S3

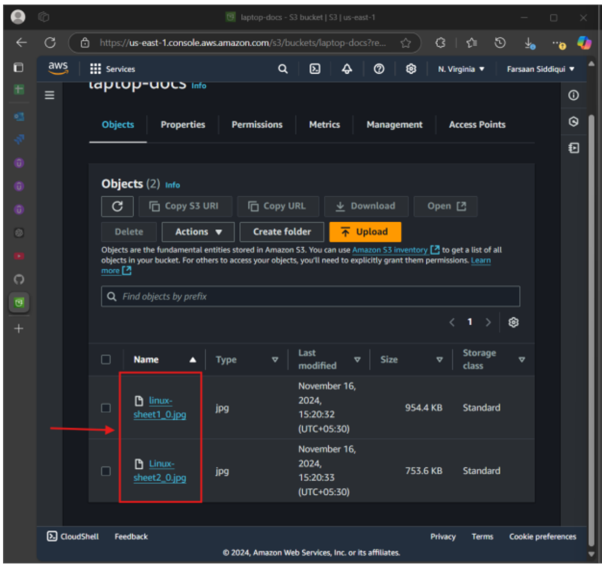
1) Create s3 bucket and upload some objects to s3.

*GO TO S3 AND CREATE NEW BUCKET

*SELECT THE CREATED BUCKET AND UPLOAD FILES FROM LOCAL MACHINE THOSE ARE CALLED OBJECTS AFTER UPLOADED

*MAKE SURE THE PERMISSIONS ARE GIVEN AS PUBLIC ACCESSABLE

*COPY THE OBJECT URL AND TEST IT IN NEW WINDOW



Objects (2) 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

Name	Type	Last modified	Size	Storage class
linux-sheet1_0.jpg	jpg	November 16, 2024, 15:20:32 (UTC+05:30)	954.4 KB	Standard
Linux-sheet2_0.jpg	jpg	November 16, 2024, 15:20:33 (UTC+05:30)	753.6 KB	Standard

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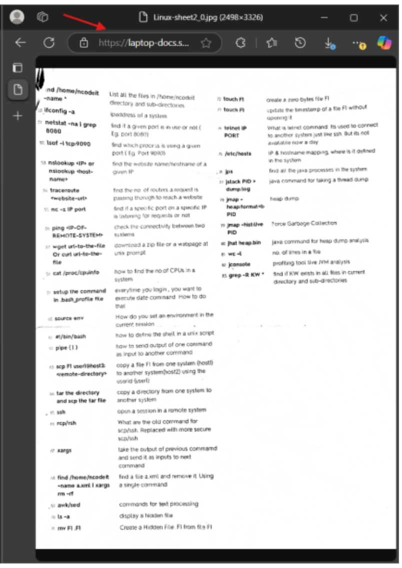


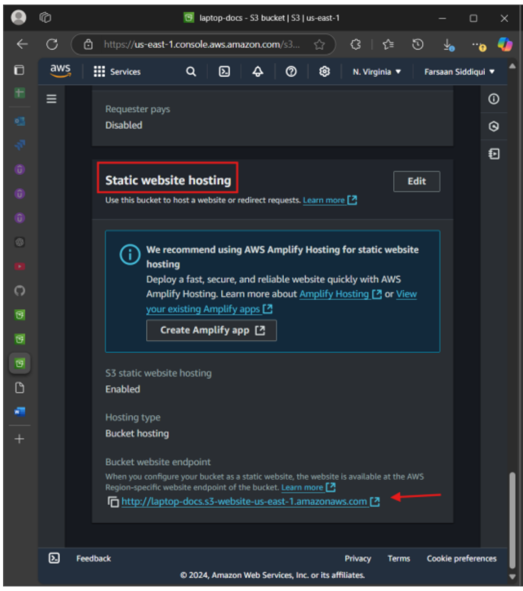
nd /home/ncodeit -name *	List all the files in /home/ncodeit directory and sub-directories	touch F1	create a zero bytes file F1
ifconfig -a	ipaddress of a system	touch F1	update the timestamp of a file F1 without opening it
netstat -na I grep 8080	find if a given port is in use or not (Eg. port 8080)	telnet IP PORT	What is telnet command. Its used to connect to another system just like ssh. But its not available now a day
lsof -i tcp:9090	find which process is using a given port (Eg. Port 9090)	/etc/hosts	IP & hostname mapping, where is it defined in the system
nslookup <IP> or nslookup <host-name>	find the website name/hostname of a given IP	jps	find all the java processes in the system
traceroute <website-url>	find the no. of routers a request is passing thorugh to reach a website	jstack PID > dump.log	java command for taking a thread dump
nc -z IP port	find if a specific port on a specific IP is listening for requests or not	jmap -heap:format=b PID	heap dump
ping <IP-OF-REMOTE-SYSTEM>	check the connectivity between two systems	jmap -histlive PID	Force Garbage Collection
wget url-to-the-file Or curl url-to-the-file	download a zip file or a webpage at unix prompt	jhat heap.bin	java command for heap dump analysis
cat /proc/cpuinfo	how to find the no.of CPUs in a system	wc -l	no. of lines in a file
setup the command in .bash_profile file	everytime you login , you want to execute date command. How to do that	jconsole	profiling tool live JVM analysis
source env	How do you set an environment in the current session	grep -R KW *	find if KW exists in all files in current directory and sub-directories
#!/bin/bash	how to define the shell in a unix script		
pipe (I)	how to send output of one command as input to another command		
scp F1 user1@host2: <remote-directory>	copy a file F1 from one system (host1) to another system(host2) using the userid (user1)		
tar the directory and scp the tar file	copy a directory from one system to another system		
ssh	open a session in a remote system		
rcp/rsh	What are the old command for scp/ssh. Replaced with more secure scp/ssh		
xargs	take the output of previous command and send it as inputs to next command		
find /home/ncodeit -name a.xml I xargs rm -rf	find a file a.xml and remove it. Using a single command		
awk/sed	commands for text processing		
ls -a	display a hidden file		
mv F1 .F1	Create a Hidden File .F1 from file F1		

2) Deploy static website in s3 bucket.

*GO TO BUCKET AND SELECT PROPERTIES SCRLL ALL THE WAY DOWN EDIT STATIC WEBSITE HOSTING AND ADD THE WEB PAGE NAME

*GO TO OBJECTS AND UPLOAD THE WEB PAGE FILR THERE WITH THE SAME NAME AND ALLOW ACL PERMISSION AS PUBLIC

*NOW WITH THE BUCKET URL TEST THE PAGE



Requester pays
Disabled

Static website hosting

Use this bucket to host a website or redirect requests. Learn more

We recommend using AWS Amplify Hosting for static website hosting

Deploy a fast, secure, and reliable website quickly with AWS Amplify Hosting. Learn more about Amplify Hosting or View your existing Amplify apps

S3 static website hosting
Enabled

Hosting type
Bucket hosting

Bucket website endpoint

When you configure your bucket as a static website, the website is available at the AWS Region-specific website endpoint of the bucket. Learn more

http://laptop-docs.s3-website-us-east-1.amazonaws.com

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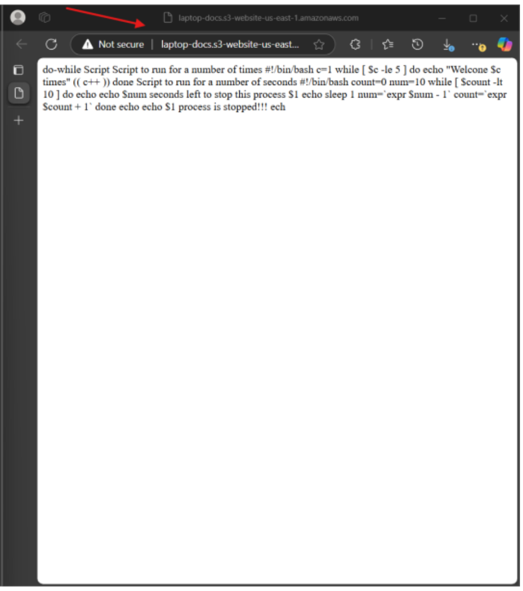
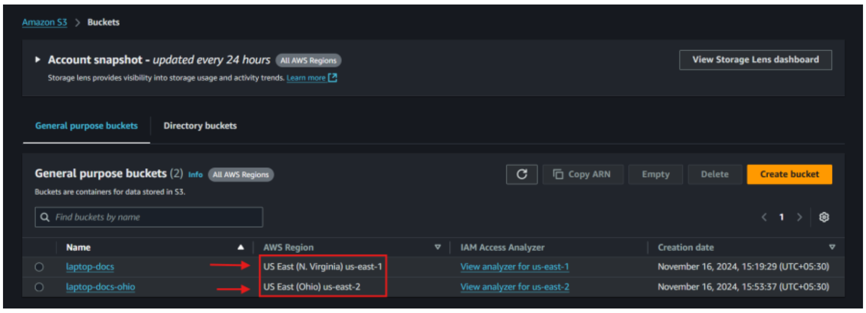


laptop-docs.s3-website-us-east-1.amazonaws.com
Not secure
laptop-docs.s3-website-us-east...

```
do-while Script Script to run for a number of times #!/bin/bash c=1 while [ $c -le 5 ] do echo "Welcone $c
times" (( c++ )) done Script to run for a number of seconds #!/bin/bash count=0 num=10 while [ $count -lt
10 ] do echo echo $num seconds left to stop this process $1 echo sleep 1 num=`expr $num - 1` count=`expr
$count + 1` done echo echo $1 process is stopped!!! ech
```

3) Enable cross region replication on s3 buckets.

*CREATE TWO BUCKETS IN DIFFERENT REGION



Amazon S3 > Buckets

Account snapshot - *updated every 24 hours* All AWS Regions

Storage lens provides visibility into storage usage and activity trends. Learn more

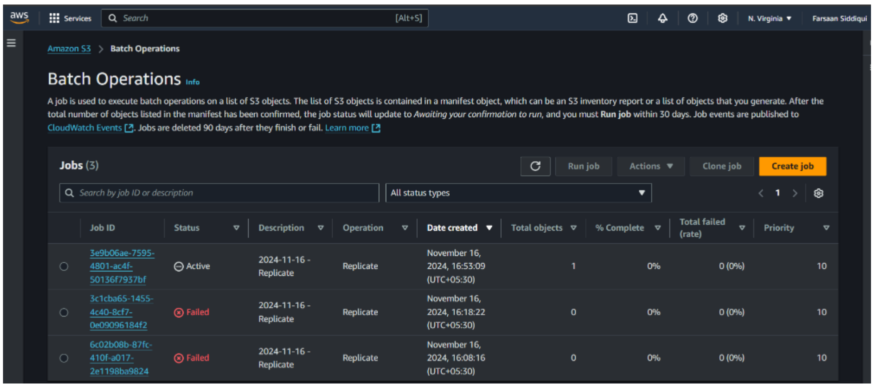
General purpose buckets (2) Info All AWS Regions

Buckets are containers for data stored in S3.

	Name	AWS Region	IAM Access Analyzer	Creation date
○	laptop-docs	US East (N. Virginia) us-east-1	View analyzer for us-east-1	November 16, 2024, 15:19:29 (UTC+05:30)
○	laptop-docs-ohio	US East (Ohio) us-east-2	View analyzer for us-east-2	November 16, 2024, 15:53:37 (UTC+05:30)

*SELECT THE SOURCE BUCKET AND GO TO MANAGEMENT>CREATE RELICATION RULE AND FOLLOW THE STEPS

(AT THE POINT OF ROLE JUST SELECT CREATE NEW ROLE AND IT WILL CREATE A JSON FORMAT ROLE)



Amazon S3 > Batch Operations

Batch Operations Info

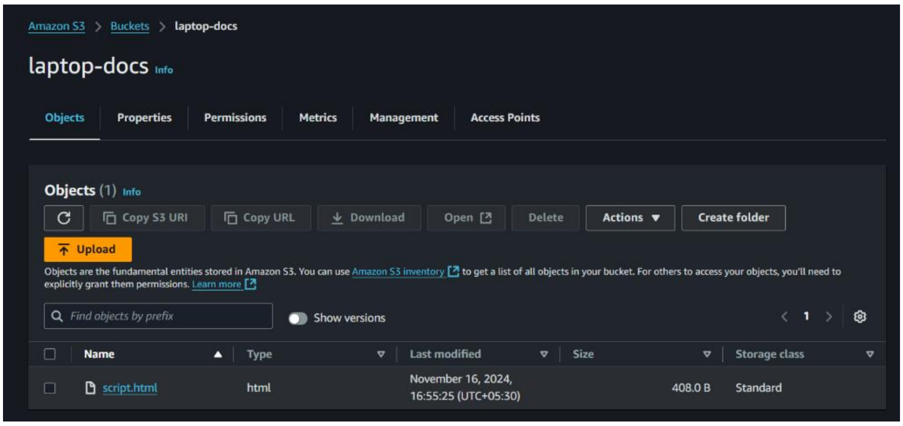
A job is used to execute batch operations on a list of S3 objects. The list of S3 objects is contained in a manifest object, which can be an S3 inventory report or a list of objects that you generate. After the total number of objects listed in the manifest has been confirmed, the job status will update to *Awaiting your confirmation to run*, and you must **Run job** within 30 days. Job events are published to CloudWatch Events. Jobs are deleted 90 days after they finish or fail. Learn more

Jobs (3)

	Job ID	Status	Description	Operation	Date created	Total objects	% Complete	Total failed (rate)	Priority
○	3e9b06ae-7595-4801-ac4f-50136f7937bf	Active	2024-11-16 - Replicate	Replicate	November 16, 2024, 16:53:09 (UTC+05:30)	1	0%	0 (0%)	10
○	3c1cba65-1455-4c40-8cf7-0e09096184f2	Failed	2024-11-16 - Replicate	Replicate	November 16, 2024, 16:18:22 (UTC+05:30)	0	0%	0 (0%)	10
○	6c02b08b-87fc-410f-a017-2e1198ba9824	Failed	2024-11-16 - Replicate	Replicate	November 16, 2024, 16:08:16 (UTC+05:30)	0	0%	0 (0%)	10

*NOW ADD A FILE IN SOURCE BUCKET AND CHECK THE DESTINATION BUCKET IF THE FILE IS REPLICATED OR NOT.

>>SOURCE BUCKET



Amazon S3 > Buckets > laptop-docs

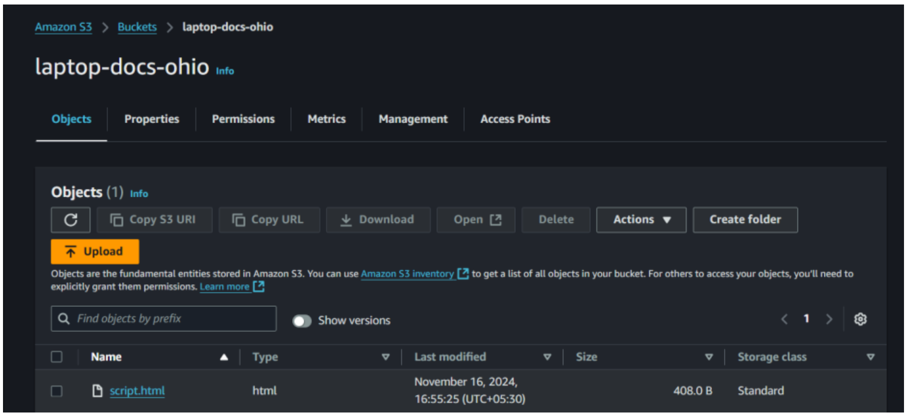
laptop-docs Info

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

□	Name	Type	Last modified	Size	Storage class
□	script.html	html	November 16, 2024, 16:55:25 (UTC+05:30)	408.0 B	Standard

>>DESTINATION BUCKET



Amazon S3 > Buckets > laptop-docs-ohio

laptop-docs-ohio Info

Objects (1) Info

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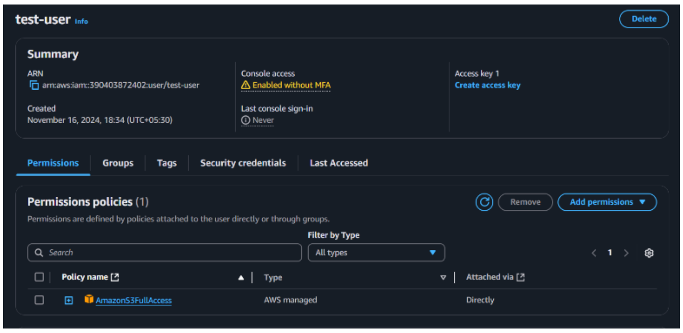
□	Name	Type	Last modified	Size	Storage class
□	script.html	html	November 16, 2024, 16:55:25 (UTC+05:30)	408.0 B	Standard

4) Configure bucket policy,only Admin user can see the objects of s3 bucket.

*CREATING TWO USERS 1.WITH ADMIN ACCESS 2.WITH FULL S3 ACESS.



Summary

ARN
arn:aws:iam::390403872402:user/test-user

Created
November 16, 2024, 18:34 (UTC+05:30)

Console access
⚠ Enabled without MFA

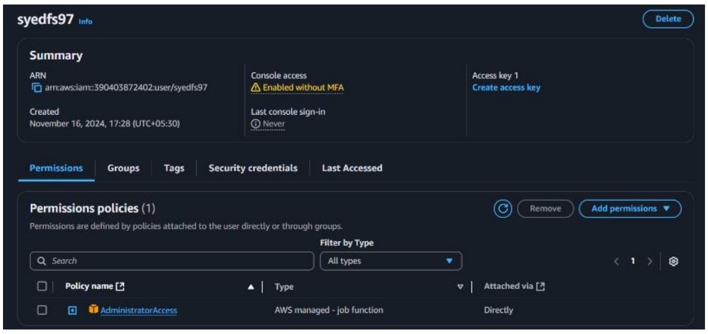
Last console sign-in
Never

Access key 1
Create access key

Permissions policies (1)

Permissions are defined by policies attached to the user directly or through groups.

□	Policy name	Type	Attached via
□	AmazonS3FullAccess	AWS managed	Directly



Summary

ARN
arn:aws:iam::390403872402:user/syedfs97

Created
November 16, 2024, 17:28 (UTC+05:30)

Console access
⚠ Enabled without MFA

Last console sign-in
Never

Access key 1
Create access key

Permissions policies (1)

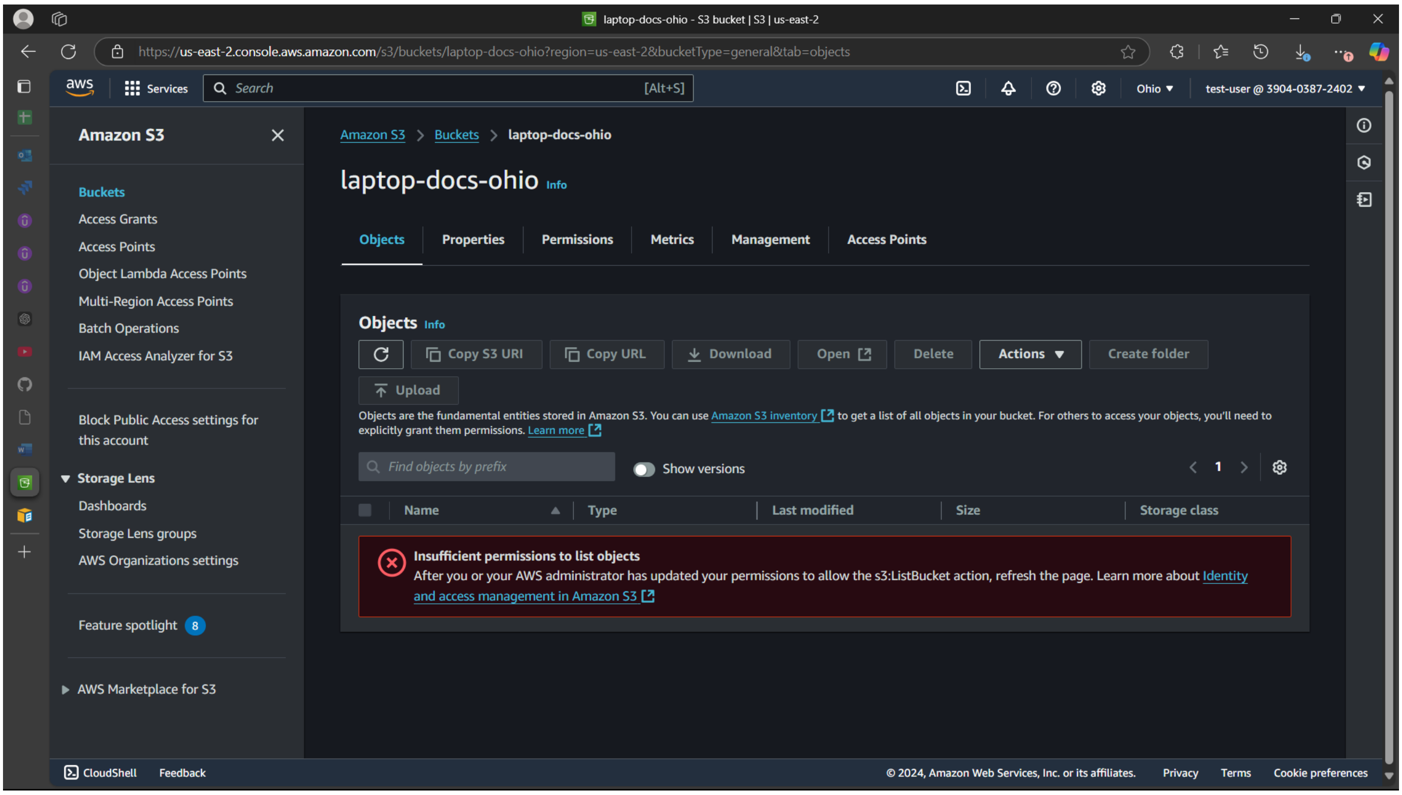
Permissions are defined by policies attached to the user directly or through groups.

□	Policy name	Type	Attached via
□	AdministratorAccess	AWS managed - job function	Directly

*NOW ADD THE POLICY TO BUCKET FOR WHICH ONLY ADMIN CAN ACCESS THE OBJECTS

```
{
"VERSION": "2012-10-17",
"STATEMENT": [
{
        "EFFECT": "DENY",
        "PRINCIPAL": "*",
        "ACTION": "S3:*",
        "RESOURCE": [
        "ARN:AWS:S3:::LAPTOP-DOCS-OHIO",
        "ARN:AWS:S3:::LAPTOP-DOCS-OHIO/*"
        ],
        "CONDITION": {
        "STRINGNOTEQUALS": {
        "AWS:USERID": "ARN:AWS:IAM::390403872402:USER/SYEDFS97"
        }
        }
},
{
        "EFFECT": "ALLOW",
        "PRINCIPAL": {
        "AWS": "ARN:AWS:IAM::390403872402:USER/SYEDFS97"
        },
        "ACTION": "S3:*",
        "RESOURCE": [
        "ARN:AWS:S3:::LAPTOP-DOCS-OHIO",
        "ARN:AWS:S3:::LAPTOP-DOCS-OHIO/*"
        ]
}
]
}
```

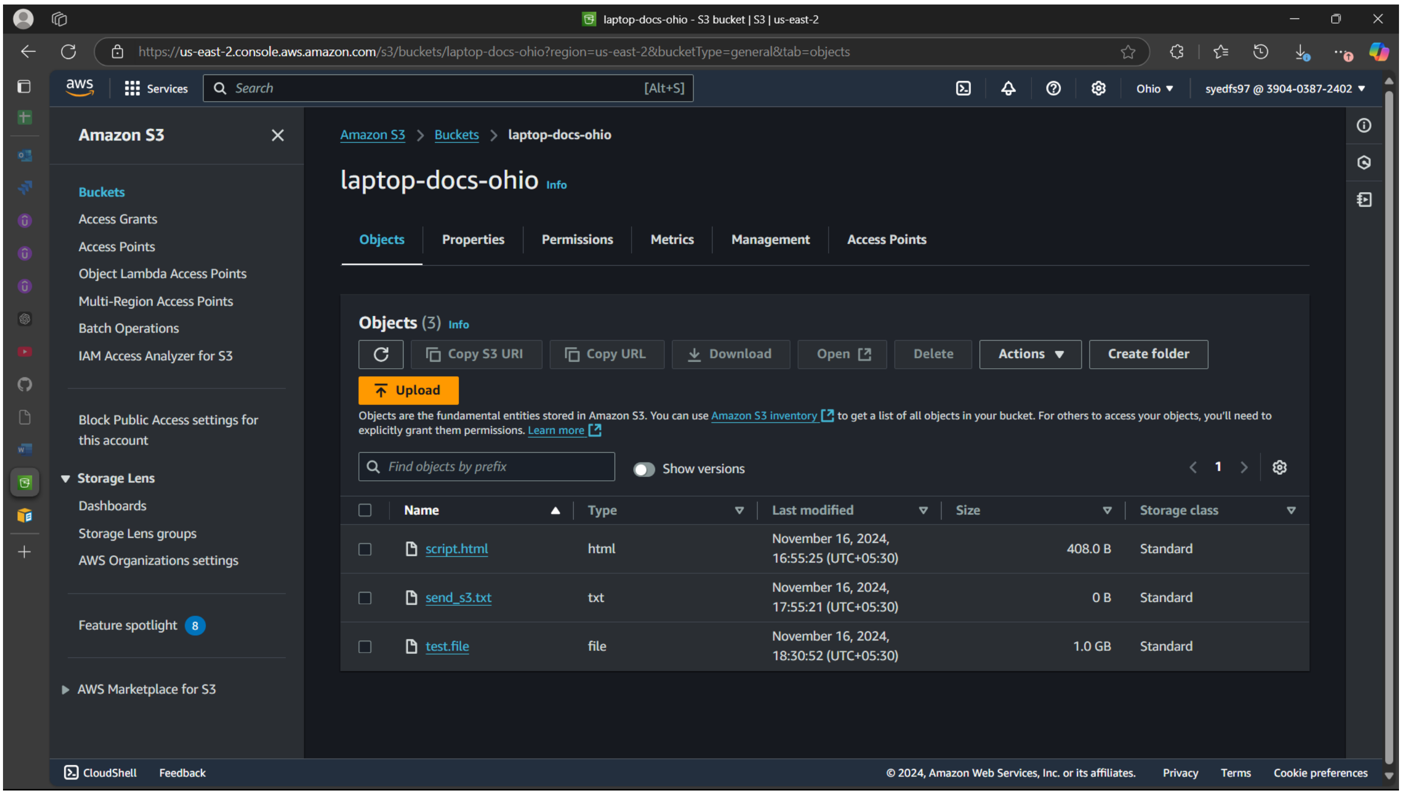
*NOW TEST WITH BOTH THE ACCOUNTS TO ACCESS THE OBJECTS OF BUCKET



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

Insufficient permissions to list objects
After you or your AWS administrator has updated your permissions to allow the s3:ListBucket action, refresh the page. Learn more about Identity and access management in Amazon S3

*ACCESS DENIED FROM TEST-USER WITH FULL S3 ACCESS


laptop-docs-ohio - S3 bucket | S3 | us-east-2
https://us-east-2.console.aws.amazon.com/s3/buckets/laptop-docs-ohio?region=us-east-2&bucketType=general&tab=objects
aws
Services
Search
[Alt+S]
Ohio ▾
syedfs97 @ 3904-0387-2402 ▾
Amazon S3
Buckets
Access Grants
Access Points
Object Lambda Access Points
Multi-Region Access Points
Batch Operations
IAM Access Analyzer for S3
Block Public Access settings for this account
Storage Lens
Dashboards
Storage Lens groups
AWS Organizations settings
Feature spotlight 8
AWS Marketplace for S3
Amazon S3 > Buckets > laptop-docs-ohio
laptop-docs-ohio Info
Objects
Properties
Permissions
Metrics
Management
Access Points
Objects (3) Info
Copy S3 URI
Copy URL
Download
Open
Delete
Actions ▾
Create folder
Upload
Find objects by prefix
Show versions
1
CloudShell
Feedback
© 2024, Amazon Web Services, Inc. or its affiliates.
Privacy
Terms
Cookie preferences

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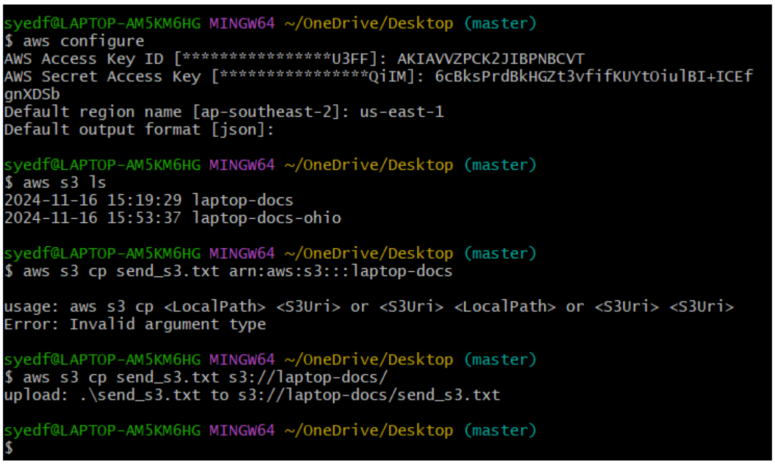
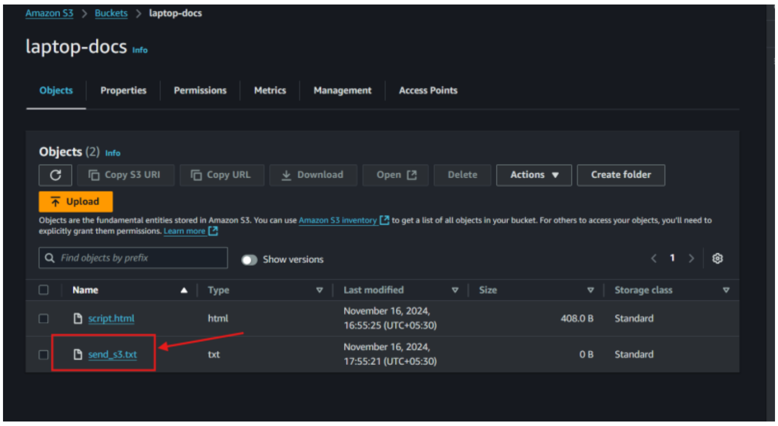
□	Name ▲	Type	Last modified	Size	Storage class
□	script.html	html	November 16, 2024, 16:55:25 (UTC+05:30)	408.0 B	Standard
□	send_s3.txt	txt	November 16, 2024, 17:55:21 (UTC+05:30)	0 B	Standard
□	test.file	file	November 16, 2024, 18:30:52 (UTC+05:30)	1.0 GB	Standard

*SYEDFS97 WITH FULL ADMIN ACCESS CAN SEE THE OBJECTS OF BUCKET

6) Push some objects in s3 using AWS CLI.



```
syedf@LAPTOP-AM5KM6HG MINGW64 ~/OneDrive/Desktop (master)
$ aws configure
AWS Access Key ID [****************U3FF]: AKIAVVZPCK2JIBPNBCVT
AWS Secret Access Key [****************QiIM]: 6cBksPrdBkHGZt3vfifKUYtOiulBI+ICEf
gnXDSb
Default region name [ap-southeast-2]: us-east-1
Default output format [json]:

syedf@LAPTOP-AM5KM6HG MINGW64 ~/OneDrive/Desktop (master)
$ aws s3 ls
2024-11-16 15:19:29 laptop-docs
2024-11-16 15:53:37 laptop-docs-ohio

syedf@LAPTOP-AM5KM6HG MINGW64 ~/OneDrive/Desktop (master)
$ aws s3 cp send_s3.txt arn:aws:s3:::laptop-docs

usage: aws s3 cp <LocalPath> <S3Uri> or <S3Uri> <LocalPath> or <S3Uri> <S3Uri>
Error: Invalid argument type

syedf@LAPTOP-AM5KM6HG MINGW64 ~/OneDrive/Desktop (master)
$ aws s3 cp send_s3.txt s3://laptop-docs/
upload: .\send_s3.txt to s3://laptop-docs/send_s3.txt

syedf@LAPTOP-AM5KM6HG MINGW64 ~/OneDrive/Desktop (master)
$
```



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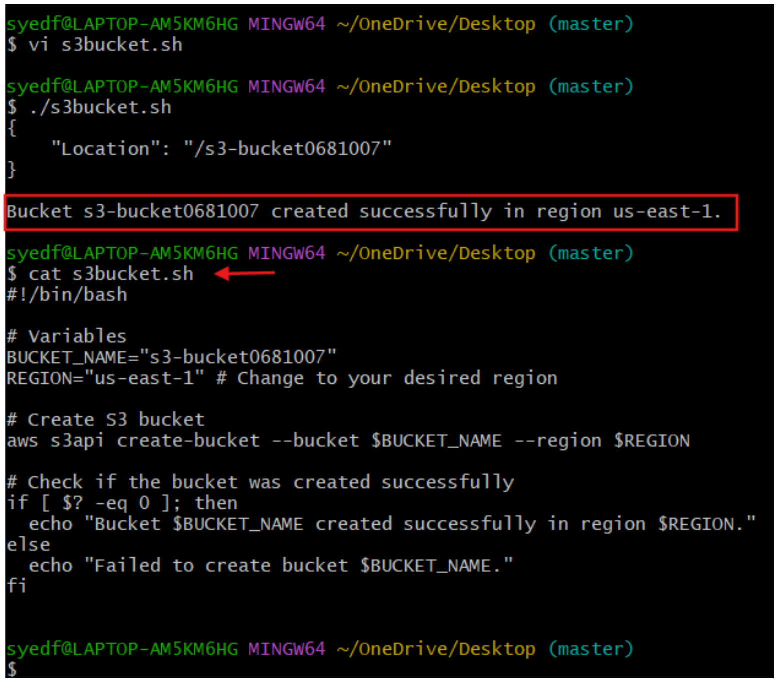
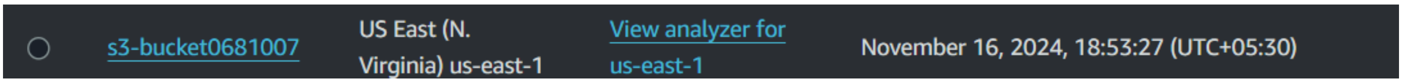
□	send_s3.txt	txt	November 16, 2024, 17:55:21 (UTC+05:30)	0 B	Standard

7) Write a bash script to create s3 bucket.



```
syedf@LAPTOP-AM5KM6HG MINGW64 ~/OneDrive/Desktop (master)
$ vi s3bucket.sh

syedf@LAPTOP-AM5KM6HG MINGW64 ~/OneDrive/Desktop (master)
$ ./s3bucket.sh
{
    "Location": "/s3-bucket0681007"
}

Bucket s3-bucket0681007 created successfully in region us-east-1.

syedf@LAPTOP-AM5KM6HG MINGW64 ~/OneDrive/Desktop (master)
$ cat s3bucket.sh
#!/bin/bash

# Variables
BUCKET_NAME="s3-bucket0681007"
REGION="us-east-1" # Change to your desired region

# Create S3 bucket
aws s3api create-bucket --bucket $BUCKET_NAME --region $REGION

# Check if the bucket was created successfully
if [ $? -eq 0 ]; then
  echo "Bucket $BUCKET_NAME created successfully in region $REGION."
else
  echo "Failed to create bucket $BUCKET_NAME."
fi


syedf@LAPTOP-AM5KM6HG MINGW64 ~/OneDrive/Desktop (master)
$
```

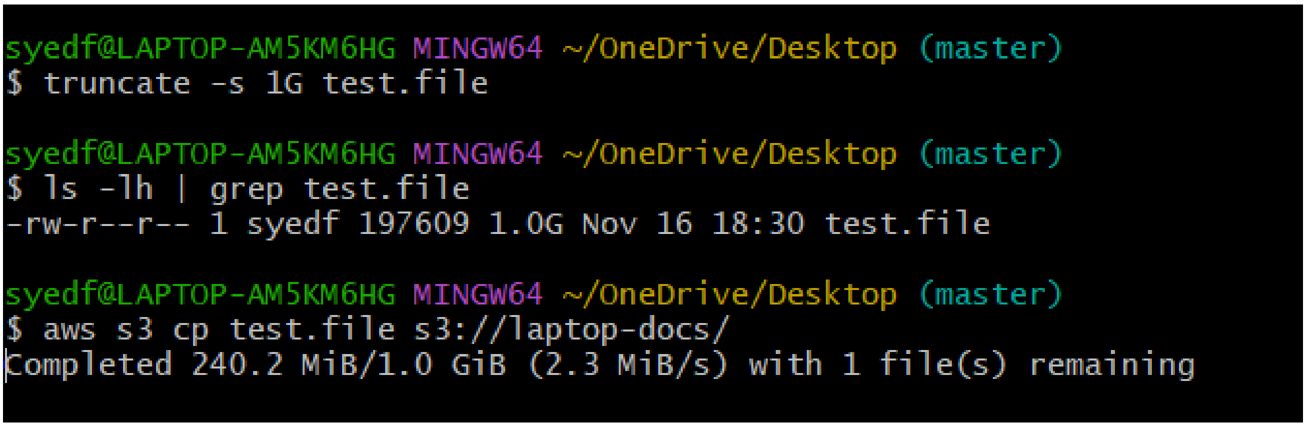


○	s3-bucket0681007	US East (N. Virginia) us-east-1	View analyzer for us-east-1	November 16, 2024, 18:53:27 (UTC+05:30)

8) Upload one 1 gb of file to s3 using cli.

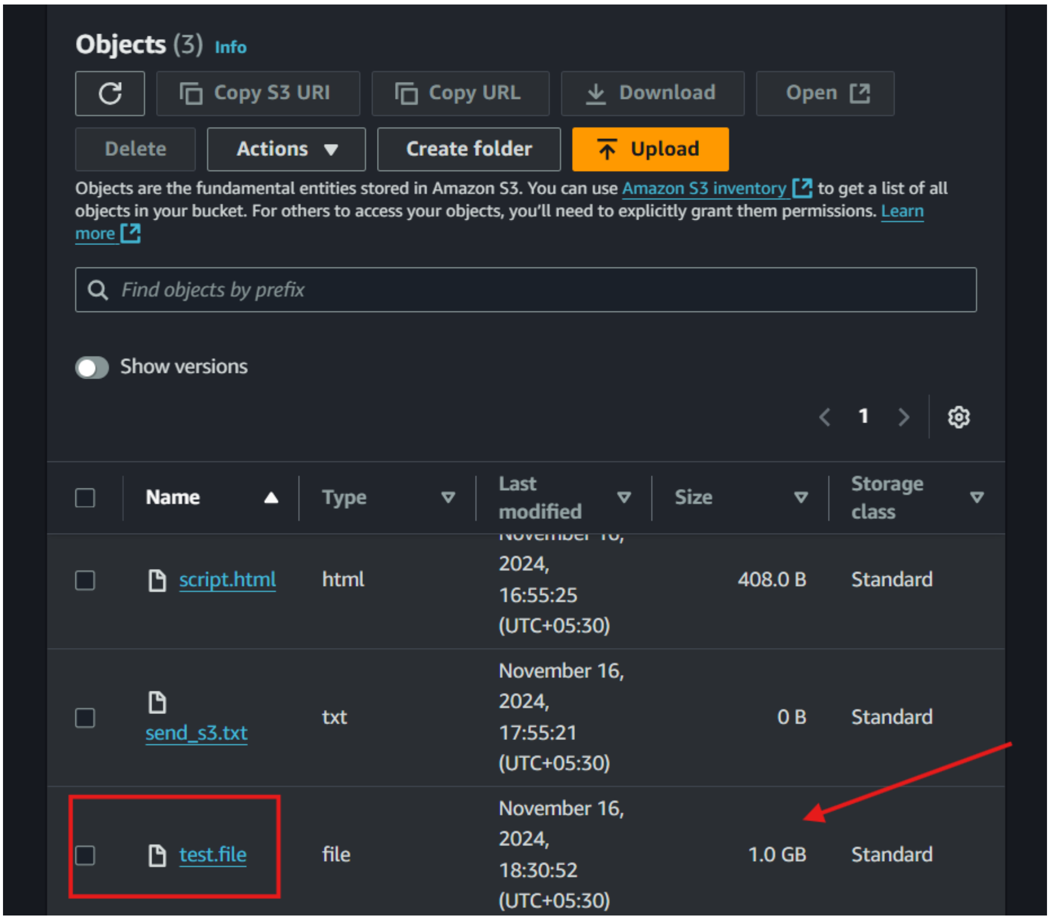
*CREATEING 1GB FILE

*UPLOADING IT TO S3 BUCKET



```
syedf@LAPTOP-AM5KM6HG MINGW64 ~/OneDrive/Desktop (master)
$ truncate -s 1G test.file

syedf@LAPTOP-AM5KM6HG MINGW64 ~/OneDrive/Desktop (master)
$ ls -lh | grep test.file
-rw-r--r-- 1 syedf 197609 1.0G Nov 16 18:30 test.file

syedf@LAPTOP-AM5KM6HG MINGW64 ~/OneDrive/Desktop (master)
$ aws s3 cp test.file s3://laptop-docs/
Completed 240.2 MiB/1.0 GiB (2.3 MiB/s) with 1 file(s) remaining
```

*CHECKING THE BUCKET



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□	send_s3.txt	txt	November 16, 2024, 17:55:21 (UTC+05:30)	0 B	Standard
□	test.file	file	November 16, 2024, 18:30:52 (UTC+05:30)	1.0 GB	Standard