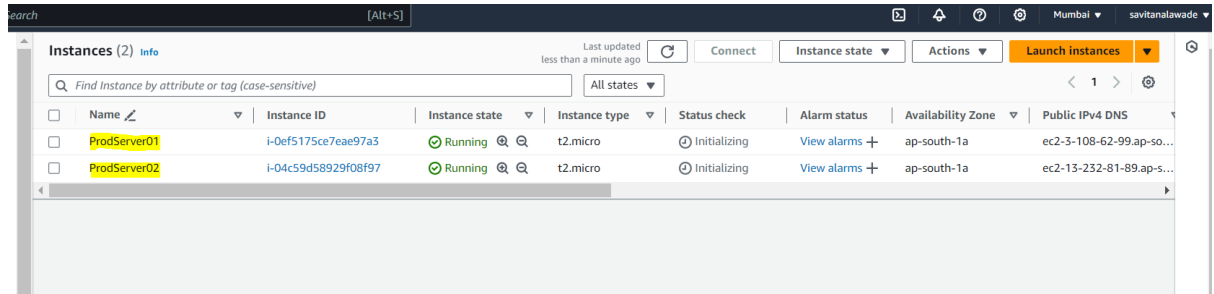
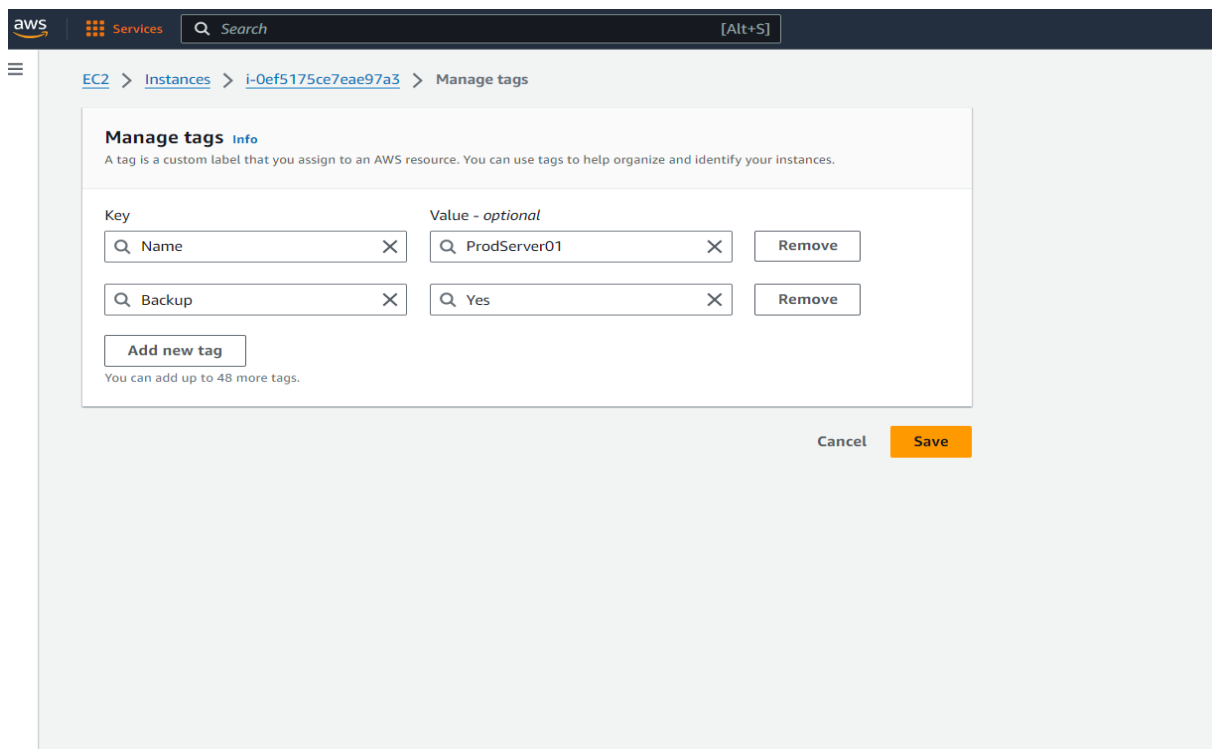


## Lambda - 29th August 2024 Savita Nalawade

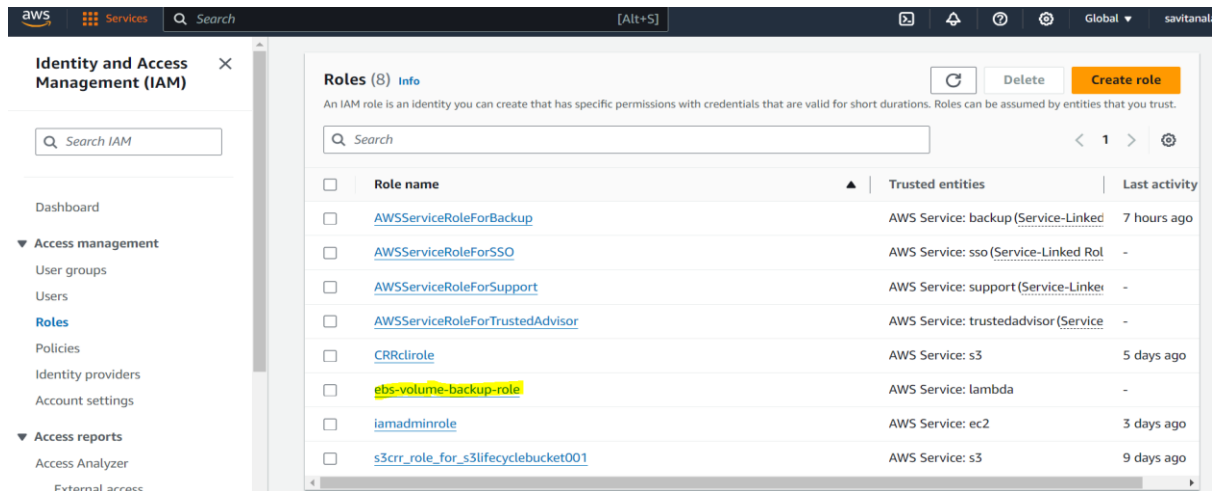
1) Create two instances (prodserver01/02) on EC2 server



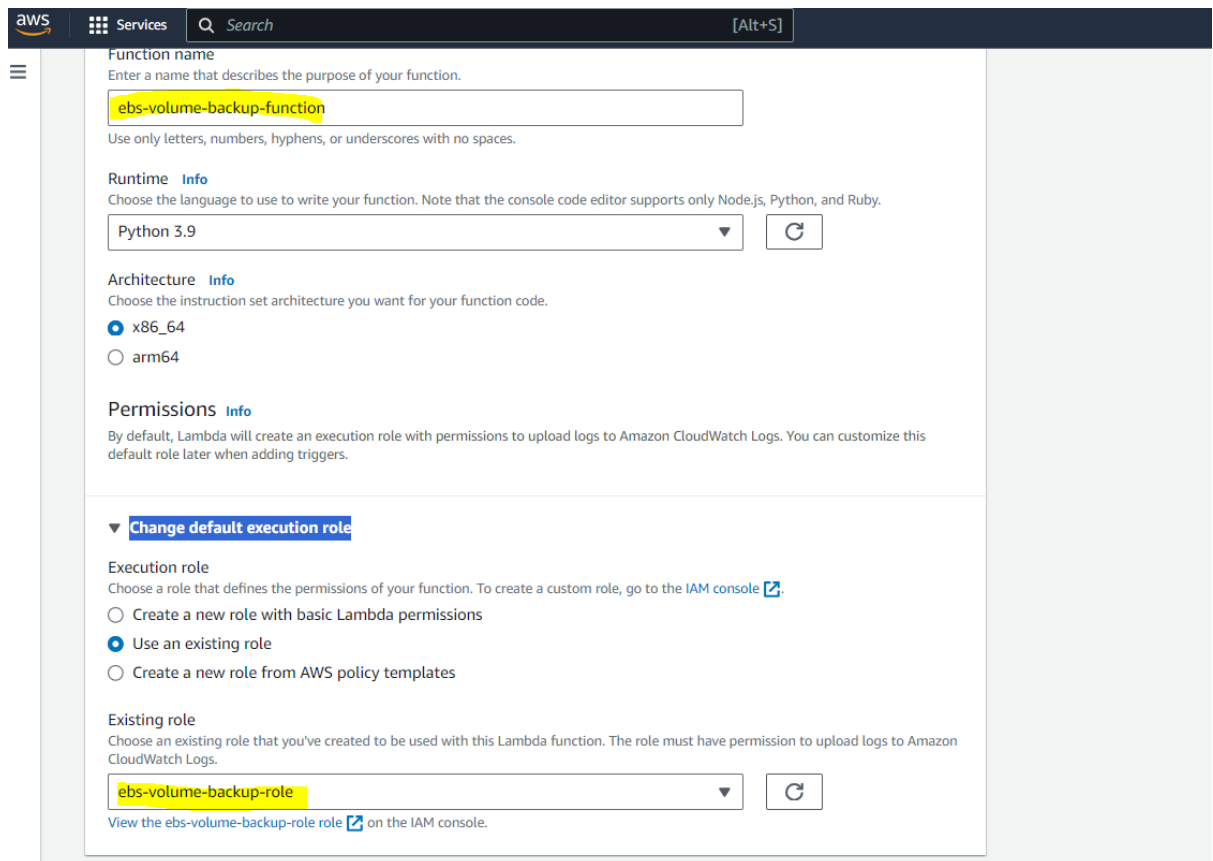
2) Add Tags for one Instance(ProdServer01)



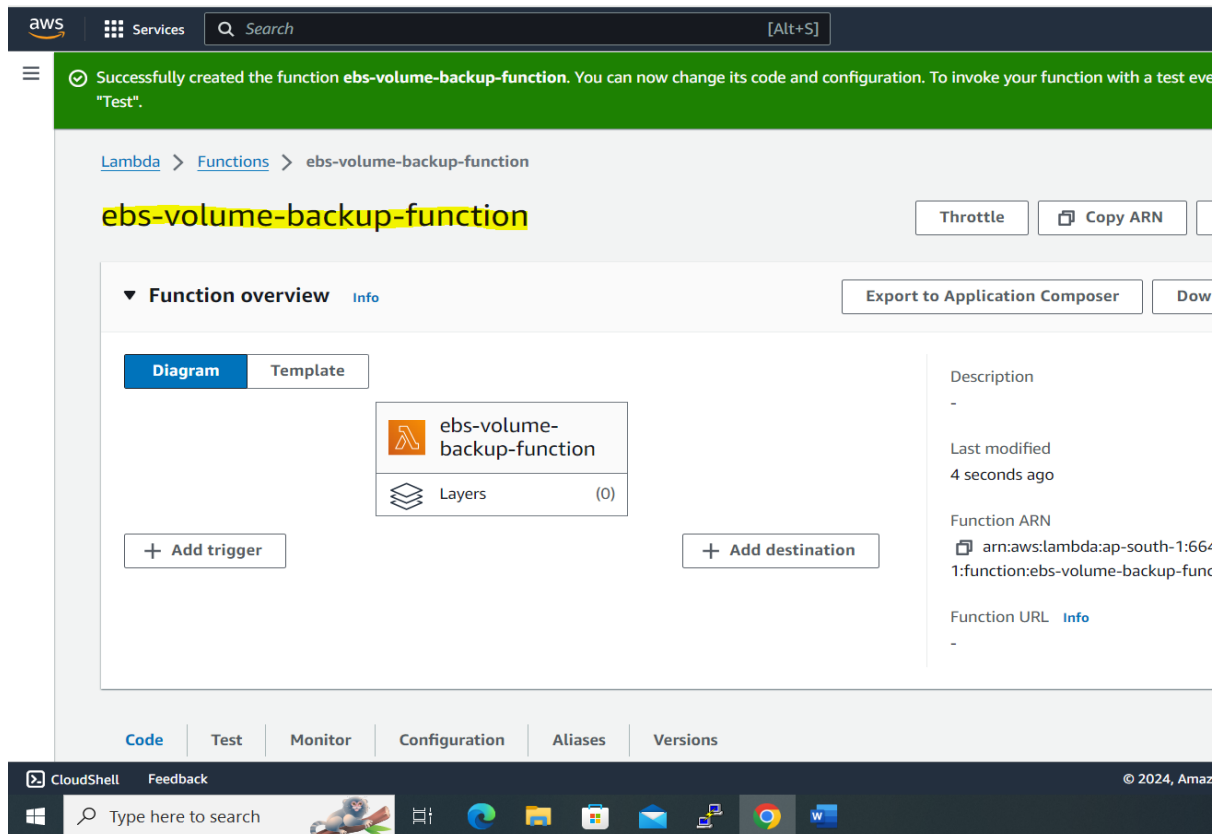
3) Create IAM role for Lambda service([ebs-volume-backup-role](#))



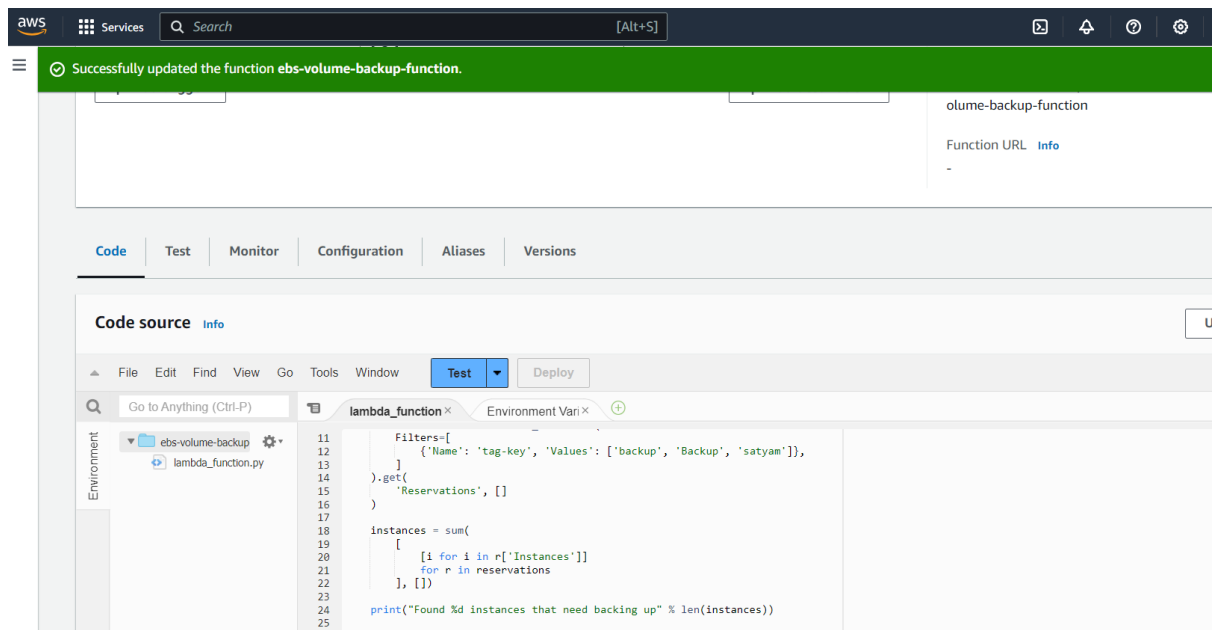
4) While creating lambda function select any language and add role



5) Successfully created function



## 6) Deploy the code



## 7) Configure test event to run code

### Configure test event

A test event is a JSON object that mocks the structure of requests emitted by AWS services to invoke a Lambda function. Use it to see the function's invocation result.

To invoke your function without saving an event, configure the JSON event, then choose Test.

Test event action

☒ Create new event

☐ Edit saved event

Event name

Lambda

Maximum of 25 characters consisting of letters, numbers, dots, hyphens and underscores.

Event sharing settings

☒ Private

This event is only available in the Lambda console and to the event creator. You can configure a total of 10. [Learn more](#)

☐ Shareable

This event is available to IAM users within the same account who have permissions to access and use shareable events. [Learn more](#)

Template - optional

hello-world

Event JSON

Format JSON

Cancel

Invoke

Save

## 8) Test\run the code successfully

aws Services Search [Alt+S]

The test event Lambda was successfully saved.

Code Test Monitor Configuration Aliases Versions

Code source Info

File Edit Find View Go Tools Window Test Deploy

Go to Anything (Ctrl-P)

Environment

ebs-volume-backup

lambda\_function.py

Execution results

Test Event Name

Lambda

Response

null

Function Logs

START RequestId: def66102-22b5-43df-9e35-78f82d1b4694 Version: \$LATEST

Found 1 instances that need backing up

Found EBS volume vol-0e11d6764fd39d3be on instance i-0ef5175ce7eae97a3

END RequestId: def66102-22b5-43df-9e35-78f82d1b4694

REPORT RequestId: def66102-22b5-43df-9e35-78f82d1b4694 Duration: 584.63 ms Billed Duration: 585 ms Memory Size: 1

Request ID

def66102-22b5-43df-9e35-78f82d1b4694

## 9) Snapshot will be created

The screenshot shows the AWS Snapshots console. At the top, there's a header with 'Snapshots (1)' and an 'Info' link. Below this is a search bar and a table of snapshots. The table has columns for Name, Snapshot ID, Volume size, Description, Storage tier, Snapshot status, and Started. A single snapshot is listed with ID 'snap-0620526b29f4723c8', size '8 GiB', status 'Completed', and started at '2024/08/29 20:26 GMT+5:...'.

Name	Snapshot ID	Volume size	Description	Storage tier	Snapshot status	Started
-	snap-0620526b29f4723c8	8 GiB	-	Standard	Completed	2024/08/29 20:26 GMT+5:...

## 10) Create trigger for each minute

The screenshot shows the AWS EventBridge console 'Trigger configuration' page. It includes a dropdown for 'EventBridge (CloudWatch Events)', a section for 'Rule' with options to 'Create a new rule' or 'Existing rules', a 'Rule name' field with the value 'Trigger', a 'Rule description' field with the value 'Create snapshot for each minute', a 'Rule type' section with 'Schedule expression' selected, and a 'Schedule expression' field with the value 'rate(1 minute)'. At the bottom, there's a note about permissions.

**EventBridge (CloudWatch Events)**  
aws asynchronous schedule management-tools

**Rule**  
Pick an existing rule, or create a new one.

☒ Create a new rule  
☐ Existing rules

**Rule name**  
Enter a name to uniquely identify your rule.  
Trigger

**Rule description**  
Provide an optional description for your rule.  
Create snapshot for each minute

**Rule type**  
Trigger your target based on an event pattern, or based on an automated schedule.

☐ Event pattern  
☒ Schedule expression

**Schedule expression**  
Self-trigger your target on an automated schedule using [Cron or rate expressions](#). Cron expressions are in UTC.  
rate(1 minute)  
e.g. rate(1 day), cron(0 17 ? \* MON-FRI \*)

Lambda will add the necessary permissions for Amazon EventBridge (CloudWatch Events) to invoke your Lambda function from this trigger. [Learn more](#) about the Lambda permissions model.

## 11) Triger is added

Lambda > Functions > ebs-volume-backup-function

## ebs-volume-backup-function

✔ The trigger Trigger was successfully added to function ebs-volume-backup-function. The function is now receiving events from the trigger.

▼ Function overview Info

Diagram Template

ebs-volume-backup-function

Layers (0)

EventBridge (CloudWatch Events)

+ Add trigger

+ Add destination

Description -

Last modified 28 minutes ago

Function ARN arn:aws:lambda:us-east-1:6644189827:function:ebs-volume-backup-function

12) We can see Snapshots are creating for each min

Successfully deleted snapshot snap-04ba9c0162890e55d.

Snapshots (3) Info

Owned by me Search

Recycle Bin Actions Create snapshot

Name	Snapshot ID	Volume size	Description	Storage tier	Snapshot status	Started	Progress
-	snap-0563c6711fa875bf1	8 GiB	-	Standard	Completed	2024/08/29 20:44 GMT+5:30	Available (100%)
-	snap-0aede1dbdae666f24	8 GiB	-	Standard	Pending	2024/08/29 20:45 GMT+5:30	Unavailable (0%)
-	snap-0620526b29f4723c8	8 GiB	-	Standard	Completed	2024/08/29 20:26 GMT+5:30	Available (100%)

13) Now disabled the trigger and deleted

Amazon EventBridge > Rules > Trigger

## Trigger

Edit Disable Delete CloudFormation Template

Rule details Info

Rule name Trigger Status Enabled Event bus name default Type Scheduled Standard

Description Create snapshot for each minute

Event schedule Targets

Event schedule Info

Disable rule

Are you sure you want to disable rule Trigger?

Cancel Disable