

SVKM'S NMIM'S Nilkamal School of Mathematics, Applied Statistics & Analytics

Master of Science (Data Science)

Practical-4 Storage as a service using AWS.

Date:-29/02/2024

Submission Date:- 07/03/2024

Writeup:-

● Storage as a service-s3

Amazon Simple Storage Service (Amazon S3) is an object storage service that offers industry-leading scalability, data availability, security, and performance. Customers of all sizes and industries can use Amazon S3 to store and protect any amount of data for a range of use cases, such as data lakes, websites, mobile applications, backup and restore, archive, enterprise applications, IoT devices, and big data analytics. Amazon S3 provides management features so that you can optimize, organize, and configure access to your data to meet your specific business, organizational, and compliance requirements.

Amazon Simple Storage Service (Amazon S3) is an object storage service offering industry-leading scalability, data availability, security, and performance. Customers of all sizes and industries can store and protect any amount of data for virtually any use case, such as data lakes, cloud-native applications, and mobile apps. With cost-effective storage classes and easy-to-use management features, you can optimize costs, organize data, and configure fine-tuned access controls to meet specific business, organizational, and compliance requirements.



● S3 use cases

Build a data lake

Run big data analytics, artificial intelligence (AI), machine learning (ML), and high performance computing (HPC) applications to unlock data insights.

Back up and restore critical data

Meet Recovery Time Objectives (RTO), Recovery Point Objectives (RPO), and compliance requirements with S3's robust replication features.

Archive data at the lowest cost

Move data archives to the Amazon S3 Glacier storage classes to lower costs, eliminate operational complexities, and gain new insights.

Run cloud-native applications

Build fast, powerful mobile and web-based cloud-native apps that scale automatically in a highly available configuration

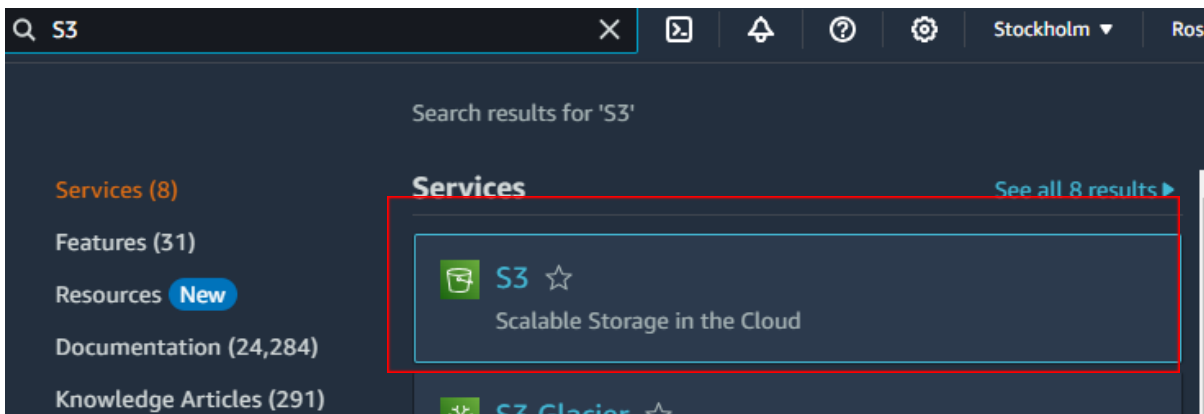
- **Steps for s3**

- ❖ Sign in to the AWS Management Console and open the Amazon S3 console at <https://console.aws.amazon.com/s3/>.
- ❖ Create a bucket
- ❖ Add an object to Bucket
- ❖ Add a folder to Bucket
- ❖ View an Object
- ❖ Move an Object
- ❖ Delete an Object and Bucket
- ❖ To empty a bucket
- ❖ To delete a bucket
- ❖ Hosting a Static Website on Amazon S3
- ❖ AWS user to control S3

Implement S3 for :

1. uploading a file,video,etc.

Step 1:- Signin to AWS -> search for S3 services



Step 2:- Create a bucket -> Select AWS Region -> Provide a Bucket name ->Keep the further settings as default -> then select create bucket option

General configuration

AWS Region

Asia Pacific (Mumbai) ap-south-1

Bucket name [Info](#)

phoenix2002

Bucket name must be unique within the global namespace and follow the bucket naming rules. [See rules for bucket naming](#)

Copy settings from existing bucket - *optional*

Only the bucket settings in the following configuration are copied.

[Choose bucket](#)

Format: s3://bucket/prefix

General purpose buckets (2) [Info](#)

Buckets are containers for data stored in S3.

Find buckets by name

Name

- ☐ elasticbeanstalk-eu-north-1-762469512138
- ☐ phoenix2002

Select the
bucket created

Step 3- Upload any file(image videos etc) -> Add files

Amazon S3 > Buckets > phoenix2002

phoenix2002 [Info](#)

[Objects](#) | [Properties](#) | [Permissions](#) | [Metrics](#) | [Management](#) | [Access Points](#)

Objects (0) [Info](#)

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](#)

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

No objects
You don't have any objects in this bucket.

[Upload](#)

aws Services Search [Alt+S]

Amazon S3 > Buckets > phoenix2002 > 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, 69.8 KB) [Remove](#) [Add files](#) [Add folder](#)

All files and folders in this table will be uploaded.

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

Destination [Info](#)

Destination
[s3://phoenix2002](#)

[Destination details](#)
Bucket settings that impact new objects stored in the specified destination.

Step 4:- Select the file and click on Upload

Files and folders (1 Total, 69.8 KB) [Remove](#) [Add files](#) [Add folder](#)

All files and folders in this table will be uploaded.

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

Destination [Info](#)

Destination
[s3://phoenix2002](#)

[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
View details below.

Upload: status

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

Summary

Destination s3://phoenix2002	Succeeded 1 file, 69.8 KB (100.00%)	Failed 0 files, 0 B (0%)
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Files and folders

Files and folders (1 Total, 69.8 KB)

Find by name

Name	Folder	Type	Size	Status	Error
panda.jpg		image/jpeg	69.8 KB	Succeeded	-

Click on the link

Step 5:- Click on Open

Amazon S3 > Buckets > phoenix2002 > panda.jpg

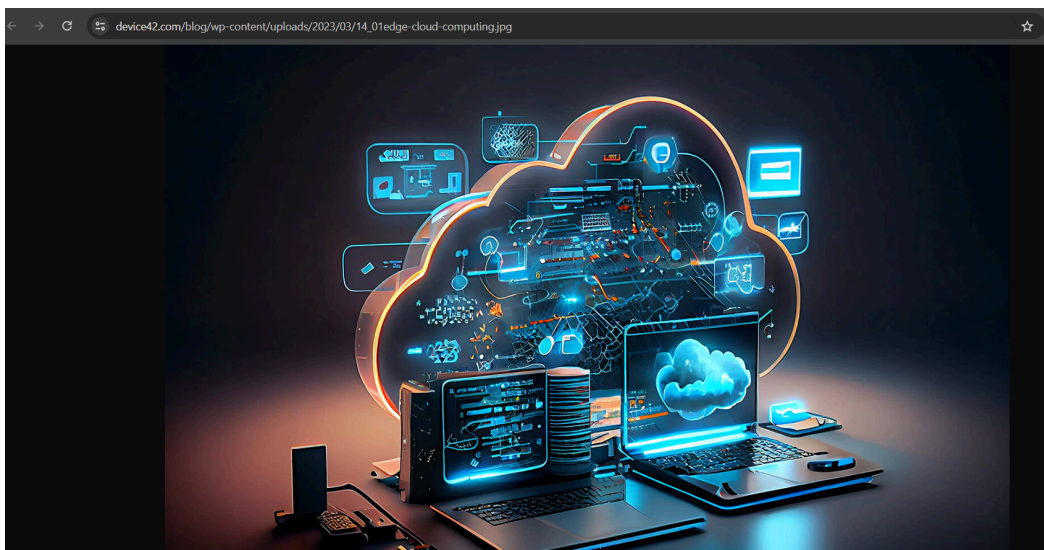
panda.jpg

Copy S3 URI Download **Open** Object actions

Properties Permissions Versions

Object overview

Owner 31e2b2d583f65283ef7b98fe83ba8ac239de7124506a097f1178ca6e27021f	S3 URI s3://phoenix2002/panda.jpg
AWS Region Asia Pacific (Mumbai) ap-south-1	Amazon Resource Name (ARN) arn:aws:s3:::phoenix2002/panda.jpg
Last modified February 29, 2024, 08:15:41 (UTC+05:30)	Entity tag (ETag) 46c562532ee04b7e8d72c0af0b4f25fe
Size 69.8 KB	Object URL https://phoenix2002.s3.ap-south-1.amazonaws.com/panda.jpg
Type jpg	
Key panda.jpg	



2. uploading a static website

Follow the same steps till Step 2 and upload any static file -> click on the link

```
static - Notepad
File Edit Format View Help
<Html>
<Head>
<title>
Cloud Computing Practicals
</title>
</Head>
<Body style="background-color:DodgerBlue;">
<h6> Welcome </h6>
<h5> To </h5>
<h4> Cloud </h4>
<h3> Computing </h3>
<h2>Practical </h2>
<h1> 4</h1>
</Body>
</Html>
```

This is the sample static file. save this file by .html extension


Amazon S3 > Buckets > phoenix2000

phoenix2000 [Info](#)

[Objects](#) | [Properties](#) | [Permissions](#) | [Metrics](#) | [Management](#) | [Access Points](#)

Objects (1) [Info](#)

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](#)

<input type="checkbox"/>	Name	Type	Last modified	Size	Storage class
<input type="checkbox"/>	 static.html	html	February 29, 2024, 08:38:44 (UTC+05:30)	331.0 B	Standard

Follow step 5 given above

