S3

Simple Service Storage

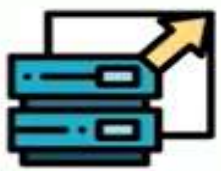
What is S3?

Amazon S3 is an object storage service from Amazon that provides industry-leading scalability, data availability, security, and performance.

- Store and retrieve any amount of data from anywhere

amazon web services

S3



Industry-leading Scalability

Data Availability

Data Security

Performance

What is S3?

It has simple management capabilities that allow you to organize your data and fine-tune access controls to match your specific commercial, organizational, and compliance needs.

Storing and Organizing

data in S3 Bucket

To match

organization's needs

Amazon S3

S3 Bucket

Organizations

What is S3?

Amazon S3 is designed for durability and saves data for millions of apps for businesses all over the world.

Benefits of S3

Performance, scalability, availability, and durability that are unrivalled in the industry.

Many cost-effective storage classes are available.

Security, compliance, and auditing capabilities that are unrivalled.

Manage data and access permissions with ease.

Query-in-place and on-demand processing.

The most widely used cloud storage service.

Objects and Buckets in S3 - Objects

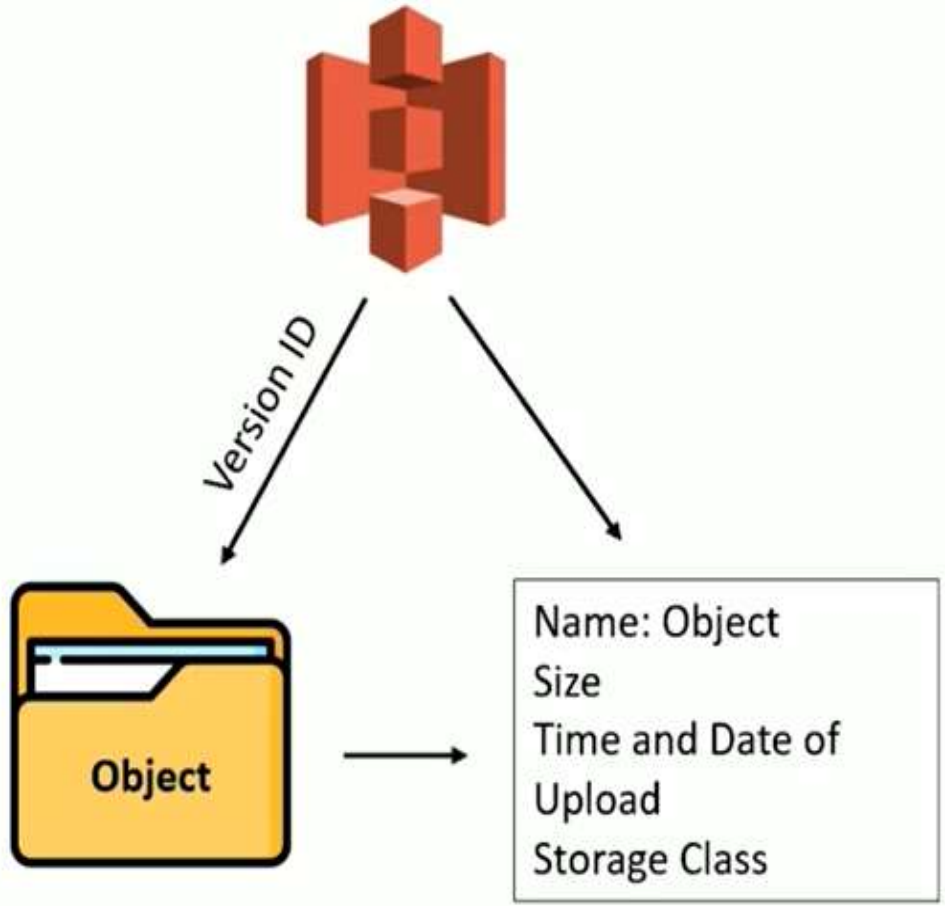
Objects are fundamental entities stored in Amazon S3.

It Consists of its data as well as its metadata.

S3 cannot access the content or data inside the object.

It can only read the metadata associated with the object.

It allocates a unique version ID for the object when some data is added to the bucket.



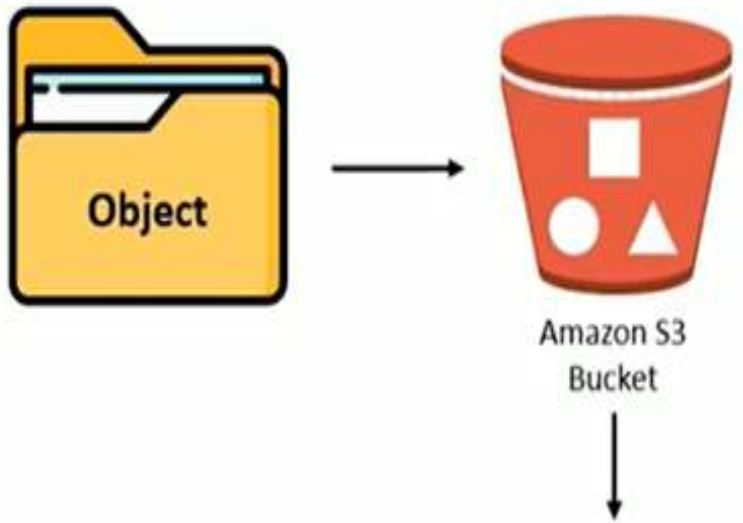
Objects and Buckets in S3 - Buckets

Buckets are the containers where objects are stored and then uploaded to Amazon S3.

There will never be an object without a Bucket.

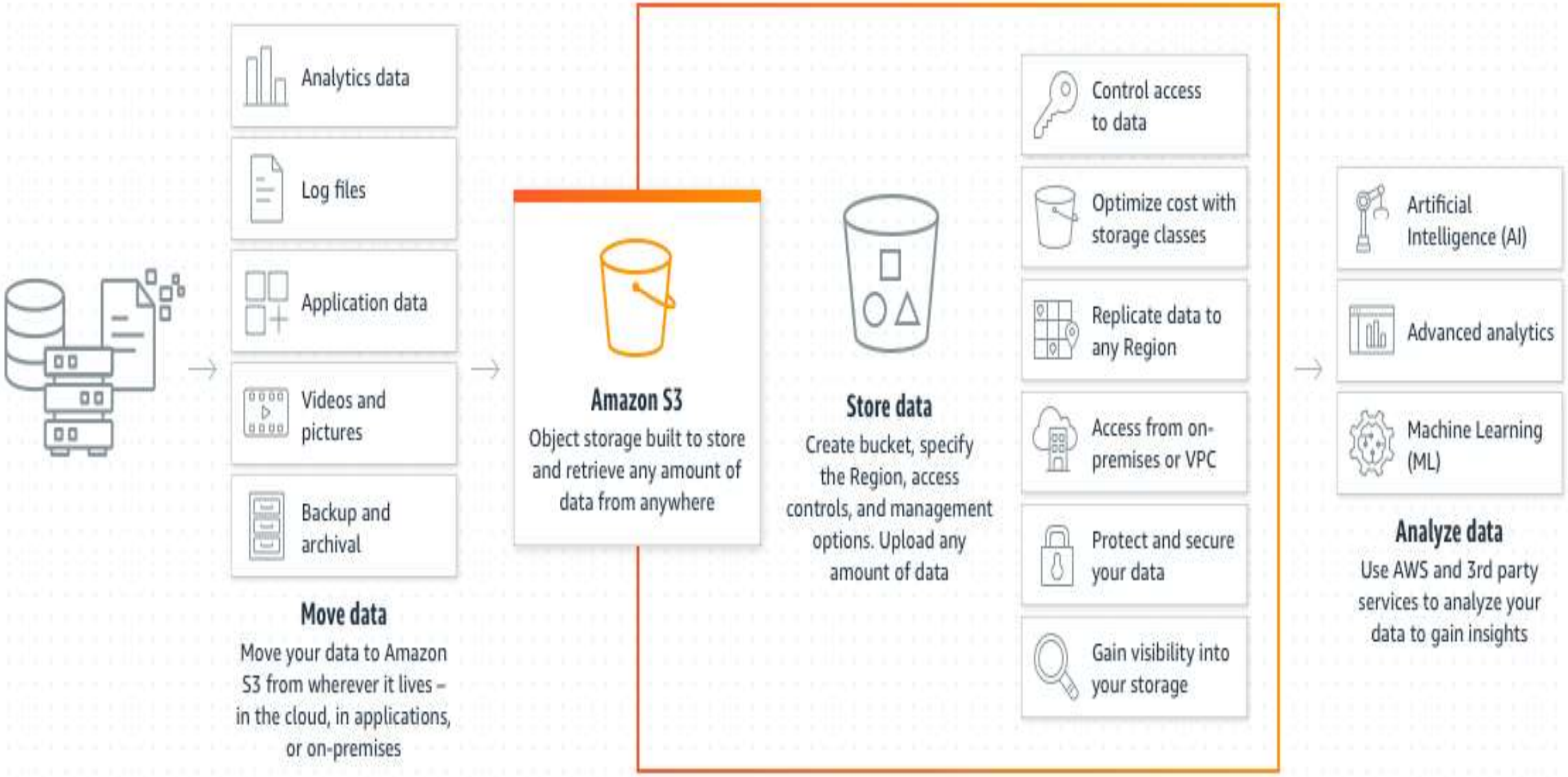
There is no “Windows Explorer” like hierarchy.

One can create Buckets in any region of the World which is close to you.



Object: Harry Potter Library.jpg
Bucket: simplidemo
Link address: s3://simplidemo/Harry Potter Library.jpg
AWS Region: US East (Ohio) us-east-2

Working of S3



Practical

- **Create & configure bucket**
- **Upload objects**
- **View objects**
- **Copy/move objects**
- **Delete objects**
- **Delete bucket**

ap-south-1.console.aws.amazon.com/console/home?nc2=h_ct&src=header-signin&region=ap-south-1

aws | Services | Search [Alt+S] | Mumbai | sivakumar

EC2 | Route 53

Console Home Info

Reset to default layout | + Add widgets

Recently visited Info

- AWS Glue
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- AWS Amplify
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- Elastic Container Service
- IAM
- VPC
- Lightsail
- Activate for Startups
- Elastic Beanstalk
- AWS Budgets
- S3

View all services

Welcome to AWS

Getting started with AWS

Learn the fundamentals and find valuable information to get the most out of AWS.

Training and certification

Learn from AWS experts and advance your skills and knowledge.

What's new with AWS?

Discover new AWS services, features, and Regions.

Storage

Amazon S3

Store and retrieve any amount of data from anywhere

Amazon S3 is an object storage service that offers industry-leading scalability, data availability, security, and performance.

Create a bucket

Every object in S3 is stored in a bucket. To upload files and folders to S3, you'll need to create a bucket where the objects will be stored.

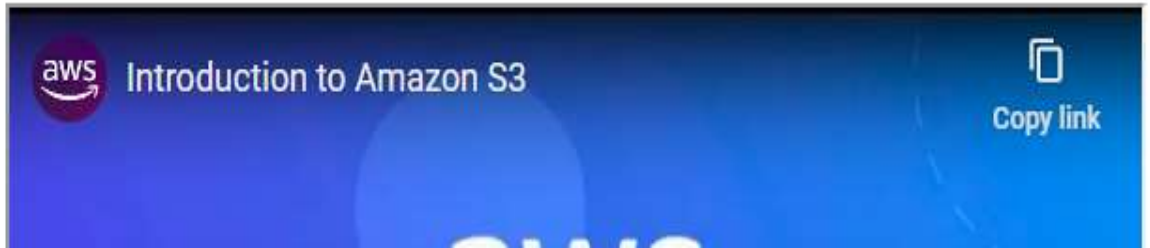
Create bucket

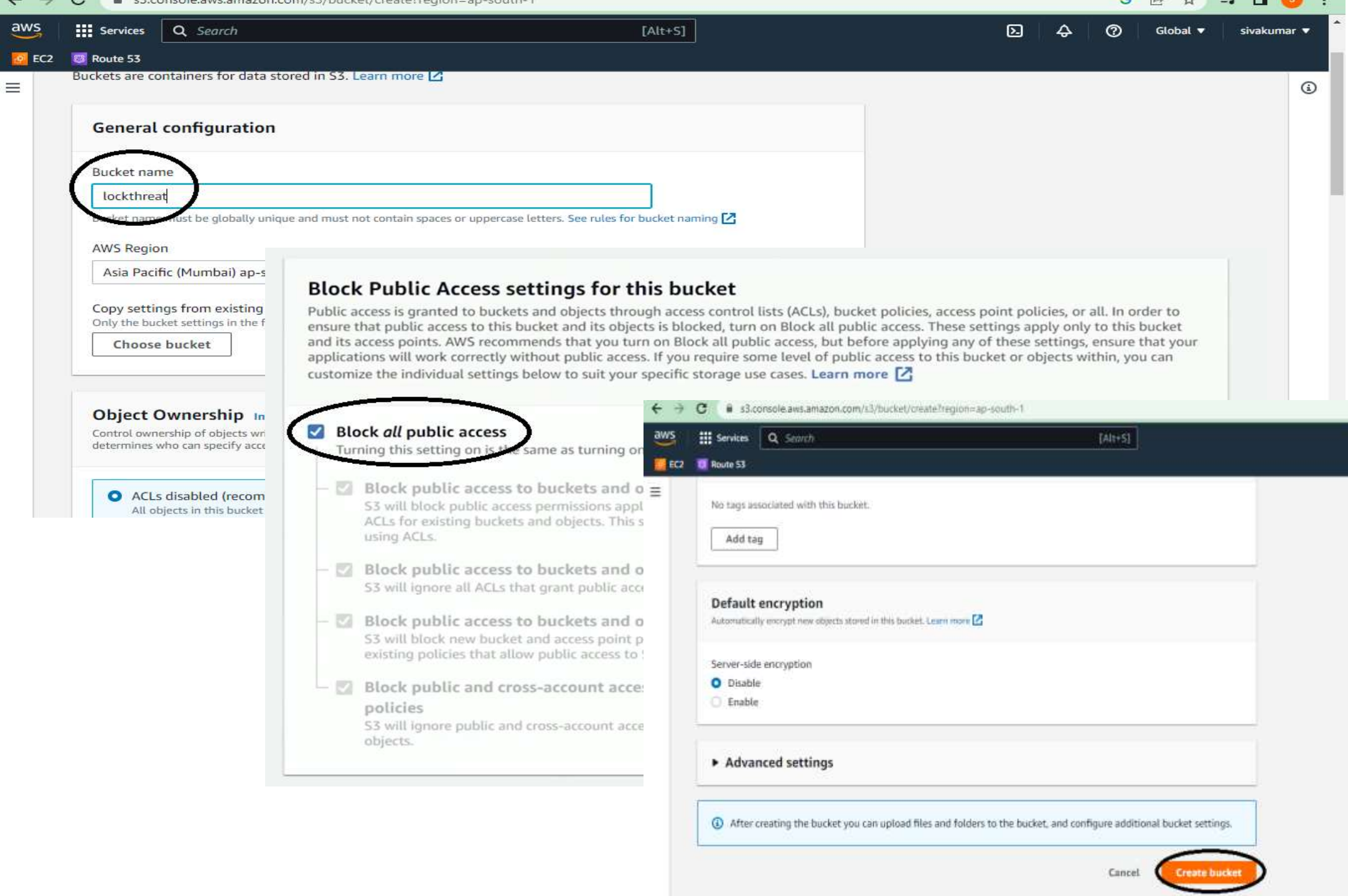
Pricing

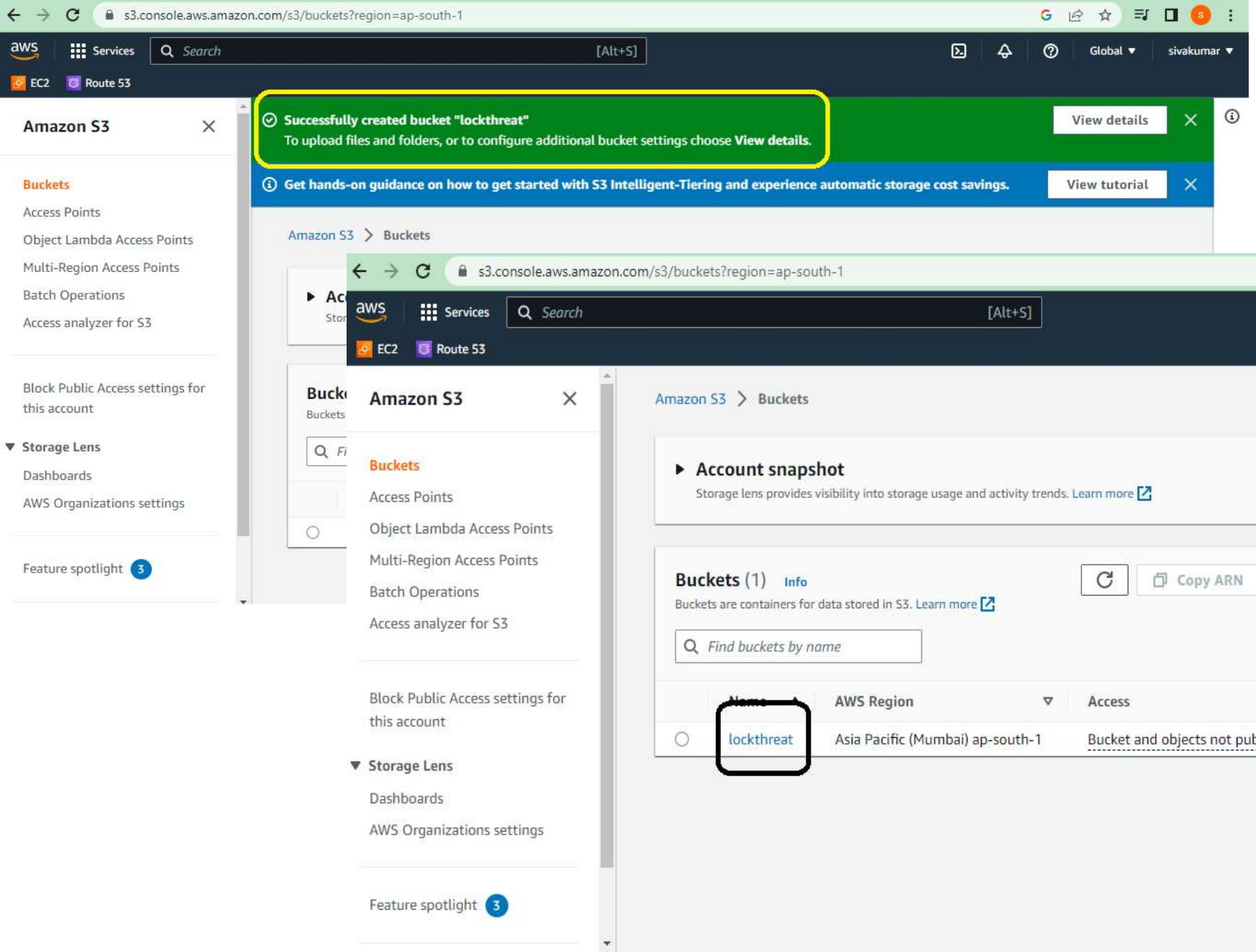
With S3, there are no minimum fees. You only pay for what you use. Prices are based on the location of your S3 bucket.

Estimate your monthly bill using the AWS Simple Monthly Calculator

How it works




Services
Search
[Alt+S]
Global
sivakumar
EC2
Route 53
Buckets are containers for data stored in S3. Learn more
General configuration
Bucket name
lockthreat
Bucket name must be globally unique and must not contain spaces or uppercase letters. See rules for bucket naming
AWS Region
Asia Pacific (Mumbai) ap-s
Copy settings from existing
Only the bucket settings in the f
Choose bucket
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
Object Ownership
Control ownership of objects wr
determines who can specify acce
ACLs disabled (recom
All objects in this bucket
Block all public access
Turning this setting on is the same as turning on
Block public access to buckets and o
S3 will block public access permissions appl
ACLs for existing buckets and objects. This s
using ACLs.
Block public access to buckets and o
S3 will ignore all ACLs that grant public acc
Block public access to buckets and o
S3 will block new bucket and access point p
existing policies that allow public access to
Block public and cross-account acce
policies
S3 will ignore public and cross-account acce
objects.
s3.console.aws.amazon.com/s3/bucket/create?region=ap-south-1
No tags associated with this bucket.
Add tag
Default encryption
Automatically encrypt new objects stored in this bucket. Learn more
Server-side encryption
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


s3.console.aws.amazon.com/s3/buckets?region=ap-south-1
aws
Services
Search
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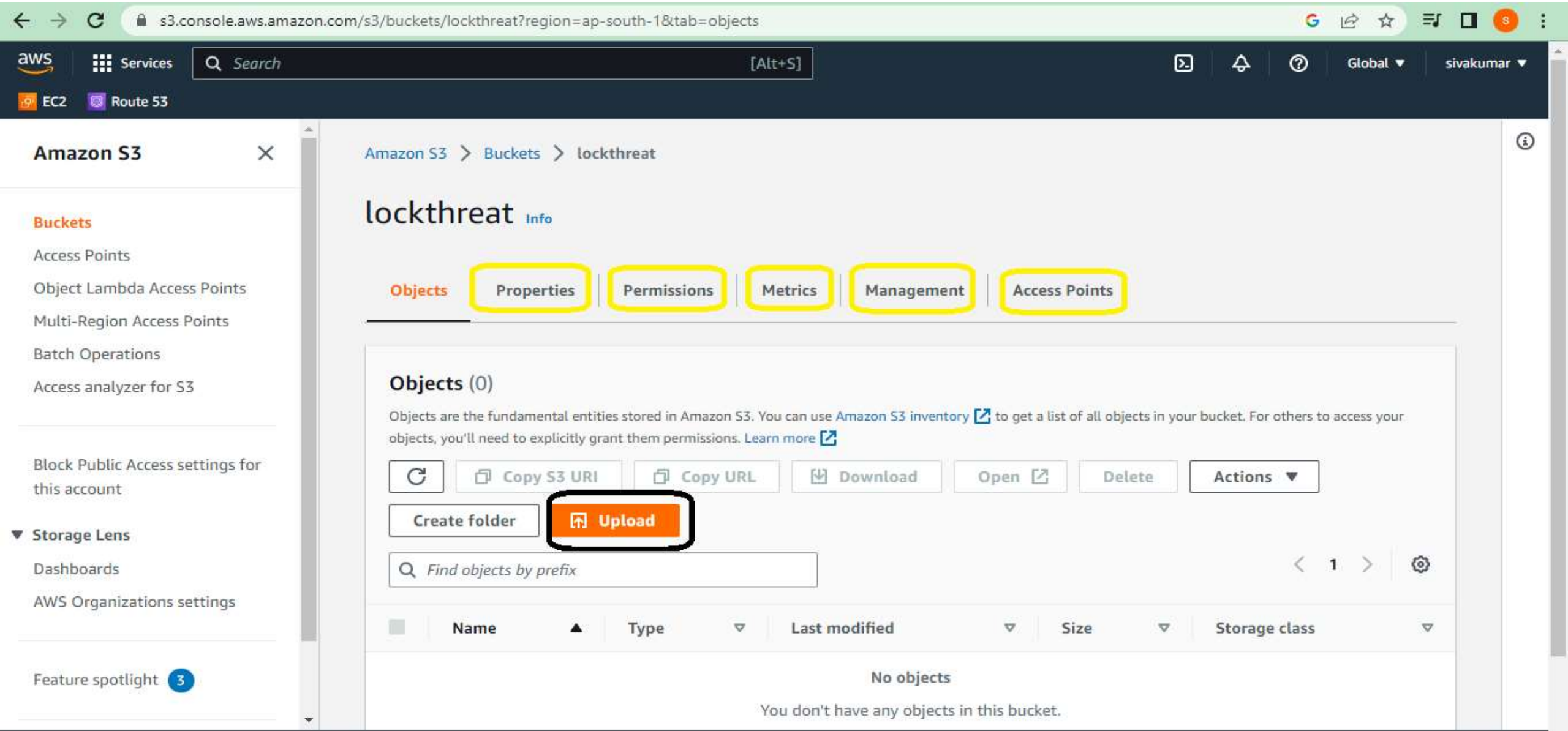
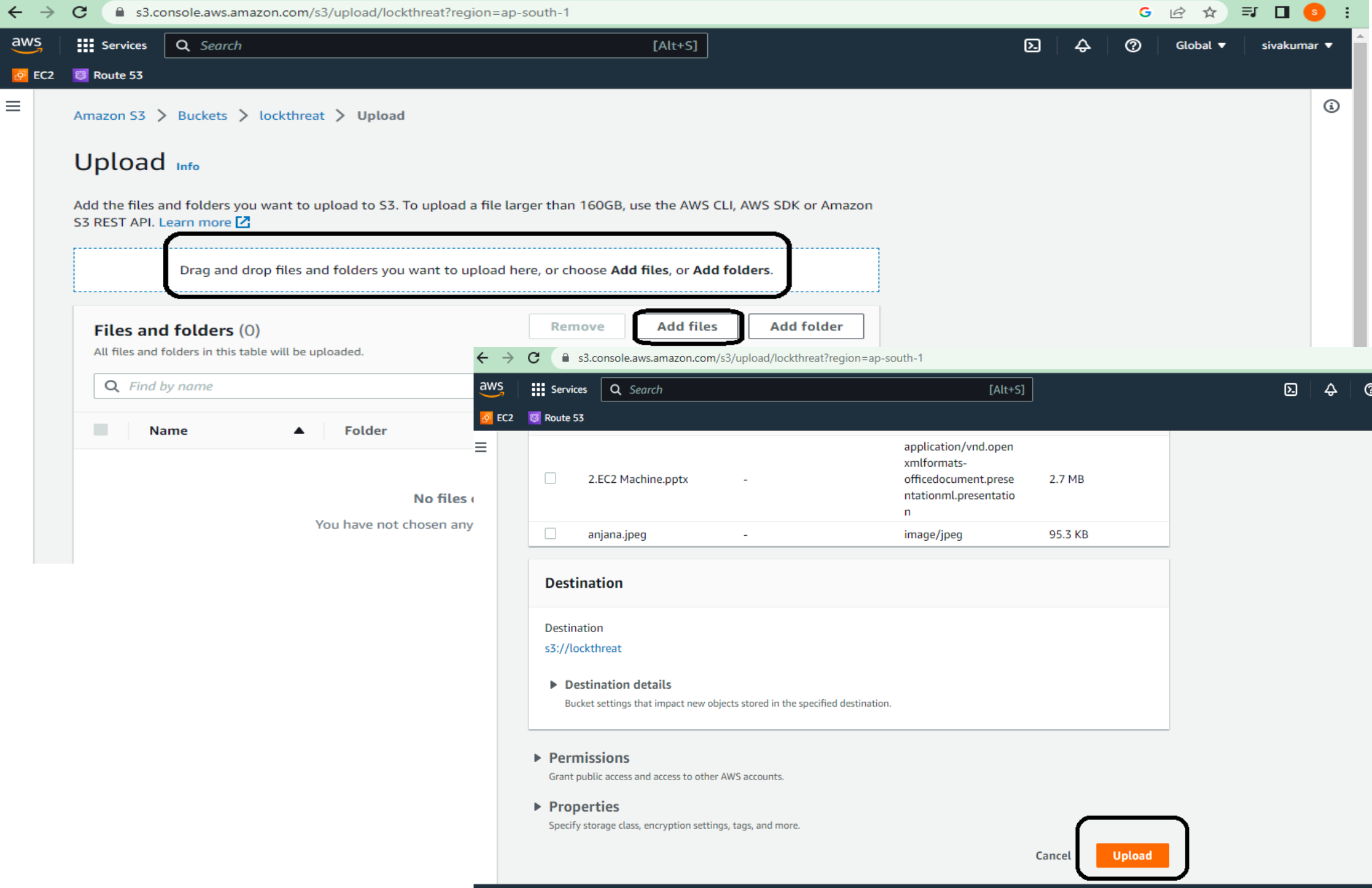
Global
sivakumar
EC2
Route 53
Amazon S3
Successfully created bucket "lockthreat"
To upload files and folders, or to configure additional bucket settings choose View details.
View details
Get hands-on guidance on how to get started with S3 Intelligent-Tiering and experience automatic storage cost savings.
View tutorial
Amazon S3 > Buckets
Buckets
Access Points
Object Lambda Access Points
Multi-Region Access Points
Batch Operations
Access analyzer for S3
Block Public Access settings for this account
Storage Lens
Dashboards
AWS Organizations settings
Feature spotlight 3
Account snapshot
Storage lens provides visibility into storage usage and activity trends. Learn more
View Storage Lens dashboard
Buckets (1) Info
Buckets are containers for data stored in S3. Learn more
Copy ARN
Empty
Delete
Create bucket
Find buckets by name
1
Name
AWS Region
Access
Creation date
lockthreat
Asia Pacific (Mumbai) ap-south-1
Bucket and objects not public
December 20, 2022, 15:37:42 (UTC+05:30)

Amazon S3 is a powerful feature-rich service with a wide variety of different settings you can configure like..




s3.console.aws.amazon.com/s3/upload/lockthreat?region=ap-south-1
aws
Services
Search
[Alt+S]
Global
sivakumar
EC2
Route 53
Amazon S3 > Buckets > lockthreat > 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 folders.
Files and folders (0)
All files and folders in this table will be uploaded.
Remove
Add files
Add folder
Find by name
Name
Folder
No files
You have not chosen any
2.EC2 Machine.pptx
application/vnd.openxmlformats-officedocument.presentationml.presentation
2.7 MB
anjana.jpeg
image/jpeg
95.3 KB
Destination
Destination
s3://lockthreat
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

Close

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

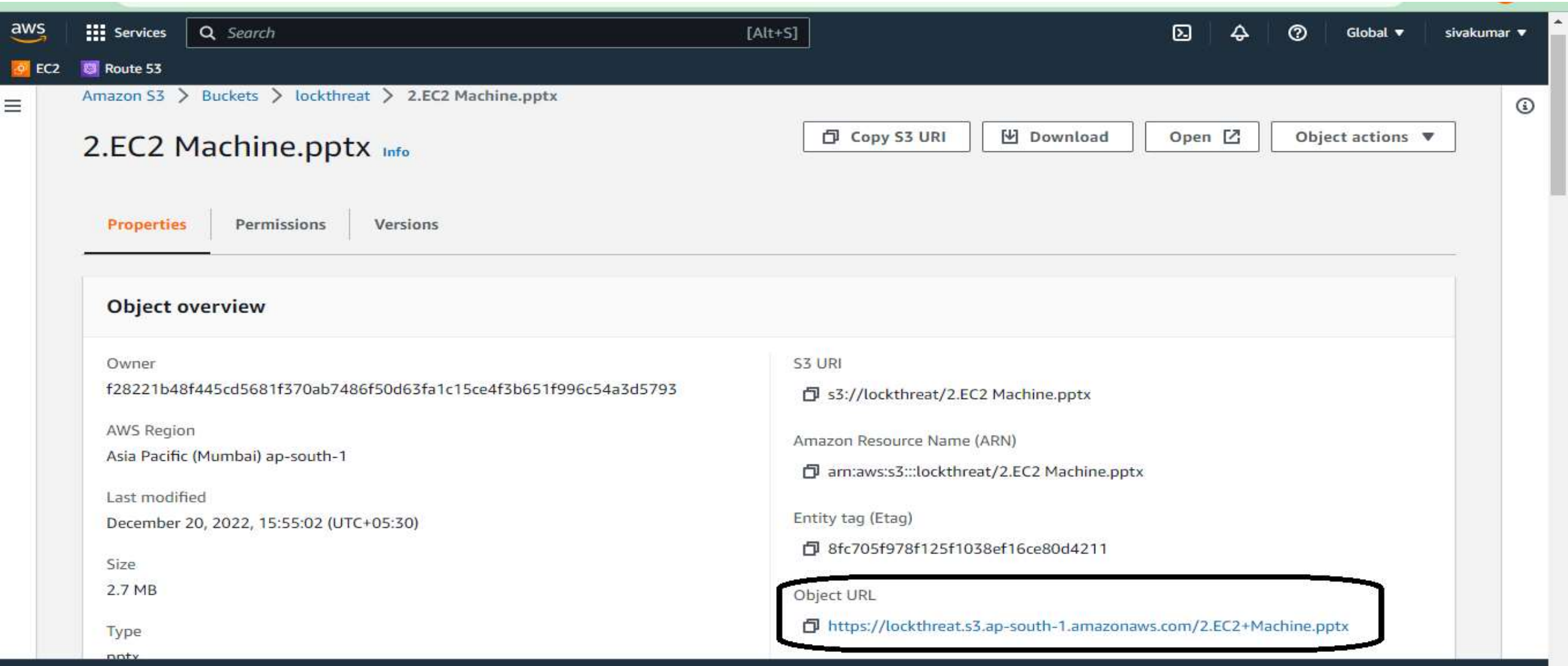
Summary

Destination	Succeeded	Failed
s3://lockthreat	2 files, 2.8 MB (100.00%)	0 files, 0 B (0%)

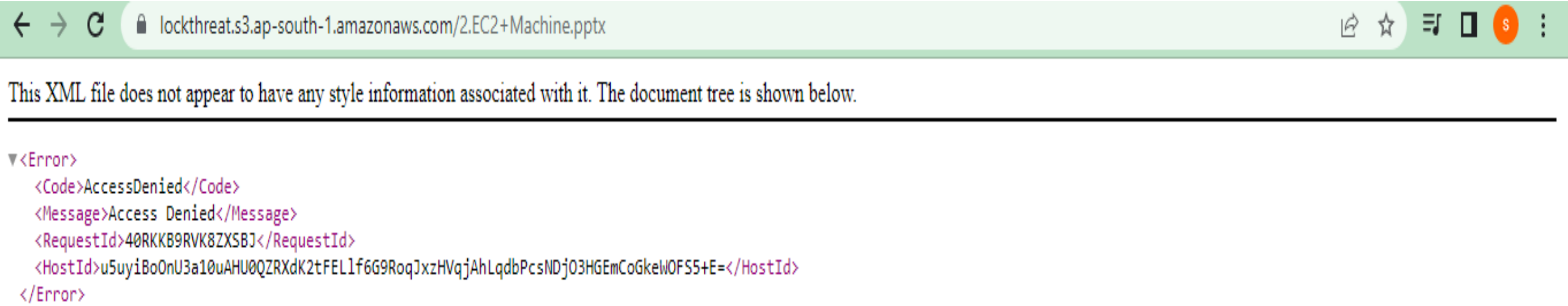
Files and folders | Configuration

Files and folders (2 Total, 2.8 MB)

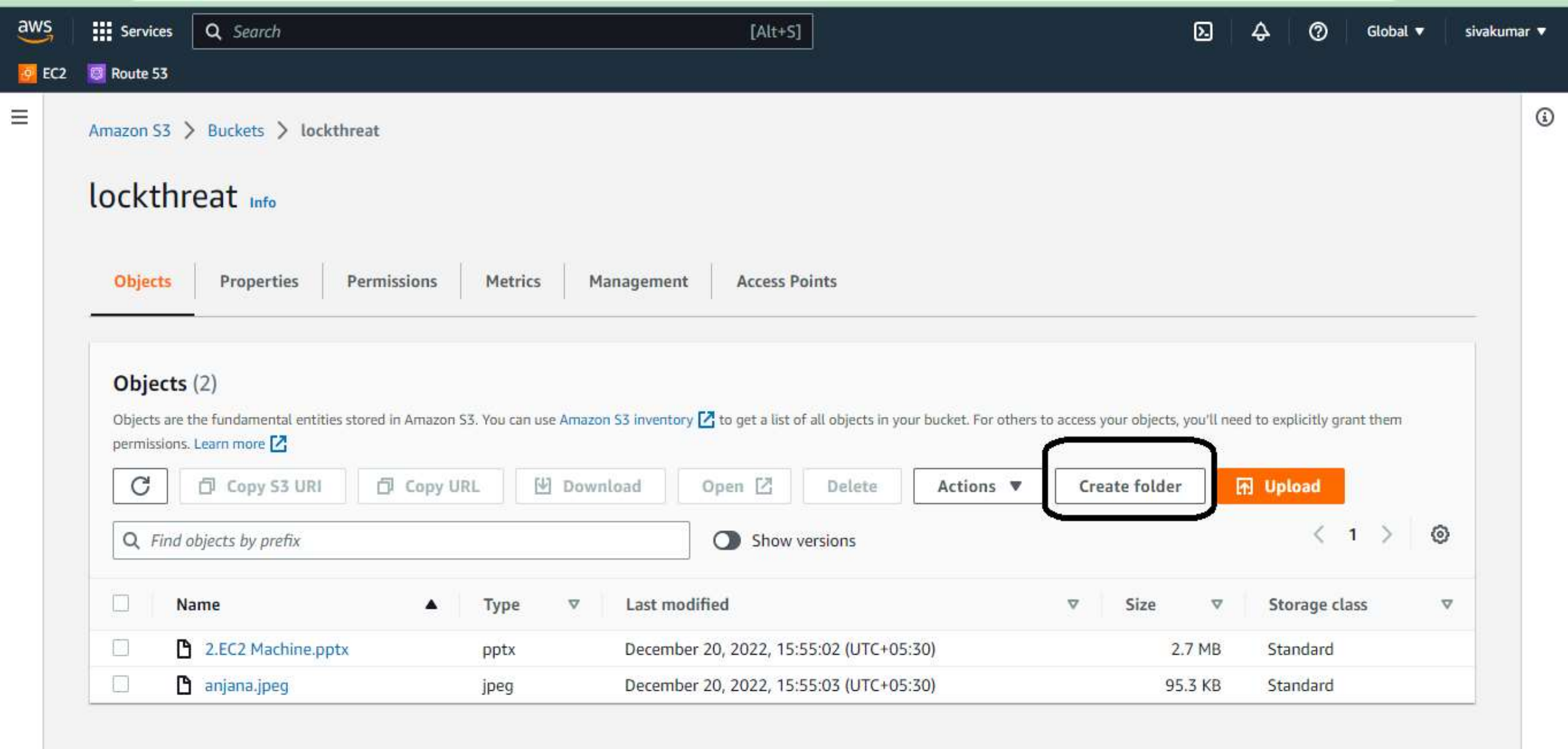
So files are uploaded, in below screen we have an object URL lets copy and paste in google will check page will open or not



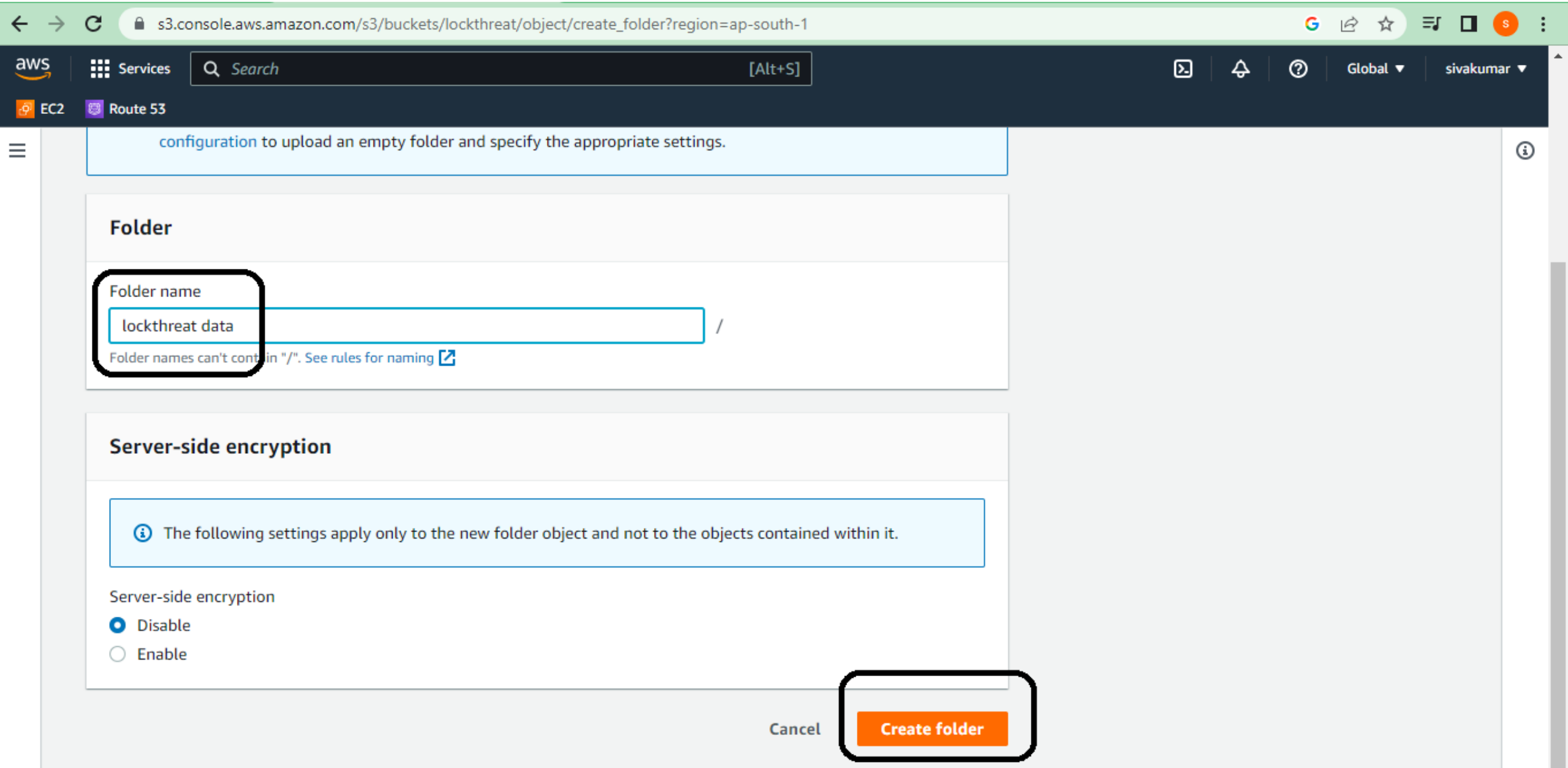
- We’ve disabled public access to our bucket, we are not allowed to use,
- since the file doesn’t have public access, we blocked all public access.



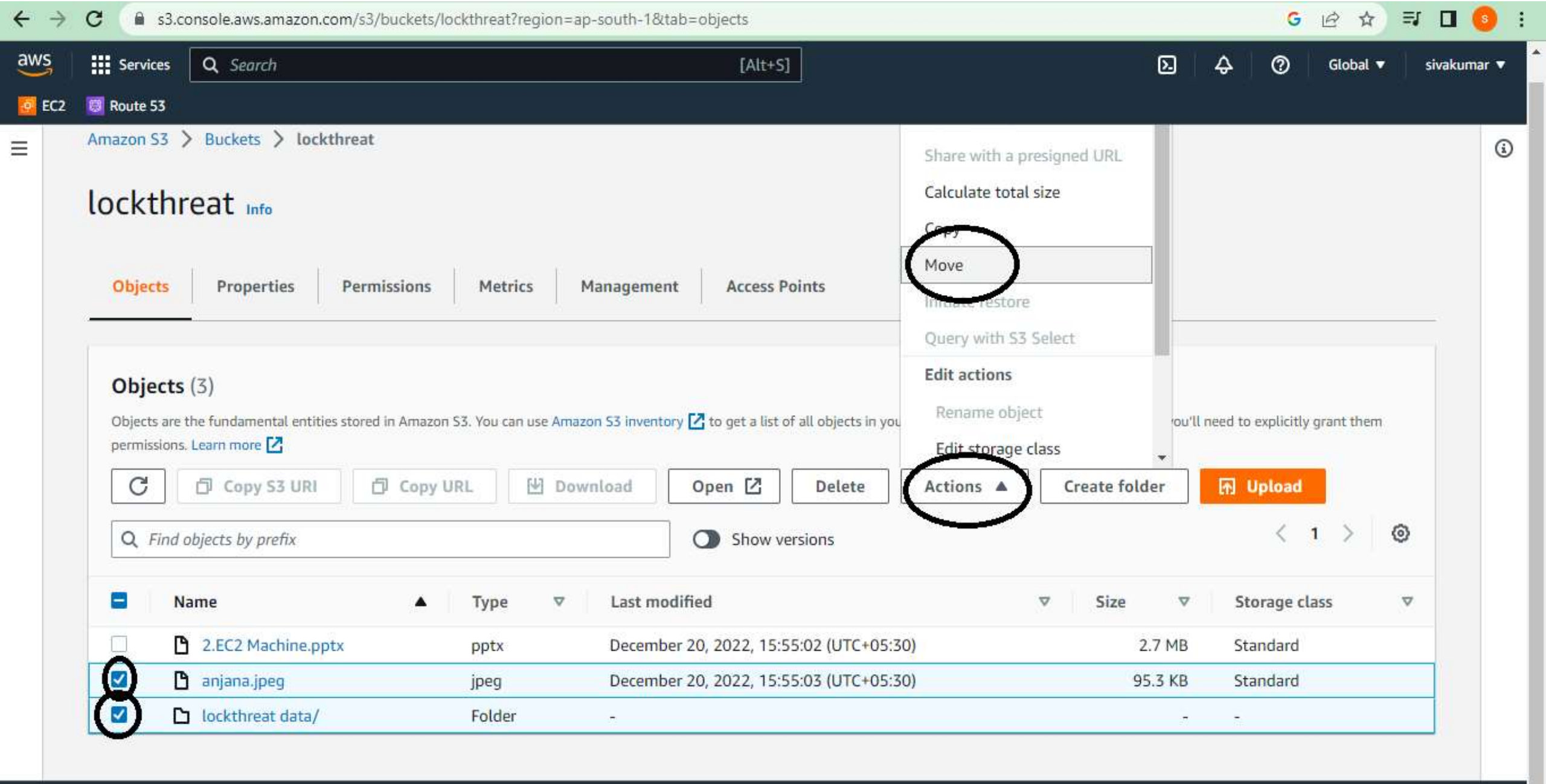
Let we create a folder S3 uses a flat structure to organize objects

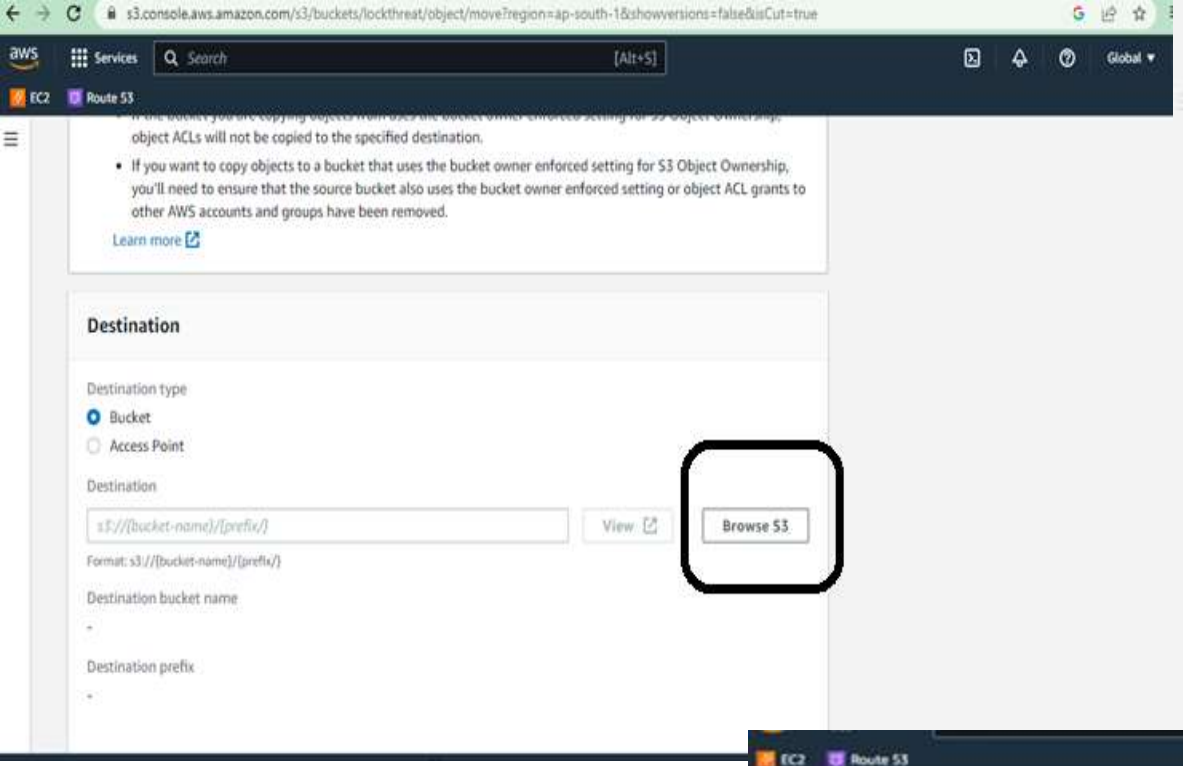


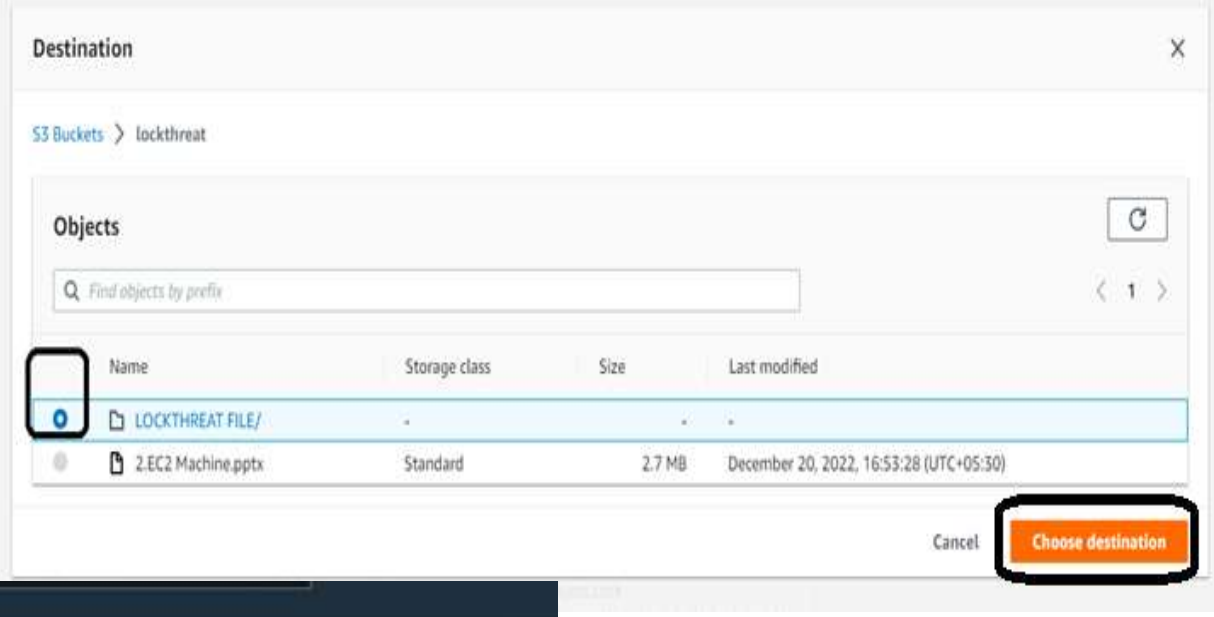
Folder created

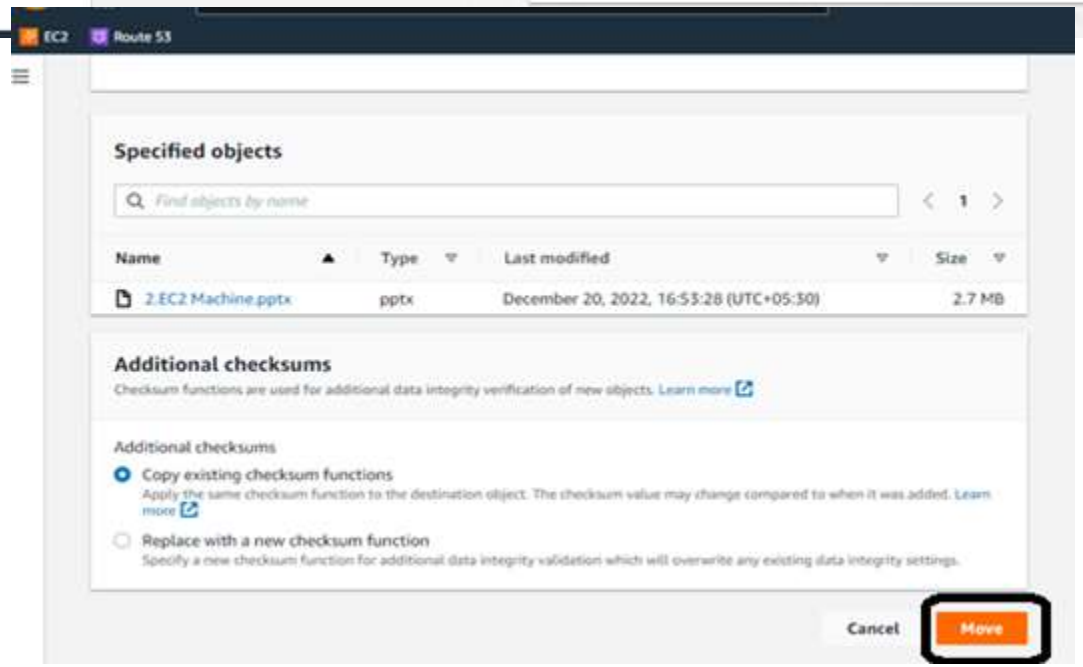


The uploaded files moving to the folder

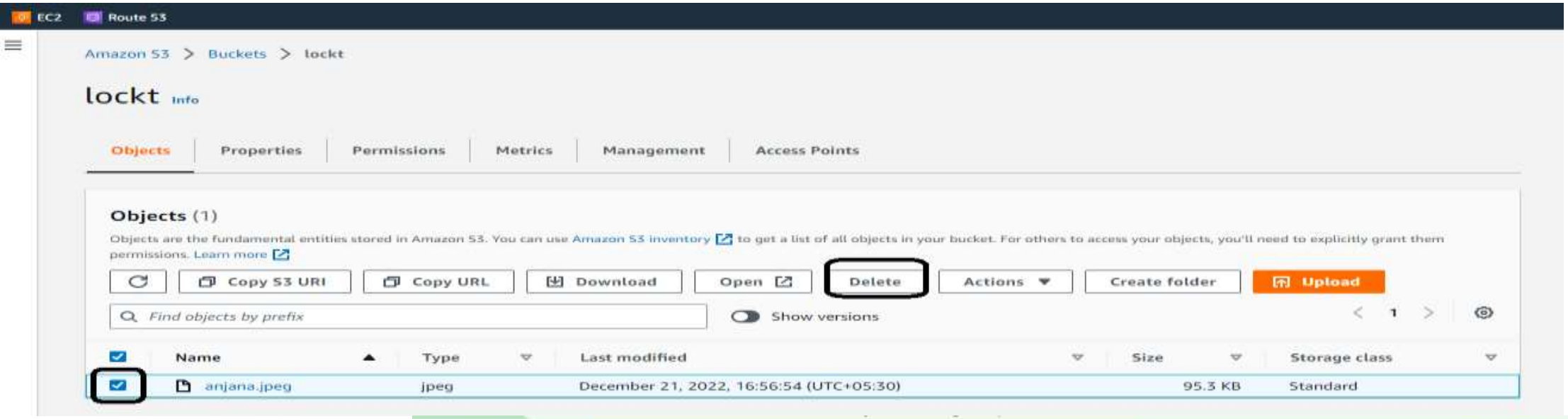


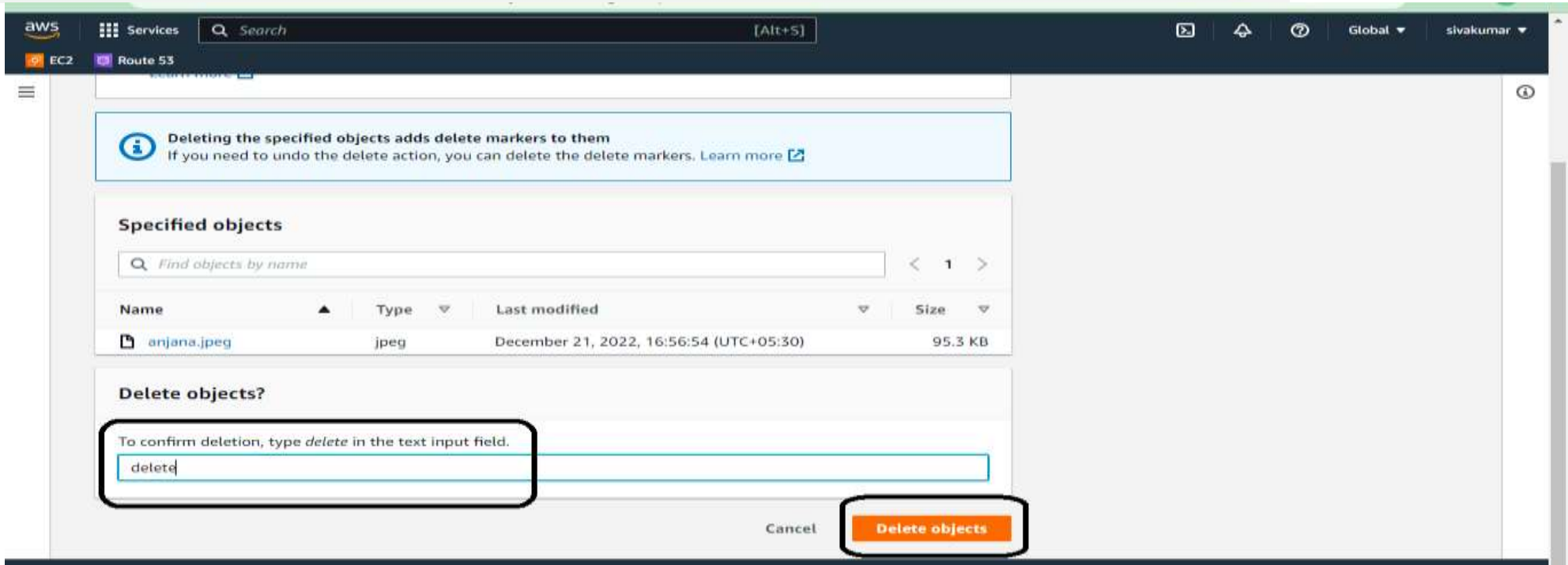

s3.console.aws.amazon.com/s3/buckets/lockthreat/object/move?region=ap-south-1&showversions=false&isCut=true
aws
Services
Search
[Alt+S]
Global
EC2
Route 53
object ACLs will not be copied to the specified destination.
If you want to copy objects to a bucket that uses the bucket owner enforced setting for S3 Object Ownership, you'll need to ensure that the source bucket also uses the bucket owner enforced setting or object ACL grants to other AWS accounts and groups have been removed.
Learn more
Destination
Destination type
Bucket
Access Point
Destination
s3://[bucket-name]/[prefix/]
View
Browse S3
Format: s3://[bucket-name]/[prefix/]
Destination bucket name
-
Destination prefix
-

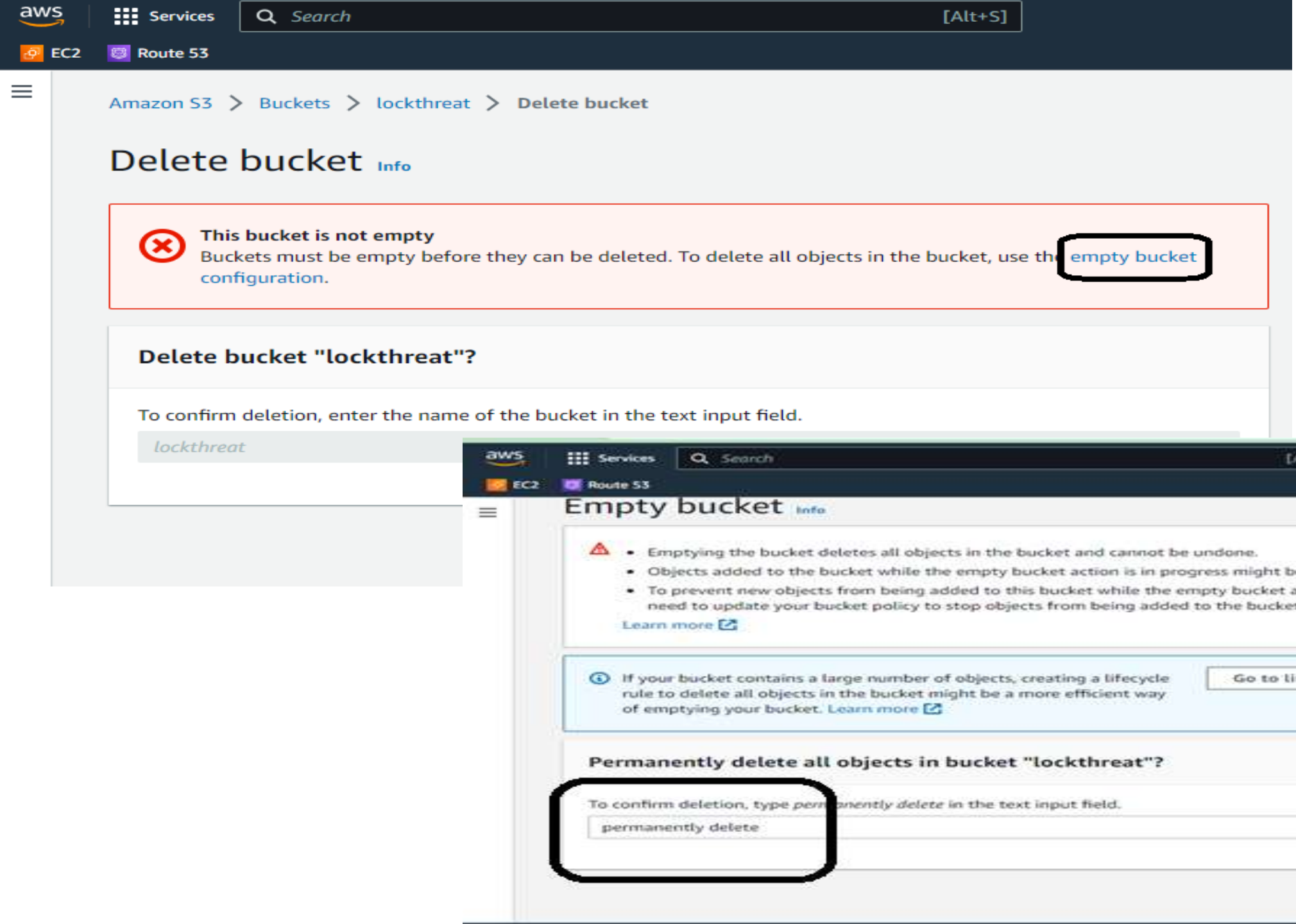

Destination
S3 Buckets
lockthreat
Objects
Find objects by prefix
1
Name
Storage class
Size
Last modified
LOCKTHREAT FILE/
-
-
-
2.EC2 Machine.pptx
Standard
2.7 MB
December 20, 2022, 16:53:28 (UTC+05:30)
Cancel
Choose destination

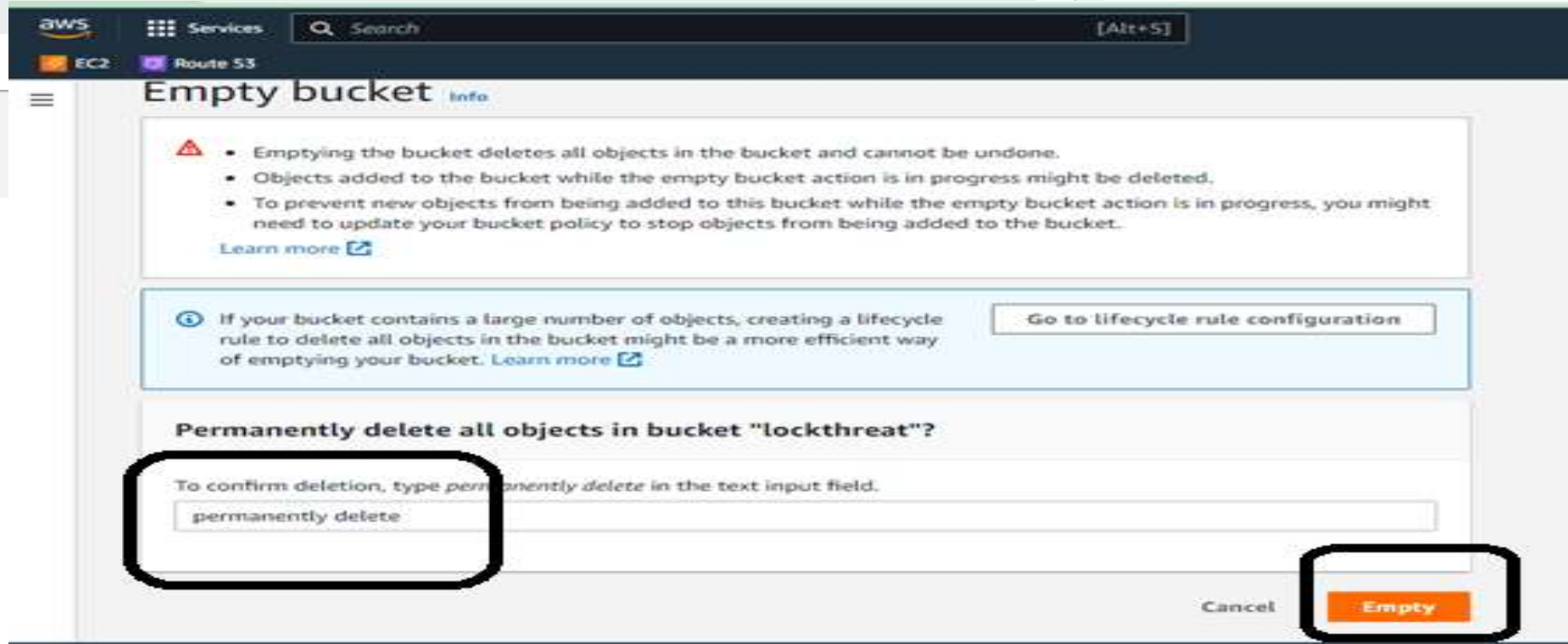

EC2
Route 53
Specified objects
Find objects by name
1
Name
Type
Last modified
Size
2.EC2 Machine.pptx
pptx
December 20, 2022, 16:53:28 (UTC+05:30)
2.7 MB
Additional checksums
Checksum functions are used for additional data integrity verification of new objects. Learn more
Additional checksums
Copy existing checksum functions
Apply the same checksum function to the destination object. The checksum value may change compared to when it was added. Learn more
Replace with a new checksum function
Specify a new checksum function for additional data integrity validation which will overwrite any existing data integrity settings.
Cancel
Move

Deleting Steps:






aws
Services
Search
[Alt+S]
EC2
Route 53
Amazon S3 > Buckets > lockthreat > Delete bucket
Delete bucket Info
This bucket is not empty
Buckets must be empty before they can be deleted. To delete all objects in the bucket, use th
empty bucket
configuration.
Delete bucket "lockthreat"?
To confirm deletion, enter the name of the bucket in the text input field.
lockthreat


aws
Services
Search
[Alt+S]
EC2
Route 53
Empty bucket Info
Emptying the bucket deletes all objects in the bucket and cannot be undone.
Objects added to the bucket while the empty bucket action is in progress might be deleted.
To prevent new objects from being added to this bucket while the empty bucket action is in progress, you might need to update your bucket policy to stop objects from being added to the bucket.
Learn more
If your bucket contains a large number of objects, creating a lifecycle rule to delete all objects in the bucket might be a more efficient way of emptying your bucket. Learn more
Go to lifecycle rule configuration
Permanently delete all objects in bucket "lockthreat"?
To confirm deletion, type permanently delete in the text input field.
permanently delete
Cancel
Empty

Delete bucket info

- Deleting a bucket cannot be undone.
- Bucket names are unique. If you delete a bucket, another AWS user can use the name.

Learn more

Delete bucket "lockthreat"?

To confirm deletion, enter the name of the bucket in the text input field.

lockthreat

Cancel Delete bucket

Interview Questions

- **What is AWS S3?**
- **What are the benefits of AWS Simple Storage Service?**
- **What is the use of AWS S3?**
- **What is an Object in AWS S3?**
- **Explain the benefits of S3 versioning.**

- Thank You