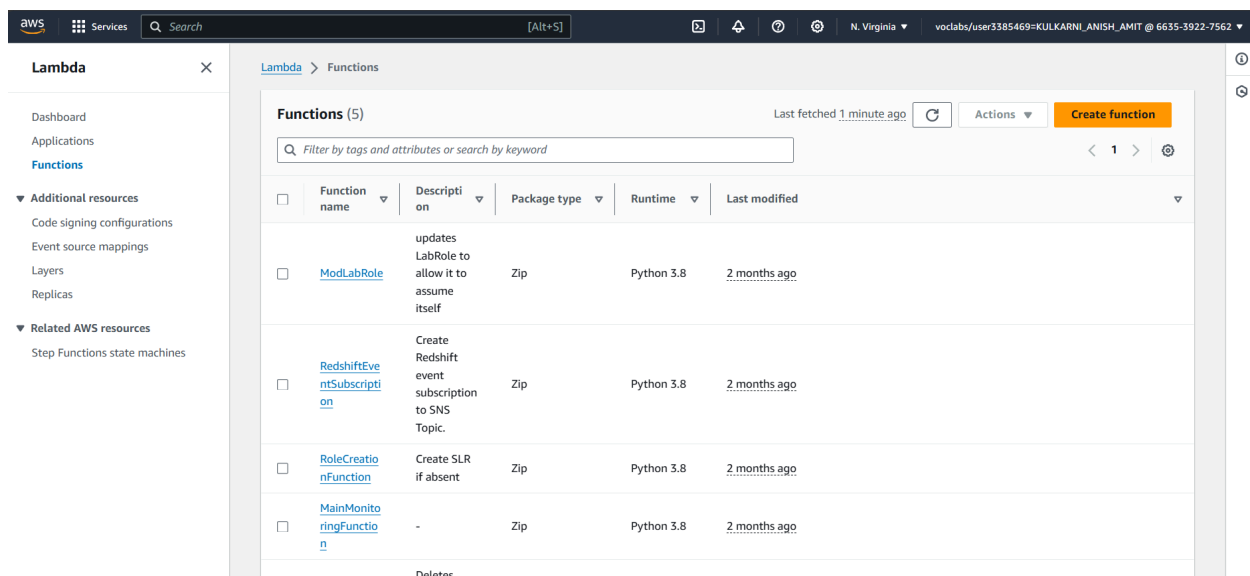


## Experiment 11

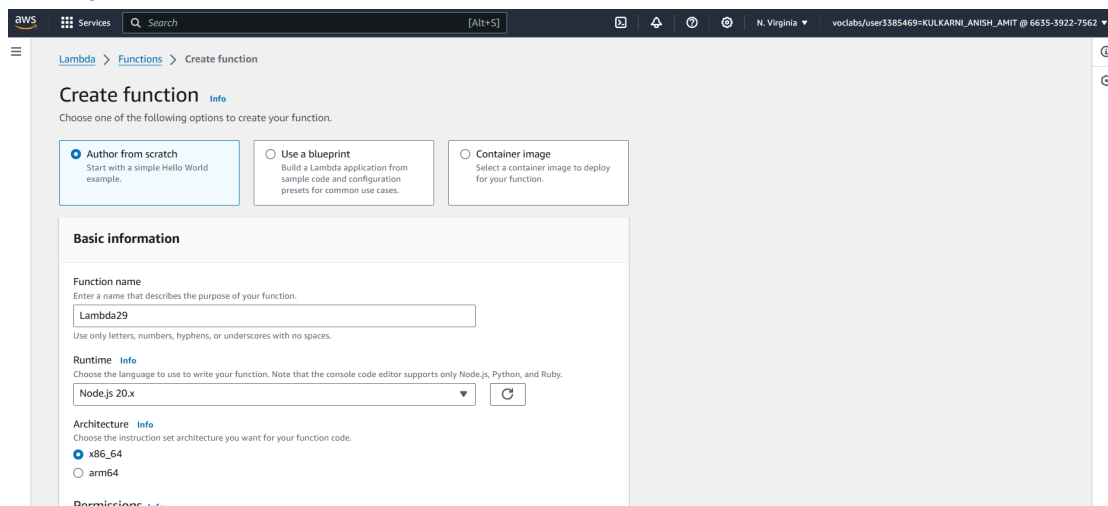
**Aim:** To understand AWS Lambda, its workflow, various functions and create your first Lambda functions using Python / Java / Nodejs.

### Steps:

Step 1: On your AWS console, click on 'Lambda' in the services section and click on 'Create function'.



Step 2: Give your Lambda function a name. Select the language to use to write your function (Node.js is the default and what we will use in this experiment). Keep other options as default.



**Permissions** info

By default, Lambda will create an execution role with permissions to upload logs to Amazon CloudWatch Logs. You can customize this default role later when adding triggers.

▼ **Change default execution role**

**Execution role**  
Choose a role that defines the permissions of your function. To create a custom role, go to the [IAM console](#).

☐ Create a new role with basic Lambda permissions  
☒ Use an existing role  
☐ Create a new role from AWS policy templates

**Existing role**  
Choose an existing role that you've created to be used with this Lambda function. The role must have permission to upload logs to Amazon CloudWatch Logs.

View the LabRole role on the IAM console.

► **Advanced settings**

Under 'Execution role', choose 'Use an existing role' and then choose LabRole. Then, click on 'Create function'.

Your Lambda function gets created.

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Successfully created the function **Lambda29**. You can now change its code and configuration. To invoke your function with a test event, choose "Test".

Lambda > Functions > Lambda29

### Lambda29

Throttle Copy ARN Actions

▼ **Function overview** info

Diagram Template

Lambda29  
 Layers (0)

+ Add trigger + Add destination

Description  
 Last modified: 10 seconds ago  
 Function ARN: arn:aws:lambda:us-east-1:663539227562:function:Lambda29  
 Function URL: [info](#)

Code Test Monitor Configuration Aliases Versions

Code source info Upload from

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Code Test Monitor Configuration Aliases Versions

### Code source

Upload from

File Edit Find View Go Tools Window Test Deploy

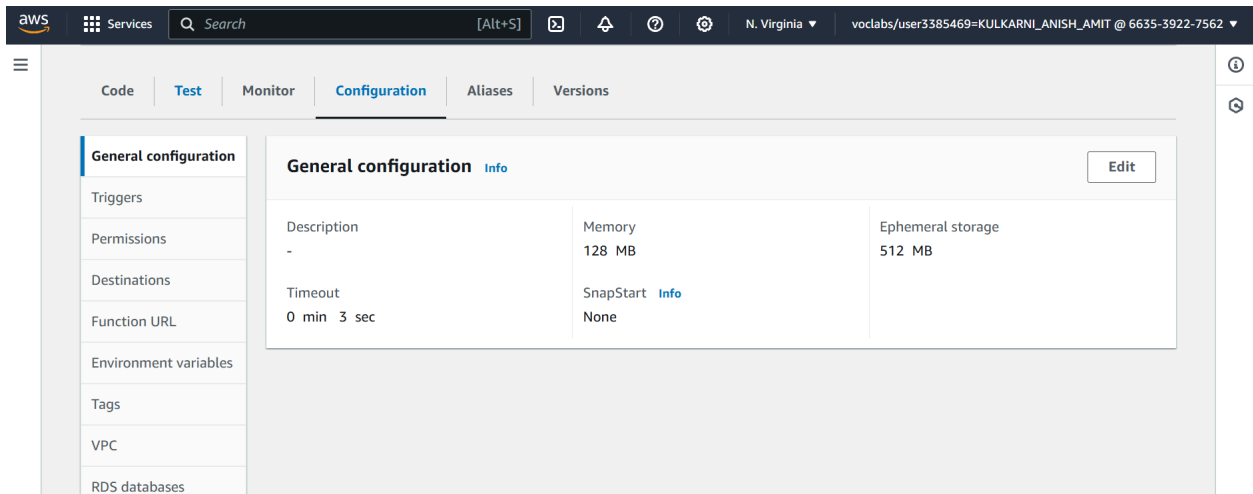
Go to Anything (Ctrl-P)

Environment: Lambda29 / index.mjs

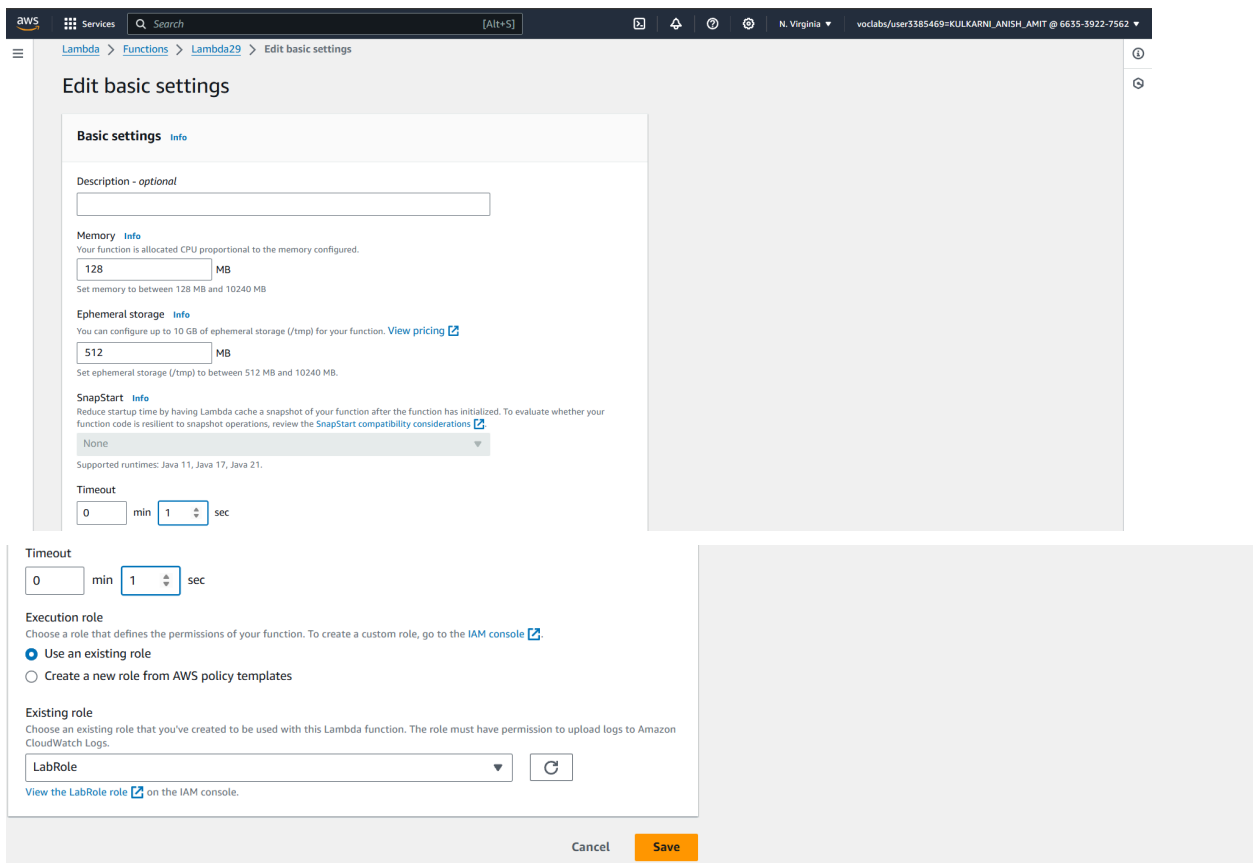
```

1 export const handler = async (event) => {
2   // TODO: Implement
3   const response = {
4     statusCode: 200,
5     body: JSON.stringify('Hello from Lambda!'),
6   };
7   return response;
8 }
9
  
```

Step 3: The general configuration of the function is visible in the 'Configuration' tab. To change the configuration, click on 'Edit'.

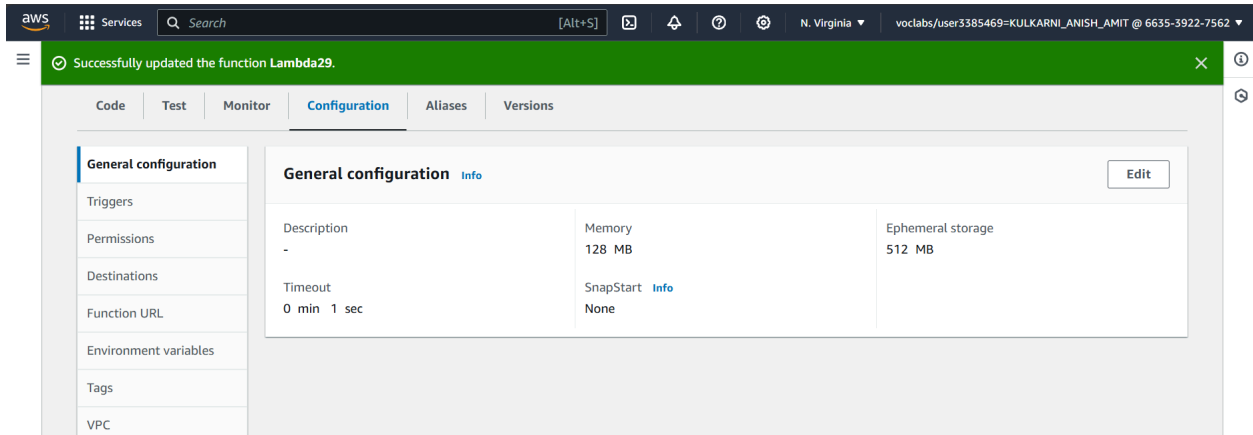


You can change the various parameters of the configuration as per your needs. Here, we can change the 'Timeout' period to 1 second as it's sufficient for our function for now. 'Timeout' is the time for which a function can be running before it gets forcibly terminated.

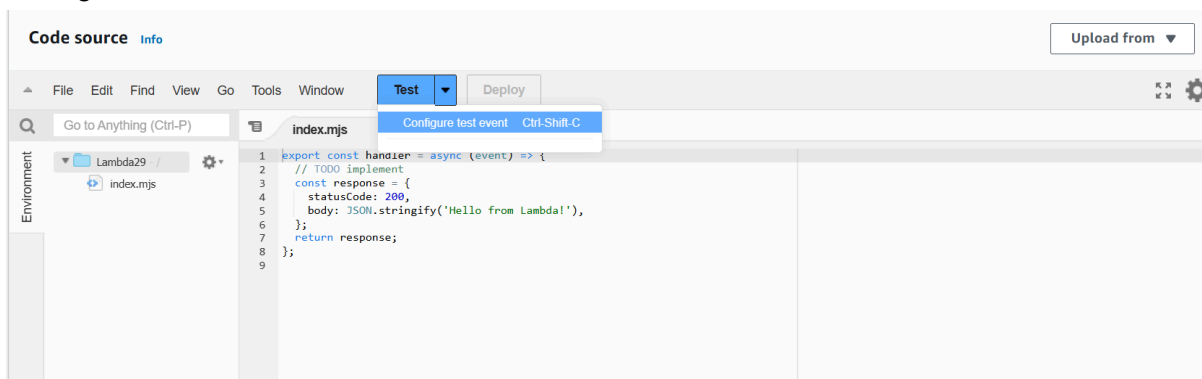


After making the required changes, click on 'Save'.

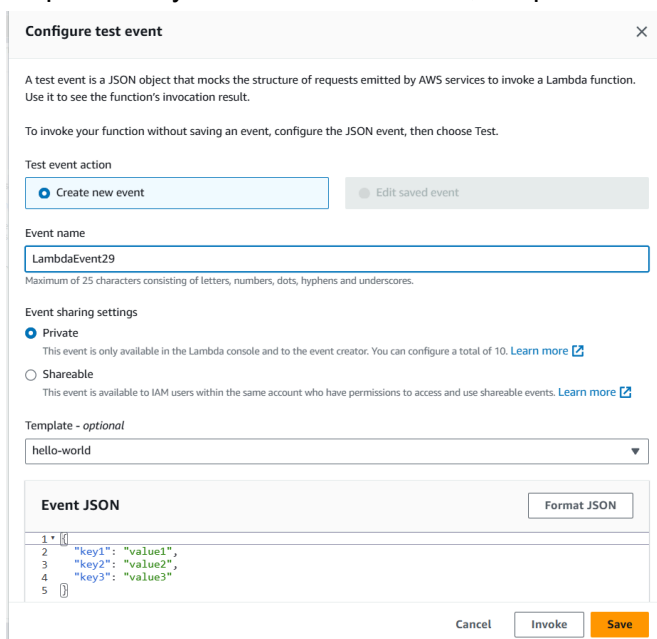
The changes in the general configuration are visible in the function.



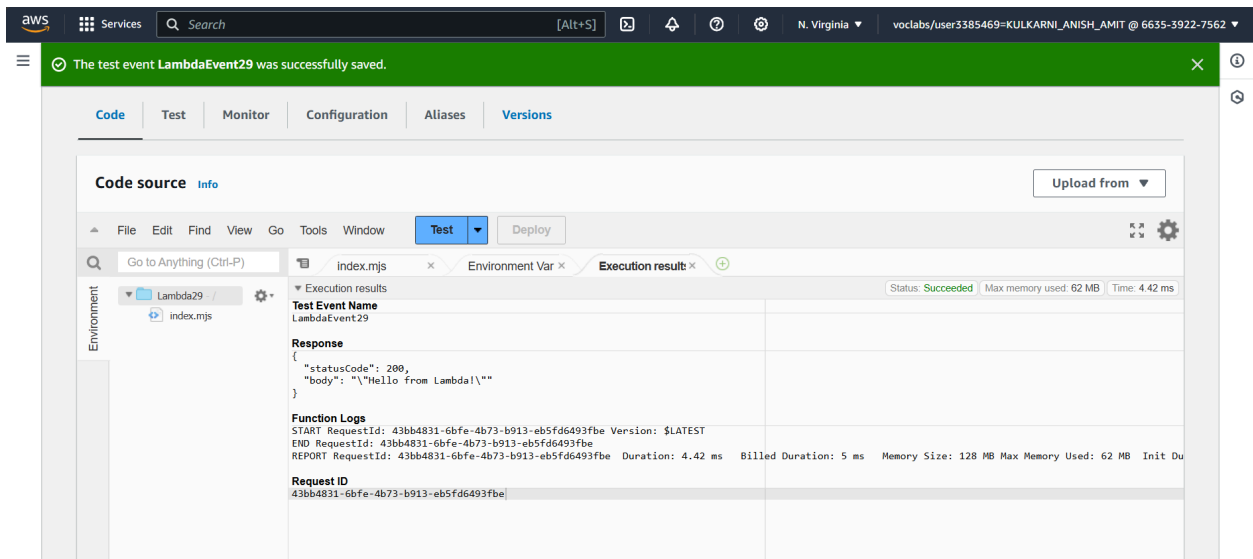
Step 4: In the 'Code source' section, click on the arrow next to the 'Test' button and click on 'Configure test event'.



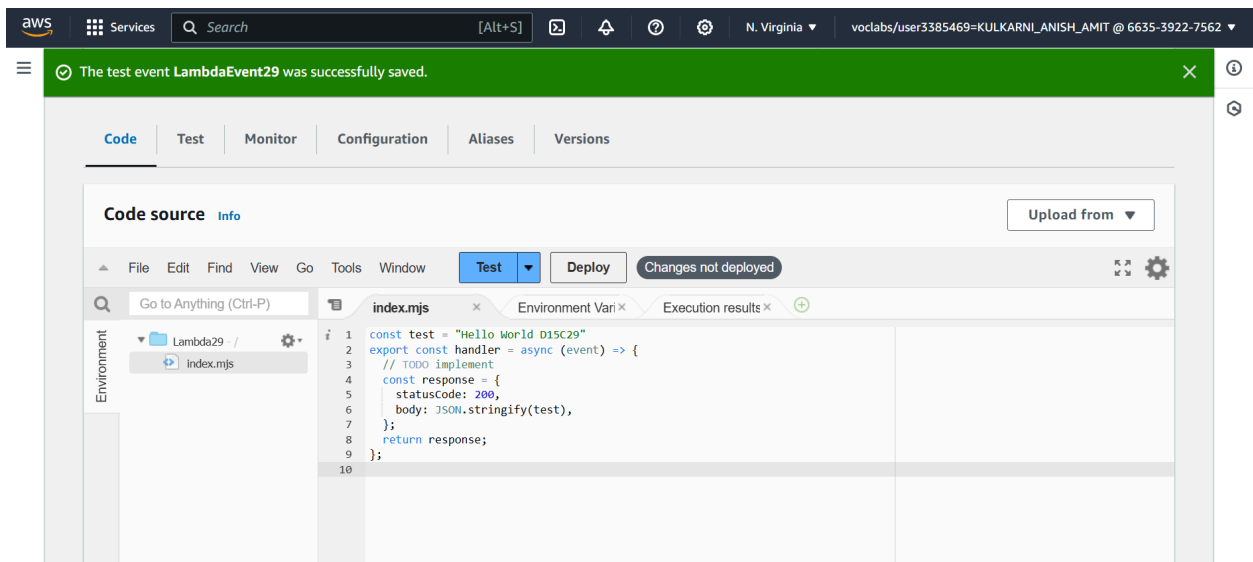
Step 5: Give your test event a name, keep all other options as default and click on 'Save'.



Step 6: Click on the 'Test' button. The following output appears.

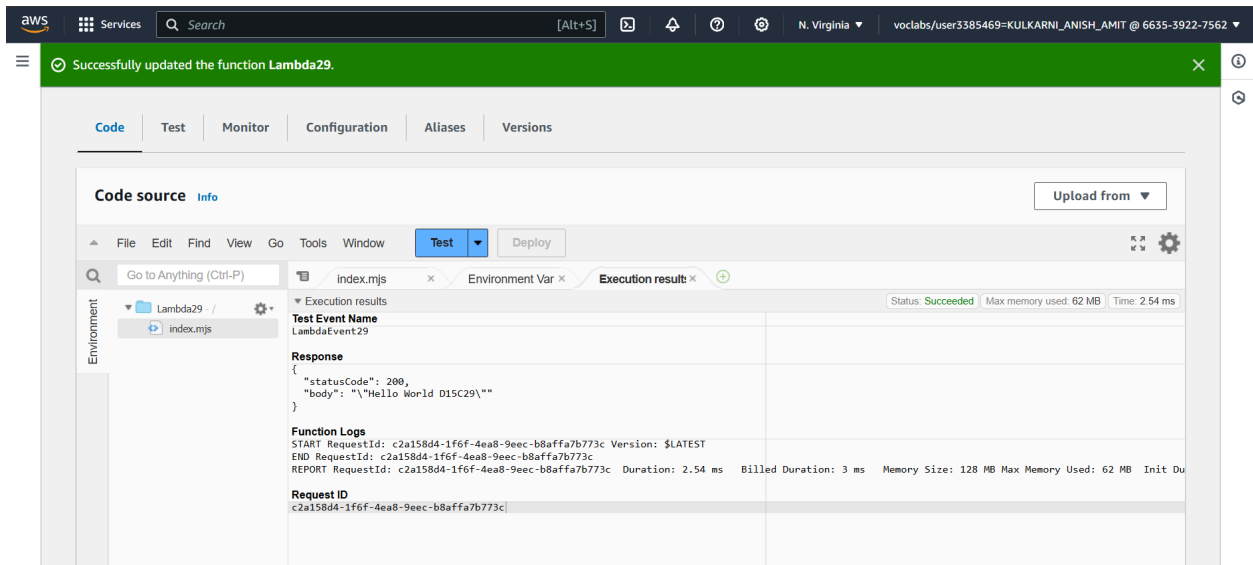


Step 7: You can make changes in the code to observe the difference in the output. Here, we change the code to display a different string as such:-



Once the changes are made, click on 'Deploy'.

Step 8: Click on 'Test' and observe how the output after the changes differs from the output before the changes.



**Conclusion:** In this experiment, we understood the working of AWS Lambda service by creating and configuring a Lambda function using Node.js. We learned how to set up a Lambda function, change its configurations and test its functioning by creating test events for the function. From the output of the tests, we learn about the working of the Lambda function and how changes in its configuration affects its functionality and outputs.