

## Task 2 – Demonstration of Replication of data on S3 Bucket across different regions.

### i. Creation of source and destination buckets with AWS S3.

The screenshot shows the AWS Management Console interface. A green notification banner at the top states: "Successfully created bucket 'awslab-nov18-destination'. To upload files and folders, or to configure additional bucket settings, choose View details." Below this, the "Buckets (2) info" section is visible, showing a table of the created buckets.

Name	AWS Region	Access	Creation date
awslab-nov18-destination	US West (Oregon) us-west-2	Bucket and objects not public	November 18, 2023, 14:40:00 (UTC+05:30)
awslab-nov18-source	US East (N. Virginia) us-east-1	Bucket and objects not public	November 18, 2023, 14:39:14 (UTC+05:30)

ii.

### Creation of a text file named as 'before\_replication.txt' prior to replication.

The screenshot shows the AWS CloudShell terminal interface. The terminal output shows the following commands and results:

```
[cloudshell-user@ip-10-132-43-237 ~]$ echo "This file is created before replication took place." > before_replication.txt
[cloudshell-user@ip-10-132-43-237 ~]$ ls
before_replication.txt
[cloudshell-user@ip-10-132-43-237 ~]$ cat before_replication.txt
This file is created before replication took place.
[cloudshell-user@ip-10-132-43-237 ~]$ aws s3 cp before_replication.txt s3://awslab-nov18-source/folder1/
upload: ./before_replication.txt to s3://awslab-nov18-source/folder1/before_replication.txt
[cloudshell-user@ip-10-132-43-237 ~]$
```

The screenshot shows the AWS Management Console interface for the 'awslab-nov18-source' bucket, specifically the 'folder1/' directory. The 'Objects (1)' section is visible, showing a table of the objects in the folder.

Name	Type	Last modified	Size	Storage class
before_replication.txt	txt	November 18, 2023, 14:46:54 (UTC+05:30)	52.0 B	Standard

### iii. Setting-up the replication rule.

Replication configuration successfully updated

If changes to the configuration aren't displayed, choose the refresh button. Changes apply only to new objects. To replicate existing objects with this configuration, choose **Create replication job**.

**Replication rules** [Info](#)

Replication enables automatic and asynchronous copying of objects across buckets in the same or different AWS Regions. A replication configuration is a set of rules that define what options should be applied to a group of objects during replication.

**Replication configuration settings**

Configuration settings affect all replication rules in the bucket.

Source bucket: aws-lab-nov18-source

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

IAM role: [LabRole](#)

**Replication rules (1)**

Use replication rules to define options you want Amazon S3 to apply during replication such as server-side encryption, replica ownership, transitioning replicas to another storage class, and more. [Learn more](#)

[Refresh](#) [View details](#) [Edit rule](#) [Delete](#) [Actions](#) [Create replication rule](#)

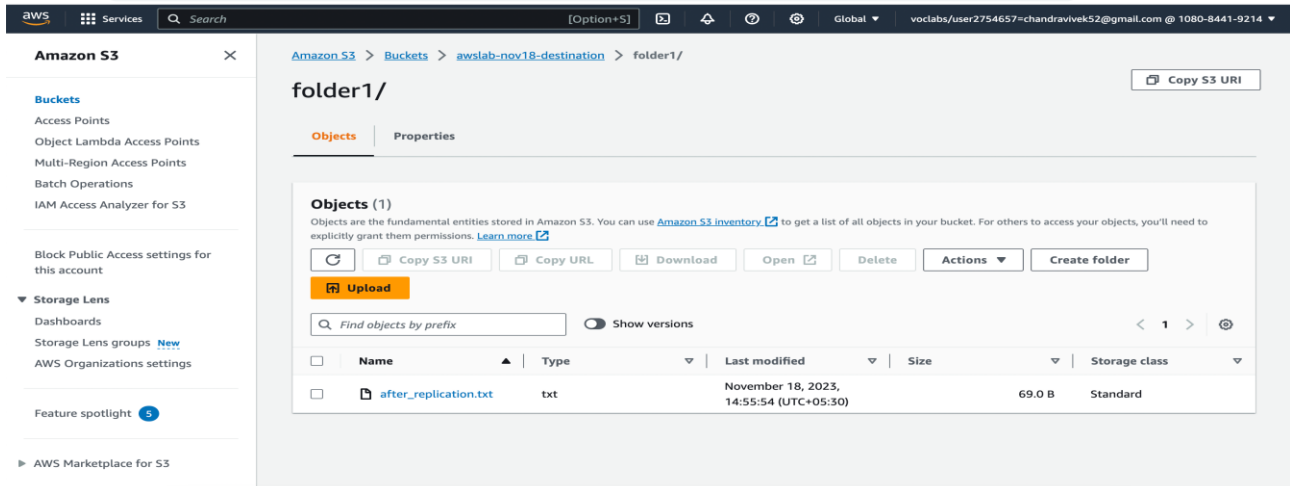
Replication rule name	Status	Destination bucket	Destination Region	Priority	Scope	Storage class	Replica owner	Replication Time Control	KMS-encrypted objects (SSE-KMS or DSSE-KMS)	Replica modification sync
replicationrule1	Enabled	s3://aws-lab-nov18-destination	US West (Oregon) us-west-2	0	Prefix: folder1/	Same as source	Same as source	Disabled	Do not replicate	Disabled

### v. After Replication – Phase I

Creation of file 'after\_replication.txt' after the enabling versioning and replication.

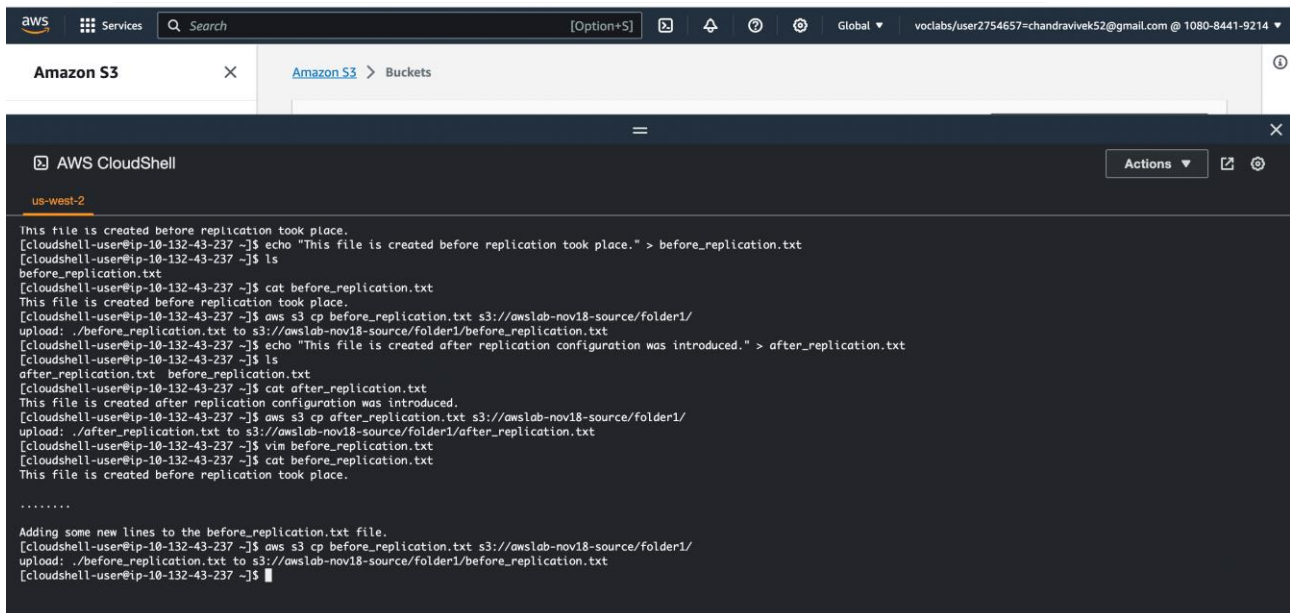
```
[cloudshell-user@ip-10-132-43-237 ~]$ echo "This file is created before replication took place." > before_replication.txt
[cloudshell-user@ip-10-132-43-237 ~]$ ls
before_replication.txt
[cloudshell-user@ip-10-132-43-237 ~]$ cat before_replication.txt
This file is created before replication took place.
[cloudshell-user@ip-10-132-43-237 ~]$ aws s3 cp before_replication.txt s3://aws-lab-nov18-source/folder1/
upload: ./before_replication.txt to s3://aws-lab-nov18-source/folder1/before_replication.txt
[cloudshell-user@ip-10-132-43-237 ~]$ echo "This file is created after replication configuration was introduced." > after_replication.txt
[cloudshell-user@ip-10-132-43-237 ~]$ ls
after_replication.txt before_replication.txt
[cloudshell-user@ip-10-132-43-237 ~]$ cat after_replication.txt
This file is created after replication configuration was introduced.
[cloudshell-user@ip-10-132-43-237 ~]$ aws s3 cp after_replication.txt s3://aws-lab-nov18-source/folder1/
upload: ./after_replication.txt to s3://aws-lab-nov18-source/folder1/after_replication.txt
[cloudshell-user@ip-10-132-43-237 ~]$
```

File replicated to the prefix ‘folder1/’ in the destination bucket.



#### iv. After Replication – Phase II

Making some changes to the existing file ‘before\_replication.txt’ and replicating it to the destination this time.



file 'before\_replication.txt' is now replicated with modifications to the destination this time.

Amazon S3 console view of the 'folder1/' directory. The 'Objects' tab is selected, showing a list of objects. The 'before\_replication.txt' file is highlighted.

Name	Type	Last modified	Size	Storage class
after_replication.txt	txt	November 18, 2023, 14:55:54 (UTC+05:30)	69.0 B	Standard
before_replication.txt	txt	November 18, 2023, 15:02:23 (UTC+05:30)	121.0 B	Standard

Amazon S3 console view of the 'before\_replication.txt' file details. The 'Properties' tab is selected, showing the object overview. A text editor window is open in the foreground, displaying the file content.

Object overview

Owner: awslabsc0w6139126t1692411107

AWS Region: US West (Oregon) us-west-2

Last modified: November 18, 2023, 15:02:23 (UTC+05:30)

Size: 121.0 B

Type: txt

Key: folder1/before\_replication.txt

S3 URI: s3://awslab-nov18-destination/folder1/before\_replication.txt

Amazon Resource Name (ARN): arn:aws:s3:::awslab-nov18-destination/folder1/before\_replication.txt

Entity tag (Etag): 8cdc5899912c3263006de587db3f40d6

Object URL: https://awslab-nov18-destination.s3.us-west-2.amazonaws.com/folder1/before\_replication.txt

Text editor content:

```
before_replication.txt
This file is created before replication took place.
.....
Adding some new lines to the before_replication.txt file.
```