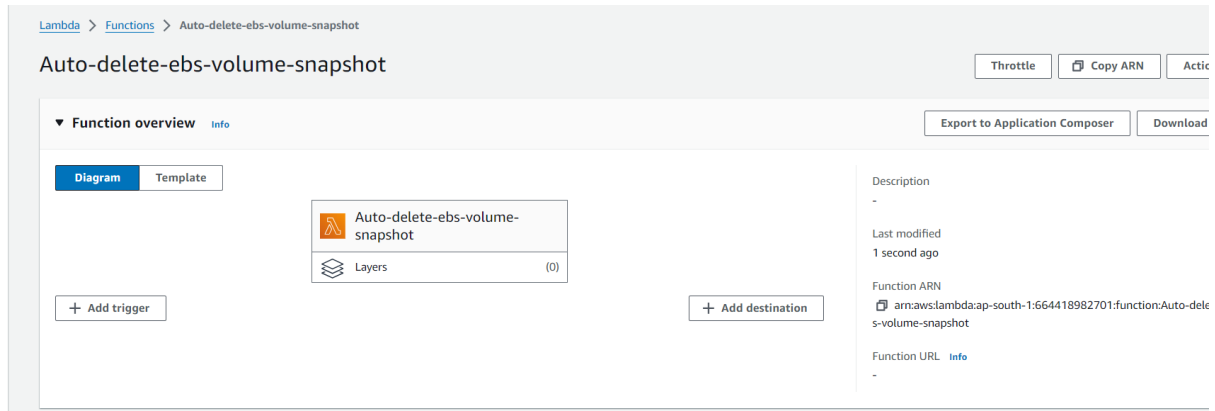


## Lambda2nd\_Function

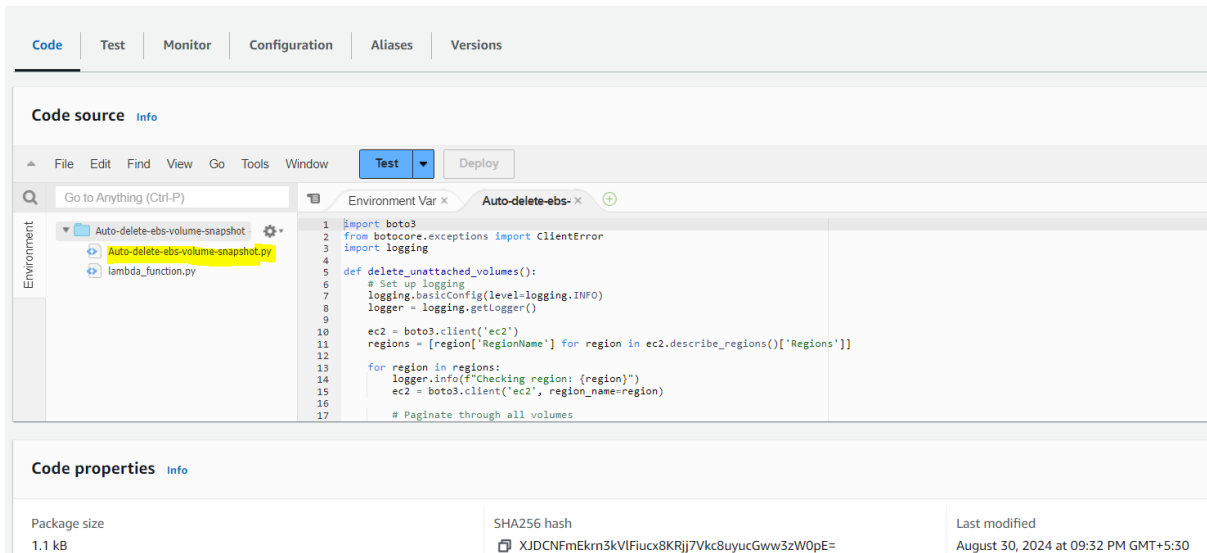
Savita Nalawade

\*Delete unused EBS Volume Across Regions\*

### 1) Create lambda function (Auto-delete-ebs-volume-snapshot)



### 2) Create Auto-delete-ebs-volume-snapshot.py file



### 3) Update the Handler name as (Auto-delete-ebs-volume-snapshot.lambda\_handler)

**Edit runtime settings**

**Runtime settings** [Info](#)

**Runtime**  
Choose the language to use to write your function. Note that the console code editor supports only Node.js, Python, and Ruby.

Python 3.9

**New runtime available**  
A new runtime is available for your function's language: Python 3.12

**Handler** [Info](#)  
Auto-delete-ebs-volume-snapshot.lambda\_handler

**Architecture** [Info](#)  
Choose the instruction set architecture you want for your function code.

☒ x86\_64  
☐ arm64

You can change either the function's runtime or the instruction set architecture in one update. To update both, you must repeat the update process.

Cancel Save

#### 4) Change the timeout value for 3 seconds to 1 minute in Configuration settings

**Edit basic settings**

**Basic settings** [Info](#)

**Description - optional**  
Runtime-configuration

**Memory** [Info](#)  
Your function is allocated CPU proportional to the memory configured.  
128 MB  
Set memory to between 128 MB and 10240 MB

**Ephemeral storage** [Info](#)  
You can configure up to 10 GB of ephemeral storage (/tmp) for your function. [View pricing](#)  
512 MB  
Set ephemeral storage (/tmp) to between 512 MB and 10240 MB.

**SnapStart** [Info](#)  
Reduce startup time by having Lambda cache a snapshot of your function after the function has initialized. To evaluate whether your function code is resilient to snapshot operations, review the [SnapStart compatibility considerations](#).  
None  
Supported runtimes: Java 11, Java 17, Java 21.

**Timeout**  
1 min 0 sec

**Execution role**  
Choose a role that defines the permissions of your function. To create a custom role, go to the [IAM console](#).  
☒ Use an existing role  
☐ Create a new role from AWS policy templates

Existing role

#### 5) Created one volume which is in available state

Volumes (3) Info										
Q Search										
Volume ID	Type	Size	IOPS	Throughput	Snapshot ID	Created	Availability Zone	Volume state	Alarm	
vol-013fc07ff25f1f4b1	gp2	8 GiB	100	-	snap-0b5f827...	2024/08/30 20:18 GMT+5:...	ap-south-1b	In-use	No i	
vol-0dc91100f1bcca8b1	gp2	8 GiB	100	-	snap-0b5f827...	2024/08/30 20:18 GMT+5:...	ap-south-1b	In-use	No i	
vol-094cdf207a8cbc896	gp3	10 GiB	3000	125	-	2024/08/30 21:33 GMT+5:...	ap-south-1a	Available	No i	

6) Now, Run the code, It should delete the free volume

aws

Services

Q Search

[Alt+S]

Mumbai

save

Code source Info

Upload from

File Edit Find View Go Tools Window

Test Deploy

Go to Anything (Ctrl-P)

Environment Var Auto-delete-efs- Auto-delete-efs- Execution result

Auto-delete-efs-volume-snapshot

Auto-delete-efs-volume-snapshot.py

lambda\_function.py

Test Event Name

lambda2

Response

```
{
  "statusCode": 200,
  "body": "Completed volume deletion process"
}
```

Function Logs

```
START RequestId: d52fdaab-799f-4680-b48c-66b061187b07 Version: $LATEST
END RequestId: d52fdaab-799f-4680-b48c-66b061187b07
REPORT RequestId: d52fdaab-799f-4680-b48c-66b061187b07 Duration: 20721.02 ms Billed Duration: 20722 ms Memory Size: 128 MB Max Memory Used: 96 MB Init Duration: 269.78 ms
```

Request ID

d52fdaab-799f-4680-b48c-66b061187b07

Code properties Info

Package size

SHA256 hash

Last modified

7) volume is deleted successfully

Volumes (2) Info										
Q Search										
Name	Volume ID	Type	Size	IOPS	Throughput	Snapshot ID	Created	Availability Zone	Volume state	Alarm
-	vol-013fc07ff25f1f4b1	gp2	8 GiB	100	-	snap-0b5f827...	2024/08/30 20:18 GMT+5:...	ap-south-1b	In-use	No i
-	vol-0dc91100f1bcca8b1	gp2	8 GiB	100	-	snap-0b5f827...	2024/08/30 20:18 GMT+5:...	ap-south-1b	In-use	No i

## Bootstrapping

30<sup>th</sup> August 2024

1) Create a EC2 instance with stuffing and installing some package



4) Check the users are created or not

```
[root@ip-172-31-35-36 ~]# id savii01
uid=1001(savii01) gid=1001(savii01) groups=1001(savii01),1003(aws-devops)
[root@ip-172-31-35-36 ~]# id nalawade
uid=1002(nalawade) gid=1002(nalawade) groups=1002(nalawade)
[root@ip-172-31-35-36 ~]# cat /etc/groups
```

5) Check the if user is added or not as per stuffing (cat /etc/group)

```
ec2-user:x:1000:
savii01:x:1001:
nalawade:x:1002:
aws-devops:x:1003:savii01
apache:x:48:
[root@ip-172-31-35-36 ~]#
```

6) Check the memory

```
[root@ip-172-31-35-36 ~]# free -m
              total        used         free       shared    buff/cache   available
Mem:           952          73          278           0           600           744
Swap:           0           0            0
```

7) Check the harddisk

```
[root@ip-172-31-35-36 ~]# df -h
Filesystem      Size  Used Avail Use% Mounted on
devtmpfs        467M   0  467M   0% /dev
tmpfs           477M   0  477M   0% /dev/shm
tmpfs           477M 404K  476M   1% /run
tmpfs           477M   0  477M   0% /sys/fs/cgroup
/dev/xvda1      8.0G  1.8G  6.3G  23% /
tmpfs           96M   0   96M   0% /run/user/1000
[root@ip-172-31-35-36 ~]# lsblk
NAME        MAJ:MIN RM  SIZE RO TYPE MOUNTPOINT
xvda        202:0    0   8G  0 disk
└─xvda1     202:1    0   8G  0 part /
[root@ip-172-31-35-36 ~]#
```

8) Run Top command to check running proceess

```
top - 17:48:32 up 12 min, 1 user, load average: 0.00, 0.01, 0.00
Tasks: 94 total, 1 running, 52 sleeping, 0 stopped, 0 zombie
%Cpu(s): 0.0 us, 0.0 sy, 0.0 ni,100.0 id, 0.0 wa, 0.0 hi, 0.0 si, 0.0 st
KiB Mem : 975536 total, 285116 free, 74796 used, 615624 buff/cache
KiB Swap: 0 total, 0 free, 0 used. 762276 avail Mem
```

PID	USER	PR	NI	VIRT	RES	SHR	S	%CPU	%MEM	TIME+	COMMAND
1723	root	20	0	0	0	0	S	0.3	0.0	0:00.16	xfsaild/xvdal
3599	root	20	0	168828	4292	3760	R	0.3	0.4	0:00.01	top
1	root	20	0	123596	5444	3868	S	0.0	0.6	0:02.27	systemd
2	root	20	0	0	0	0	S	0.0	0.0	0:00.00	kthreadd
3	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	rcu_gp
4	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	rcu_par_gp
6	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	kworker/0:0H-ev
8	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	mm_percpu_wq
9	root	20	0	0	0	0	S	0.0	0.0	0:00.00	rcu_tasks_rude_
10	root	20	0	0	0	0	S	0.0	0.0	0:00.00	rcu_tasks_trace
11	root	20	0	0	0	0	S	0.0	0.0	0:00.03	ksoftirqd/0
12	root	20	0	0	0	0	I	0.0	0.0	0:00.15	rcu_sched
13	root	rt	0	0	0	0	S	0.0	0.0	0:00.00	migration/0
15	root	20	0	0	0	0	S	0.0	0.0	0:00.00	cpuhp/0
17	root	20	0	0	0	0	S	0.0	0.0	0:00.00	kdevtmpfs
18	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	netns
19	root	20	0	0	0	0	I	0.0	0.0	0:00.01	kworker/u30:1-e
21	root	20	0	0	0	0	S	0.0	0.0	0:00.01	kauditd
299	root	20	0	0	0	0	S	0.0	0.0	0:00.00	khungtaskd
300	root	20	0	0	0	0	S	0.0	0.0	0:00.00	oom_reaper
301	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	writeback
303	root	20	0	0	0	0	S	0.0	0.0	0:00.01	kcompactd0
304	root	25	5	0	0	0	S	0.0	0.0	0:00.00	ksmd
305	root	39	19	0	0	0	S	0.0	0.0	0:00.00	khugepaged
361	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	kintegrityd
363	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	kblockd

9) Check whether the package of httpd & telnet installed or not?

```
[root@ip-172-31-35-36 ~]# rpm -qa |grep httpd
httpd-tools-2.4.62-1.amzn2.0.2.x86_64
httpd filesystem-2.4.62-1.amzn2.0.2.noarch
httpd-2.4.62-1.amzn2.0.2.x86_64
generic-logos-httpd-18.0.0-4.amzn2.noarch
[root@ip-172-31-35-36 ~]# rpm -qa |grep telnet
telnet-0.17-65.amzn2.x86_64
[root@ip-172-31-35-36 ~]#
```

10) Check the total number of packages installed on the system

```
[root@ip-172-31-35-36 ~]# rpm -qa | wc -l
465
[root@ip-172-31-35-36 ~]#
```

Task2)

1)h

▼ Network settings

Info

Edit

Network

Info

vpc-01ff4ab41ecc0386a

Subnet

Info

No preference (Default subnet in any availability zone)

Auto-assign public IP

Info

Enable

Additional charges apply when outside of free tier allowance

Firewall (security groups)

Info

A security group is a set of firewall rules that control the traffic for your instance. Add rules to allow specific traffic to reach your instance.

☐ Create security group

☒ Select existing security group

Common security groups

Info

Select security groups

▼

Bootstrapping-group01

sg-06583cbb693be5f16

×

VPC: vpc-01ff4ab41ecc0386a

Compare security group rules

Security groups that you add or remove here will be added to or removed from all your network interfaces.

2)h

▼ Advanced details

Info

Domain join directory

Info

Select

▼

Create new directory

IAM instance profile

Info

bootstrappingrole01

▼

arn:aws:iam::664418982701:instance-profile/bootstrappingrole01

Create new IAM profile

Hostname type

Info

IP name

▼

DNS Hostname

Info

☒ Enable IP name IPv4 (A record) DNS requests

☒ Enable resource-based IPv4 (A record) DNS requests

☐ Enable resource-based IPv6 (AAAA record) DNS requests

3)f

User data - optional

Info

Upload a file with your user data or enter it in the field.

Choose file

```
#!/bin/bash
yum install -y httpd
aws s3 cp s3://bootbucket01-s3/index.html /var/www/html/
aws s3 cp s3://bootbucket01-s3/healthcheck.html /var/www/html/
service httpd start
chkconfig httpd on
```

4)h

EC2

>

Instances

>

i-095365b2dad6b258c

>

Manage tags

Manage tags

Info

A tag is a custom label that you assign to an AWS resource. You can use tags to help organize and identify your instances.

Key

Value - optional

Q Name

X

Q BootStrappingVM02

X

Remove

Q backup

X

Q yes

X

Remove

Add new tag

Use "yes"

You can add up to 48 more tags.

Cancel

Save

5)