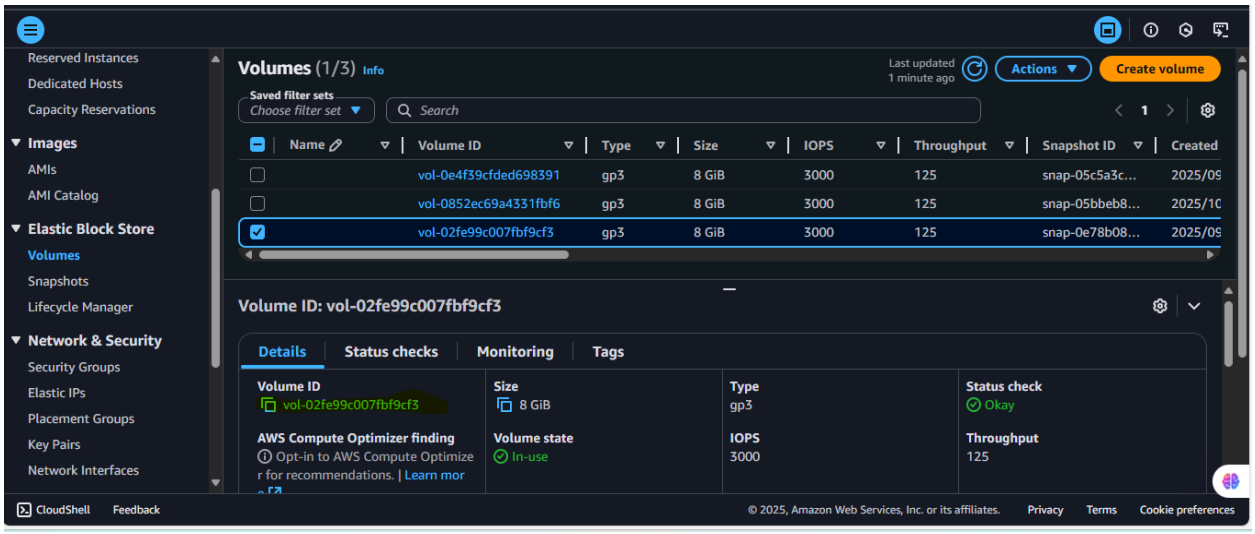
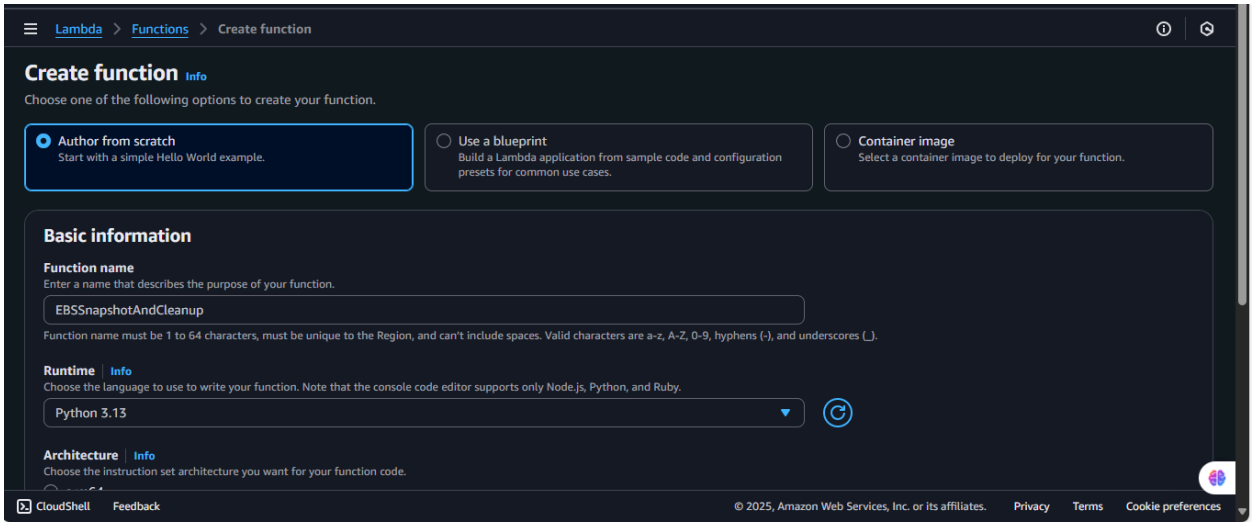
Step 1 :- Create EBS Volume in EC2 instance



Key Points:

- Replace the placeholder `'your-volume-id-here'` with the actual EBS volume ID to snapshot.
- Ensure your Lambda's IAM role has permissions like `ec2:CreateSnapshot`, `ec2:DeleteSnapshot`, `ec2:DescribeSnapshots`.
- You can schedule this Lambda to run periodically (e.g., weekly) using EventBridge (CloudWatch Events).
- The function creates a snapshot and deletes any snapshots older than 30 days owned by your AWS account for that volume.
- Logs include snapshot creation and deletion details for easy auditing.

Step 2 :- Create lambda function


Lambda > Functions > Create function
Create function Info
Choose one of the following options to create your function.
Author from scratch
Start with a simple Hello World example.
Use a blueprint
Build a Lambda application from sample code and configuration presets for common use cases.
Container image
Select a container image to deploy for your function.
Basic information
Function name
Enter a name that describes the purpose of your function.
EBSSnapshotAndCleanup
Function name must be 1 to 64 characters, must be unique to the Region, and can't include spaces. Valid characters are a-z, A-Z, 0-9, hyphens (-), and underscores (_).
Runtime Info
Choose the language to use to write your function. Note that the console code editor supports only Node.js, Python, and Ruby.
Python 3.13
Architecture Info
Choose the instruction set architecture you want for your function code.
CloudShell
Feedback
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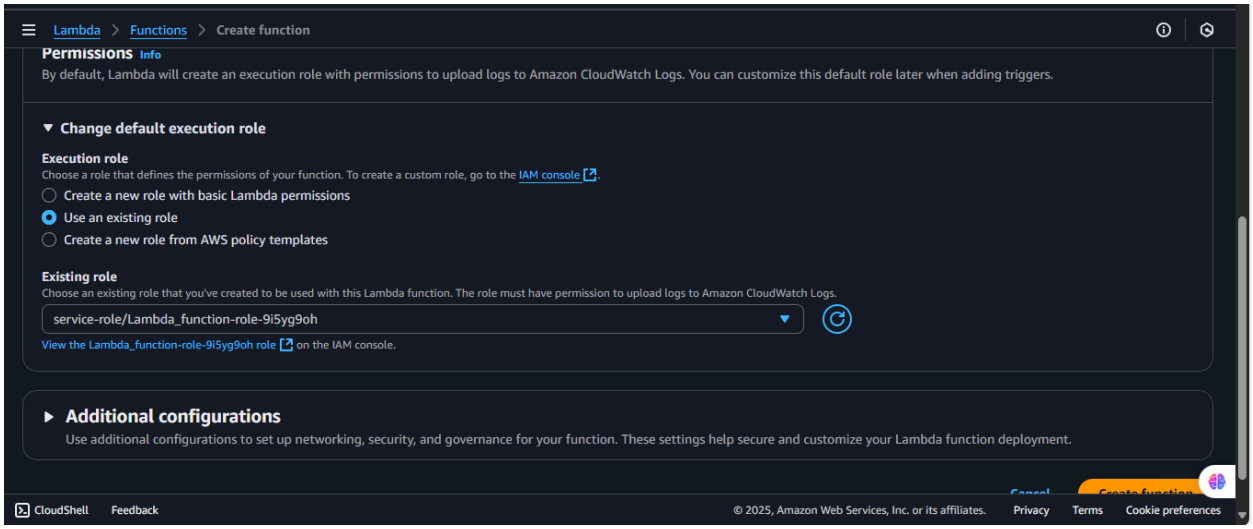
Lambda > Functions > Create function
Permissions Info
By default, Lambda will create an execution role with permissions to upload logs to Amazon CloudWatch Logs. You can customize this default role later when adding triggers.
Change default execution role
Execution role
Choose a role that defines the 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.
service-role/Lambda_function-role-9i5yg9oh
View the Lambda_function-role-9i5yg9oh role on the IAM console.
Additional configurations
Use additional configurations to set up networking, security, and governance for your function. These settings help secure and customize your Lambda function deployment.
CloudShell
Feedback
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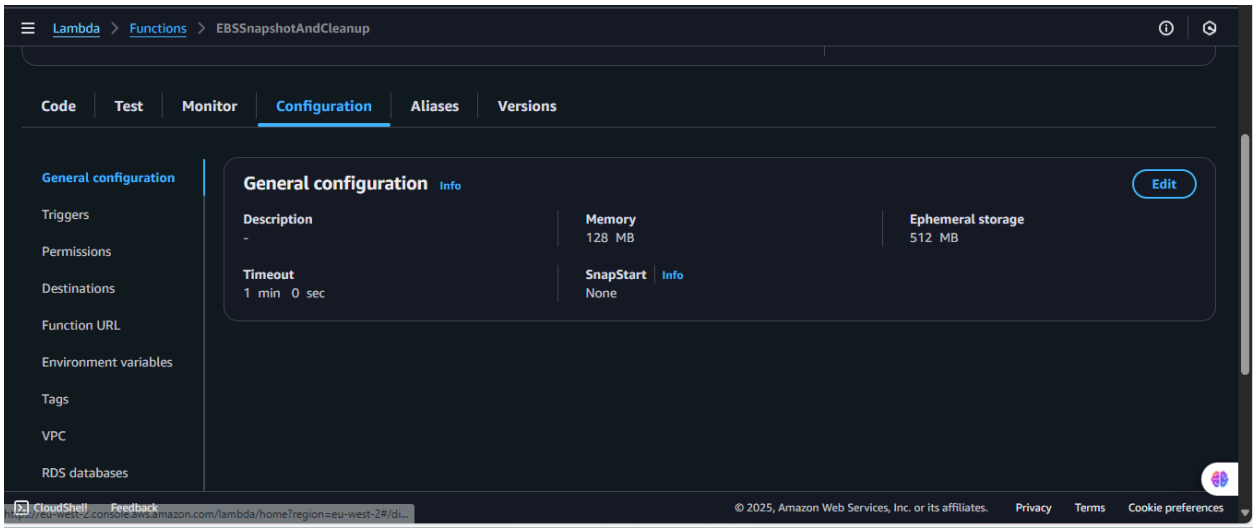
Lambda > Functions > EBSSnapshotAndCleanup
Code
Test
Monitor
Configuration
Aliases
Versions
General configuration
Triggers
Permissions
Destinations
Function URL
Environment variables
Tags
VPC
RDS databases
General configuration Info
Edit
Description
-
Memory
128 MB
Ephemeral storage
512 MB
Timeout
1 min 0 sec
SnapStart Info
None
CloudShell
Feedback
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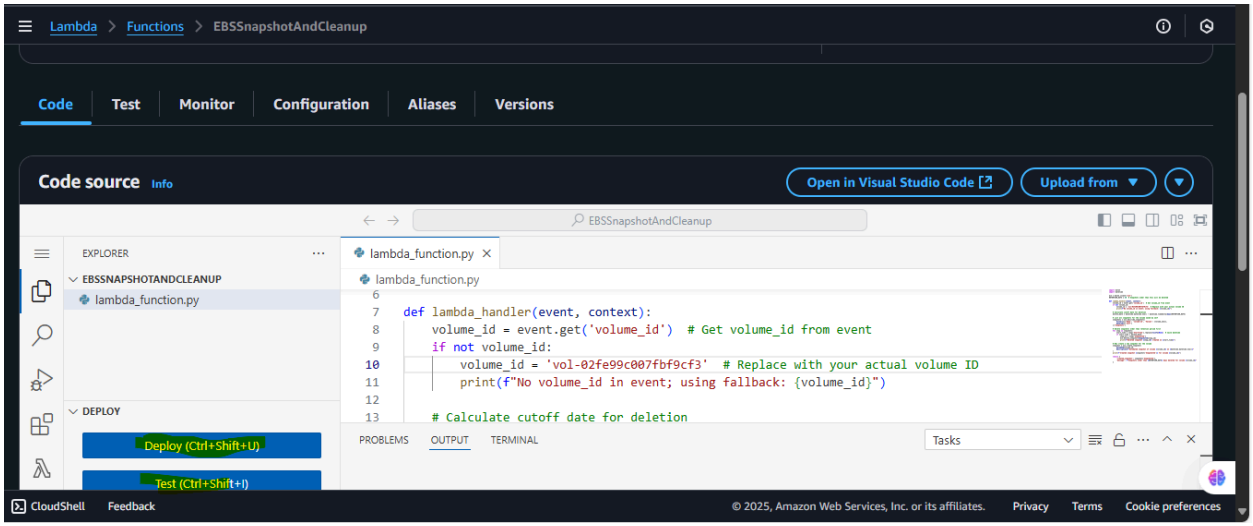
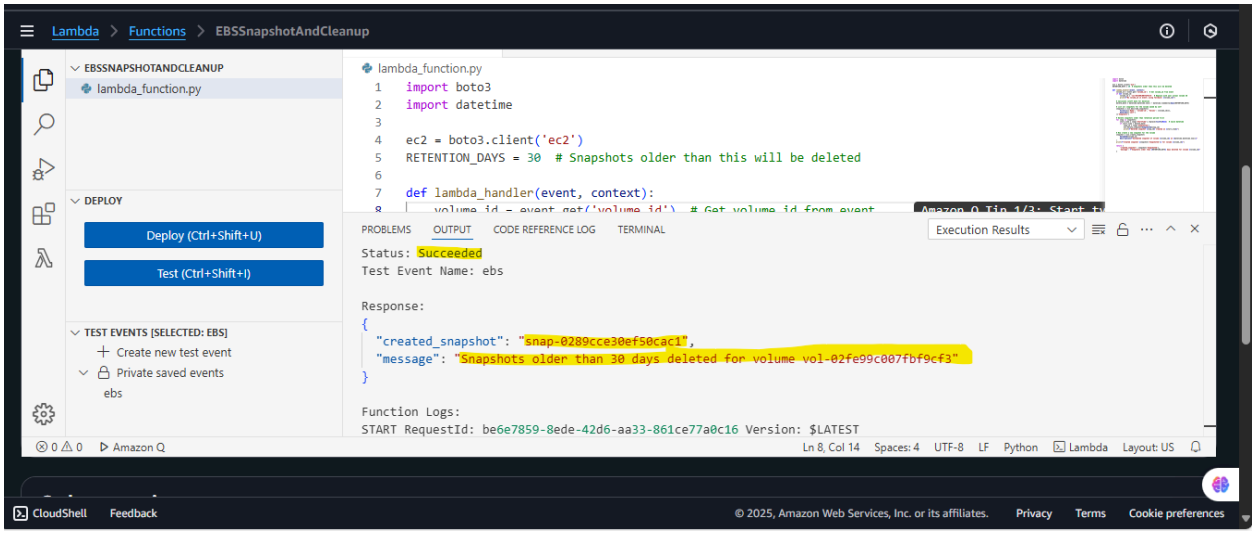
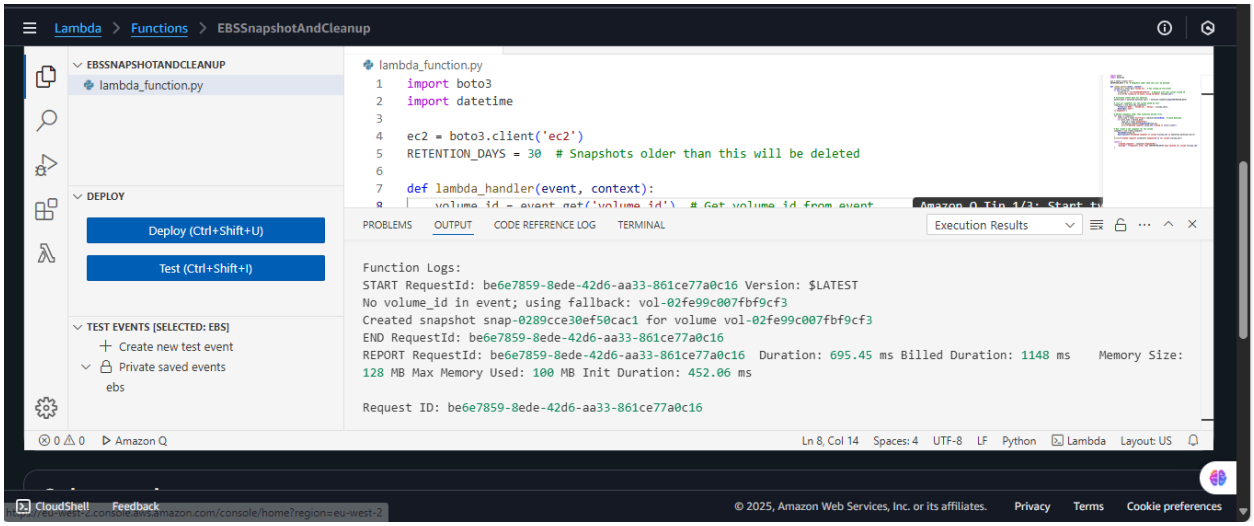
```
import boto3
import datetime

ec2 = boto3.client('ec2')
RETENTION_DAYS = 30  # Snapshots older than this will be deleted

def lambda_handler(event, context):
    volume_id = event.get('volume_id')  # Get volume_id from event
    if not volume_id:
        volume_id = 'vol-02fe99c007fbf9cf3'  # Replace with your actual
volume ID
        print(f"No volume_id in event; using fallback: {volume_id}")

    # Calculate cutoff date for deletion
    delete_date = datetime.datetime.now() -
datetime.timedelta(days=RETENTION_DAYS)

    # List all snapshots for the volume owned by self
    snapshots = ec2.describe_snapshots(
        Filters=[{'Name': 'volume-id', 'Values': [volume_id]}],
        OwnerIds=['self']
    )['Snapshots']

    # Delete snapshots older than retention period first
    for snap in snapshots:
        start_time = snap['StartTime'].replace(tzinfo=None)  # naive
datetime
        if start_time < delete_date:
            snap_id = snap['SnapshotId']
            ec2.delete_snapshot(SnapshotId=snap_id)
            print(f"Deleted snapshot {snap_id} created on {start_time}")

    # Now create a new snapshot for the volume
    snapshot = ec2.create_snapshot(
        VolumeId=volume_id,
        Description=f"Automated snapshot of volume {volume_id} on
{datetime.datetime.now()}"
    )
    print(f"Created snapshot {snapshot['SnapshotId']} for volume
{volume_id}")
```

```
    return {
        'created_snapshot': snapshot['SnapshotId'],
        'message': f"Snapshots older than {RETENTION_DAYS} days deleted
for volume {volume_id}"
    }
```






Lambda > Functions > EBSSnapshotAndCleanup
EBSSNAPSHOTANDCLEANUP
lambda_function.py
DEPLOY
Deploy (Ctrl+Shift+U)
Test (Ctrl+Shift+I)
TEST EVENTS [SELECTED: EBS]
Create new test event
Private saved events
ebs
lambda_function.py
import boto3
import datetime
ec2 = boto3.client('ec2')
RETENTION_DAYS = 30 # Snapshots older than this will be deleted
def lambda_handler(event, context):
PROBLEMS OUTPUT CODE REFERENCE LOG TERMINAL
Execution Results
Function Logs:
START RequestId: be6e7859-8ede-42d6-aa33-861ce77a0c16 Version: $LATEST
No volume_id in event; using fallback: vol-02fe99c007fbf9cf3
Created snapshot snap-0289cce30ef50cac1 for volume vol-02fe99c007fbf9cf3
END RequestId: be6e7859-8ede-42d6-aa33-861ce77a0c16
REPORT RequestId: be6e7859-8ede-42d6-aa33-861ce77a0c16 Duration: 695.45 ms Billed Duration: 1148 ms Memory Size: 128 MB Max Memory Used: 100 MB Init Duration: 452.06 ms
Request ID: be6e7859-8ede-42d6-aa33-861ce77a0c16
Ln 8, Col 14 Spaces: 4 UTF-8 LF Python Lambda Layout: US
CloudShell Feedback
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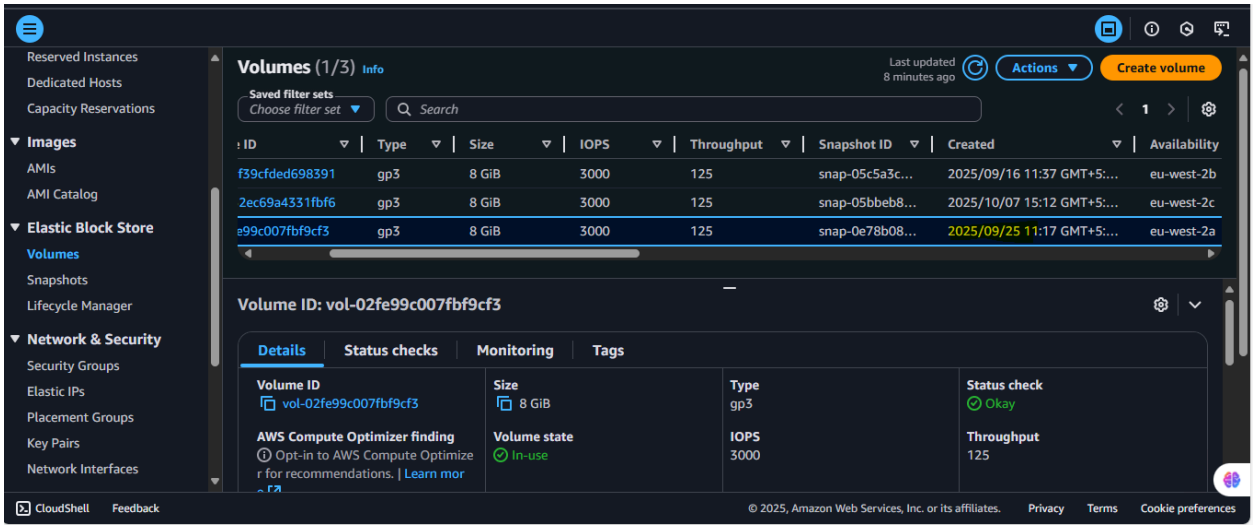
Reserved Instances
Dedicated Hosts
Capacity Reservations
Images
AMIs
AMI Catalog
Elastic Block Store
Volumes
Snapshots
Lifecycle Manager
Network & Security
Security Groups
Elastic IPs
Placement Groups
Key Pairs
Network Interfaces
Volumes (1/3) Info
Last updated 8 minutes ago
Actions
Create volume
Saved filter sets
Choose filter set
Search
ID | Type | Size | IOPS | Throughput | Snapshot ID | Created | Availability
f39cfded698391 gp3 8 GiB 3000 125 snap-05c5a3c... 2025/09/16 11:37 GMT+5:... eu-west-2b
2ec69a4331fbf6 gp3 8 GiB 3000 125 snap-05bbeb8... 2025/10/07 15:12 GMT+5:... eu-west-2c
e99c007fbf9cf3 gp3 8 GiB 3000 125 snap-0e78b08... 2025/09/25 11:17 GMT+5:... eu-west-2a
Volume ID: vol-02fe99c007fbf9cf3
Details
Status checks
Monitoring
Tags
Volume ID
vol-02fe99c007fbf9cf3
Size
8 GiB
Type
gp3
Status check
Okay
AWS Compute Optimizer finding
Opt-in to AWS Compute Optimizer for recommendations. | Learn mor
Volume state
In-use
IOPS
3000
Throughput
125
CloudShell Feedback
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