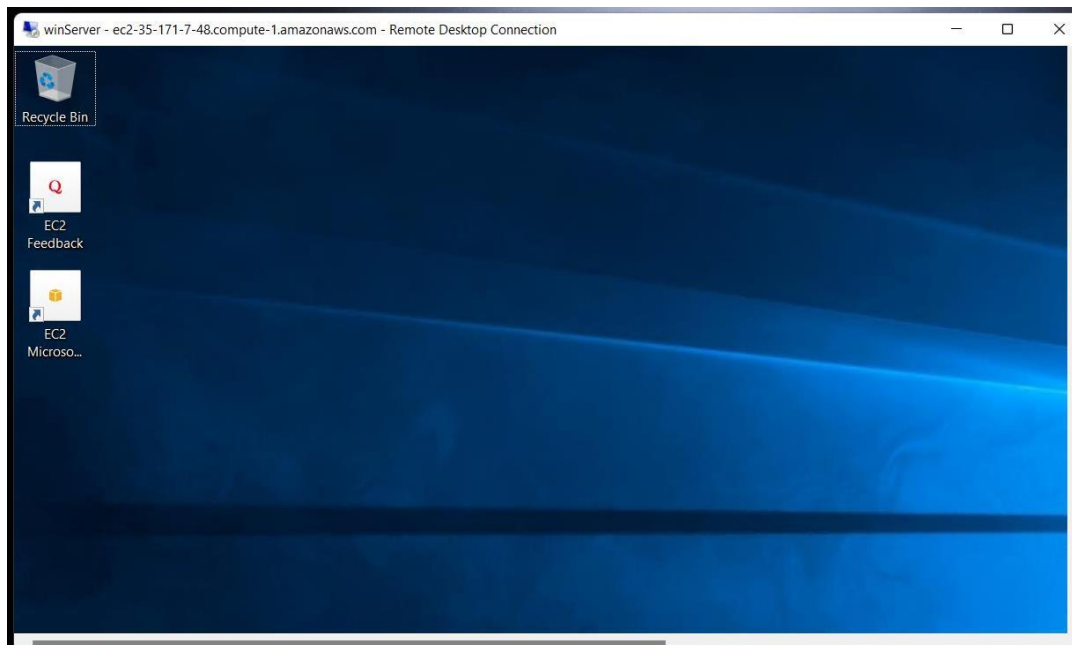
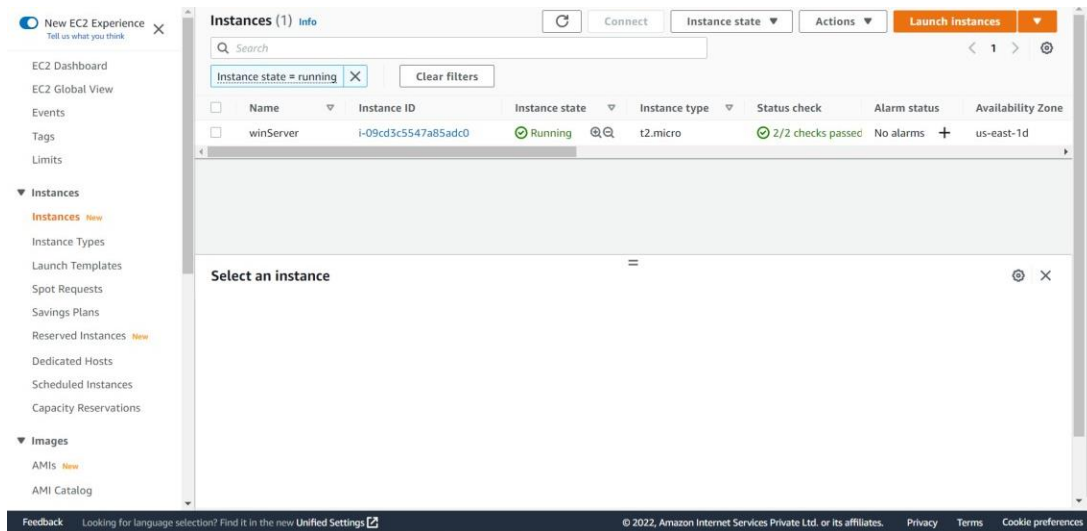


## PROJECT-5

**Mount S3 bucket as a drive in both Linux and windows,  
Implement MFA delete and versioning.**

---MOUNT S3 BUCKET IN WINDOWS SERVER



## ---CREATING S3 BUCKET

The screenshot shows the Amazon S3 console interface. On the left is a navigation sidebar with options like Buckets, Access Points, Object Lambda Access Points, Multi-Region Access Points, Batch Operations, Access analyzer for S3, Storage Lens, Dashboards, AWS Organizations settings, Feature spotlight, and AWS Marketplace for S3. The main content area displays the 'Properties' tab for a bucket named 'n3ws3buck3th3h3'. The 'Bucket overview' section shows the AWS Region as 'US East (N. Virginia) us-east-1', the Amazon Resource Name (ARN) as 'arn:aws:s3::n3ws3buck3th3h3', and the Creation date as 'August 2, 2022, 16:20:58 (UTC+05:30)'. The 'Bucket Versioning' section indicates that versioning is 'Enabled' and provides information about Multi-factor authentication (MFA) delete settings.

Amazon S3 > Buckets > n3ws3buck3th3h3

### n3ws3buck3th3h3 Info

Objects Properties Permissions Metrics Management Access Points

#### Bucket overview

AWS Region US East (N. Virginia) us-east-1	Amazon Resource Name (ARN) arn:aws:s3::n3ws3buck3th3h3	Creation date August 2, 2022, 16:20:58 (UTC+05:30)
---	---	---

#### 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](#)

Edit

Bucket Versioning  
Enabled

Multi-factor authentication (MFA) delete  
An additional layer of security that requires multi-factor authentication for changing Bucket Versioning settings and permanently deleting object versions. To modify MFA delete settings, use the AWS CLI, AWS SDK, or the Amazon S3 REST API. [Learn more](#)

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## ---CREATING IAM

The screenshot shows the 'Add user' wizard in the AWS IAM console, specifically the 'Review' step (step 4 of 5). It displays the user details: 'User name' is 's3user', 'AWS access type' is 'Programmatic access - with an access key', and 'Permissions boundary' is 'Permissions boundary is not set'. The 'Permissions summary' section shows that the 'AmazonS3FullAccess' managed policy will be attached to the user. The 'Tags' section indicates that no tags are currently assigned to the user. At the bottom, there are buttons for 'Cancel', 'Previous', and 'Create user'.

ADD USER 1 2 3 4 5

### Review

Review your choices. After you create the user, you can view and download the autogenerated password and access key.

#### User details

User name	s3user
AWS access type	Programmatic access - with an access key
Permissions boundary	Permissions boundary is not set

#### Permissions summary

The following policies will be attached to the user shown above.

Type	Name
Managed policy	AmazonS3FullAccess

#### Tags

The new user will receive the following tag

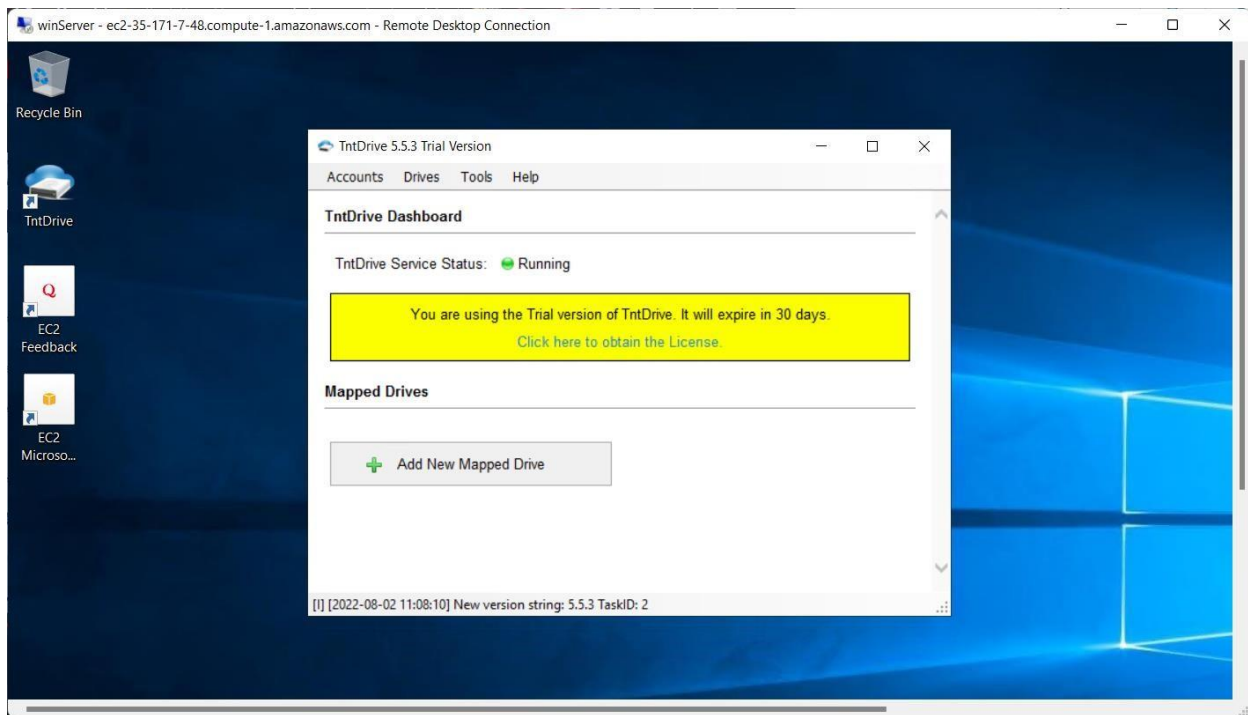
Key	Value
-----	-------

Cancel Previous Create user

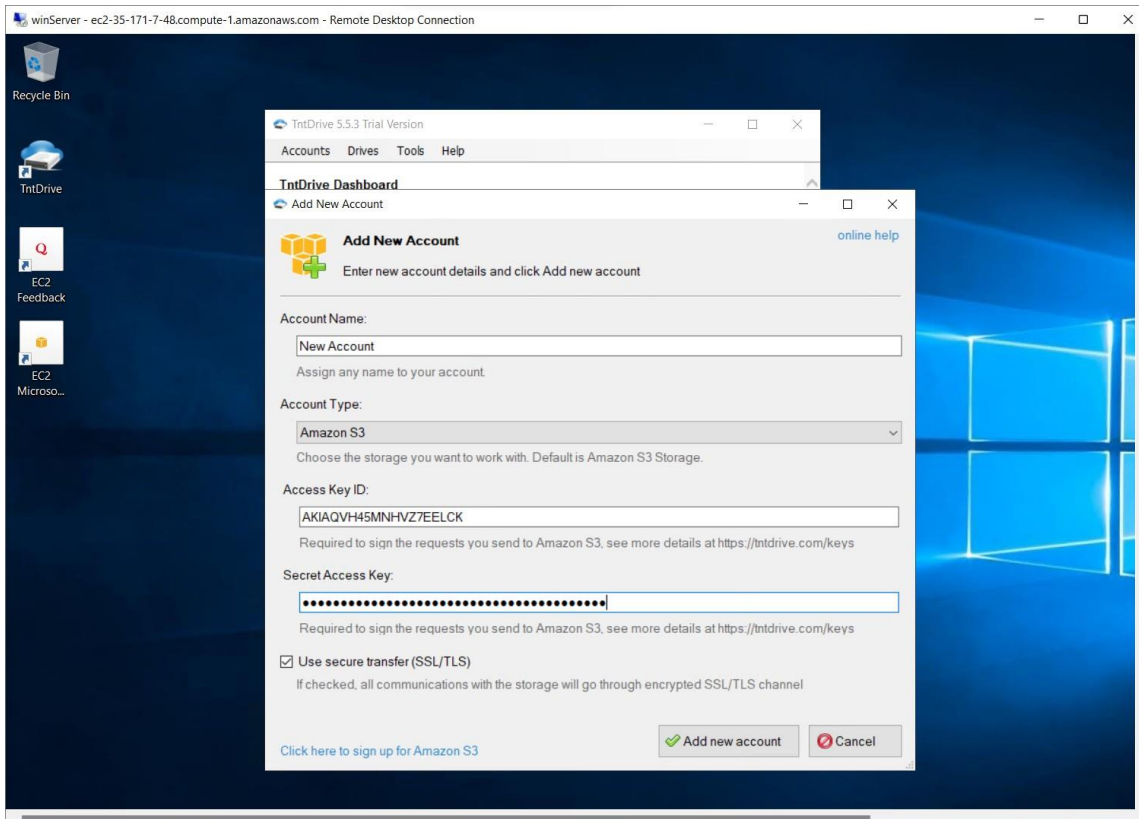
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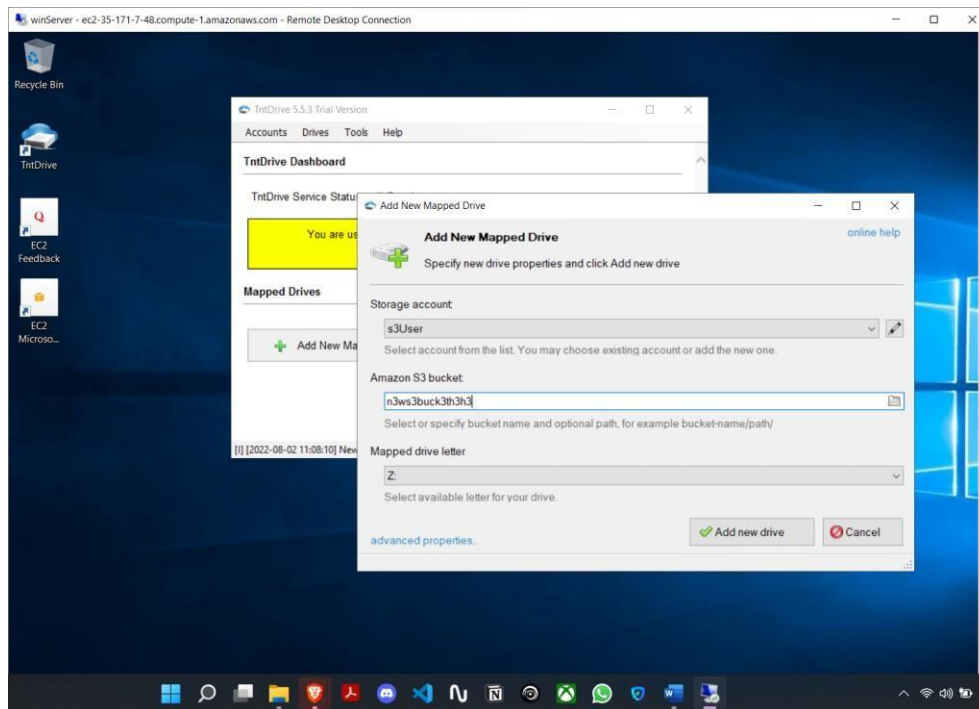
## ---INSTALLING TNTDRIVE



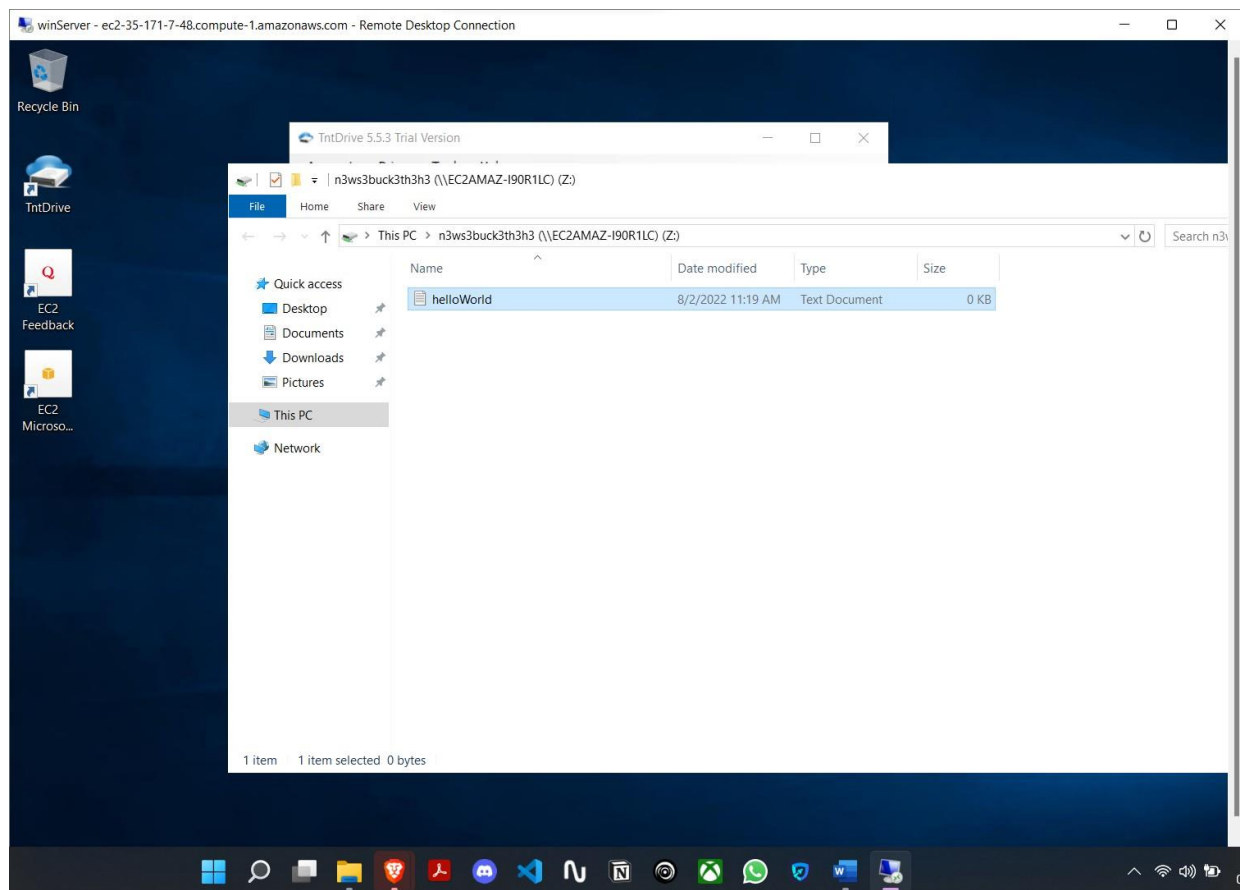
## ---ADDING NEW ACCOUNT



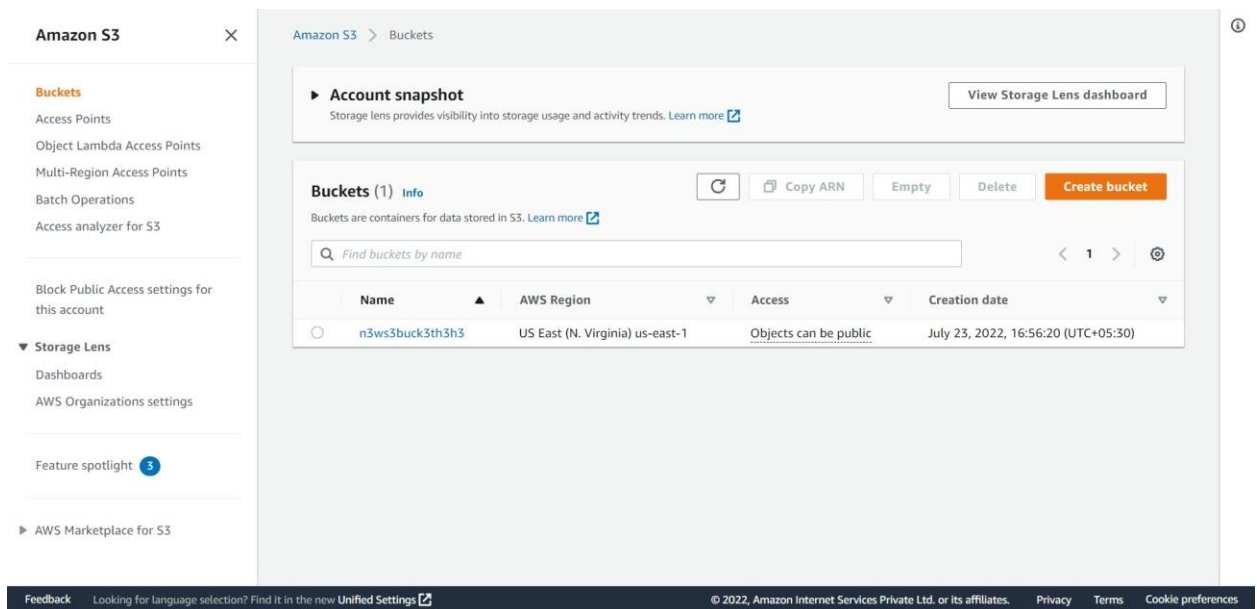
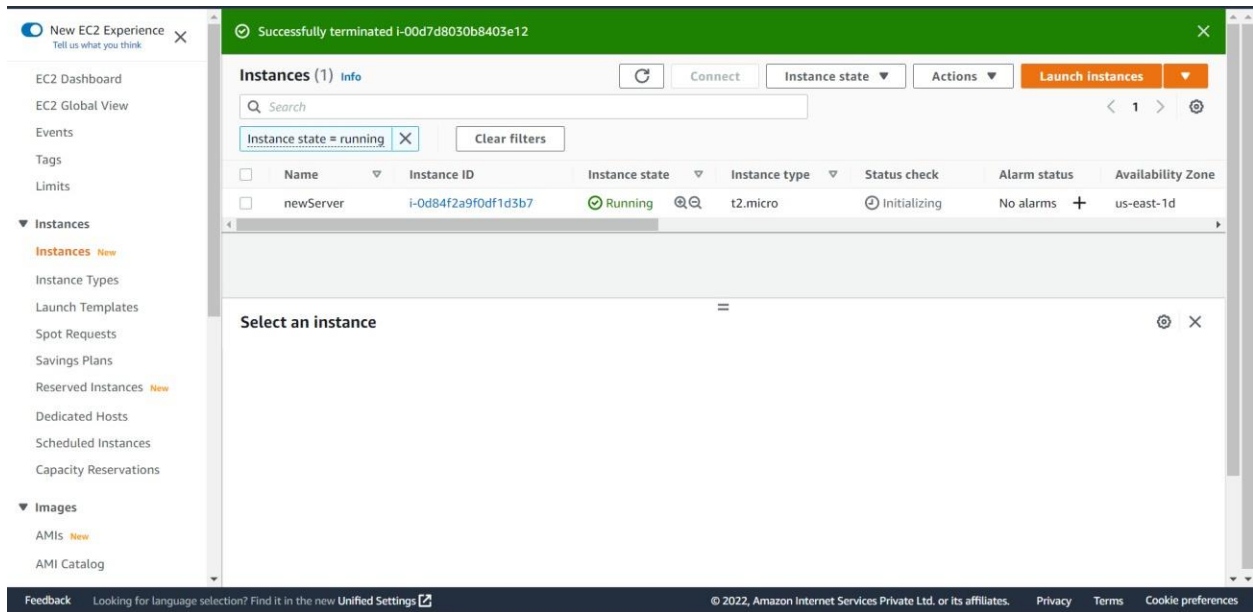
## ---ADDING S3 BUCKET IN TNT DRIVE



## ---CREATING A FILE AND CHECKING



## ---MOUNTING S3 BUCKETS ON LINUX SERVER



```
1 ec2-54-92-239-33.compute... × +
Fetched 22.4 MB in 3s (6463 kB/s)
Reading package lists... Done
root@ip-172-31-88-88:~# sudo apt-get install s3fs
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
  bzip2 libfuse2 mailcap mime-support
Suggested packages:
  bzip2-doc
The following NEW packages will be installed:
  bzip2 libfuse2 mailcap mime-support s3fs
0 upgraded, 5 newly installed, 0 to remove and 47 not upgraded.
Need to get 450 kB of archives.
After this operation, 1348 kB of additional disk space will be used.
Do you want to continue? [Y/n] y
Get:1 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy/main amd64 bzip2 a
md64 1.0.8-5build1 [34.8 kB]
Get:2 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy/universe amd64 lib
fuse2 amd64 2.9.9-5ubuntu3 [90.3 kB]
Get:3 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy/main amd64 mailcap
all 3.70+nmu1ubuntu1 [23.8 kB]
Get:4 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy/main amd64 mime-su
pport all 3.66 [3696 B]
Get:5 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy/universe amd64 s3fs
amd64 1.90-1 [297 kB]
Fetched 450 kB in 0s (12.3 MB/s)
Selecting previously unselected package bzip2.
(Reading database ... 63612 files and directories currently installed.)
Preparing to unpack .../bzip2_1.0.8-5build1_amd64.deb ...
Unpacking bzip2 (1.0.8-5build1) ...
Selecting previously unselected package libfuse2:amd64.
Preparing to unpack .../libfuse2_2.9.9-5ubuntu3_amd64.deb ...
```

ssh://ubuntu@ec2-54-92-239-33.compute-1.amazonaws.com SSH2 xterm 77x33 33,25 1 session CAP NUM

```
root@ip-172-31-88-88:~# df -h
Filesystem      Size  Used Avail Use% Mounted on
/dev/root       7.6G  1.7G   6.0G  22% /
tmpfs           484M    0   484M   0% /dev/shm
tmpfs           194M  832K   193M   1% /run
tmpfs           5.0M    0   5.0M   0% /run/lock
/dev/xvda15     105M   5.3M   100M   5% /boot/efi
tmpfs           97M   4.0K   97M   1% /run/user/1000
s3fs            16E    0   16E   0% /root/mys3
root@ip-172-31-88-88:~#
```

ssh://ubuntu@ec2-54-92-239-33.compute-1.amazonaws.com SSH2 xterm 77x33 33,25

### ---CREATING A NEW FILE

## n3ws3buck3th3h3 Info

ObjectsPropertiesPermissionsMetricsManagementAccess Points

Objects (1)

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

☐ Show versions

< 1 >

<input type="checkbox"/>	Name ▲	Type ▼	Last modified ▼	Size ▼	Storage class ▼
<input type="checkbox"/>	file.txt	txt	July 23, 2022, 18:14:10 (UTC+05:30)	0 B	Standard



```
ec2-54-92-239-33.compute-1.amazonaws.com:22 - root@ip-172-31-88-88: ~/mys3 - Xshell 7 (Free for Home/S...
File Edit View Tools Tab Window Help
ssh://ubuntu@ec2-54-92-239-33.compute-1.amazonaws.com:22
To add the current session, click on the left arrow button.
1 ec2-54-92-239-33.comput... x +
root@ip-172-31-88-88:~# cd mys3
root@ip-172-31-88-88:~/mys3# ls
file.txt
root@ip-172-31-88-88:~/mys3# touch newfile.txt
root@ip-172-31-88-88:~/mys3# ls
file.txt  newfile.txt
root@ip-172-31-88-88:~/mys3#
```

## n3ws3buck3th3h3 Info

**Objects** Properties Permissions Metrics Management Access Points

### Objects (2)

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

☐ Show versions

< 1 >

<input type="checkbox"/>	Name ▲	Type ▼	Last modified ▼	Size ▼	Storage class ▼
<input type="checkbox"/>	file.txt	txt	July 23, 2022, 18:14:10 (UTC+05:30)	0 B	Standard
<input type="checkbox"/>	newfile.txt	txt	July 23, 2022, 21:38:51 (UTC+05:30)	0 B	Standard



### ---Enabling MFA delete on a S3 bucket

```
#aws s3api put-bucket-versioning --bucket n3ws3buck3th3h3 --versioning-configuration  
Status=Enabled,MFADelete=Enabled --mfa "arn:aws:iam::045627564879:mfa/root-account-mfa-device  
079068"
```

```
C:\Users\msi1>aws s3api put-bucket-versioning --bucket n3ws3buck3th3h3 --versioning-configuration Status=Enabled,MFADelete=Enabled --mfa "arn:aws:iam::045627564879:mfa/root-account-mfa-device 079068"  
C:\Users\msi1>
```

**Amazon S3**

**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

AWS Marketplace for S3

**Bucket overview**

AWS Region	Amazon Resource Name (ARN)	Creation date
US East (N. Virginia) us-east-1	arn:aws:s3::n3ws3buck3th3h3	July 23, 2022, 16:56:20 (UTC+05:30)

**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](#)

**Enabled**

**Multi-factor authentication (MFA) delete**

An additional layer of security that requires multi-factor authentication for changing Bucket Versioning settings and permanently deleting object versions. To modify MFA delete settings, use the AWS CLI, AWS SDK, or the Amazon S3 REST API. [Learn more](#)

**Enabled**

**Tags (0)**

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```
Command Prompt
Default region name [us-east-1]:
Default output format [json]:

C:\Users\msil>aws s3api put-bucket-versioning --bucket n3ws3buck3th3h3 --versioning-configuration Status=Enabled,MFADelete=Enabled --mfa "arn:aws:iam::045627564879:mfa/root-account-mfa-device 079068"

C:\Users\msil>aws s3api delete-object --bucket n3ws3buck3th3h3 --key file.txt
{
  "DeleteMarker": true,
  "VersionId": ".7i5XZi6kDlFcoh8TsOmUd79hVCdV_tP"
}

C:\Users\msil>
```

Amazon S3

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

AWS Marketplace for S3

n3ws3buck3th3h3 Info

Objects

Properties

Permissions

Metrics

Management

Access Points

Objects (3)

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

Find objects by prefix

Show versions

<input type="checkbox"/>	Name	Type	Version ID	Last modified	Size	Storage class
<input type="checkbox"/>	file.txt	Delete marker	.7i5XZi6kDlFcoh8TsOmUd79hVCdV_tP	July 23, 2022, 21:57:00 (UTC+05:30)	0 B	-
<input type="checkbox"/>	file.txt	txt	null	July 23, 2022, 18:14:10 (UTC+05:30)	0 B	Standard
<input type="checkbox"/>	newfile.txt	txt	KI1CX9elqRXUsI.OBI4hcbQujLONBFTy	July 23, 2022, 21:38:51 (UTC+05:30)	0 B	Standard

Feedback

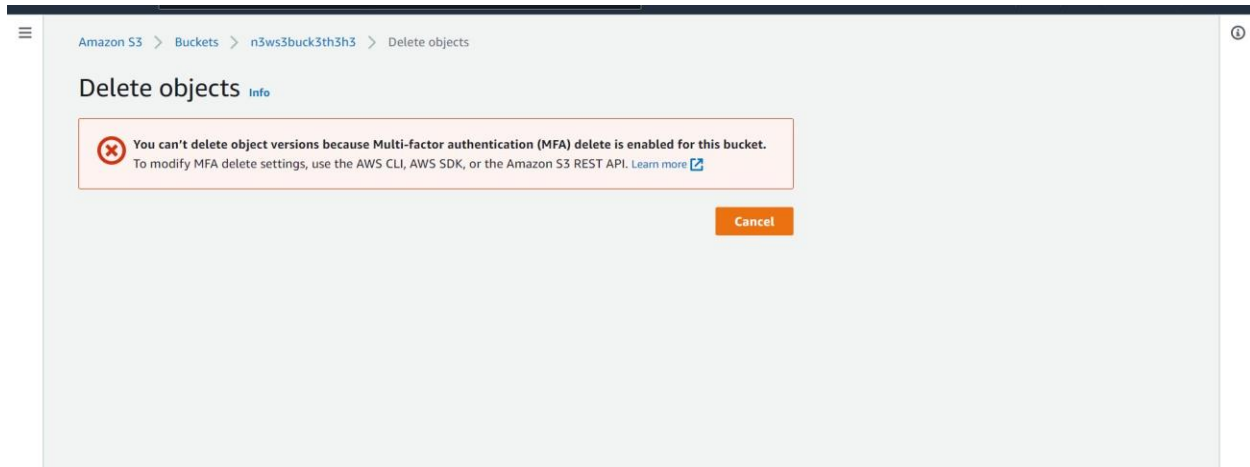
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## ---DELETING WITH MFA CODE

The screenshot shows the 'n3ws3buck3th3h3' bucket in the Amazon S3 console. The left sidebar shows the 'Buckets' section. The main content area shows the 'Objects (2)' section. The objects listed are:

<input type="checkbox"/>	Name	Type	Version ID	Last modified	Size	Storage class
<input type="checkbox"/>	file.txt	txt	null	July 23, 2022, 18:14:10 (UTC+05:30)	0 B	Standard
<input type="checkbox"/>	newfile.txt	txt	KI1CX9elqRXUsLOBI4hcbQujLONBftY	July 23, 2022, 21:38:51 (UTC+05:30)	0 B	Standard

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