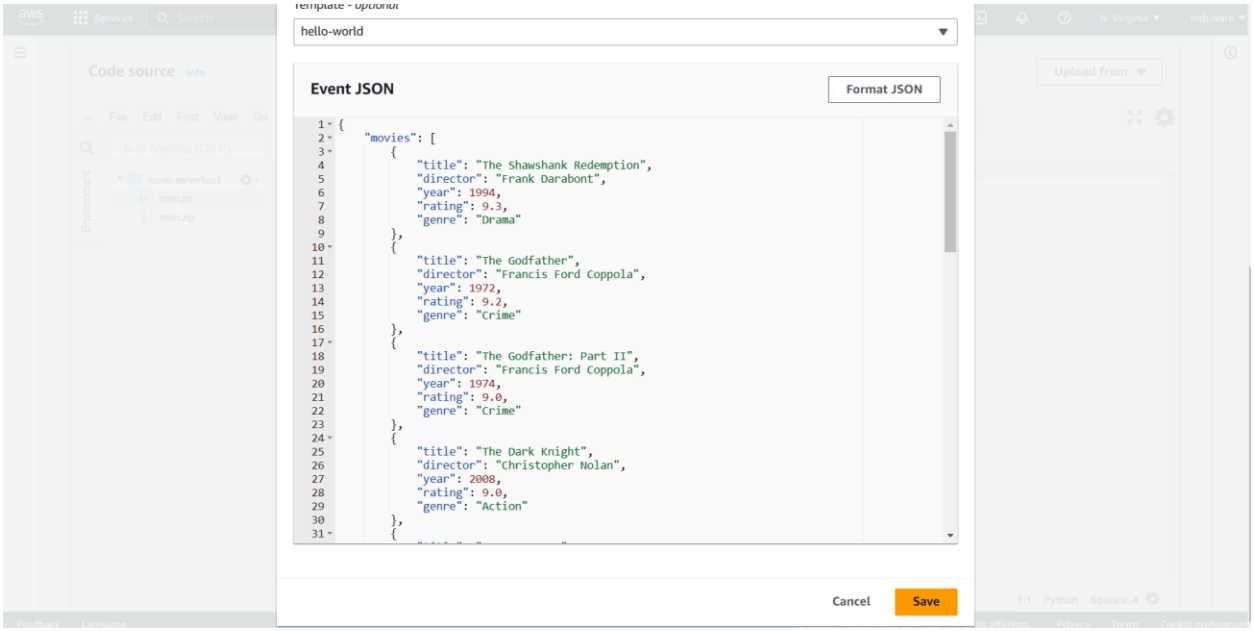

Figure 13: Saving the JSON request

6th Step

- Running the Lambda function code in the AWS Lambda console
- Error on Running the Lambda function code

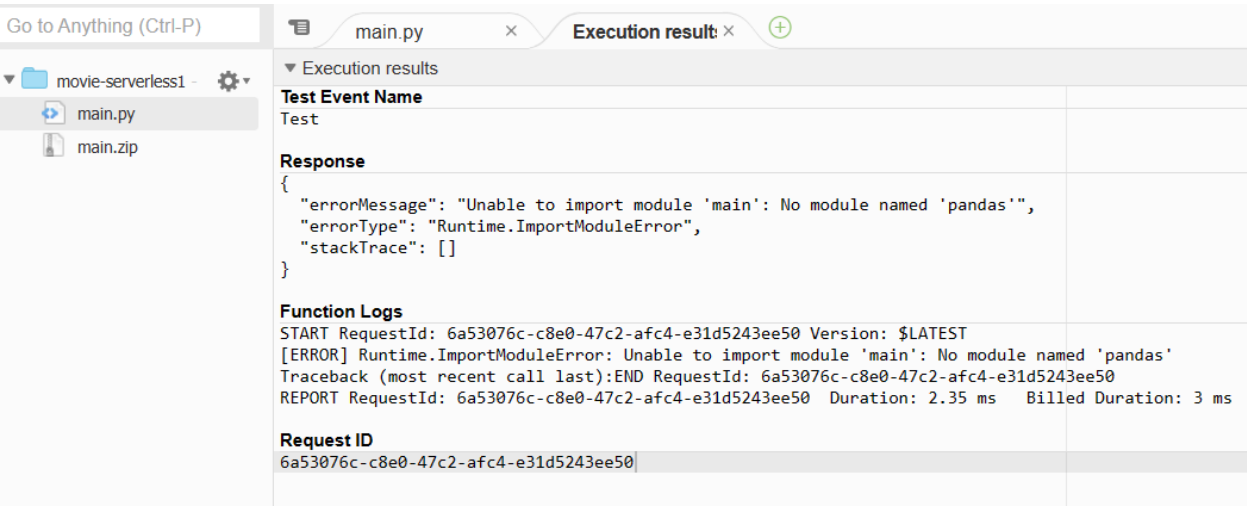

Figure 14: Error on Pandas library

As a solution,

I tried to do “pip install pandas” on Lambda function code but still the error is receiving.

Then I tried to install Pandas by adding a layer to the function.

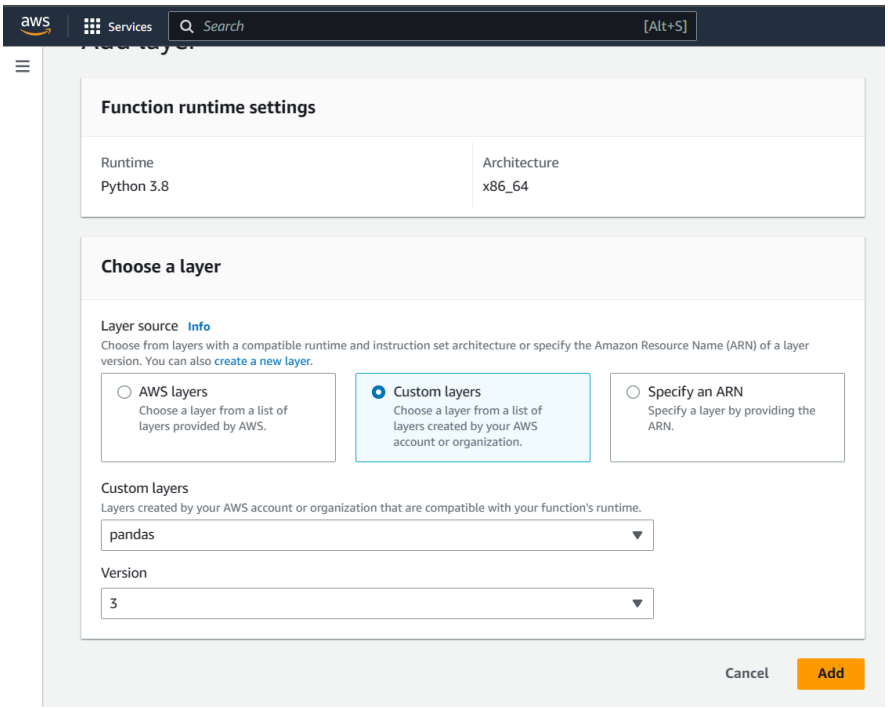

Figure 15: Adding Pandas as a custom layer to the function

Also I tried to overcome this error by adding extra libraries to the function as layers.

Added Libraries,

- Pandas v1.5.3 Linux
- Numpy v1.24.2
- Pytz v2022.7.2

But still the AWS Lambda environment not identifying the Pandas Library.

These are the resources that I used,

- How to use pandas in AWS Lambda

https://www.gcptutorials.com/post/how-to-use-pandas-in-aws-lambda

- Lambda layer to use Numpy and Pandas in AWS Lambda Function

https://medium.com/@shimo164/lambda-layer-to-use-numpy-and-pandas-in-aws-lambda-function-8a0e040faa18