

4. Implement an S3 Bucket for Storing Product Images

Create an S3 bucket and enable public read access. Upload sample product images. Modify the e-commerce application to fetch images from S3 instead of the local server.

This guide explains how to create an Amazon S3 bucket with **public read access** for product images, upload sample images, and configure an e-commerce application to fetch images directly from S3 instead of the local server.

Step 1: Create an S3 Bucket

1. Log in to the **AWS Management Console**.
2. Navigate to **S3 → Create Bucket**.
3. Configure the bucket:
 - o **Bucket Name:** my-public-product-images (must be globally unique).
 - o **Region:** Choose the closest to your location (e.g., *US East – N. Virginia*).
 - o **Bucket Type:** General Purpose.
 - o **Object Ownership:** Bucket owner enforced.
 - o **Block Public Access:** Turn OFF (required for public read access).
 - o **Default Encryption:** SSE-S3 (Amazon-managed).
4. Click **Create Bucket**.

Outcome: An S3 bucket ready to store publicly accessible product images.

The screenshot shows the AWS S3 Buckets page. At the top, there's a navigation bar with the AWS logo, a search bar, and account information (Account ID: 8582-6528-6505, shinthv_45). Below the navigation is a breadcrumb trail: Amazon S3 > Buckets. The main area has tabs for "General purpose buckets" (selected) and "Directory buckets". A "Create bucket" button is prominently displayed. On the left, there's a search bar labeled "Find buckets by name". The main content area lists two buckets in a table:

Name	AWS Region	Creation date
my-ecommerce-images-12345	US East (N. Virginia) us-east-1	August 26, 2025, 03:14:16 (UTC+05:30)
my-public-product-images	US East (N. Virginia) us-east-1	August 26, 2025, 11:46:08 (UTC+05:30)

To the right of the table are two callout boxes: "Account snapshot" (updated daily) and "External access summary - new" (updated daily). Both boxes provide links to their respective dashboards. At the bottom of the page, there are links for CloudShell, Feedback, Copyright notice (© 2025, Amazon Web Services, Inc. or its affiliates.), Privacy, Terms, and Cookie preferences.

Step 2: Upload Product Images to S3

1. Open your bucket (my-public-product-images).

2. Click **Upload** → **Add files**.
3. Select product images (e.g., dress.jpg, shoes.jpg, bag.jpg).
4. Under **Permissions**, check **Grant public read access**.
5. Click **Upload**.

Outcome: Product images are now publicly accessible from your S3 bucket.

Name	Type	Last modified	Size	Storage class
bag.jpg	jpg	August 26, 2025, 12:26:01 (UTC+05:30)	3.6 MB	Standard
Dress.jpg	jpg	August 26, 2025, 12:25:55 (UTC+05:30)	3.0 MB	Standard
shoes.jpg	jpg	August 26, 2025, 12:25:56 (UTC+05:30)	1.0 MB	Standard

Step 3: Configure Bucket Policy for Public Read Access

Attach the following **bucket policy** to allow public read access to objects in the bucket:

```
"Version": "2012-10-17",
```

```
"Statement": [
```

```
{
```

```
    "Sid": "PublicReadGetObject",
```

```
    "Effect": "Allow",
```

```
    "Principal": "*",
```

```
    "Action": "s3:GetObject",
```

```
    "Resource": "arn:aws:s3:::my-public-product-images/*"
```

```
}
```

]
}

Replace:

- my-public-product-images with your actual bucket name.

Outcome: Anyone with the S3 object URL can view product images.

The screenshot shows the AWS S3 Bucket Policy configuration page for a bucket named "my-public-product-images". The policy JSON is displayed as follows:

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Sid": "PublicReadGetObject",
      "Effect": "Allow",
      "Principal": "*",
      "Action": "s3:GetObject",
      "Resource": "arn:aws:s3:::my-public-product-images/*"
    }
  ]
}
```

Below the policy, there is an "Object Ownership" section with a "Info" link. The page footer includes links for CloudShell, Feedback, Privacy, Terms, and Cookie preferences.

Step 4: Access Images via Public URLs

After uploading, each image will have a public URL in the format:

<https://my-public-product-images.s3.us-east-1.amazonaws.com/<filename>>

Example:

<https://my-public-product-images.s3.us-east-1.amazonaws.com/shoes.jpg>

<https://my-public-product-images.s3.us-east-1.amazonaws.com/Dress.jpg>

<https://my-public-product-images.s3.us-east-1.amazonaws.com/bag.jpg>

Open this URL in a browser to confirm the image loads publicly.

Screenshot of the AWS S3 console showing the object details for 'shoes.jpg' in the 'my-public-product-images' bucket.

Object overview

Owner 9cb513322107863b27203aabce11f0d5d8646e5c789d4f9cbff37d7ee5621a0d	S3 URI s3://my-public-product-images/shoes.jpg
AWS Region US East (N. Virginia) us-east-1	Amazon Resource Name (ARN) arn:aws:s3:::my-public-product-images/shoes.jpg
Last modified August 26, 2025, 12:25:56 (UTC+05:30)	Entity tag (Etag) a71ba6844629720ca78803599a6e690a
Size 1.0 MB	Object URL https://my-public-product-images.s3.us-east-1.amazonaws.com/shoes.jpg
Type jpg	
Key shoes.jpg	

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 errors.

Management configurations

Replication status

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Screenshot of the AWS S3 console showing the object details for 'Dress.jpg' in the 'my-public-product-images' bucket.

Object overview

Owner sahanabra234	S3 URI s3://my-public-product-images/Dress.jpg
AWS Region US East (N. Virginia) us-east-1	Amazon Resource Name (ARN) arn:aws:s3:::my-public-product-images/Dress.jpg
Last modified August 26, 2025, 12:25:55 (UTC+05:30)	Entity tag (Etag) d10ca819d26d24e903cd4d3c7ab337d2
Size 3.0 MB	Object URL https://my-public-product-images.s3.us-east-1.amazonaws.com/Dress.jpg
Type jpg	
Key Dress.jpg	

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 errors.

Management configurations

Replication status

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Amazon S3 < bag.jpg Info

Properties Permissions Versions

Object overview

Owner sahanabra234

AWS Region US East (N. Virginia) us-east-1

Last modified August 26, 2025, 12:26:01 (UTC+05:30)

Size 3.6 MB

Type jpg

Key bag.jpg

S3 URI s3://my-public-product-images/bag.jpg

Amazon Resource Name (ARN) arn:aws:s3:::my-public-product-images/bag.jpg

Entity tag (Etag) bf91dba29ce1c1c2b5edd6436ec401f

Object URL https://my-public-product-images.s3.us-east-1.amazonaws.com/bag.jpg

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 previous versions of objects.

Management configurations

Replication status When a replication rule is applied to an object, the replication status indicates the progress of the replication process.

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Step 5: Modify the E-Commerce Application

Replace local image paths in your application with S3 URLs.

Before (local server):

```

```

After (S3 bucket):

```

```



