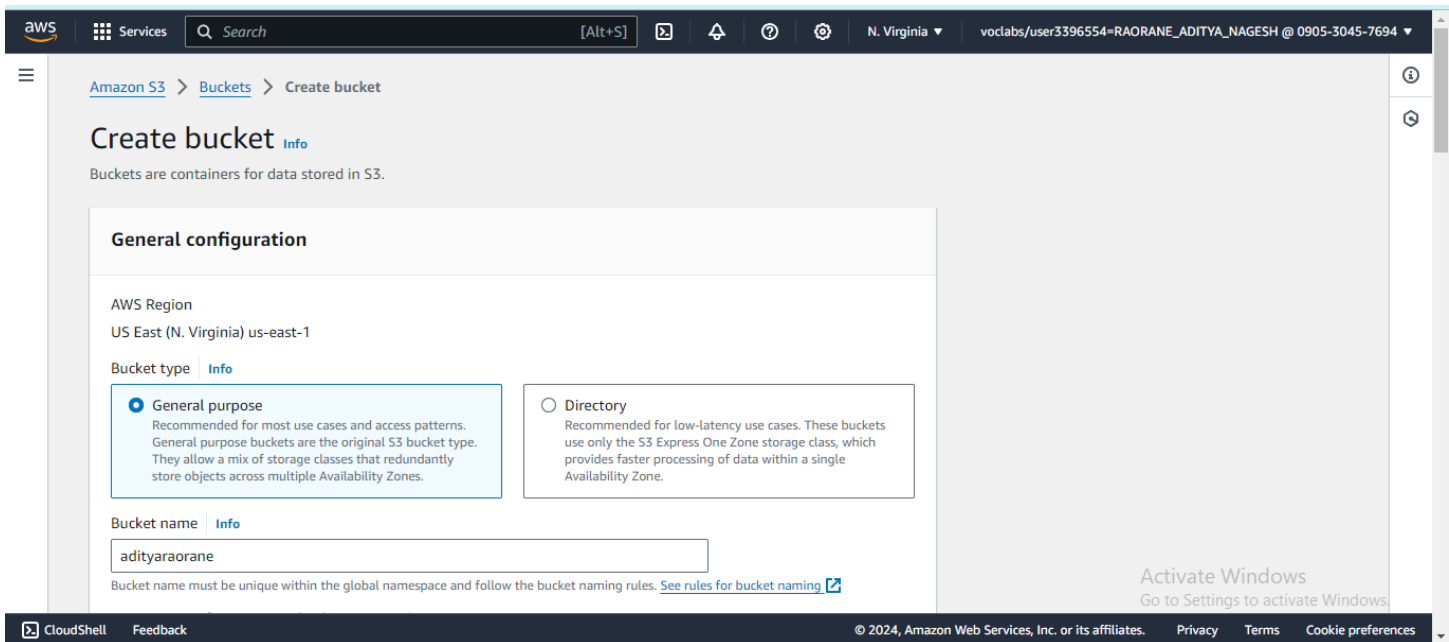
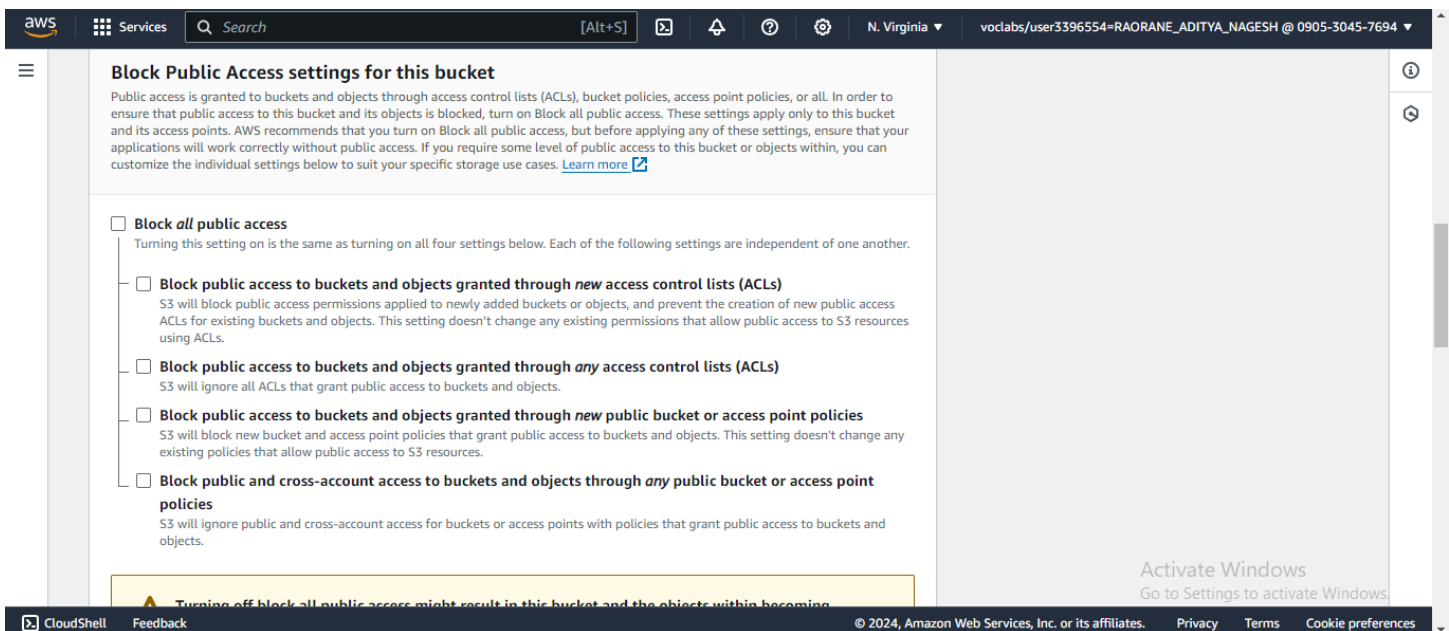


Aim: To create a Lambda function which will log “An Image has been added” once you add an object to a specific bucket in S3.

1] Create a AWS S3 Bucket type **General Purpose** named **adityaraorane**.



2] Turn off the **Block Public Access for this bucket** so that it is publicly accessible to all users.



3] Click on the **Create** button. This will successfully create our bucket. Then click on the bucket name **adityaraorane** to open it up.

The screenshot shows the AWS Management Console interface. At the top, a green notification bar states: "Successfully created bucket 'adityaraorane'. To upload files and folders, or to configure additional bucket settings, choose [View details](#)." Below this, the breadcrumb navigation shows "Amazon S3 > Buckets". A section titled "Account snapshot - updated every 24 hours" is visible. The main content area is titled "General purpose buckets (5)" and includes a search bar and a table of buckets. The table has columns for Name, AWS Region, IAM Access Analyzer, and Creation date. One bucket is listed: "adityaraorane" in the "US East (N. Virginia) us-east-1" region, created on "September 26, 2024, 12:53:12 (UTC+05:30)". A "Create bucket" button is visible in the top right of the buckets list.

Name	AWS Region	IAM Access Analyzer	Creation date
adityaraorane	US East (N. Virginia) us-east-1	View analyzer for us-east-1	September 26, 2024, 12:53:12 (UTC+05:30)

4] Now create a Lambda function named **adityaraorane**.

The screenshot shows the AWS Management Console interface for a newly created Lambda function. A green notification bar at the top states: "Successfully created the function 'adityaraorane'. You can now change its code and configuration. To invoke your function with a test event, choose 'Test'." The breadcrumb navigation shows "Lambda > Functions > adityaraorane". The function name "adityaraorane" is prominently displayed. Below it, the "Function overview" section is active, showing a diagram of the function with a single layer. The "Layers" section shows "(0)" layers. The "Add trigger" and "Add destination" buttons are visible. On the right, the "Description" field is empty, and the "Last modified" timestamp is "14 seconds ago". The "Function ARN" is "arn:aws:lambda:us-east-1:090530457694:function:n:adityaraorane". The "Function URL" is also displayed.

Function overview

Diagram Template

adityaraorane

Layers (0)

+ Add trigger

+ Add destination

Throttle Copy ARN Actions

Export to Application Composer Download

Description

Last modified

14 seconds ago

Function ARN

arn:aws:lambda:us-east-1:090530457694:function:n:adityaraorane

Function URL

5] Click on **Services** and select **CloudWatch** which is an AWS service that helps you enable operational and risk auditing, governance, and compliance of your AWS account.

The screenshot shows the AWS CloudWatch console. At the top, there's a header with the AWS logo, 'Services' menu, a search bar, and user information. The main content area is titled 'Event notifications (0)' and includes a 'Create event notification' button. Below this, there's a table with columns for Name, Event types, Filters, Destination type, and Destination. The table is currently empty. Below the table, there's a section for 'Amazon EventBridge' with an 'Edit' button. The bottom of the console shows the 'CloudShell' tab and a footer with copyright information.

6] Click on **Create event notification** and select **Destination** as **Lambda function** and choose the lambda function created with the name **adityaraorane**.

The screenshot shows the 'Destination' configuration page in the AWS CloudWatch console. It features a blue box with a warning about permissions. Below this, there are radio buttons for 'Lambda function', 'SNS topic', and 'SQS queue'. The 'Lambda function' option is selected. Under 'Specify Lambda function', there are radio buttons for 'Choose from your Lambda functions' and 'Enter Lambda function ARN'. The 'Choose from your Lambda functions' option is selected. A dropdown menu shows 'adityaraorane' as the selected function. At the bottom, there are 'Cancel' and 'Save changes' buttons.

7] Click on **Save Changes**.

Successfully created event notification "adityaraorane".
Operation successfully completed.

Amazon S3 > Buckets > adityaraorane

adityaraorane [Info](#)

Objects | **Properties** | Permissions | Metrics | Management | Access Points

Bucket overview

AWS Region US East (N. Virginia) us-east-1	Amazon Resource Name (ARN) arn:aws:s3::adityaraorane	Creation date September 26, 2024, 12:53:12 (UTC+05:30)
-----------------------------------------------	---------------------------------------------------------	-----------------------------------------------------------

Bucket Versioning [Edit](#)

Versioning is a means of keeping multiple variants of an object in the same bucket. You can use versioning to preserve, retrieve, and restore every version of every object stored in your Amazon S3 bucket. With versioning, you can easily recover from both unintended user actions and application failures. [Learn more](#)

Bucket Versioning
Disabled

Multi-factor authentication (MFA) delete

An additional layer of security that requires multi-factor authentication for changing Bucket Versioning settings and permanently deleting object versions. To modify MFA delete settings, use the AWS CLI, AWS SDK, or the Amazon S3 REST API. [Learn more](#)

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8] **Deploy** the code and **Test** it to check whether the lambda function executed successfully.

Successfully updated the function adityaraorane.

Code source [Info](#)

[Upload from](#)

File Edit Find View Go Tools Window **Test** Deploy

Go to Anything (Ctrl-P)

Environment

adityaraorane / index.mjs

Execution results

Test Event Name
adityaraorane

Status: **Succeeded** | Max memory used: 84 MB | Time: 33.99 ms

Response

```
{
  "statusCode": 200,
  "body": "\"\\\"Lambda function executed successfully\\\"\""
}
```

Function Logs

```
START RequestId: fa5d82d6-c569-4488-81f8-a4b2b3a9319c Version: $LATEST
2024-09-26T07:34:13.926Z fa5d82d6-c569-4488-81f8-a4b2b3a9319c INFO An image has been added
END RequestId: fa5d82d6-c569-4488-81f8-a4b2b3a9319c
REPORT RequestId: fa5d82d6-c569-4488-81f8-a4b2b3a9319c Duration: 33.99 ms Billed Duration: 34 ms Memory Size: 128 MB Max Memory Used: 64 MB Init Duration: 138.48 ms
```

Request ID
fa5d82d6-c569-4488-81f8-a4b2b3a9319c

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9] Upload a .jpg image on the S3 bucket created and click on **Upload**.

The screenshot displays the AWS S3 console interface. The top navigation bar includes the AWS logo, 'Services', a search bar, and the user's profile information. The breadcrumb trail indicates the current location: Amazon S3 > Buckets > adityaraorane > Upload.

Upload Info

Add the files and folders you want to upload to S3. To upload a file larger than 160GB, use the AWS CLI, AWS SDK or Amazon S3 REST API. [Learn more](#)

Drag and drop files and folders you want to upload here, or choose **Add files** or **Add folder**.

Files and folders (0) Remove Add files Add folder

All files and folders in this table will be uploaded.

< 1 >

<input type="checkbox"/>	Name	Folder
No files or folders		
You have not chosen any files or folders to upload.		

Activate Windows
Go to Settings to activate Windows.

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The bottom section of the screenshot shows the 'Destination' information. The breadcrumb trail is the same: Amazon S3 > Buckets > adityaraorane > Upload.

Upload Info

Add the files and folders you want to upload to S3. To upload a file larger than 160GB, use the AWS CLI, AWS SDK or Amazon S3 REST API. [Learn more](#)

Drag and drop files and folders you want to upload here, or choose **Add files** or **Add folder**.

Files and folders (1 Total, 15.6 KB) Remove Add files Add folder

All files and folders in this table will be uploaded.

< 1 >

<input type="checkbox"/>	Name	Folder
<input type="checkbox"/>	adityaraorane.jpg	-

Destination Info

Activate Windows
Go to Settings to activate Windows.

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aws

Services

Search

[Alt+S]

N. Virginia

voclabs/user3396554=RAORANE_ADITYA_NAGESH @ 0905-3045-7694

Find by name

< 1 >

Name

Folder

Destination

Info

Destination

s3://adityaraorane

Destination details

Bucket settings that impact new objects stored in the specified destination.

Permissions

Grant public access and access to other AWS accounts.

Properties

Specify storage class, encryption settings, tags, and more.

Cancel

Upload

CloudShell

Feedback

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Privacy

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Cookie preferences

aws

Services

Search

[Alt+S]

N. Virginia

voclabs/user3396554=RAORANE_ADITYA_NAGESH @ 0905-3045-7694

Upload succeeded

View details below.

Upload: status

Close

The information below will no longer be available after you navigate away from this page.

Summary

Destination

s3://adityaraorane

Succeeded

1 file, 15.6 KB (100.00%)

Failed

0 files, 0 B (0%)

Files and folders

Configuration

Files and folders (1 Total, 15.6 KB)

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The screenshot shows the AWS S3 console interface. At the top, a green banner indicates 'Upload succeeded' with a checkmark icon and the text 'View details below.' Below this, the 'Summary' tab is active, showing a table with columns for Destination, Succeeded, and Failed. The Destination is 's3://adityaraorane'. The Succeeded column shows '1 file, 15.6 KB (100.00%)' with a green checkmark. The Failed column shows '0 files, 0 B (0%)' with a red X icon. Below the summary, the 'Files and folders' tab is active, showing a table with columns for Name, Folder, Type, Size, Status, and Error. The table contains one entry: 'adityaraoran...' with a status of 'Succeeded'. The bottom of the screen shows the AWS CloudShell interface with a footer containing copyright information and links to Privacy, Terms, and Cookie preferences.

Destination	Succeeded	Failed
s3://adityaraorane	1 file, 15.6 KB (100.00%)	0 files, 0 B (0%)

Name	Folder	Type	Size	Status	Error
adityaraoran...	-	image/jpeg	15.6 KB	Succeeded	-

10] In the **CloudWatch** services ,in the left navigation pane select the **Log groups**. Our lambda function will be listed here. (/aws/lambda/adityaraorane). Click on it.

The screenshot shows the AWS CloudWatch console interface. The left navigation pane is open, showing the 'Logs' section with 'Log groups' selected. The main content area displays 'Log groups (4)' with a search bar and a table of log groups. The table has columns for Log group, Log class, Anomaly d..., Da..., Se..., and Retent. The log groups listed are: '/aws/lambda/RedshiftEventSubscription', '/aws/lambda/RedshiftOverwatch', '/aws/lambda/RoleCreationFunction', and '/aws/lambda/adityaraorane'. The bottom of the screen shows the AWS CloudShell interface with a footer containing copyright information and links to Privacy, Terms, and Cookie preferences.

Log group	Log class	Anomaly d...	Da...	Se...	Retent
/aws/lambda/RedshiftEventSubscription	Standard	Configure	-	-	Never c
/aws/lambda/RedshiftOverwatch	Standard	Configure	-	-	Never c
/aws/lambda/RoleCreationFunction	Standard	Configure	-	-	Never c
/aws/lambda/adityaraorane	Standard	Configure	-	-	Never c

The screenshot displays the AWS CloudWatch console interface. The left sidebar shows the navigation menu with options like Dashboards, Alarms, Logs, Metrics, X-Ray traces, Events, and Application Signals. The main content area is titled '/aws/lambda/adityaraorane' and shows 'Log group details'. Below this, there are tabs for 'Log streams', 'Tags', 'Anomaly detection', 'Metric filters', 'Subscription filters', 'Contributor Insights', and 'Data protection'. The 'Log streams' tab is active, showing a list of log streams. The table has columns for 'Log stream' and 'Last event time'. Two log streams are listed, both with event times from 2024-09-26. The first log stream is '2024/09/26/[\$LATEST]832a31bbb6bc4b469b164515de1733fa' and the second is '2024/09/26/[\$LATEST]41b27e8af31141eaafa1594271a35f86'. The console also includes a search bar at the top and a footer with copyright information and links to Privacy, Terms, and Cookie preferences.

Log stream	Last event time
2024/09/26/[\$LATEST]832a31bbb6bc4b469b164515de1733fa	2024-09-26 07:34:13 (UTC)
2024/09/26/[\$LATEST]41b27e8af31141eaafa1594271a35f86	2024-09-26 07:19:59 (UTC)

Conclusion: Integrating AWS Lambda with S3 allows for real-time, automated processing of events such as file uploads. In this example, a Lambda function is configured to log a message whenever an image is added to a specific S3 bucket. This setup demonstrates the power and flexibility of serverless computing by automating tasks without requiring manual intervention or server management. By leveraging AWS Lambda, developers can efficiently handle event-driven workflows, reduce operational overhead, and quickly deploy scalable solutions that respond to specific actions within cloud environments.