

Name :Roshan Saral Kumar(CLOUD-COMPUTING-INTERN)
DATE:20-10-2025

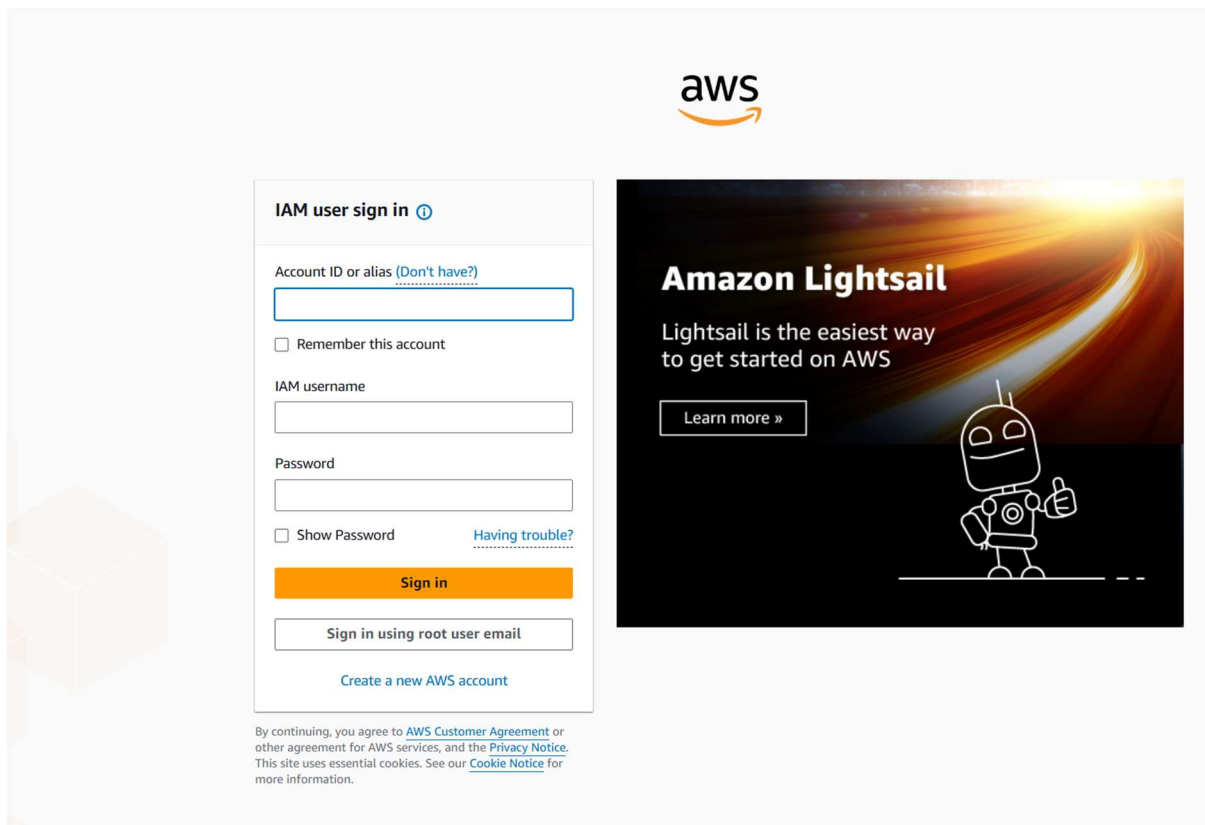
TASK 1

Create a Cloud Storage Bucket and Upload Files

- **Objective:- Understand cloud object storage basics.**
 - **TOOLS USED:- AWS S3 (Free Tier)**
-

STEP 1:- SIGN IN TO AWS MANAGEMENT CONSOLE

- **THIS IS THE SIGN IN CONSOLE PAGE AND IAM USING SIGN USING ROOT USER EMAIL (ROOT USER MEANS I HAVE ACCESS TO ALL THE SERVICES OF AWS IF IT IS AN IAM (IDENTITY AND ACCESS MANAGEMENT USER THEN THE USER WILL HAVE ACCESS TO ONLY A LIMITED NUMBER OF SERVICES THAT AWS OFFERS AND THE IAM USERS WILL HAVE IAM POLICIES ATTACHED TO THEM SO ONLY THOSE SERVICES THEY WILL BE ABLE TO USE) CURRENTLY LOGGING IN AS ROOT USER EMAIL.**



IAM user sign in

Account ID or alias (Don't have?)

☐ Remember this account

IAM username

Password

☐ Show Password [Having trouble?](#)

Sign in

[Sign in using root user email](#)

[Create a new AWS account](#)

By continuing, you agree to [AWS Customer Agreement](#) or other agreement for AWS services, and the [Privacy Notice](#). This site uses essential cookies. See our [Cookie Notice](#) for more information.

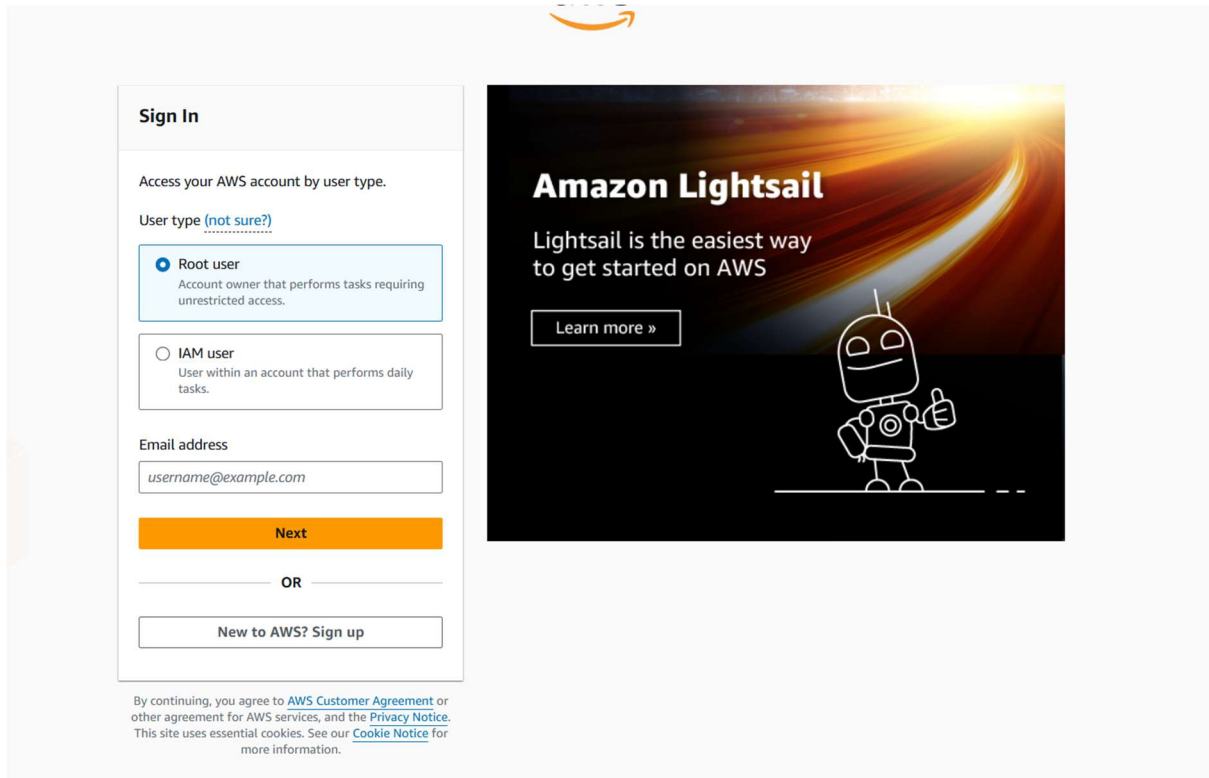
aws

Amazon Lightsail

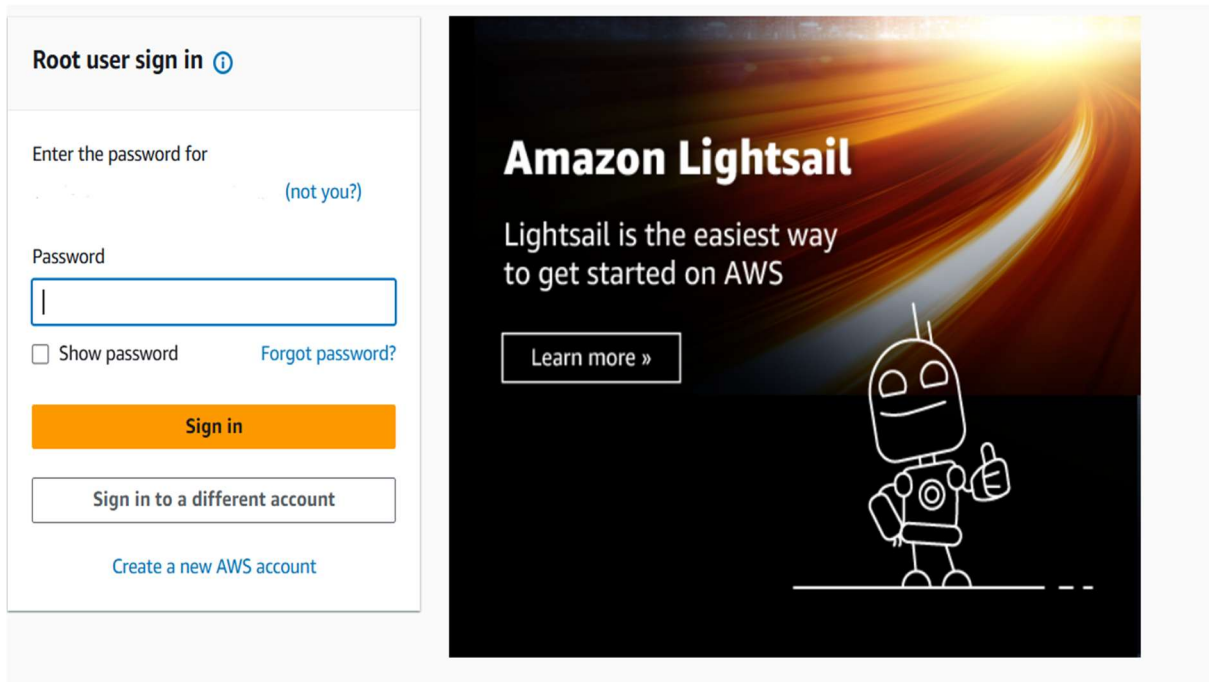
Lightsail is the easiest way to get started on AWS

[Learn more »](#)

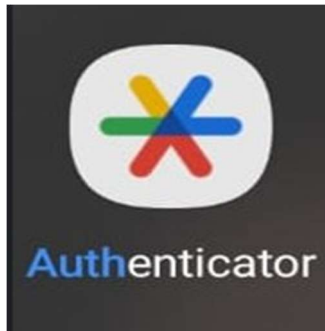
- AFTER CLICKING ON SIGN IN USING ROOT USER EMAIL I WILL GET THIS PAGE WHERE I HAVE TO ENTER MY EMAIL-ID. AND AS WE CAN SEE ROOT USER IS SELECTED BY DEFAULT. WE CAN ALSO SELECT IAM USER IN THIS PAGE IN CASE IF THERE IS A CHANGE.



- AFTER ENTERING OUR EMAIL WE NEED TO GIVE OUR PASSWORD

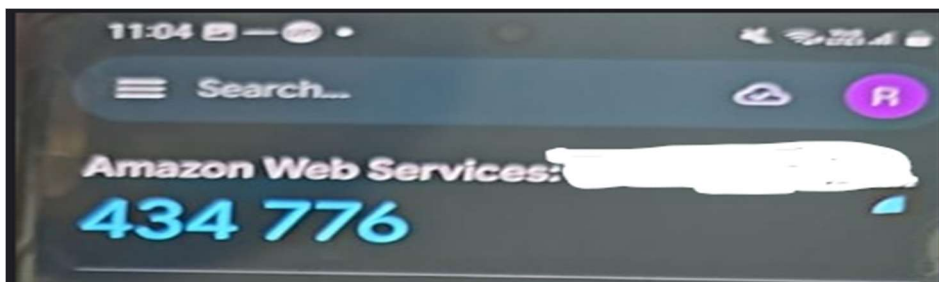


- **SINCE I HAVE AN AWS ACCOUNT ALREADY CREATED I ACTUALLY MADE AN MFA FOR MY ROOT USER . MFA STANDS FOR (MULTI-FACTOR AUTHENTICATION CODE) IT ACTS AS A DOUBLE LAYER PROTECTION FOR OUR ROOT USER OTHERWISE WE CAN GET HACKED SO ALREADY PROVIDE AN EXTRA LAYER OF PROTECTION TO BE ON THE SAFER SIDE.**
- **MFA CODE IS GIVEN BY TOTEM TOKENS OR U CAN ALSO USE THE “GOOGLE AUTHENTICATOR APP” IN YOUR MOBILE WHICH IS MOSTLY PREFERRED.**

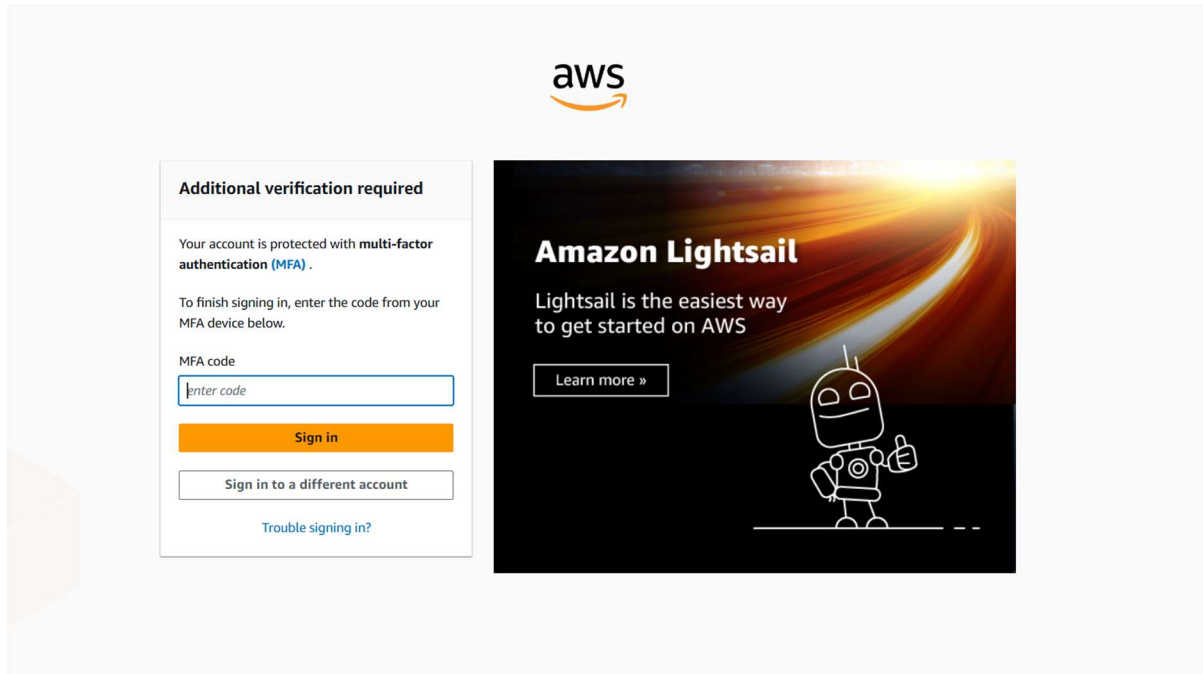


- **THIS APP IS IN MY MOBILE AND I HAVE TO GIVE THE MFA CODE WHICH IS ASKED FOR THE VERIFICATION OF ROOT USER.**
- **ONCE I HAVE CLICKED ON THIS APP I WILL SEE THE BELOW SCREEN IN MY MOBILE**

- **THE SCREEN IN MY MOBLIE LOOKS LIKE THIS:-THE CONTENT WHICH IAM HIDING USING A WHITE COLOR IS MY PRIVATE INFORMATION OF MY ACCOUNT WHICH CANNOT BE SHARED BUT HIS IS HOW A SIMPLE MFA CODE LOOKS LIKE AND THE MFA CODE KEEPS ON CHANGING ON A DAILY BASIS.ALWAYS USE MFA TO ENSURE ENHANCED SECURITY.**



- **THIS IS THE CODE THAT I HAVE TO ENTER IN MY AWS WEB BROWSER IN THE BELOW IMAGE IT IS SHOWN.**



- **AFTER SIGNING IN WE ENTER THE AWS MANAGEMENT CONSOLE AND THE DFAULT REGION IS NORTH VIRGINIA THAT IS “us-east-1” WE CAN SELECT DIFFERENT REIGIONS. IN THE IMAGE IT IS CLEARLY SHOWN IN THE RIGHT HAND SIDE WHICH REGION IAM CURRENTLY WORKING IN. THE BELOW IMAGE SHOWS THE SERVICES WHICH I VISITED AND THE CURRENT REGION WHICH IAM WORKING IN.**
- **TERMINOLOGIES:-**
- **Region:-** It is a geothermal location which consists of a group of AZs (AVAILABILITY ZONES) and the network of a region is called a VPC(VIRTUAL PRIVATE CLOUD).
- **AZ(Availability Zone):-** they are a group of data centers.the network of a Az is a subnet.
- **Edge Location:-** it is a location in between various Azs or it is found at the boundary of an az In order to cache the incoming data acts like a storage for easier retrieval.
- **NOTE:-WE ARE WORKING IN THE PUBLIC SUBNET THAT IS “us-east-1”** if we are working in any azs it will show us-east-1a,us-east-1b and so on. We can check the azs in our aws management console itself that is given in below figure.

HERE WE WILL BE ABLE TO SEE THE SUBNETS IN THE VPC DASHBOARD IF WE CLICK ON SUBNETS THEN TOTALLY THERE ARE 6 SUBNETS THAT IS PRIVATE SUBNETS FROM “us-east-1a” to” us-east-1f” totally we have 6 private subnets or we can also say we have 6 azs under NORTH VIRGINIA THAT IS “US-EAST-1” REGION. This is provided by aws itself by default we cannot create any Availability Zones.

VPC dashboard <

AWS Global View

Filter by VPC: ▼

▼ Virtual private cloud

Your VPCs

Subnets

Route tables

Internet gateways

Egress-only Internet gateways

Carrier gateways

DHCP option sets

Elastic IPs

Managed prefix lists

NAT gateways

Peering connections

Subnets (6) info

Last updated 1 minute ago

Actions Create subnet

Find subnets by attribute or tag

<input type="checkbox"/>	Name	Subnet ID	State	VPC	Block Public...	IPv4 CIDR	IPv6 CIDR	IPv6 CIDR association ID
<input type="checkbox"/>	-	subnet-0ae87ed8eff9b0c557	Available	vpc-08652b60c7ce5df5b	Off	172.31.64.0/20	-	-
<input type="checkbox"/>	-	subnet-0200b59ddc9592303	Available	vpc-08652b60c7ce5df5b	Off	172.31.16.0/20	-	-
<input type="checkbox"/>	-	subnet-08b4c1e51cc0100c5	Available	vpc-08652b60c7ce5df5b	Off	172.31.48.0/20	-	-
<input type="checkbox"/>	-	subnet-0d5cabf48603fed34	Available	vpc-08652b60c7ce5df5b	Off	172.31.32.0/20	-	-
<input type="checkbox"/>	-	subnet-00062a9d978b9779f	Available	vpc-08652b60c7ce5df5b	Off	172.31.0.0/20	-	-
<input type="checkbox"/>	-	subnet-057b40416a98890f5	Available	vpc-08652b60c7ce5df5b	Off	172.31.80.0/20	-	-

- **NOW I WILL START BY CREATING THE S3 BUCKET IN MY PUBLIC SUBNET USING ROOT USER ACCOUNT.....**

Go to Cloud Storage → Create Bucket. IAM CREATING IN AWS SO IAM SEARCHING FOR S3 BUCKET IN THE CONSOLE.

Q s3

X

Services

Show more

Services

Features

Resources

Documentation


Knowledge articles

Marketplace

Blog posts


Events

Tutorials

 **S3**


Scalable Storage in the Cloud

☆

 **S3 Glacier**

Archive Storage in the Cloud

☆

 **AWS Snow Family**

Large Scale Data Transport

☆

Features

Show more

S3 on Outposts

■ AWS Outposts feature

Exports to S3

■ DynamoDB feature

S3 Access Grants

■ S3 feature

Resources in us-east-1 / for a focused search

① Looking for resources in other Regions?

You can enable cross-Region search for resources across all Regions in your account by specifying an aggregator index.

Enable cross-Region search [↗](#)

Were these results helpful?

👍 Yes

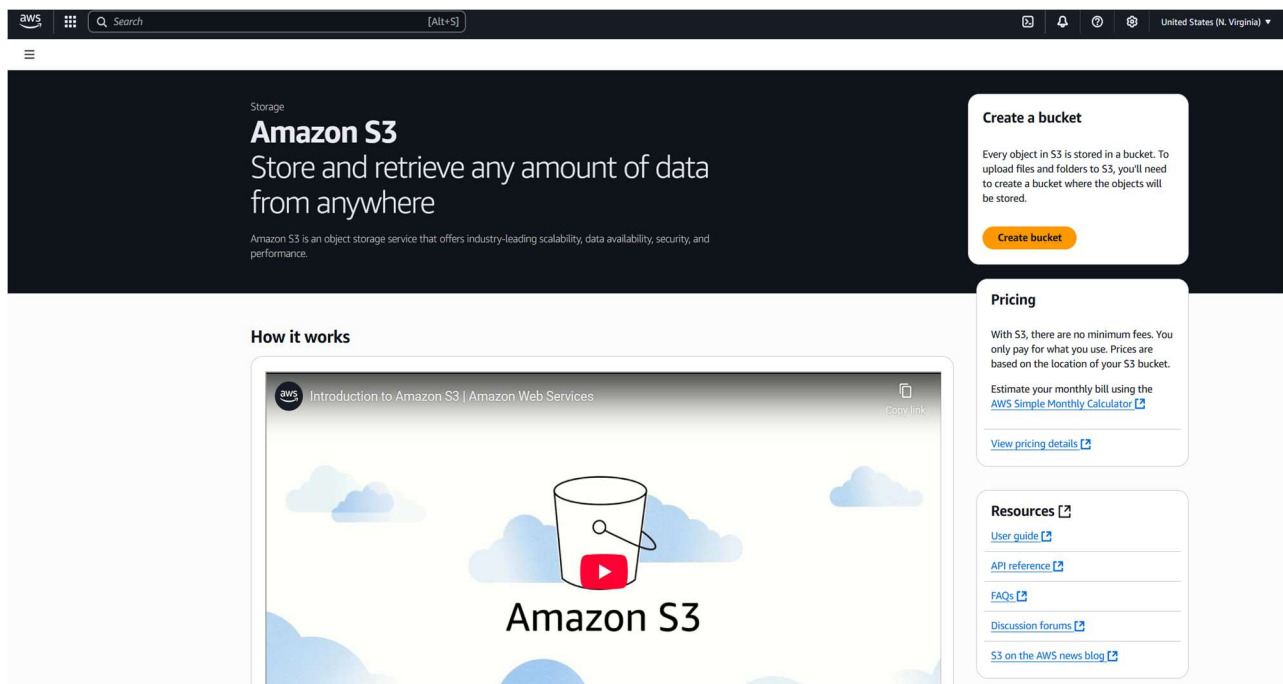
👎 No

default-account-dashboard

■ S3 storage-lens

United States (N. Virginia) us-east-1

AFTER CLICKING ON S3 WE GET THIS WINDOW.



- **WE CAN CLICK ON CREATE BUCKET:-THE WINDOW OPENS AND GIVES US SOME PARAMETERS THAT WE HAVE TO ENTER.BASED ON THE TASKS PROVIDED BY ELEVATE LABS IAM GOING STEP BY STEP:-**

STEP 1:- CREATING A UNIQUE NAME FOR THE BUCKET.(UNIQUE BUCKET NAME IS “roshansaralkumar_in_elevate_labs_storage”

Step 2:- Choose region (e.g., us-east-1).Here we can choose any region but currently iam working in us-east-1 . IN AWS REGION WHICH IS CHOSEN IS THE REGION IN WHICH U ARE CURRENTLY WORKING IN AND CANNOT BE CHOSEN IN S3 CONSOLE.BUT IN REGIONS U CAN CHOOSE WHICH REGION WE WANT TO WORK IN AND IT WILL BE APPLIED BY DEFAULT WHEN CREATING THE BUCKET . WE NEED NOT CHOOSE IT MANUALLY IN AWS.

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

Bucket type [Info](#)

☒ **General purpose**
 Recommended for most use cases and access patterns. General purpose buckets are the original S3 bucket type. They allow a mix of storage classes that redundantly store objects across multiple Availability Zones.

☐ **Directory**
 Recommended for low-latency use cases. These buckets use only the S3 Express One Zone storage class, which provides faster processing of data within a single Availability Zone.

Bucket name [Info](#)

roshansaralkumar_in_elevate_labs_storage

Bucket names must be 3 to 63 characters and unique within the global namespace. Bucket names must also begin and end with a letter or number. Valid characters are a-z, 0-9, periods (.), and hyphens (-). [Learn More](#)

- THERE ARE TWO OPTIONS FOR BUCKET TYPE ONE IS GENERAL PURPOSE AND THE OTHER IS DIRECTORY SO
- **GENERAL PURPOSE BUCKETS:-**
 - IS USED FOR STORAGE OPTIONS LIKE **IMAGES,VIDEOS,LOGS,DOCUMENTS ETC.**
 - IF WE WANT HIGH AVAILABILITY AND PERFORMANCE.
 - FOR **BUILDING WEBSITES,BACKUPS,DATA LAKES,OR ML STORAGE.**
- **DIRECTORY STYLE BUCKETS:-**
 - THESE BUCKETS ORGANIZE OBJECTS LOGICALLY(LIKE FOLDERS IN OUR COMPUTERS)
 - ALSO USED FOR MANAGING LARGE-DATASETS WITH HIERARICHICAL NAMING.
 - ALSO USED FOR FASTER LOOKUPS.
 - YOU ARE INTEGRATING WITH **DATA PROCESSING systems** (like ATHENA, GLUE, EMR) that rely on **FOLDER STYLE ORGANIZATION.**

WE ARE GOING WITH THE GENERAL PURPOSE WHICH HAS HIGH AVAILABILITY AND PERFORMANCE SICE WE ARE JUST UPLOADING IMAGES,FILES ETC

AFTER THIS WE CAN SEE THAT DEFAULT PERMISSIONS ARE USED AND IMA MAKINGMY S3 BUCKET AS PRIVATE AND BLOCKING ALL PUBLIC ACCESS.

Block Public Access settings for this bucket

Public access is granted to buckets and objects through access control lists (ACLs), bucket policies, access point policies, or all. In order to ensure that public access to this bucket and its objects is blocked, turn on Block all public access. These settings apply only to this bucket and its access points. AWS recommends that you turn on Block all public access, but before applying any of these settings, ensure that your applications will work correctly without public access. If you require some level of public access to this bucket or objects within, you can customize the individual settings below to suit your specific storage use cases. [Learn more](#)

☒ Block all public access

Turning this setting on is the same as turning on all four settings below. Each of the following settings are independent of one another.

☒ Block public access to buckets and objects granted through new access control lists (ACLs)

S3 will block public access permissions applied to newly added buckets or objects, and prevent the creation of new public access ACLs for existing buckets and objects. This setting doesn't change any existing permissions that allow public access to S3 resources using ACLs.

☒ Block public access to buckets and objects granted through any access control lists (ACLs)

S3 will ignore all ACLs that grant public access to buckets and objects.

☒ Block public access to buckets and objects granted through new public bucket or access point policies

S3 will block new bucket and access point policies that grant public access to buckets and objects. This setting doesn't change any existing policies that allow public access to S3 resources.

☒ Block public and cross-account access to buckets and objects through any public bucket or access point policies

S3 will ignore public and cross-account access for buckets or access points with policies that grant public access to buckets and objects.

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

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 new tag](#)

You can add up to 50 tags.

Default encryption [Info](#)

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

Encryption type [Info](#)

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](#).

☒ 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)

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

- FINALLY IAM MAKING MY S3 BUCKET PRIVATE:-
- **ACL STANDS FOR ACCESS CONTROL LIST AND THIS IS ACTUALLY DISABLED BUT IT CAN BE ACCESSED IF WE ARE TRYING TO DISTRIBUTE OR TRANSFER DATA IN A SINGLE SPECIFIC AZ BUT CURRENTLY WE DON'T REQUIRE BASED ON THE TASKS PROVIDED.**
- AS WE CAN SEE HERE THAT OUR BUCKET IS CREATED SUCCESSFULLY.

Successfully created bucket "roshansaralkumar-in-elevate-labs-vault"
To upload files and folders, or to configure additional bucket settings, choose [View details](#).

General purpose buckets

All AWS Regions

Directory buckets

General purpose buckets (1)

Info

Copy ARN

Empty

Delete

Create bucket

Buckets are containers for data stored in S3.

Find buckets by name

Name	AWS Region	Creation date
roshansaralkumar-in-elevate-labs-vault	US East (N. Virginia) us-east-1	October 20, 2025, 12:22:04 (UTC+05:30)

Account snapshot

Info

Updated daily

Storage Lens provides visibility into storage usage and activity trends.

[View dashboard](#)

External access summary - new

Info

Updated daily

External access findings help you identify bucket permissions that allow public access or access from other AWS accounts.

NOW THE NEXT STEP IS TO UPLOAD IMAGES AND TEXT FILES TO OUR S3 BUCKET:-

- ONCE WE HAVE CREATED THE BUCKET I HAVE UPLOADED A FOLDER KNOWN AS ELEVATE_LABS_TASKS WHICH IS FOLDER 1(ELEVATE_LABS_TASKS).

Upload succeeded

For more information, see the Files and folders table.

Close

Upload: status

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

Summary

Destination

s3://roshansaralkumar-in-elevate-labs-vault

Succeeded

1 File, 0 B (0%)

Failed

0 Files, 0 B (0%)

Files and folders

Configuration

Files and folders (1 total, 0 B)

Find by name

Name	Folder	Type	Size	Status	Error
ELEVATE-LABS-TASKS/	-	-	0 B	Succeeded	-

- AS WE CAN SEE OVER HERE IN THE ELEVATE_LABS_TASK FOLDER I HAVE CREATED A NEW FOLDER CALLED IMAGES_FILE(FOLDER 2). WHICH CONSISTS MY IMAGE FOR NATURE.

Amazon S3

Buckets

roshansaralkumar-in-elevate-labs-vault

ELEVATE-LABS-TASKS/

IMAGES_FILE/

Upload

0

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 (0)

Remove

Add files

Add folder

All files and folders in this table will be uploaded.

Find by name

Name	Folder	Type	Size
No files or folders			
You have not chosen any files or folders to upload.			

Destination

Info

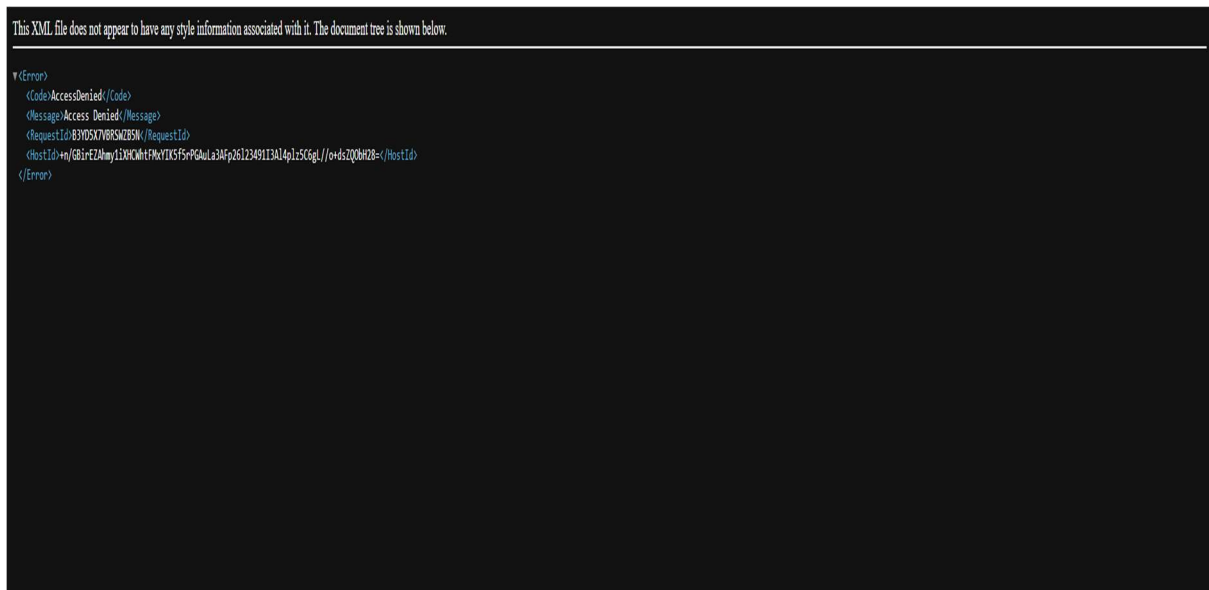
Destination

s3://roshansaralkumar-in-elevate-labs-vault/ELEVATE-LABS-TASKS/IMAGES_FILE/

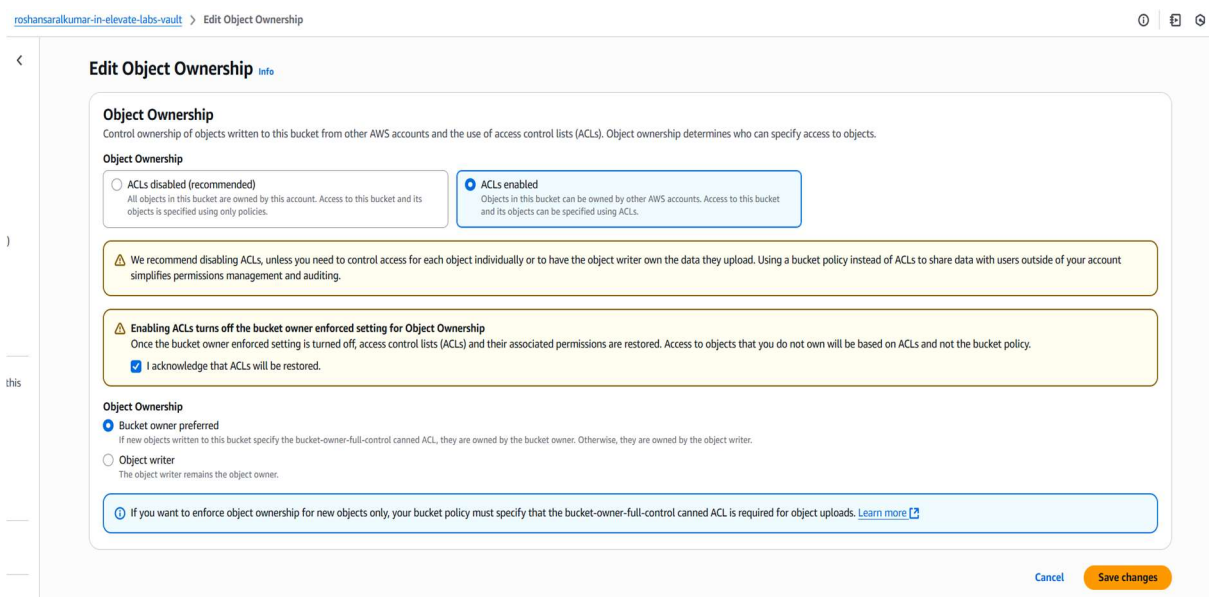
Destination details

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

- **AFTER UPLOADING THE NATURE IMAGE IN .PNG FORMAT. AND USING THE OBJECT URL OF THE IMAGE IN THE NEW TAB WHEN WE PASTE IT WE GET THIS ERROR THAT IS SHOWN BELOW**

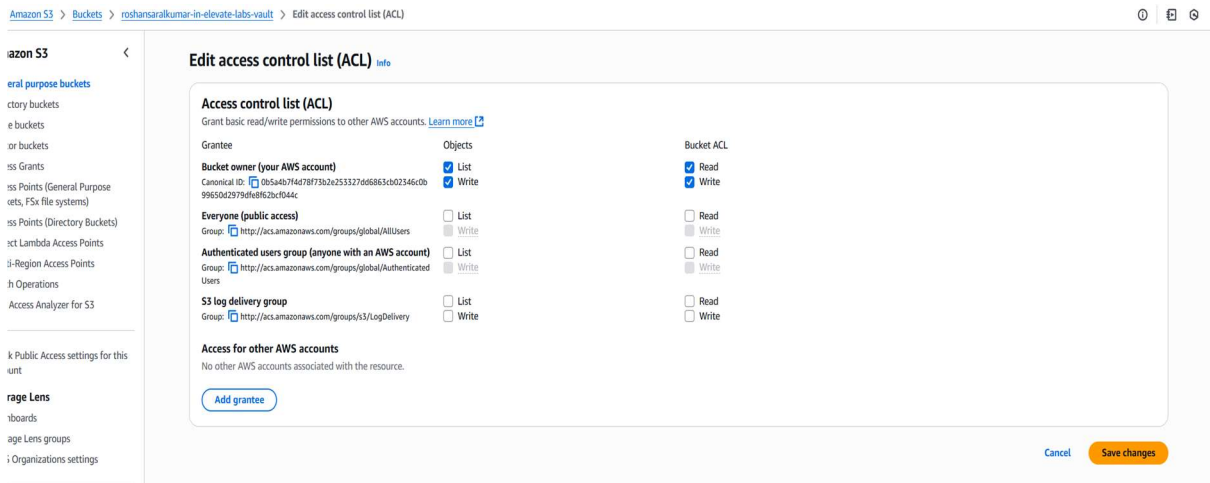


- **THE ABOVE IMAGE INDICATES THAT THE XML ACCESS IS DENIED SO WE HAVE TO CHANGE THE PERMISSIONS AS THIS WAS MADE PRIVATE.FOR THE IMAGE**
- **SO THE SOLUTION FOR THIS IS THAT WE HAVE TO CHANGE THE OBJECT OWNERSHIP OF THE BUCKET BY EDITING IT MAKE SURE THAT ACL IS ENABLED AND ACKNOWLEDGE BOX HAS A TICK ON IT. THEN SAVE THE CHANGES TO GIVE PUBLIC ACCESS FOR THE IMAGE.AS THE BELOW IMAGE.**

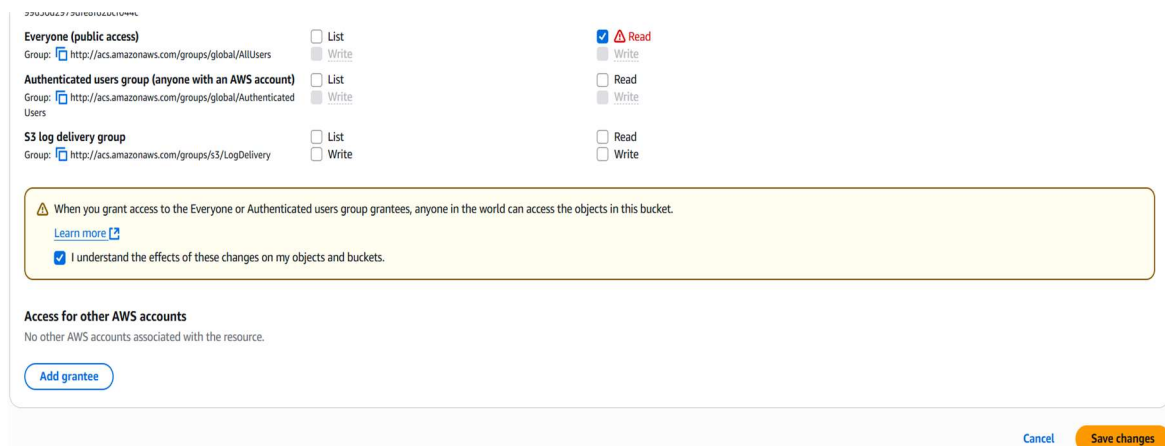


- **NOW AFTER SUCCESSFULLY CHANGING THE OBJECT OWNERSHIP I HAVE**

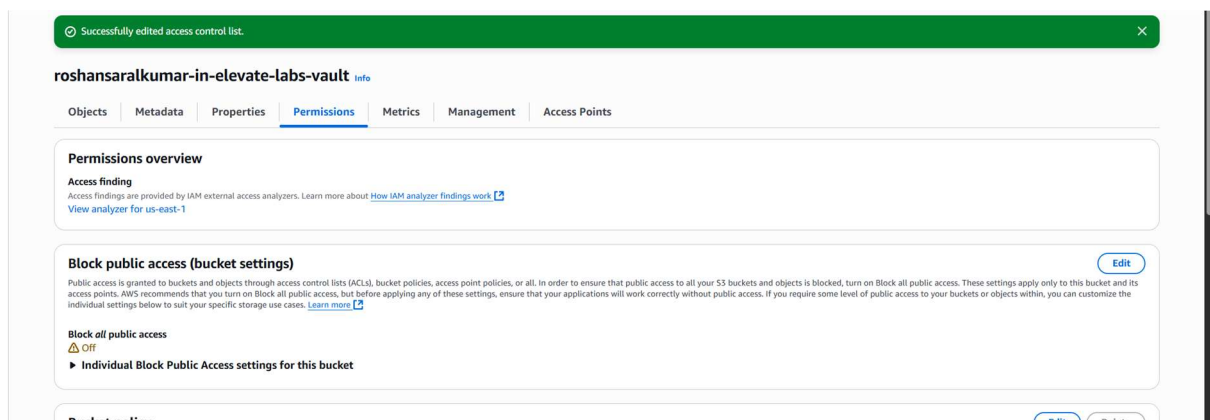
TO CHANGE THE ACL THE BELOW IMAGE SHOWS THAT WE ARE CHANGING THE ACL FOR THE BUCKET WHICH IS CREATED.



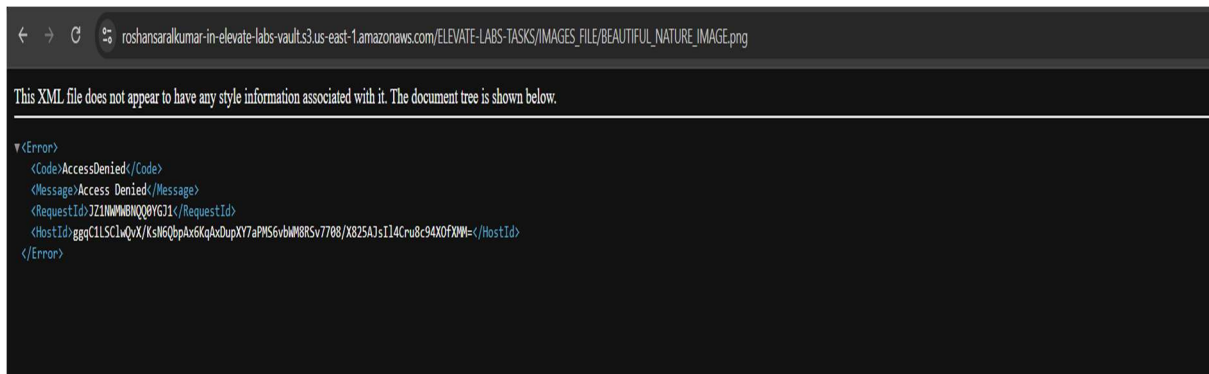
- AFTER THIS IAM GIVING THE READ OPTION FOR EVERYONE AND THE ACKNOWLEDGMENT BOX GIVEN IS TICKED.



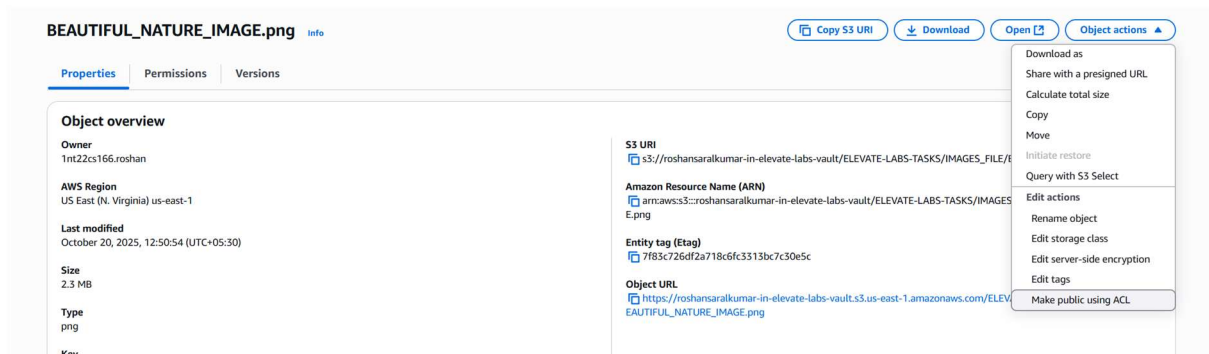
- AFTER THIS A MESSAGE POPS UP THAT WE HAVE SUCCESSFULLY COMPLETED EDITING THE ACCESS LIST FOR THE BUCKET.



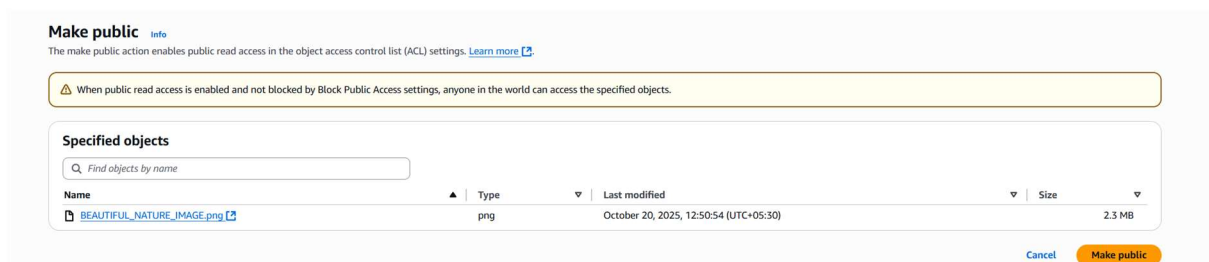
- NOW GO TO THE IMAGE THAT WE HAVE CREATED AND AGAIN CHECK THE URL



- AFTER DOING ALL MODIFICATIONS ALSO WE ARE GETTING THE SAME ISSUE NOW WHAT WE SHOULD DO IS **MAKE THE OBJECT AS PUBLIC** GO BACK TO THE IMAGES AND USE THE **OBJECT ACTIONS** TO MAKE THE **OBJECT PUBLIC** USE ACL . CLICK ON “**MAKE PUBLIC USING ACL**” OPTION



- AFTER CLICKING THE OPTIONS WE CAN MAKE IT AS PUBLIC AND NOW JUST CLICK THE OPTION “**MAKE PUBLIC**”.



- SHOWING SUCCESSFULLY MADE AS PUBLIC AND NOW WE GET THE IMAGE

Successfully edited public access
View details below.

Close

Make public: status

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

Summary

Source

s3://roshansaralkumar-in-elevate-labs-vault/ELEVATE-LABS-TASKS/IMAGES_FILE/

Successfully edited public access

1 object, 2.3 MB

Failed to edit public access

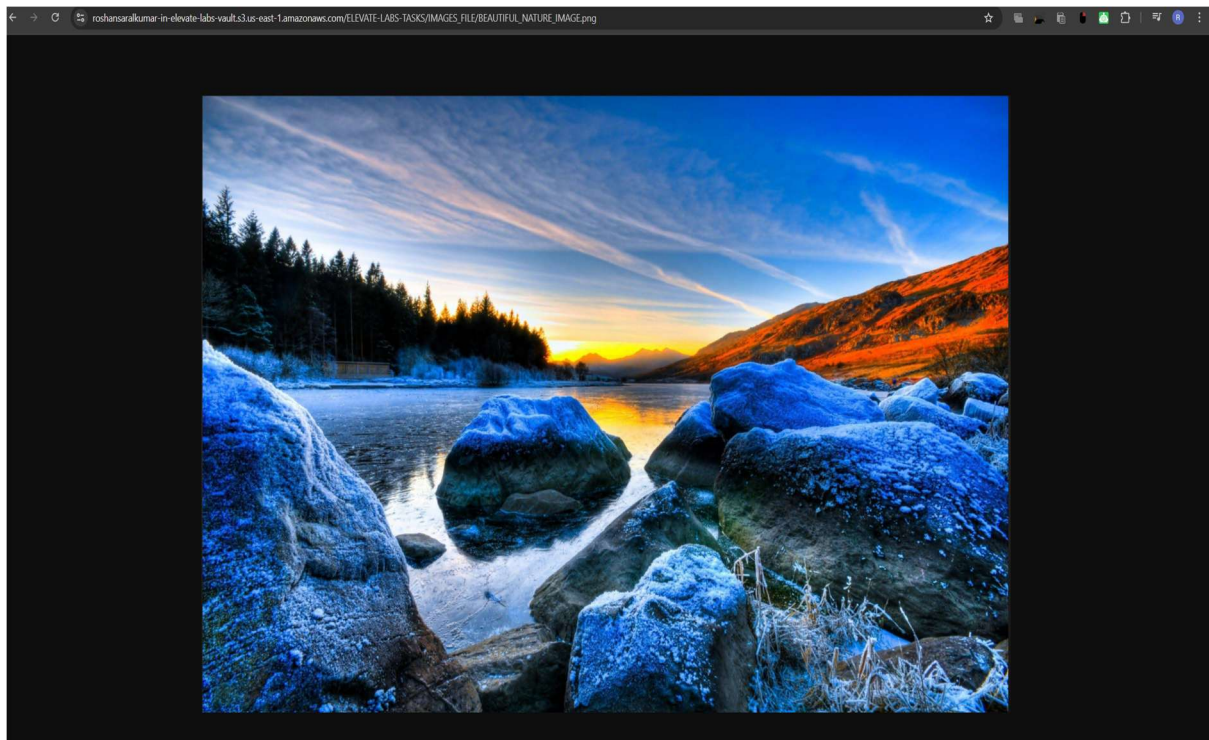
0 objects

Failed to edit public access

Configuration

- SO NOW WHEN WE REFRESH THE PAGE WE GOT OUR IMAGE OF OUR BEAUTIFULL NATURE.
- BY USING THE SAME OBJECT URL WHICH PREVIOUSLY FAILED BECAUSE THE OBJECT WAS PRIVATE NOW AS SOON AS WE CHANGED **THE OBJECT OWNERSHIP AND EDITING THE ACL OF THE BUCKET** WE COULD SEE THAT THE OBJECT BECAME PUBLIC AND NOW IT WAS EASIER TO ACCESS WITH THE URL.
- THE OBJECT URL FOR IMAGE IS:- https://roshansaralkumar-in-elevate-labs-vault.s3.us-east-1.amazonaws.com/ELEVATE-LABS-TASKS/IMAGES_FILE/BEAUTIFUL_NATURE_IMAGE.png

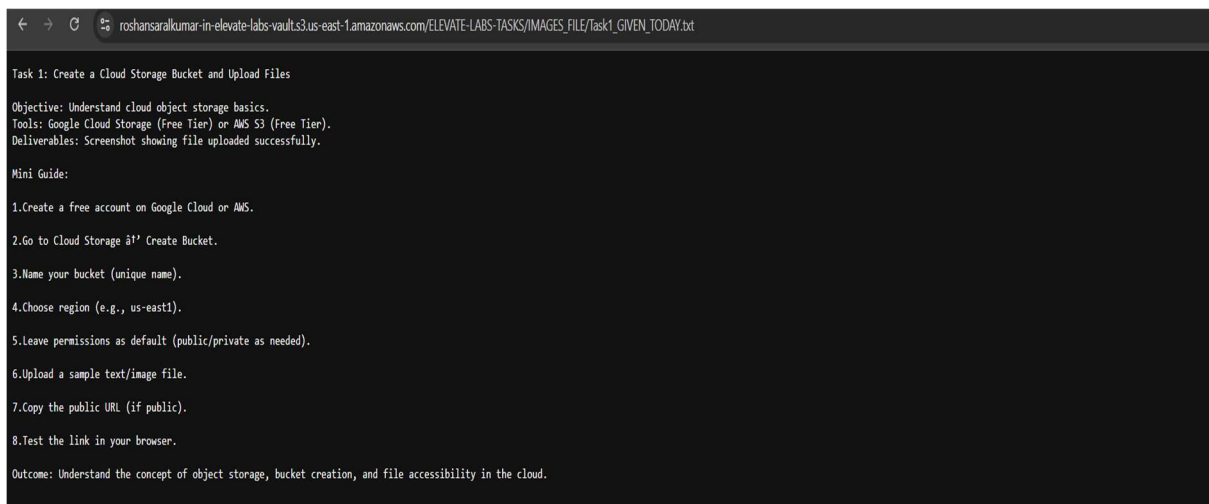
OUTPUT .png IMAGE IN NEW TAB:-



- CONCLUSION WE HAVE DEPLOYED OUR IMAGE INTO THE WEBSITE AND WE CAN VIEW IT BY USING THE OBJECT URL WHICH AWS HAS PROVIDED US.

- **Outcome: I could Understand the concept of object storage, bucket creation, and file accessibility in the cloud. It was a very nice journey to know the different types of s3 buckets and trouble shooting issues while uploading the image in North Virginia region.**
- **TEXT FILE KNOWN AS TASKS GIVEN TODAY IS UPLOADED AND MADE PUBLIC THE SAMEWAY AS WE MENTIONED WHILE UPLOADING THE IMAGE BUT DON'T NEED TO AGAIN CHANGE THE BUCKERET RULES INSTEAD ONLY MAKE CHANGES TO THE TEXTFILE WHICH IS AN OBJECT NAD MAKE THE OBJECT PUBLIC DON'T HAVE TO AGAIN CHANGE THE BUCKET RULES.**

OUTPUT .txt TEXT IMAGE IN NEW TAB:-



```
Task 1: Create a Cloud Storage Bucket and Upload Files
Objective: Understand cloud object storage basics.
Tools: Google Cloud Storage (Free Tier) or AWS S3 (Free Tier).
Deliverables: Screenshot showing file uploaded successfully.
Mini Guide:
1. Create a free account on Google Cloud or AWS.
2. Go to Cloud Storage & Create Bucket.
3. Name your bucket (unique name).
4. Choose region (e.g., us-east1).
5. Leave permissions as default (public/private as needed).
6. Upload a sample text/image file.
7. Copy the public URL (if public).
8. Test the link in your browser.
Outcome: Understand the concept of object storage, bucket creation, and file accessibility in the cloud.
```

- **TEXT URL IS:- https://roshansaralkumar-in-elevate-labs-vault.s3.us-east-1.amazonaws.com/ELEVATE-LABS-TASKS/IMAGES_FILE/Task1_GIVEN_TODAY.txt**
- **SO WE UNDERSTOOD HOW TO VIEW A TEXT AND IMAGE USING AN OBJECT URL AND PASTING IT IN A DIFFERENT TAB .THIS WAY WE HAVE DEPLOYED OUR FIRST TEXT AND IMAGES THAT IS .PNG AND .TXT FILES IN THE BROWSER USING THE OBJECT URL AND MAKING THE OBJECT AS PUBLIC. INITIALLY WHEN ANY IMAGE OR OBJECT IS UPLOADED IT WILL BE MADE AS PRIVATE.**