

Assignment 4

Title: Implementation and Demonstration of SAAS using AWS S3 in Free Tier

Aim: To demonstrate and implement Storage as a Service (SAAS) using AWS S3 by creating an S3 bucket under the AWS Free Tier, configuring its settings, and ensuring cost-free storage utilization.

Procedure:

Step 1: Create an AWS Free Tier Account

- Go to the AWS Official Website (<https://aws.amazon.com/>).
- Click on Create an AWS Account and sign up using an email ID.
- Log in to the AWS Management Console after activation.

Step 2: Navigate to the S3 Service

- From the AWS Management Console, search for "S3" in the search bar.
- Click on **Amazon S3** to open the service.

Step 3: Create an S3 Bucket

- Click on "**Create Bucket**".
- Enter the bucket name (e.g., **sagnik15-b1**).
- Ensure that "**Block all public access**" is checked to prevent unauthorized access.
- Enable **versioning** if needed.
- Click "**Create bucket**".

Step 4: Configure Bucket Settings

- Navigate to **Bucket Properties** and configure:
 - Enable **server-side encryption (SSE-S3)** to protect stored data.
 - Set lifecycle rules to **automatically transition objects** or delete them after a specific period to optimize free-tier usage.

Step 5: Upload and Manage Files

- Click on the created bucket and go to the **Objects tab**.
- Click **Upload**, select files, and complete the upload process.
- Manage files by setting permissions and metadata if required.

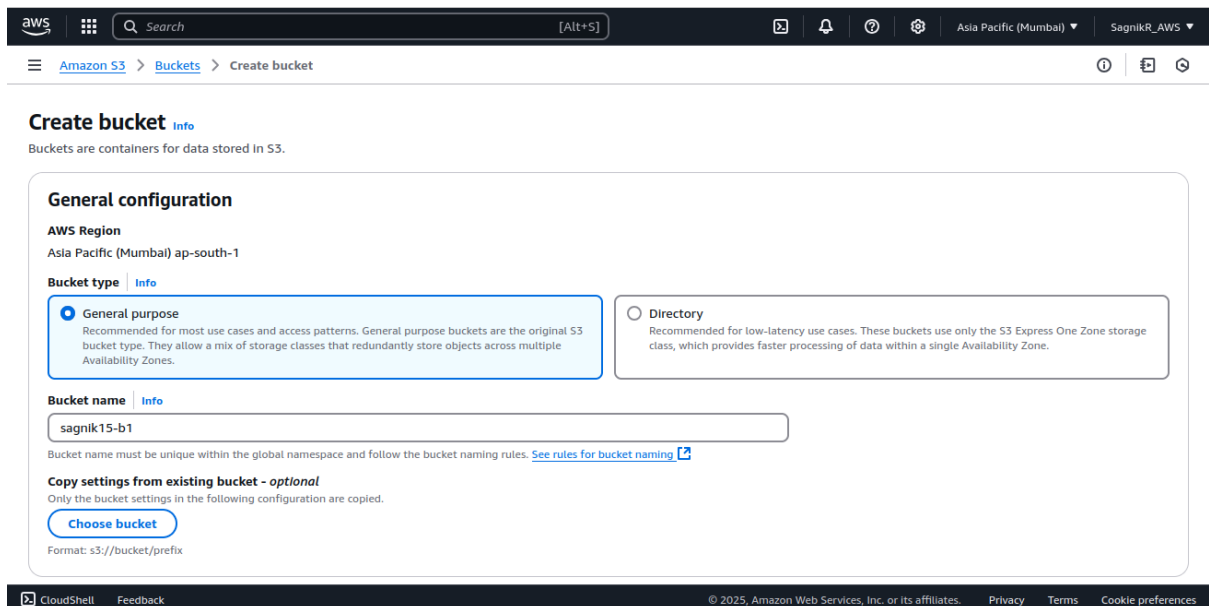
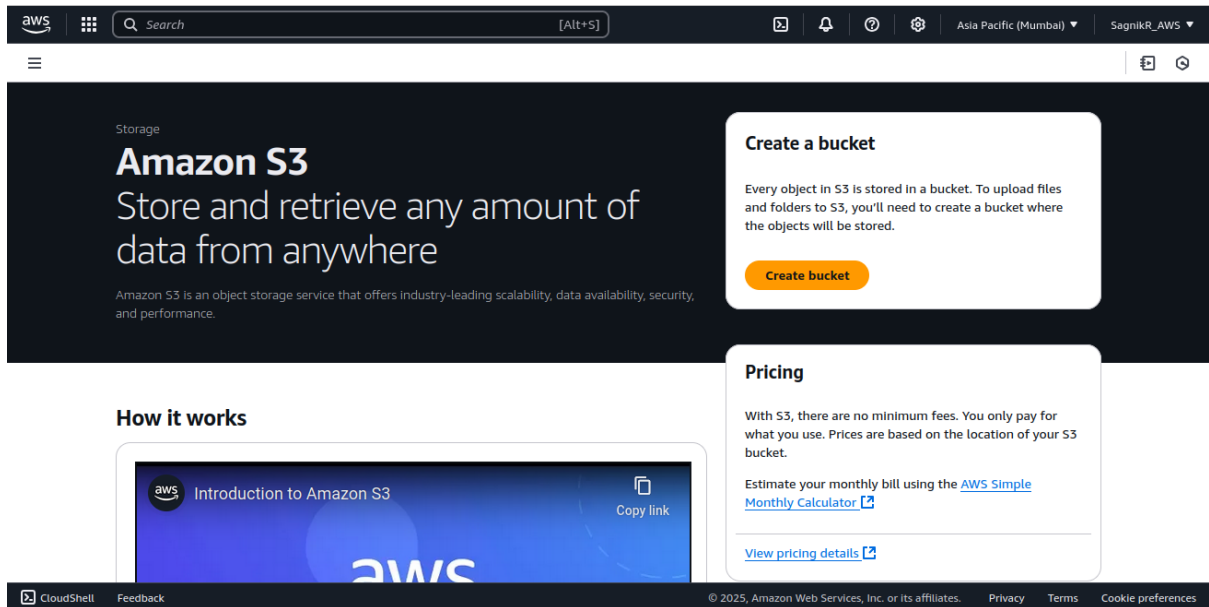
Step 6: Ensure Cost-Free Usage

- Verify that storage usage remains within the **AWS Free Tier limit (5GB free storage for 12 months)**.
- Monitor usage using **AWS Cost Management** and **Billing Dashboard**.
- Delete unnecessary objects and avoid additional features that may incur charges.

Step 7: Delete the S3 Bucket (To Prevent Unwanted Charges)

- Before deleting the bucket, ensure all objects inside it are removed:
 - Open the bucket, select all files, and click "**Delete**".
- Navigate to **Bucket Settings** and click "**Delete Bucket**".
- Confirm deletion by typing the bucket name and clicking "**Confirm**".
- Verify that the bucket is removed from the AWS S3 console.

Screenshots:



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Asia Pacific (Mumbai)

SagnikR_AWS

Amazon S3

Buckets

Create bucket

Bucket Versioning

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

Disable

Enable

Tags - optional (0)

You can use bucket tags to track storage costs and organize buckets. [Learn more](#)

No tags associated with this bucket.

Add tag

Default encryption

Server-side encryption is automatically applied to new objects stored in this bucket.

Encryption type

Server-side encryption with Amazon S3 managed keys (SSE-S3)

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Amazon S3

Buckets

Create bucket

Default encryption [Info](#)

Server-side encryption is automatically applied to new objects stored in this bucket.

Encryption type [Info](#)

- ☒ Server-side encryption with Amazon S3 managed keys (SSE-S3)
- ☐ Server-side encryption with AWS Key Management Service keys (SSE-KMS)
- ☐ Dual-layer server-side encryption with AWS Key Management Service keys (DSSE-KMS)
Secure your objects with two separate layers of encryption. For details on pricing, see [DSSE-KMS pricing](#) on the [Storage](#) tab of the [Amazon S3 pricing page](#).

Bucket Key
Using an S3 Bucket Key for SSE-KMS reduces encryption costs by lowering calls to AWS KMS. S3 Bucket Keys aren't supported for DSSE-KMS. [Learn more](#)

- ☐ Disable
- ☒ Enable

► **Advanced settings**

After creating the bucket, you can upload files and folders to the bucket, and configure additional bucket settings.

Cancel

Create bucket

CloudShell

Feedback

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