Module	Assessment Type
Distributed and Cloud Systems Programming	Individual Report

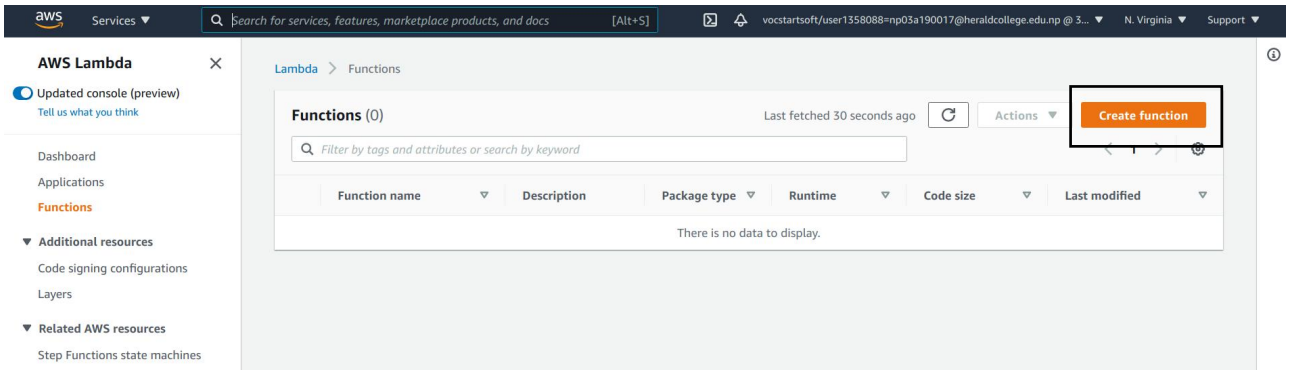
Workshop 1

Student Id : 2049867 (NP03A190017)
Student Name : Roshan Parajuli
Section : L5CG3
Module Leader : Rupak Koirala
Lecturer /Tutor : Saroj Sharma
Submitted on : 2020-03-30

Creating a AWS Lambda “Hello, World!” program.

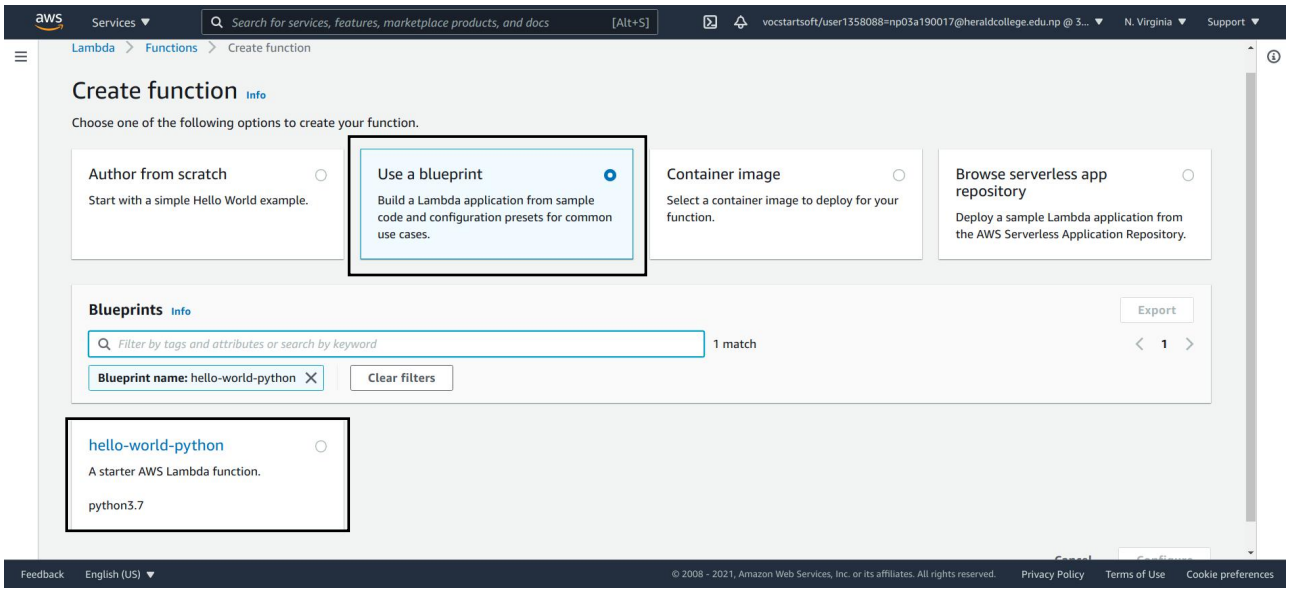
AWS Lambda is a serverless compute service that runs the code in response to events and automatically manages the underlying compute resources for the user. In short, Lambda function is created here to run the code without provisioning and managing the server.

1. Creating the AWS Lambda function

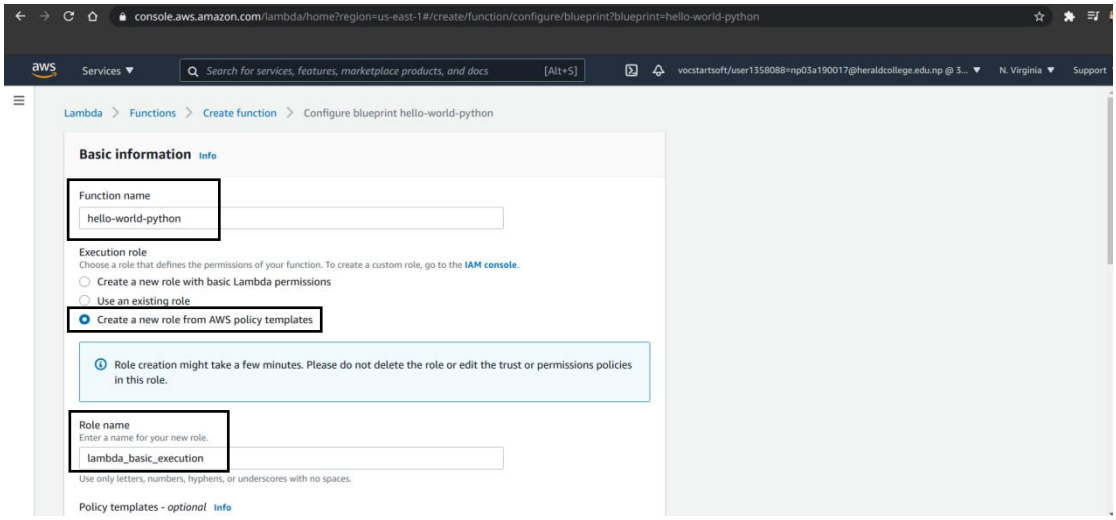


2. Choosing the blueprint

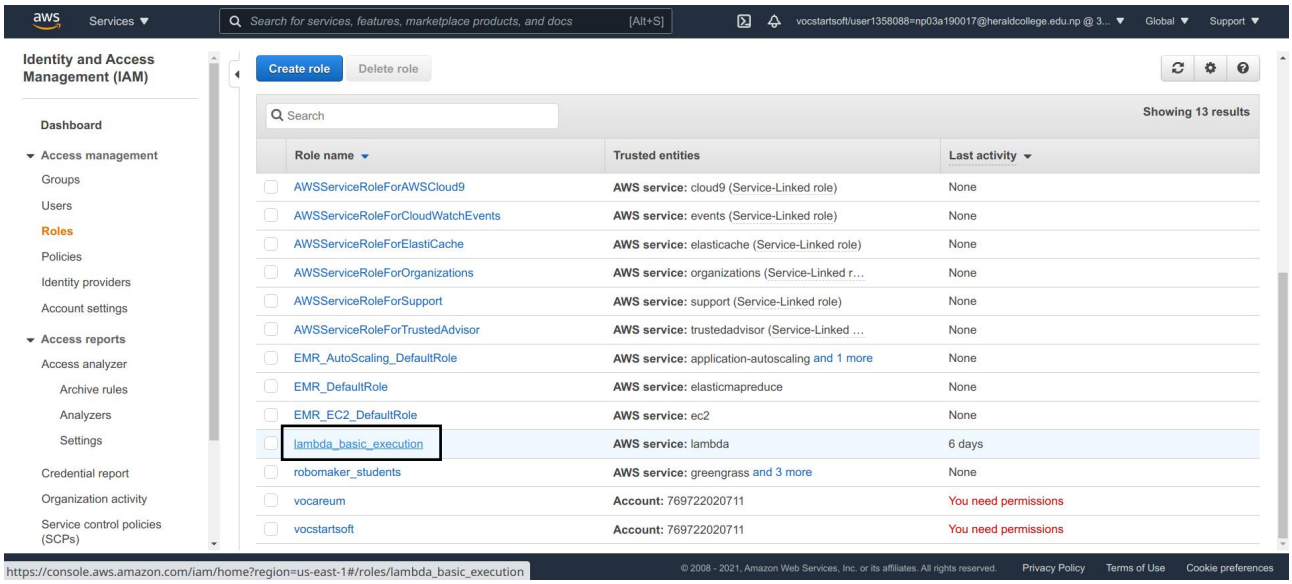
After selecting the lambda service from the AWS search, a new lambda function is made from the existing blueprint here.



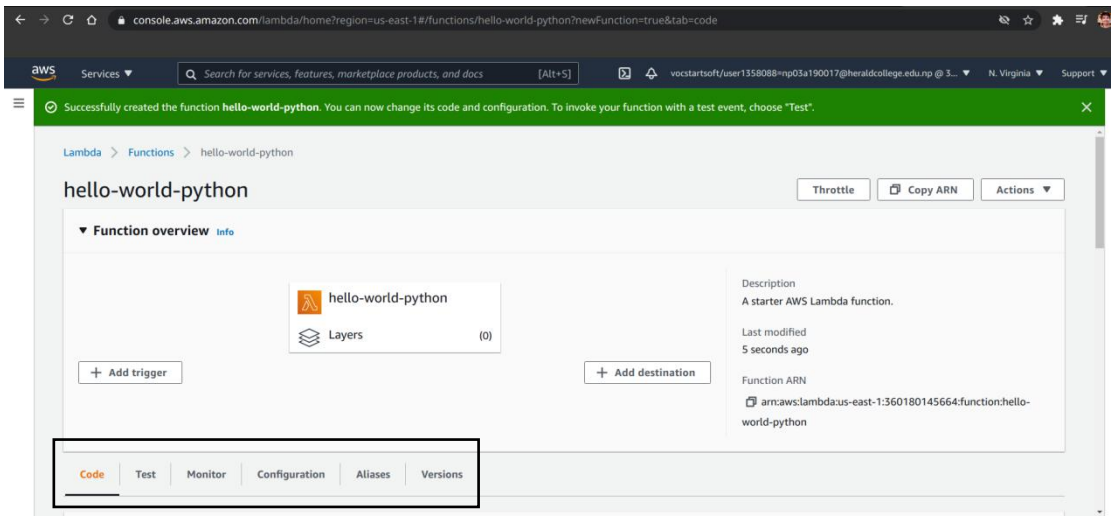
3. Creating a new execution role.



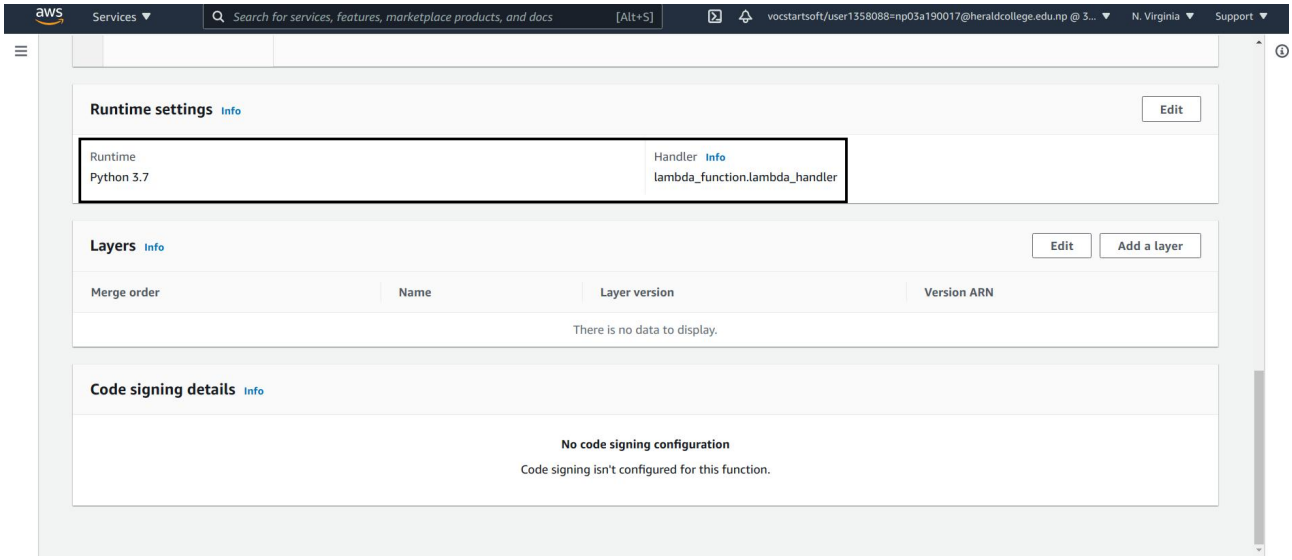
A Lambda function's execution role is an AWS Identity and Access Management (IAM) role that grants the function permission to access AWS services and resources. Here, a new role is made with the name lamda_basic_execution to limit as well as grant permissions to the lambda function which is just created.



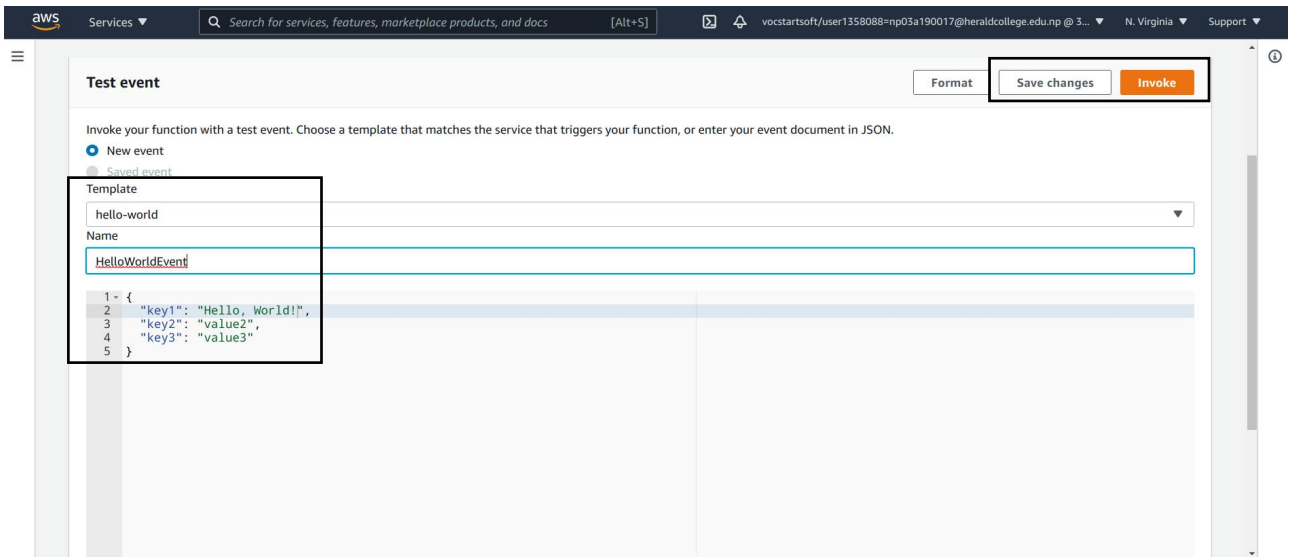
Here, we can alter the permissions of the role which alters the permission of the lambda function as this role is attached to it.



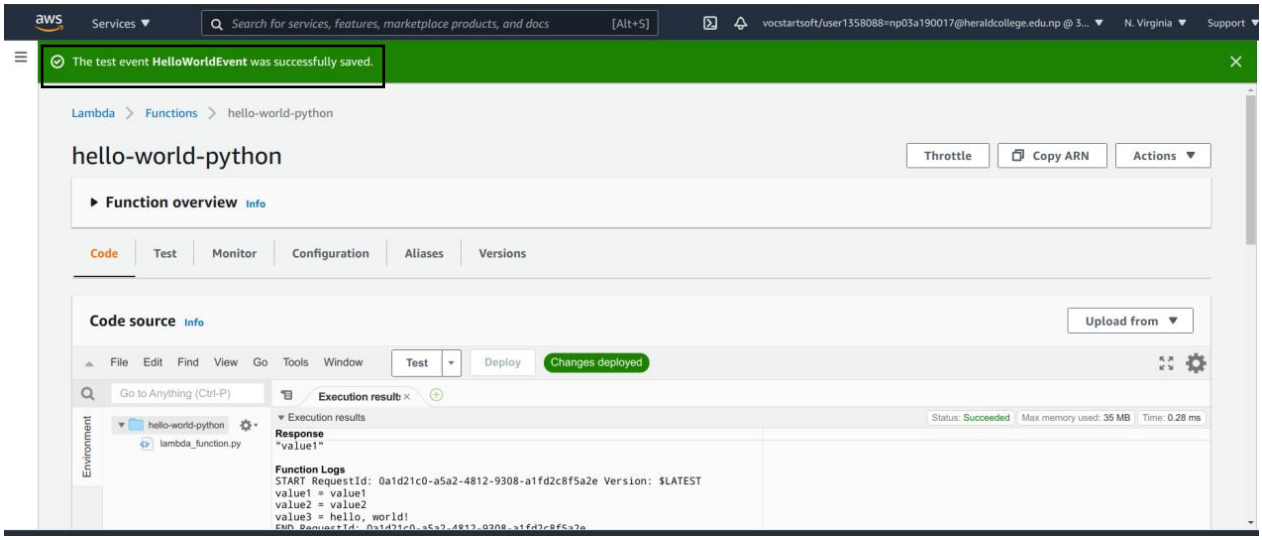
The new lambda function is created with the help of blueprint. This screen acts as a dashboard of Lambda function where its functionalities can be discovered including code, test, monitoring, configuration and so on.



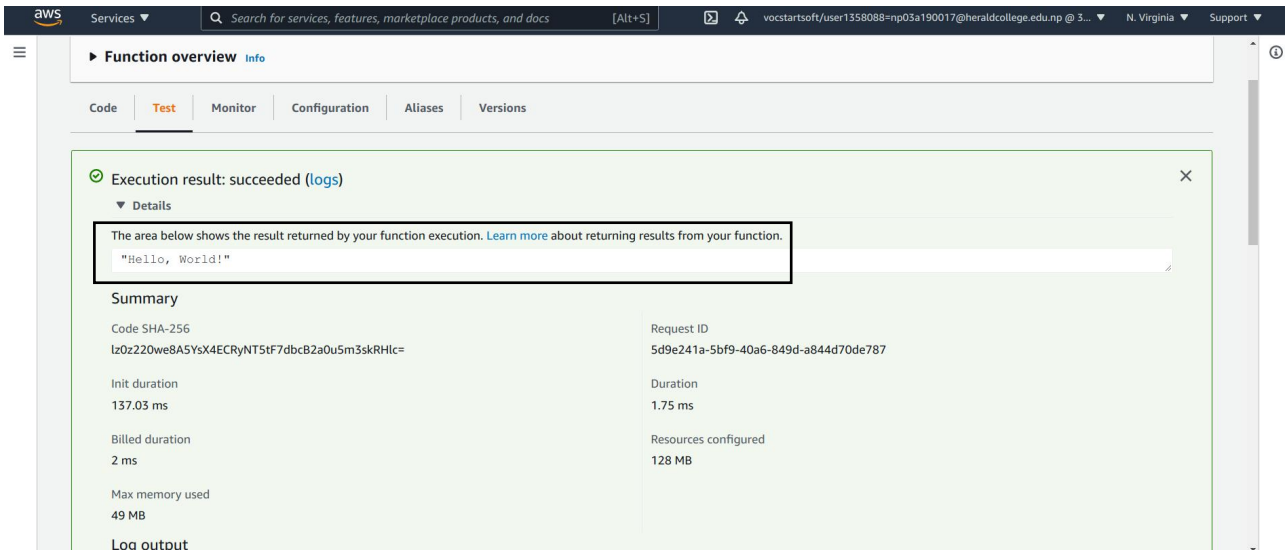
The runtime settings of the lambda function is default i.e. python 3.7 and the handler is also the default lambda_function.lambda_handler.



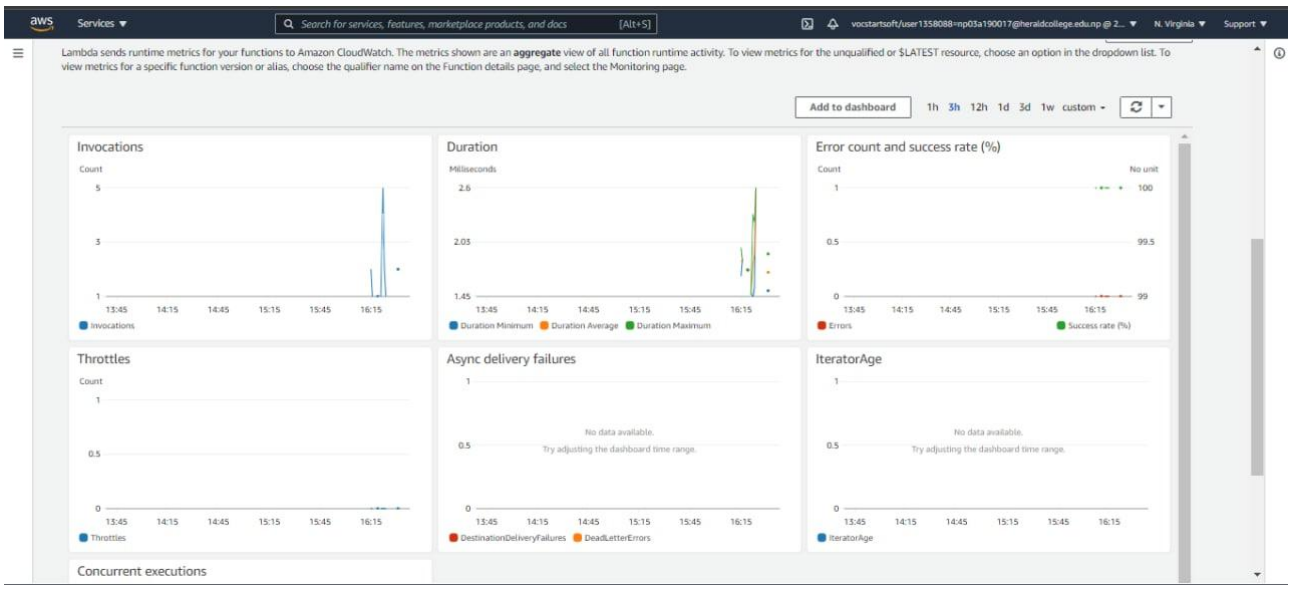
Here, a new event is created namely “HelloWorldEvent” so that it could invoke the lambda function, accomplish the goal and the monitoring could be done.



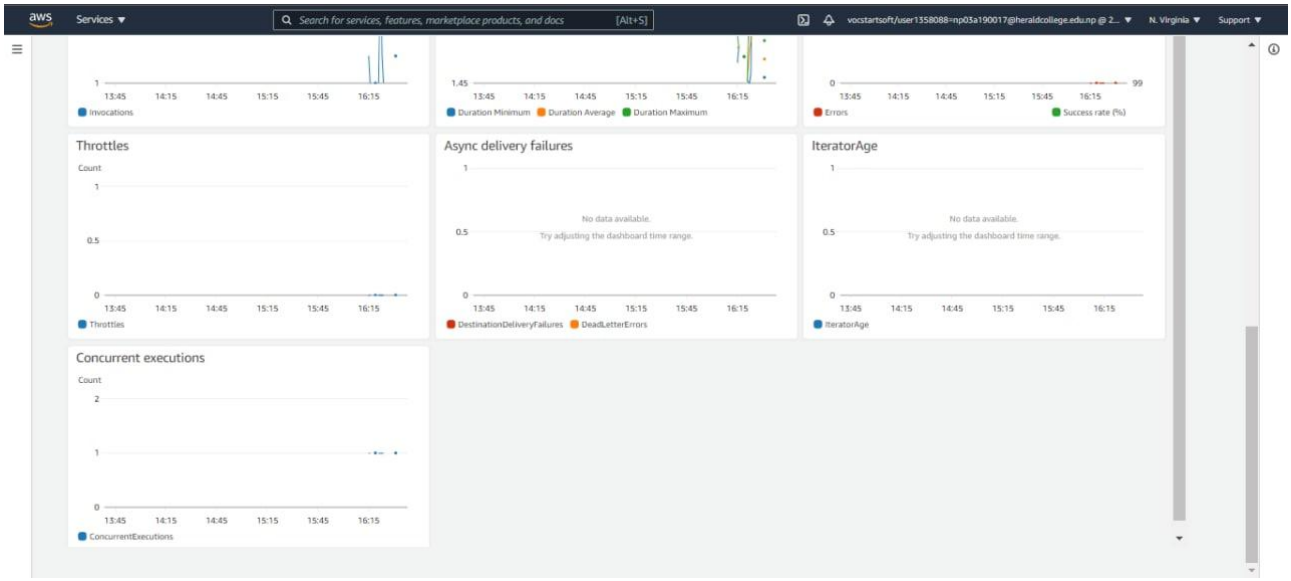
HelloWorldEvent event is successfully saved and now can be invoked multiple number of times.

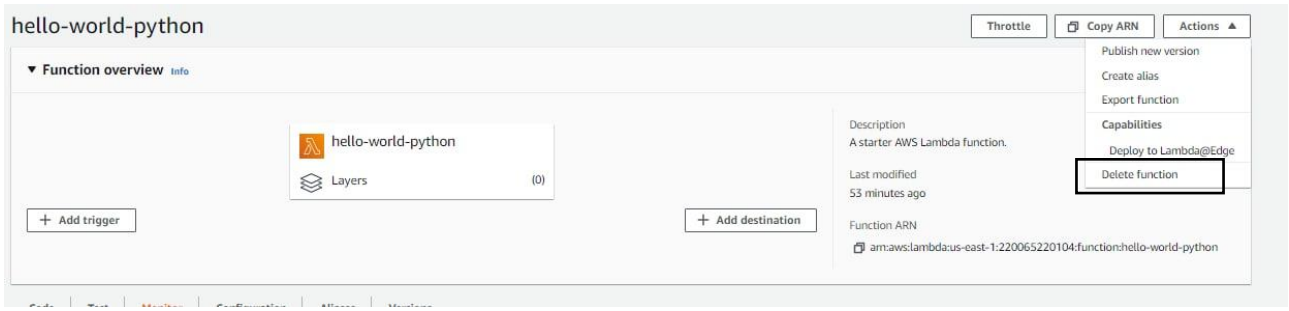


After invoking the function, the execution result portion shows the summary of the basic attributes. Our goal is achieved i.e. “Hello World” is printed in the screen which was the value of key1 in the json file. We can also see other attributes such as the time it took for initialization (Init duration), the total time it was billed for (billed duration), resources used, etc.



With the help of cloudwatch, we can monitor the details of the lambda function which was just created. It includes properties such as the number of times the function was invoked, the total duration it was invoked for, error count and success rate and a lot of other properties.





Finally, the lambda function was deleted as a part of the workshop. The deletion of lambda function does not affect the IAM role which would still be present and can be assigned to another function.