

AWS S3 Implementation of Bartman AI Project

by Vikram Hem Chandar

Pixelwave-assets S3 bucket

vikramhemchandar-bartman-pixelwave-assets [Info](#)

Objects Properties Permissions Metrics Management Access Points

Objects (0) [Copy S3 URI](#) [Copy URL](#) [Download](#) [Open](#) [Delete](#) Actions Create folder [Upload](#)

Objects are the fundamental entities stored in Amazon S3. You can use [Amazon S3 inventory](#) to get a list of all objects in your bucket. For others to access your objects, you'll need to explicitly grant them permissions. [Learn more](#)

Find objects by prefix < 1 > ⚙️

Name	Type	Last modified	Size	Storage class
No objects You don't have any objects in this bucket.				

[Upload](#)

Pixelwave-web S3 bucket

vikramhemchandar-bartman-pixelwave-web [Info](#)

Objects Properties Permissions Metrics Management Access Points

Objects (0) [Copy S3 URI](#) [Copy URL](#) [Download](#) [Open](#) [Delete](#) Actions Create folder [Upload](#)

Objects are the fundamental entities stored in Amazon S3. You can use [Amazon S3 inventory](#) to get a list of all objects in your bucket. For others to access your objects, you'll need to explicitly grant them permissions. [Learn more](#)

Find objects by prefix < 1 > ⚙️

Name	Type	Last modified	Size	Storage class
No objects You don't have any objects in this bucket.				

[Upload](#)

Enabling version for buckets

vikramhemchandar-bartman-pixelwave-assets [Info](#)

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

Bucket overview

AWS Region
Asia Pacific (Mumbai) ap-south-1

Amazon Resource Name (ARN)
[arn:aws:s3:::vikramhemchandar-bartman-pixelwave-assets](#)

Creation date
November 23, 2025, 23:56:55 (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
Enabled

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](#)

Disabled

vikramhemchandar-bartman-pixelwave-web [Info](#)

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

Bucket overview

AWS Region
Asia Pacific (Mumbai) ap-south-1

Amazon Resource Name (ARN)
[arn:aws:s3:::vikramhemchandar-bartman-pixelwave-web](#)

Creation date
November 23, 2025, 23:58:00 (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](#)

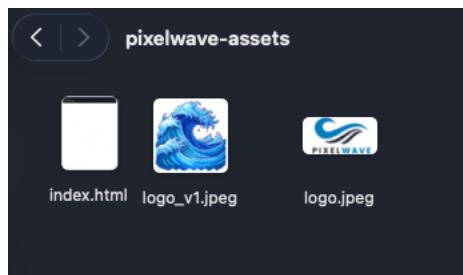
Bucket Versioning
Enabled

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](#)

Disabled

Local project folder (pixelwave-assets) file -



Upload and test versioning

Upload succeeded
For more information, see the [Files and folders table](#).

Upload: status

After you navigate away from this page, the following information is no longer available.

Summary

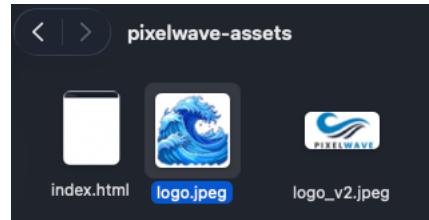
Destination	Succeeded	Failed
s3://vikramhemchandar-bartman-pixelwave-assets	1 file, 12.8 KB (100.00%)	0 files, 0 B (0%)

[Files and folders](#) [Configuration](#)

Files and folders (1 total, 12.8 KB)

Name	Folder	Type	Size	Status	Error
logo.jpeg	-	image/jpeg	12.8 KB	Success	-

Filenames logo.jpeg and logo_v2.jpeg have been changed



Uploaded another version of logo.jpeg

Upload succeeded
For more information, see the [Files and folders table](#).

Upload: status

After you navigate away from this page, the following information is no longer available.

Summary

Destination	Succeeded	Failed
s3://vikramhemchandar-bartman-pixelwave-assets	1 file, 121.6 KB (100.00%)	0 files, 0 B (0%)

[Files and folders](#) [Configuration](#)

Files and folders (1 total, 121.6 KB)

Name	Folder	Type	Size	Status	Error
logo.jpeg	-	image/jpeg	121.6 KB	Success	-

Verify Versioning

≡ Amazon S3 > Buckets > [vikramhemchandar-bartman-pixelwave-assets](#) > logo.jpeg

ⓘ | ⌂ | ⌂

logo.jpeg [Info](#)

[Copy S3 URI](#) [Download](#) [Open](#) [Object actions ▾](#)

Properties Permissions [Versions](#)

Versions (2)

[Download](#) [Open](#) [Delete](#) [Actions ▾](#)

< 1 >

<input type="checkbox"/>	Version ID	Type	Last modified	Size	Storage class
<input type="checkbox"/>	ZjILCCdu42cgen4YrRtDE... (Current version)	jpeg	November 24, 2025, 00:41:4...	121.6 KB	Standard
<input type="checkbox"/>	DtCxpl7yKGyncQn3S0...	jpeg	November 24, 2025, 00:40:4...	12.8 KB	Standard

Create a lifecycle configuration

vikramhemchandar-bartman-pixelwave-assets

Objects Properties Permissions Metrics Management Access Points

Lifecycle configuration

To manage your objects so that they are stored cost effectively throughout their lifecycle, configure their lifecycle. A lifecycle configuration is a set of rules that define actions that Amazon S3 applies to a group of objects. Lifecycle rules run once per day.

Default minimum object size for transitions

All storage classes 128K

Lifecycle rules (1)

Use lifecycle rules to define actions you want Amazon S3 to take during an object's lifetime such as transitioning objects to another storage class, archiving them, or deleting them after a specified period of time. [Learn more](#)

Lifecycle rule name	Status	Scope	Current version a...	Noncurrent versi...	Expired object de...	Incomplete mult...
versioned-object-cost-optimization	Enabled	Entire bucket	Expires	Transition to Standard-	-	-

[View lifecycle configuration](#)

[versioned-object-cost-optimization](#) Info

[Edit](#) [Delete](#) [Actions ▾](#)

Lifecycle rule configuration

Lifecycle rule name
versioned-object-cost-optimization

Status
 Enabled

Scope
Entire bucket

Prefix
-

Object tags
-

Minimum object size

- When no minimum object size is specified, the minimum object size for transitions is determined by the lifecycle configuration.
[Learn more](#)

Maximum object size

-

Review transition and expiration actions

Current version actions

- Day 0
- Objects uploaded



- Day 365
- Objects expire

Noncurrent versions actions

- Day 0
- Objects become noncurrent



- Day 30
- 0 newest noncurrent versions are retained
 - All other noncurrent versions move to Standard-IA



- Day 180
- 0 newest noncurrent versions are retained
 - All other noncurrent versions move to Glacier Flexible Retrieval (formerly Glacier)

Test Case 1 - Overwriting a file

banner.jpeg [Info](#)

Properties | Permissions | **Versions**

Versions (3)

	Version ID	Type	Last modified	Size	Storage class
<input type="checkbox"/>	pq4EfPzNFZbX8ngciGO4... (Current version)	jpeg	November 24, 2025, 00:59:3...	2.6 KB	Standard
<input type="checkbox"/>	JLKyFPx32AR4ny950H...	jpeg	November 24, 2025, 00:59:1...	7.8 KB	Standard
<input type="checkbox"/>	rB6FVjae3PJND5fzVy...	jpeg	November 24, 2025, 00:58:5...	4.3 KB	Standard

Test Case 2 – Delete Marker Behavior

vikramhemchandar-bartman-pixelwave-assets [Info](#)

Objects (6) [C](#) [Copy S3 URI](#) [Copy URL](#) [Download](#) [Open L](#) [Delete](#) [Actions](#) [Create folder](#) [Upload](#)

Objects are the fundamental entities stored in Amazon S3. You can use [Amazon S3 inventory](#) to get a list of all objects in your bucket. For others to access your objects, you'll need to explicitly grant them permissions. [Learn more](#)

	Name	Type	Version ID	Last modified	Size	Storage class
<input type="checkbox"/>	banner.jpeg	jpeg	pq4EfPzNFZbX8ngciGO4dGRESdmBKbd7	November 24, 2025, 00:59:36 (UTC+05:30)	2.6 KB	Standard
<input type="checkbox"/>	banner.jpeg	jpeg	JLKyFPx32AR4ny950HmAXGlynOaxyatM	November 24, 2025, 00:59:17 (UTC+05:30)	7.8 KB	Standard
<input type="checkbox"/>	banner.jpeg	jpeg	rB6FVjae3PJND5fzVy_Dw8mrIUQFq2FZ	November 24, 2025, 00:58:55 (UTC+05:30)	4.3 KB	Standard
<input type="checkbox"/>	logo.jpeg	Delete marker	n0mXUqx7OYBzggr9.qveIags4ED5xD	November 24, 2025, 01:00:37 (UTC+05:30)	0 B	-
<input type="checkbox"/>	logo.jpeg	jpeg	ZJLCCdu42cgen4YrRtDEekSQSsRKQk	November 24, 2025, 00:41:46 (UTC+05:30)	121.6 KB	Standard
<input type="checkbox"/>	logo.jpeg	jpeg	DtCxpi7yKyncQn350pBaAMBrHHmTtUT	November 24, 2025, 00:40:47 (UTC+05:30)	12.8 KB	Standard

Test Case 3 – Validate lifecycle rule

vikramhemchandar-bartman-pixelwave-assets

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

Lifecycle configuration

To manage your objects so that they are stored cost effectively throughout their lifecycle, configure their lifecycle. A lifecycle configuration is a set of rules that define actions that Amazon S3 applies to a group of objects. Lifecycle rules run once per day.

Default minimum object size for transitions
All storage classes 128K

Lifecycle rules (1)

Use lifecycle rules to define actions you want Amazon S3 to take during an object's lifetime such as transitioning objects to another storage class, archiving them, or deleting them after a specified period of time. [Learn more](#)

Lifecycle rule name	Status	Scope	Current version a...	Noncurrent versi...	Expired object de...	Incomplete mult...
versioned-object-cost-optimization	Enabled	Entire bucket	Expires	Transition to Standard-	-	-

[View lifecycle configuration](#)

IAM Groups

User groups (4) Info

A user group is a collection of IAM users. Use groups to specify permissions for a collection of users.

[Delete](#)[Create group](#) Search< 1 >

<input type="checkbox"/>	Group name	▲ Users	▼ Permissions	▼ Creation time
<input type="checkbox"/>	pixelwave-automation		⚠ 0 Defined	7 days ago
<input type="checkbox"/>	pixelwave-designers		⚠ 0 Defined	7 days ago

IAM Users

Users (5) Info

An IAM user is an identity with long-term credentials that is used to interact with AWS in an account.

[Delete](#)[Create user](#) Search< 1 >

<input type="checkbox"/>	User name	▲ Path	▼ Group:	▼ Last activity	▼ MFA	▼ Password age
<input type="checkbox"/>	anasuyamohanty-iam	/	1	-	-	3 days
<input type="checkbox"/>	automation-uploader	/	0	-	-	-
<input type="checkbox"/>	designer-alex	/	0	-	-	-
<input type="checkbox"/>	vikramhemchandar-iam	/	1	6 hours ago	-	13 days
<input type="checkbox"/>	younusansari-aws	/	1	Yesterday	-	Yesterday

IAM Policies pixelwave-designer-policy

pixelwave-designers [Info](#)

[Delete](#)

Summary

User group name
pixelwave-designers

Creation time
November 16, 2025, 21:46 (UTC+05:30)

ARN
 arn:aws:iam::447657623308:group/pixelwave-designers

[Edit](#)[Users](#)[Permissions](#)[Access Advisor](#)

Permissions policies (1) [Info](#)

[Simulate](#)[Remove](#)[Add permissions](#)

You can attach up to 10 managed policies.

Filter by Type

 Search[All types](#)< 1 > Policy name [L](#)[Type](#)[Attached entities](#)[▼](#) [pixelwave-designer-policy](#)

Customer managed

1

pixelwave-designer-policy

[Copy JSON](#)[Edit](#)

```
1  {
2      "Version": "2012-10-17",
3      "Statement": [
4          {
5              "Effect": "Allow",
6              "Action": [
7                  "s3:PutObject",
8                  "s3:GetObject",
9                  "s3>ListBucket"
10             ],
11             "Resource": [
12                 "arn:aws:s3:::pixelwave-assets",
13                 "arn:aws:s3:::pixelwave-assets/*"
14             ]
15         }
16     ]
17 }
```

Bucket policy for pixelwave-assets

vikramhemchandar-bartman-pixelwave-assets

accounts. [Learn more ↗](#)

ⓘ Public access is blocked because Block Public Access settings are turned on for this bucket
To determine which settings are turned on, check your Block Public Access settings for this bucket. Learn more about [using Amazon S3 Block Public Access ↗](#)

```
{  
    "Version": "2012-10-17",  
    "Statement": [  
        {  
            "Sid": "Statement1",  
            "Effect": "Deny",  
            "Principal": {"AWS": "arn:aws:iam::447657623308:user/vikramhemchandar-iam"},  
            "Action": "s3:*",  
            "Resource": [  
                "arn:aws:s3:::vikramhemchandar-bartman-pixelwave-assets",  
                "arn:aws:s3:::vikramhemchandar-bartman-pixelwave-assets/*"  
            ],  
            "Condition": {  
                "StringNotEquals": {"aws:PrincipalAccount": "447657623308"}  
            }  
        }  
    ]  
}
```

[Copy](#)

```
{  
    "Version": "2012-10-17",  
    "Statement": [  
        {  
            "Sid": "Statement1",  
            "Effect": "Deny",  
            "Principal": "*",  
            "Action": "s3:*",  
            "Resource": [  
                "arn:aws:s3:::vikramhemchandar-bartman-pixelwave-assets",  
                "arn:aws:s3:::vikramhemchandar-bartman-pixelwave-assets/*"  
            ],  
            "Condition": {  
                "StringNotEquals": {"aws:PrincipalAccount": "447657623308"}  
            }  
        }  
    ]  
}
```

IAM Policy pixelwave-automation-upload-policy

pixelwave-automation-upload-policy [Info](#)

[Edit](#)[Delete](#)

Policy details

Type
Customer managed

Creation time
November 16, 2025, 21:54 (UTC+05:30)

Edited time
November 24, 2025, 01:54 (UTC+05:30)

ARN
 arn:aws:iam::447657623308:policy/pixelwave-automation-upload-policy

[Permissions](#)[Entities attached](#)[Tags](#)[Policy versions \(2\)](#)[Last Accessed](#)

Permissions defined in this policy [Info](#)

Permissions defined in this policy document specify which actions are allowed or denied. To define permissions for an IAM identity (user, user group, or role), attach a policy to it.

```
1 - {
2     "Version": "2012-10-17",
3     "Statement": [
4         {
5             "Effect": "Allow",
6             "Action": [
7                 "s3:PutObject"
8             ],
9             "Resource": "arn:aws:s3:::vikramhemchandar-bartman-pixelwave-assets/*"
10        }
11    ]
12 }
```

[Copy](#)[Edit](#)[Summary](#)[JSON](#)

IAM policy for pixelwave-designer-policy

pixelwave-designer-policy [Info](#)

[Edit](#)[Delete](#)

Policy details

Type
Customer managed

Creation time
November 16, 2025, 21:51 (UTC+05:30)

Edited time
November 24, 2025, 02:43 (UTC+05:30)

ARN
 arn:aws:iam::447657623308:policy/pixelwave-designer-policy

[Permissions](#)[Entities attached](#)[Tags](#)[Policy versions \(5\)](#)[Last Accessed](#)

Permissions defined in this policy [Info](#)

Permissions defined in this policy document specify which actions are allowed or denied. To define permissions for an IAM identity (user, user group, or role), attach a policy to it.

```
1  {
2      "Version": "2012-10-17",
3      "Statement": [
4          {
5              "Effect": "Allow",
6              "Action": [
7                  "s3:PutObject",
8                  "s3:GetObject",
9                  "s3>ListBucket"
10             ],
11             "Resource": [
12                 "arn:aws:s3:::vikramhemchandar-bartman-pixelwave-assets",
13                 "arn:aws:s3:::vikramhemchandar-bartman-pixelwave-assets/*"
14             ]
15         }
16     ]
17 }
```

[Copy](#)[Edit](#)[Summary](#)[JSON](#)

4.7 Testing Phase

Note - Copy the S3 bucket page and paste it in new tab of browser after logging to designer-alex

Test Case 1 – designer-alex to login to User console and upload a file

File upload and listing of object in bucket - successful

Name	Type	Last modified	Size	Storage class
banner.jpeg	jpeg	November 24, 2025, 00:59:36 (UTC+05:30)	2.6 KB	Standard
logo.jpeg	jpeg	November 24, 2025, 18:01:03 (UTC+05:30)	121.6 KB	Standard

File delete – permission denied

Name	Type	Last modified	Size
logo.jpeg	jpeg	November 24, 2025, 18:01:03 (UTC+05:30)	121.6 KB

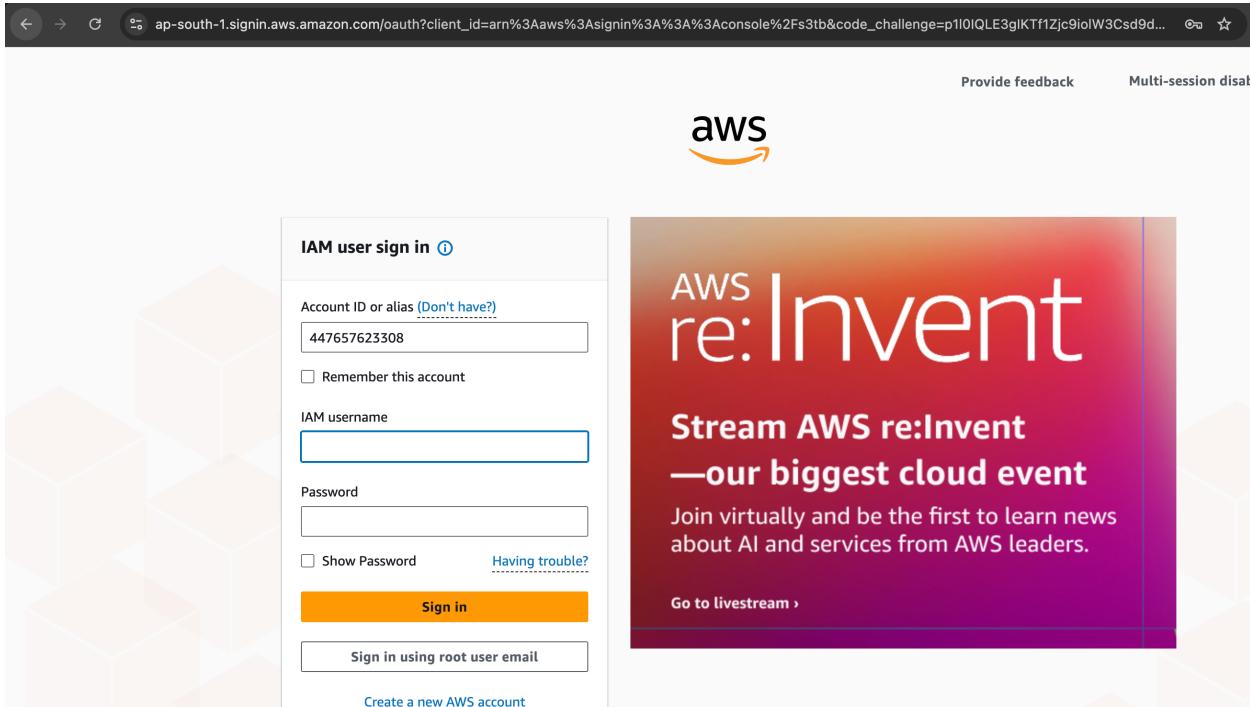
Test Case 2 – Automation Uploader

- Try uploading a file → Should work
- Try downloading a file → Should fail

Note: With the IAM user automation-uploader, I was unable to upload the file as everything is greyed out and show permission denied when given “**s3:PutObject**”

However, when I add “**s3>ListBucket**” to the Policy then I am able to upload and unable to download the file.

Test Case 3 – Log out and access bucket URL in browser – asking for login but not accessing the bucket



Test case 4 – ACL Demonstration (successful)

The screenshot shows the AWS S3 console. At the top, there's a navigation bar with the AWS logo, search bar, and account information ("Account ID: 4476-5762-3308"). Below the navigation bar, the path is shown as "Amazon S3 > Buckets > vikramhemchandar-acl-bucket > banner.jpeg". On the right, there are buttons for "Copy S3 URI", "Download", "Open", and "Object actions". The main content area is titled "File properties" and "Object overview". It displays the following details:

Properties	Permissions	Versions
Owner c24172826e9a6f3a89fb45784b3e5f8093d2670567dc92c97d9a1a7d4101a506		
AWS Region Asia Pacific (Mumbai) ap-south-1		
Last modified November 24, 2025, 18:18:33 (UTC+05:30)		
Size 2.6 KB		

Object overview

S3 URI	https://s3.ap-south-1.amazonaws.com/vikramhemchandar-acl-bucket/banner.jpeg
Amazon Resource Name (ARN)	arn:aws:s3:::vikramhemchandar-acl-bucket/banner.jpeg
Entity tag (Etag)	bf5c89da7426ebaef069ab5a81ffe5b8
Object URL	https://vikramhemchandar-acl-bucket.s3.ap-south-1.amazonaws.com/banner.jpeg

Canonical ID added for an object in the bucket –

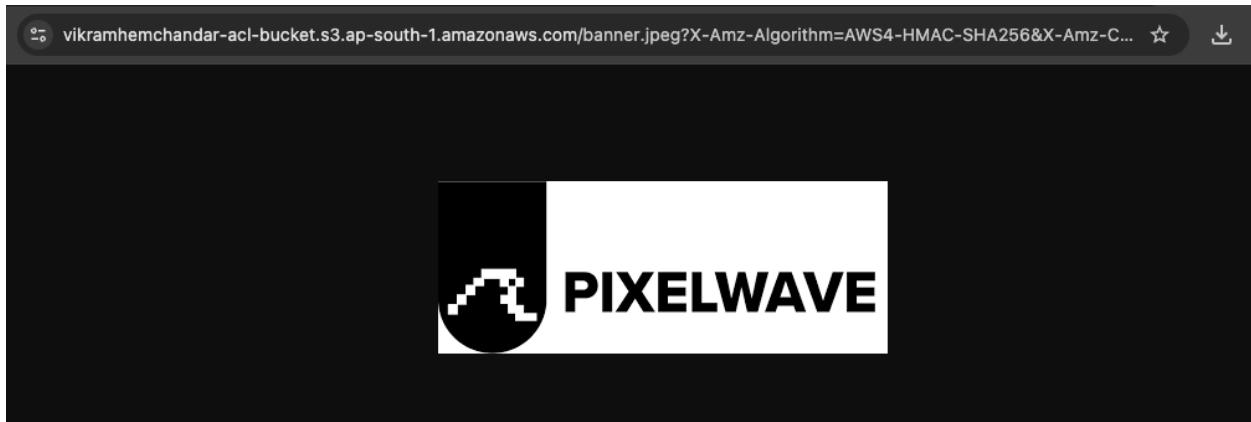
The screenshot shows the AWS S3 console interface. At the top, the account ID is 4476-5762-3308, and the region is Asia Pacific (Mumbai). The object being viewed is 'banner.jpeg' located in the 'vikramhemchandar-acl-bucket'. The 'Permissions' tab is selected. The access control list (ACL) table shows the following entries:

Grantee	Object	Object ACL
External account Canonical ID: e8c3c6f0d38bd3912d35f2918762b1397f86986d57080ed5b87867d381f90c45	Read	Read, Write
Object owner (your AWS account) Canonical ID: c24172826e9a6f3a89fb45784b3e5f8093d2670567dc92c97d9a1a7d4101a506	Read	Read, Write
Everyone (public access) Group: http://acs.amazonaws.com/groups/global/AllUsers	-	-
Authenticated users group (anyone with an AWS account) Group: http://acs.amazonaws.com/groups/global/AuthenticatedUsers	-	-

With different AWS Account

The screenshot shows a browser window with the URL `ap-south-1.console.aws.amazon.com/console/home?nc2=h_si®ion=ap-south-1&src=header-signin#`. The account ID is 1755-5863-5966, and the region is Asia Pacific (Mumbai). The URL in the address bar is `vikramhemchandar-acl-bucket.s3.ap-south-1.amazonaws.com/banner.jpeg?X-Amz-Algorithm=AWS4-HMAC-SHA256&X-Amz-C...`.

Able to access the file



Using KMS Key testing

Test 1 - Upload a file using the encryption – it is successful

Amazon S3 > Buckets > vikramhemchandar-bartman-pieletwave-assets > 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 SDKs 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, 4.3 KB)
All files and folders in this table will be uploaded.

Name	Type	Size
banner1.jpeg	image/jpeg	4.3 KB

Destination info
Destination [\\$3/vikramhemchandar-bartman-pieletwave-assets](#)

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.

Storage class info
Amazon S3 offers a range of storage classes designed for different use cases. [Learn more](#) or see [Amazon S3 pricing](#)

Storage class	Designed for	Bucket type	Availability Zones	Min storage duration	Min billable object size	Monitoring and auto-tuning fees	Retrieval fees
<input checked="" type="radio"/> Standard	Frequently accessed data (more than a month) with milliseconds access	General purpose	≥ 5	-	-	-	-
<input type="radio"/> Intelligent-Tiering	Data with changing or unknown access patterns	General purpose	≥ 3	-	-	Per-object fees apply for objects >= 128 KB	-
<input type="radio"/> Standard-IA	Infrequently accessed data (once a month) with milliseconds access	General purpose	≥ 5	30 days	128 KB	-	Per-GB fees apply
<input type="radio"/> One Zone-IA	Recreatable, infrequently accessed data (once a month) with milliseconds access	General purpose or directory	1	30 days	128 KB	-	Per-GB fees apply
<input type="radio"/> Glacier	Long-lived archive data accessed once a quarter with instant retrieval in milliseconds	General purpose	≥ 5	90 days	128 KB	-	Per-GB fees apply
<input type="radio"/> Instant Retrieval	Long-lived archive data accessed once a quarter with instant retrieval in milliseconds	General purpose	≥ 5	90 days	128 KB	-	Per-GB fees apply
<input type="radio"/> Glacier Deep Archive	Long-lived archive data accessed less than once a year with retrieval of hours	General purpose	≥ 3	180 days	-	-	Per-GB fees apply
<input type="radio"/> Reduced redundancy	Noncritical, frequently accessed data with milliseconds access (not recommended as S3 Standard is more cost effective)	General purpose	≥ 5	-	-	-	Per-GB fees apply

Server-side encryption info
Server-side encryption protects data at rest.

Don't specify an encryption key
The bucket settings for default encryption are used to encrypt objects when storing them in Amazon S3.

Specify an encryption key
The specified encryption key is used to encrypt objects before storing them in Amazon S3.

Encryption settings info
 Use bucket settings for default encryption
 Override bucket settings for default encryption

Encryption type info
Secure your objects with two separate layers of encryption. For details on pricing, see [DSS-E-KMS pricing](#) on the Storage tab of the [Amazon S3 pricing page](#).

Server-side encryption with Amazon S3 managed Key (SSE-S3)
 Server-side encryption with AWS Key Management Service Keys (SSE-KMS)
 Dual-layer server-side encryption with AWS Key Management Service keys (DSS-E-KMS)

AWS KMS key info
 Choose from your AWS KMS keys
 Enter AWS KMS key ARN

Available AWS KMS keys

Choose AWS KMS key	Create a KMS key
<input type="text" value="arn:aws:kms:ap-south-1:1447657623308:key/2411f5e-3f77-4306-aaaf-2be2e2e5aa698 pieletwave-asset-key"/>	<input type="button" value="Create a KMS key"/>
Key ARNs aren't supported for DSS-E-KMS. Learn more	
<input type="text" value="arn:aws:kms:ap-south-1:1447657623308:alias/aws/s3"/>	

Checksums
Checksums are used for data integrity verification of new objects. [Learn more](#)

Checksum function
Checksum functions are used to calculate the checksum value. For objects smaller than 16 MB, only the full object checksum type is supported, for all checksum algorithms.

CRC32C/HMAC (recommended)

Pre-calculated value - optional
When you provide a pre-calculated value for a single object, S3 compares it to the value it calculates using the selected checksum function. If the values don't match, the upload will fail. [Learn more](#)

Enter value
The pre-calculated value must be a Base64 encoded string. It must not exceed 128 characters, and can contain only letters (a-z, A-Z), numbers (0-9), forward slash (/), plus (+), equals (=).

Tags - optional
You can use object tags to analyze, manage, and specify permissions for objects. [Learn more](#)

No tags associated with this resource.

Metadata - optional
Metadata is optional information provided as a name-value pair. [Learn more](#)

No metadata associated with this resource.

And we can see the encryption details as aws:kms and the Key ID

banner1.jpeg [Info](#)

[Copy S3 URI](#) [Download](#) [Open](#) [Object actions](#)

[Properties](#) [Permissions](#) [Versions](#)

Object overview

Owner: c24172826e9a6f3a89fb45784b3e5f8093d2670567dc92c97d9a1a7d4101a506

AWS Region: Asia Pacific (Mumbai) ap-south-1

Last modified: November 24, 2025, 23:40:16 (UTC+05:30)

Size: 4.3 KB

Type: jpeg

Key: banner1.jpeg

S3 URI: <https://s3.vikramhemchandar-bartman-pixelwave-assets.s3.ap-south-1.amazonaws.com/banner1.jpeg>

Amazon Resource Name (ARN): <arn:aws:s3::vikramhemchandar-bartman-pixelwave-assets/banner1.jpeg>

Entity tag (Etag): <228fb07e6ade7f553e1aa85b62519f8>

Object URL: <https://vikramhemchandar-bartman-pixelwave-assets.s3.ap-south-1.amazonaws.com/banner1.jpeg>

Object management overview

The following bucket properties and object management configurations impact the behavior of this object.

Bucket properties

Bucket Versioning: When enabled, multiple variants of an object can be stored in the bucket to easily recover from unintended user actions and application failures.
Enabled

Management configurations

Replication status: When a replication rule is applied to an object the replication status indicates the progress of the operation.
+

[View replication rules](#)

Expiration rule: You can use a lifecycle configuration to define expiration rules to schedule the removal of this object after a pre-defined time period.
versioned-object-cost-optimization

Expiration date: The object will be made noncurrent and generate a delete marker on this date.
November 25, 2026, 05:30:00 (UTC+05:30)

Storage class

Amazon S3 offers a range of storage classes designed for different use cases. [Learn more](#) or see [Amazon S3 pricing](#)

Storage class: Standard

[Edit](#)

Server-side encryption settings

Server-side encryption protects data at rest.

Encryption type: Server-side encryption with AWS Key Management Service keys (SSE-KMS)

Encryption key ARN: <arn:aws:kms:ap-south-1:447657623308:key/2411f55e-3ff7-4306-baaf-2cbe2e5aa698>

Bucket Key: When KMS encryption is used to encrypt new objects in this bucket, the bucket key reduces encryption costs by lowering calls to AWS KMS. [Learn more](#)
Disabled

[Edit](#)

Checksums

Checksums are used for data integrity verification of new objects. [Learn more](#)

Checksum function	Checksum type	Checksum value
CRC64NVME	Full object	F+CgbXoRyDQ=

Tags (0)

Track storage cost of other criteria by tagging your objects. [Learn more](#)

Key	Value
No tags associated with this resource.	

[Edit](#)

Metadata (1)

Metadata is optional information provided as a name-value (key-value) pair. [Learn more](#)

Type	Key	Value
System defined	Content-Type	image/jpeg

Object Lock

Store objects using a write-once-read-many (WORM) model to help you prevent objects from being deleted or overwritten for a fixed amount of time or indefinitely. Object Lock works only in versioned buckets. [Learn more](#)

Object Lock: Disabled

This bucket doesn't have Object Lock enabled. You can enable Object Lock for a versioned bucket under the bucket's properties tab. [Learn more](#)

[Edit Object Lock](#)

Test 2 – Attempt to upload without encryption –

Amazon S3 > Buckets > [vikramhemchandar-bartman-pixelwave-assets](#) > 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 SDKs 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, 7.8 KB)

All files and folders in this table will be uploaded.

<input type="checkbox"/>	Name	Folder	Type	Size
<input type="checkbox"/>	banner2.jpeg	-	image/jpeg	7.8 KB

[Remove](#) [Add files](#) [Add folder](#)

Destination [Info](#)

Destination
[s3://vikramhemchandar-bartman-pixelwave-assets](#)

► **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](#)

Result – denied

Upload failed
For more information, see the Error column in the Files and folders table. [Diagnose with Amazon Q](#)

Upload: status [Close](#)

ⓘ After you navigate away from this page, the following information is no longer available.

Summary

Destination	Succeeded	Failed
s3://vikramhemchandar-bartman-pixelwave-assets	(+) 0 files, 0 B (0%)	(+) 1 file, 7.8 KB (100.00%)

[Files and folders](#) [Configuration](#)

Files and folders (1 total, 7.8 KB)

Name	Folder	Type	Size	Status	Error
banner2.jpeg	-	image/jpeg	7.8 KB	(+) Failed	(+) Access denied

Test 3 – validate proper permissions
Worked as expected

Test 4 – Uploading to a wrong bucket

Amazon S3 > Buckets > vikramhemchandar-bartman-pixelwave-web > 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 SDKs 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, 1.5 KB)
All files and folders in this table will be uploaded.

<input type="checkbox"/>	Name	Folder	Type	Size
<input type="checkbox"/>	index.html	-	text/html	1.5 KB

Destination Info
Destination
<s3://vikramhemchandar-bartman-pixelwave-web>

▶ 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**

Upload succeeded
For more information, see the Files and folders table.

Upload: status

After you navigate away from this page, the following information is no longer available.

Summary

Destination	Succeeded	Failed
s3://vikramhemchandar-bartman-pixelwave-web	1 file, 1.5 KB (100.00%)	0 files, 0 B (0%)

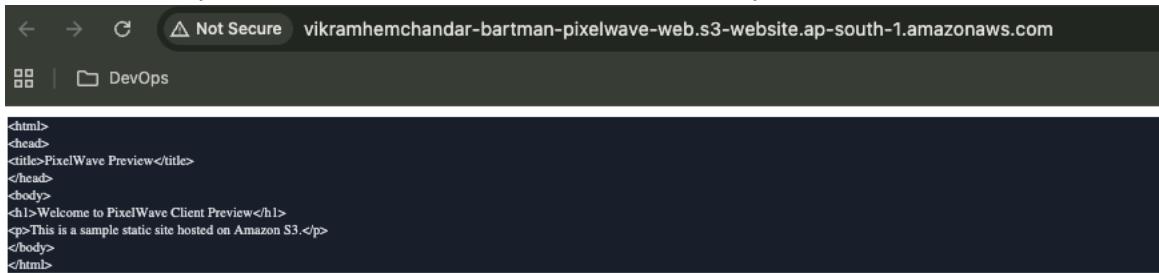
Files and folders Configuration

Files and folders (1 total, 1.5 KB)

<input type="checkbox"/>	Name	Folder	Type	Size	Status	Error
<input type="checkbox"/>	index.html	-	text/html	1.5 KB	Succeeded	-

Test the Hosted Website

Test Case 1 – public access – able to access successfully



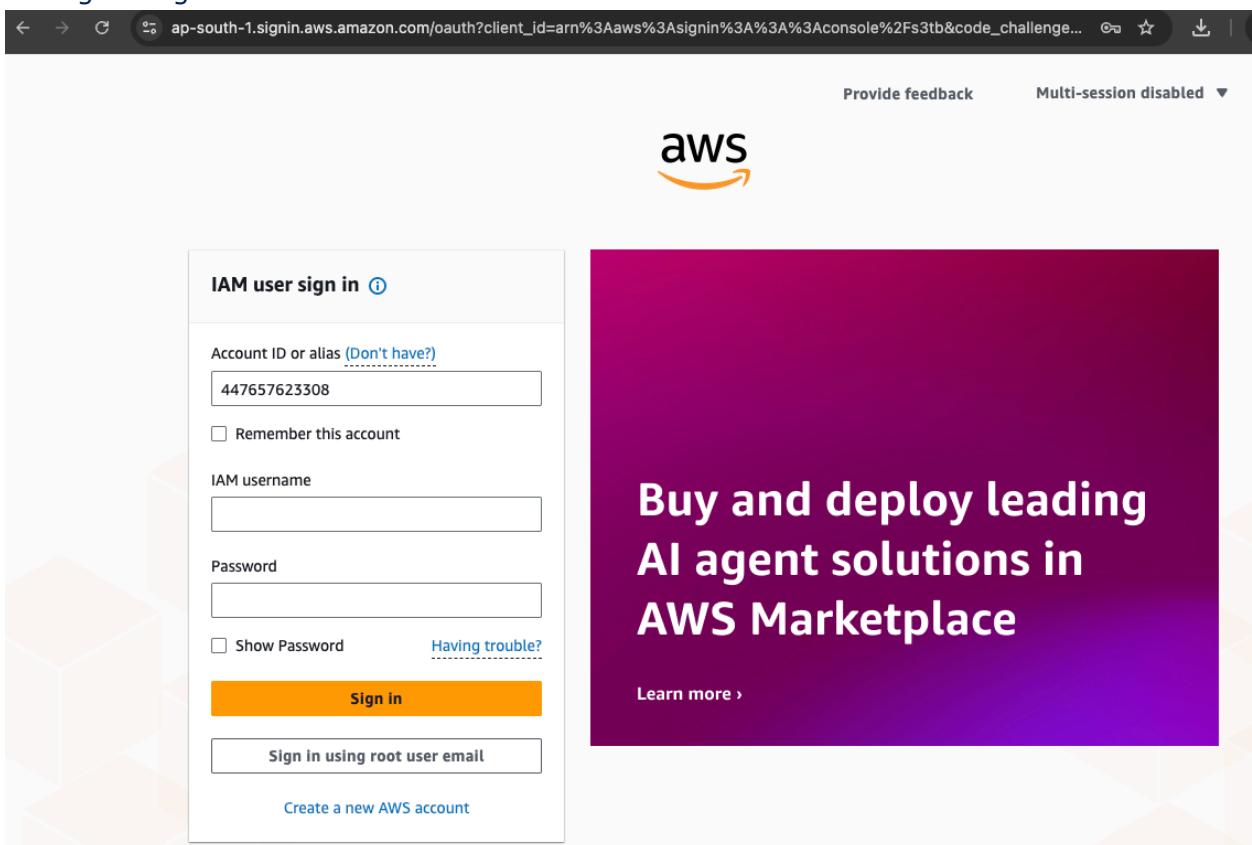
A screenshot of a web browser window. The address bar shows a URL starting with "vikramhemchandar-bartman-pixelwave-web.s3-website.ap-south-1.amazonaws.com". Below the address bar, there's a navigation bar with icons for back, forward, and search, followed by the text "DevOps". The main content area displays the raw HTML source code of a simple static website. The code includes a title "PixelWave Preview", a header "Welcome to PixelWave Client Preview", and a paragraph stating "This is a sample static site hosted on Amazon S3".

```
<html>
<head>
<title>PixelWave Preview</title>
</head>
<body>
<h1>Welcome to PixelWave Client Preview</h1>
<p>This is a sample static site hosted on Amazon S3.</p>
</body>
</html>
```

Test Case 2 – No Delete access

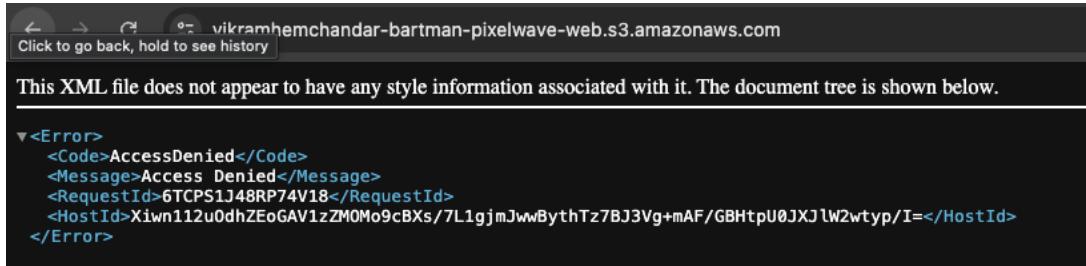
Try clicking delete from an unauthenticated browser (not possible to do that)

Asking for login



Test Case 3 – trying to list bucket (access denied)

Accessing: <https://vikramhemchandar-bartman-pixelwave-web.s3.amazonaws.com/>



The screenshot shows a browser window with the URL <https://vikramhemchandar-bartman-pixelwave-web.s3.amazonaws.com/>. The page content is an XML error document. At the top, it says "Click to go back, hold to see history". Below that, it states "This XML file does not appear to have any style information associated with it. The document tree is shown below." The document tree itself is a single error element:

```
<Error>
<Code>AccessDenied</Code>
<Message>Access Denied</Message>
<RequestId>6TCPS1J48RP74V18</RequestId>
<HostId>Xiwn112u0dhZEoGAV1zM0Mo9cBXs/7L1gjmJwwBythTz7BJ3Vg+mAF/G8HtpU0JXJlw2wtyp/I=</HostId>
</Error>
```

-----End of the Project-----