

AWS S3 Basics

Course Objectives

In this course, we are going to focus on **six** learning objectives:

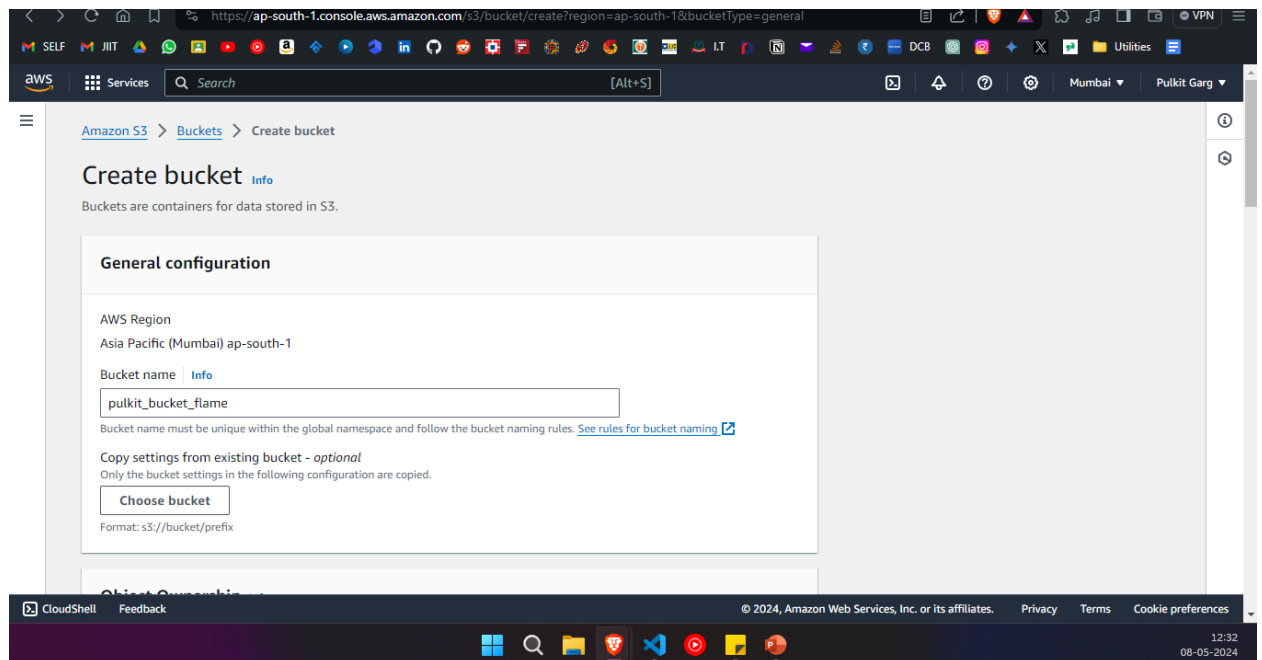
1. Create your First S3 Bucket
2. Upload Content to Bucket and Manage their Access
3. Understand S3 Encryption and enable it for S3 Bucket
4. Enable Versioning on S3 Bucket
5. Understand S3 Storage classes and Create Lifecycle Rule for objects in AWS S3
6. Create Static Website using AWS S3

S3 - simple storage service

Link to file - https://pulkitscottflame.s3.amazonaws.com/Text/test_2.txt

Link to static website - <http://pulkitflameweb.s3-website-us-east-1.amazonaws.com>

1. Create bucket
 - a. Creating bucket



b. Add tag to track storage cost

Tags - *optional* (1)

You can use bucket tags to track storage costs and organize buckets. [Learn more](#)

Key

product

Value - *optional*

basics

Remove

Add tag

c. Successfully created bucket

Successfully created bucket "pulkitbucketflame"

To upload files and folders, or to configure additional bucket settings, choose [View details](#).

[Amazon S3](#) > Buckets

Account snapshot All AWS Regions

Storage lens provides visibility into storage usage and activity trends. [Learn more](#)

View Storage Lens dashboard

General purpose buckets | Directory buckets

General purpose buckets (1) Info All AWS Regions

Copy ARN

Empty

Delete

Create bucket

Find buckets by name

< 1 > ⚙

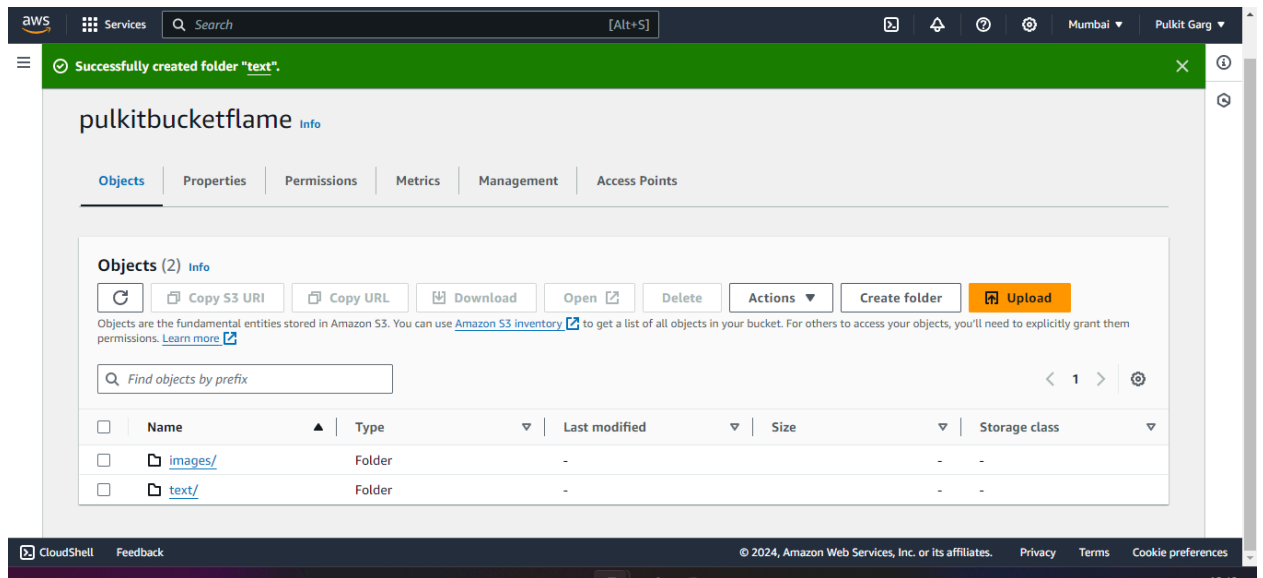
	Name	AWS Region	IAM Access Analyzer	Creation date
<input type="radio"/>	pulkitbucketflame	Asia Pacific (Mumbai) ap-south-1	View analyzer for ap-south-1	May 8, 2024, 00:40:19 (UTC+05:30)

CloudShell Feedback

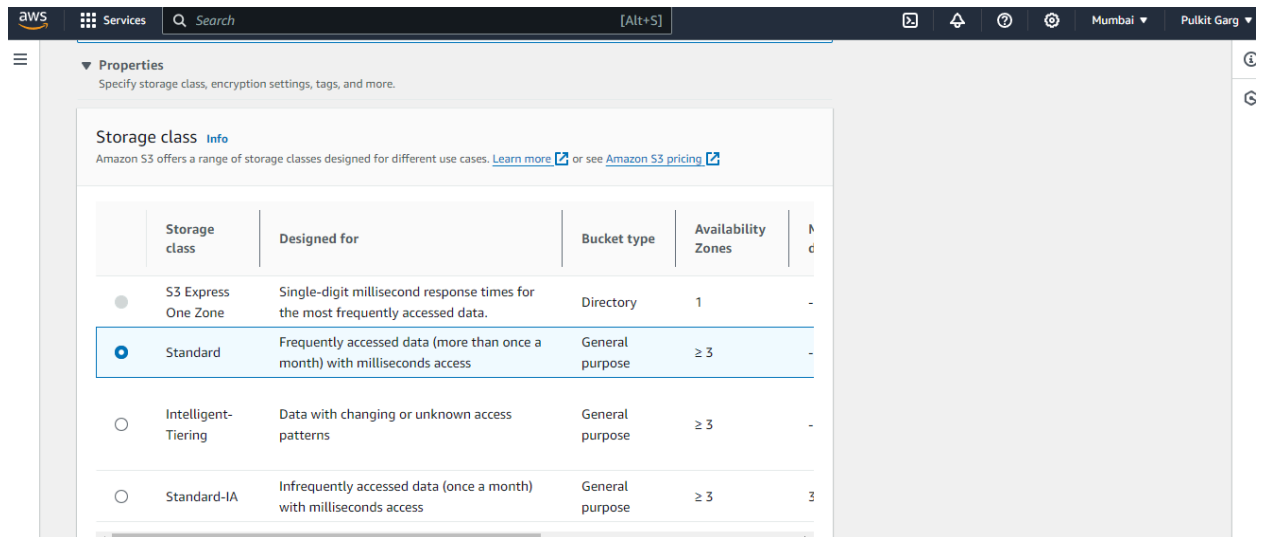
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2. Upload Object to S3 and Manage Access using bucket Policies and ACLs

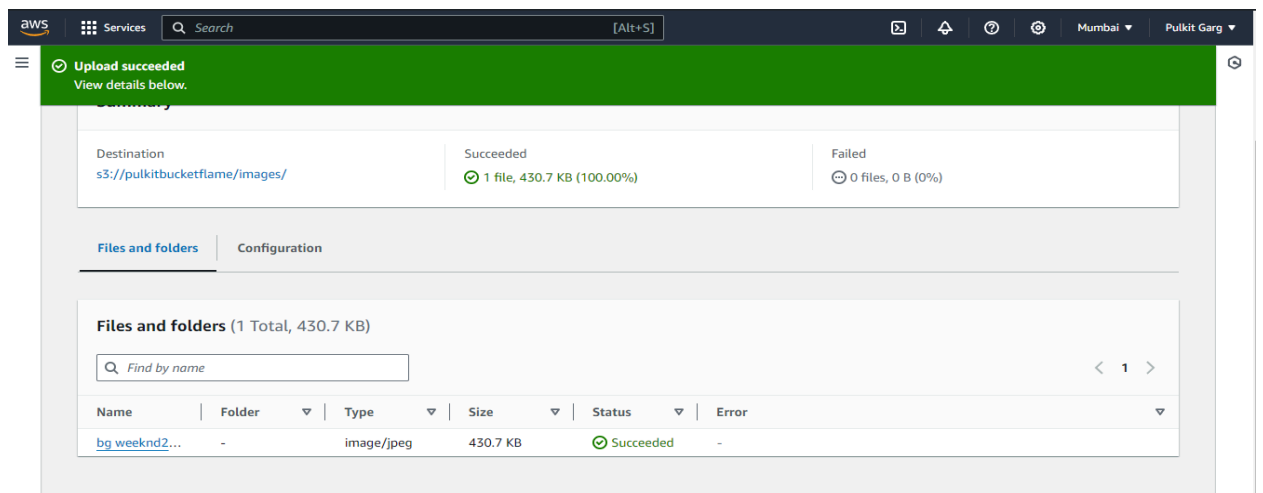
a. Create folders



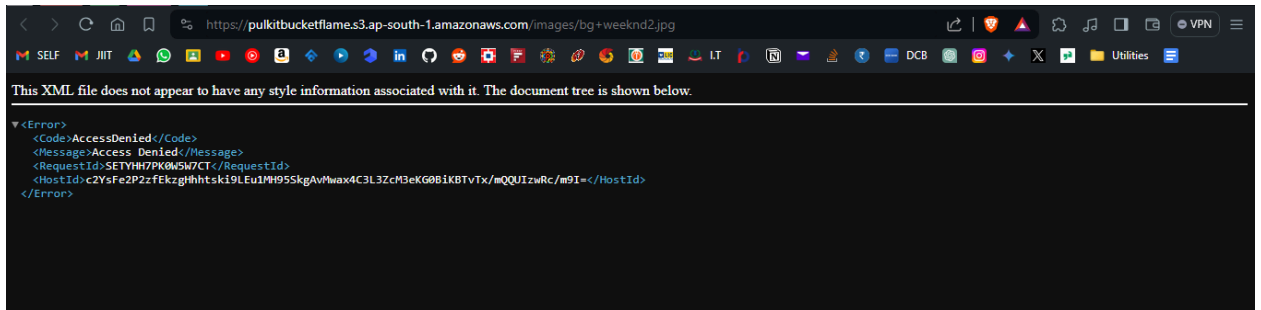
b. Choose storage class



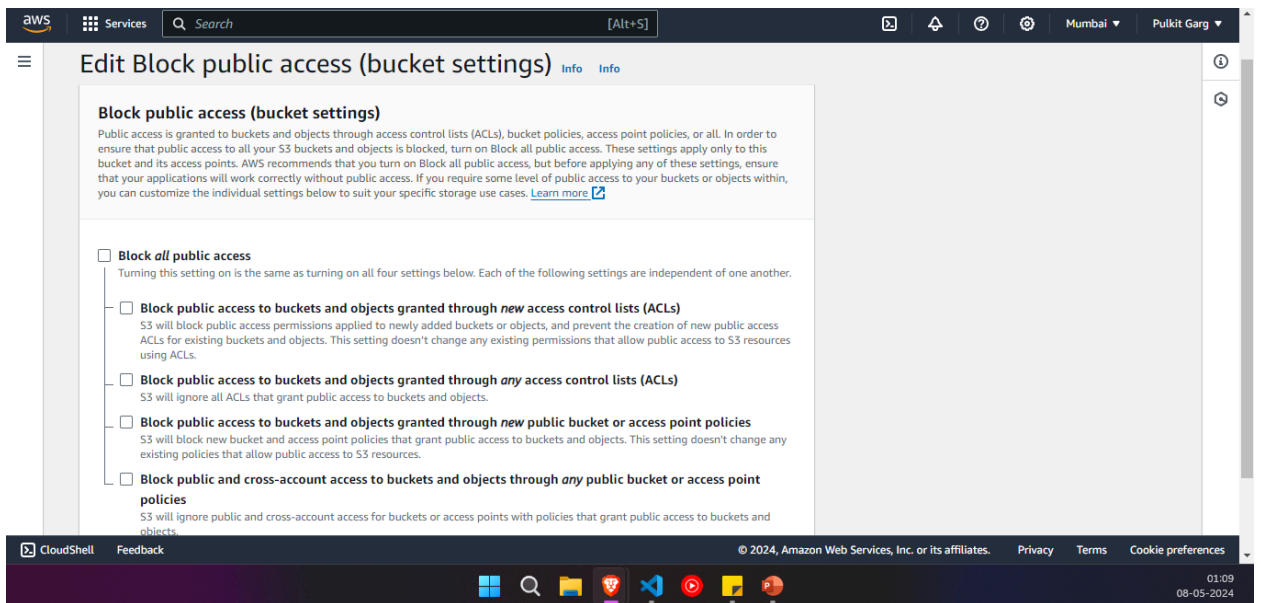
c. Uploaded successfully



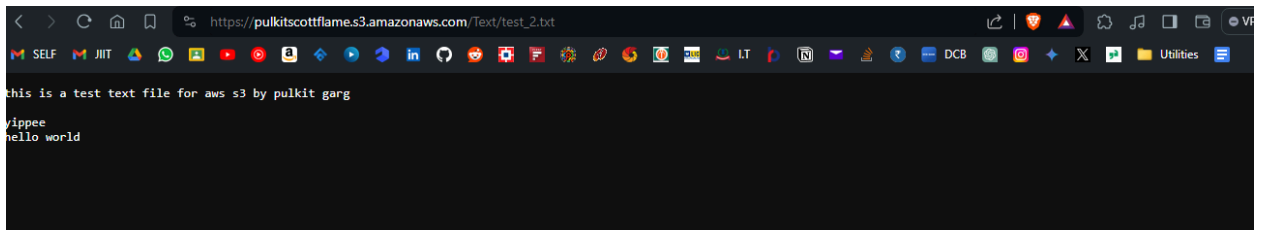
d. Public access is denied right now



e. Change bucket permission for allowing access to the public.



f. File is accessible now



Link to file - https://pulkitbucketflame.s3.ap-south-1.amazonaws.com/Text/test_2.txt

3. S3 Encryption and Bucket Policy

a. Generate policy under permissions > policy

The screenshot shows the AWS Policy Generator tool in a web browser. The URL is <https://awspolicygen.s3.amazonaws.com/policygen.html>. The page has the Amazon Web Services logo at the top. Below the logo, it says "AWS Policy Generator". A description states: "The AWS Policy Generator is a tool that enables you to create policies that control access to Amazon Web Services (AWS) products and resources. For more information about creating policies, see [key concepts in Using AWS Identity and Access Management](#). Here are [sample policies](#)." There are two main steps: "Step 1: Select Policy Type" and "Step 2: Add Statement(s)". Under Step 1, it says "A Policy is a container for permissions. The different types of policies you can create are an IAM Policy, an S3 Bucket Policy, an SNS Topic Policy, a VPC Endpoint Policy, and an SQS Queue Policy." There is a dropdown menu labeled "Select Type of Policy". Under Step 2, it says "A statement is the formal description of a single permission. See a [description of elements](#) that you can use in statements." There are four input fields: "Effect" with radio buttons for "Allow" (selected) and "Deny"; "Principal" with a text input field and a note "Use a comma to separate multiple values."; "AWS Service" with a dropdown menu and a checkbox for "All Services (**)" with a note "Use multiple statements to add permissions for more than one service."; and "Actions" with a text input field. The browser's taskbar at the bottom shows various application icons and the system clock indicating 01:35 on 08-05-2024.

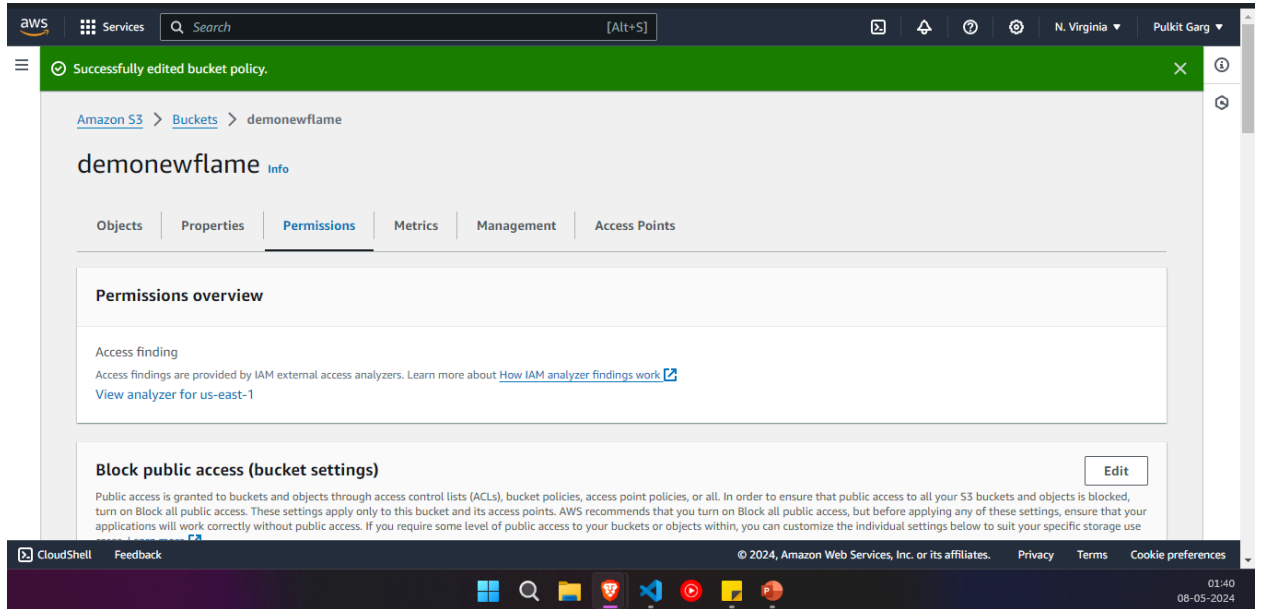
b. Policy JSON Document

The screenshot shows the AWS Policy Generator tool with a modal dialog box titled "Policy JSON Document" open. The dialog box contains the following JSON text:

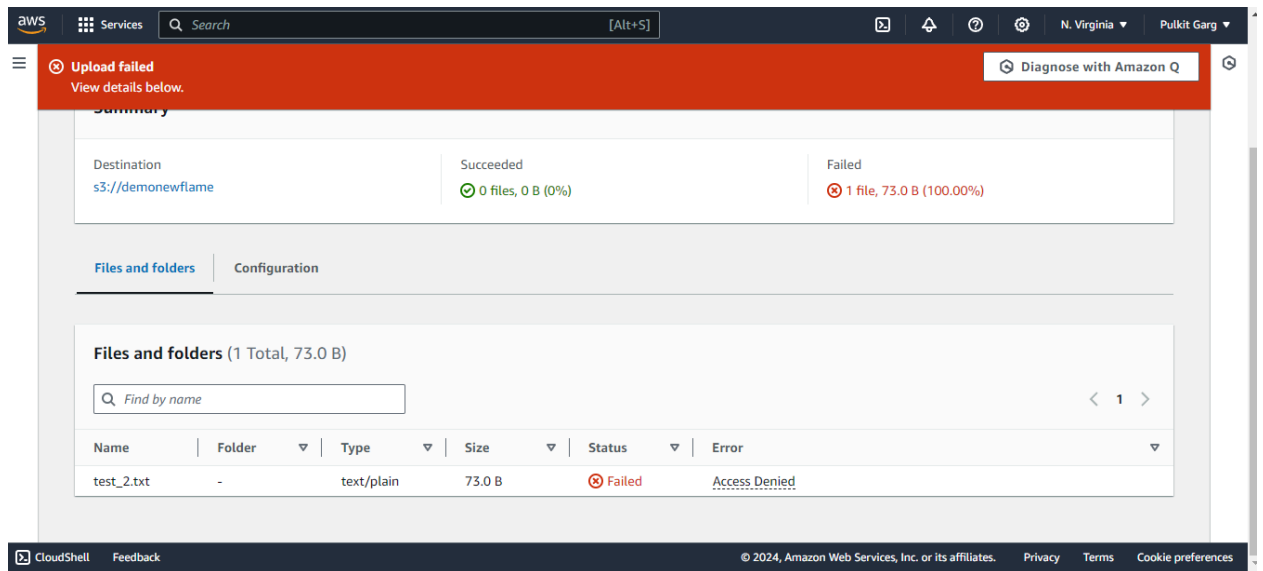
```
{
  "Id": "Policy1715112466119",
  "Version": "2012-10-17",
  "Statement": [
    {
      "Sid": "Stmt1715112465256",
      "Action": [
        "s3:PutObject"
      ],
      "Effect": "Deny",
      "Resource": "arn:aws:s3:::demoneuflame",
      "Condition": {
        "NumericNotEquals": {
          "s3:x-amz-server-side-encryption": "aws:kms"
        }
      },
      "Principal": "*"
    }
  ]
}
```

Below the JSON text is a "Close" button. The background of the tool is dimmed, showing the "Add Conditions (Optional)" section. The browser's taskbar at the bottom shows various application icons and the system clock indicating 01:37 on 08-05-2024.

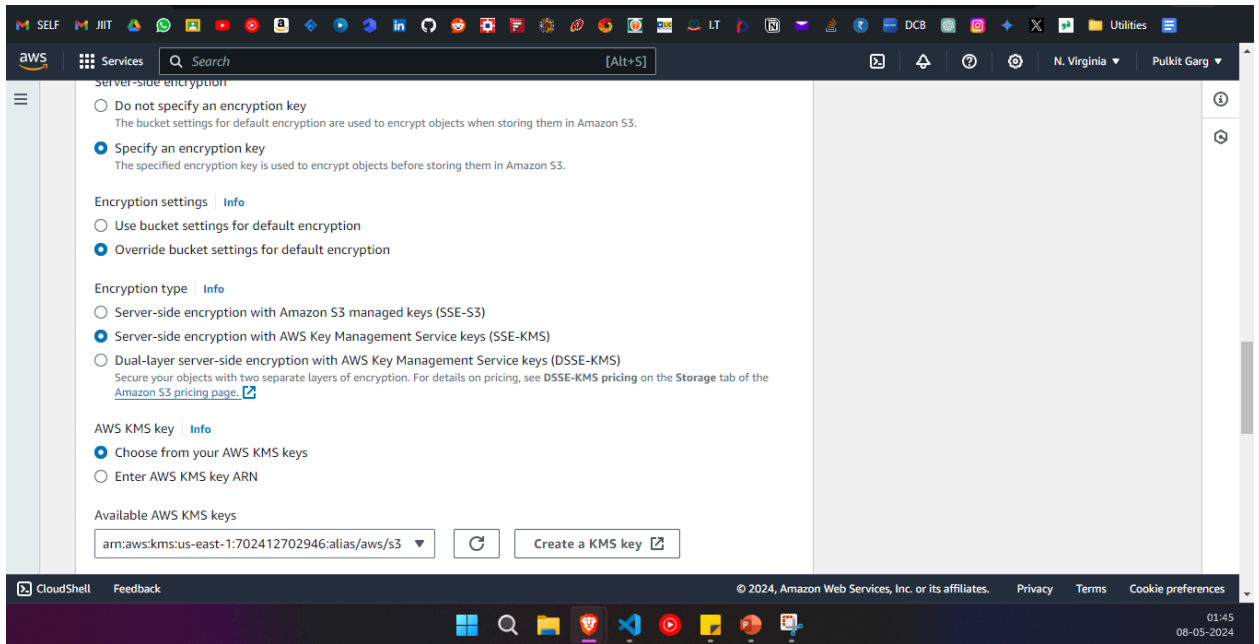
c. Successfully created bucket policy



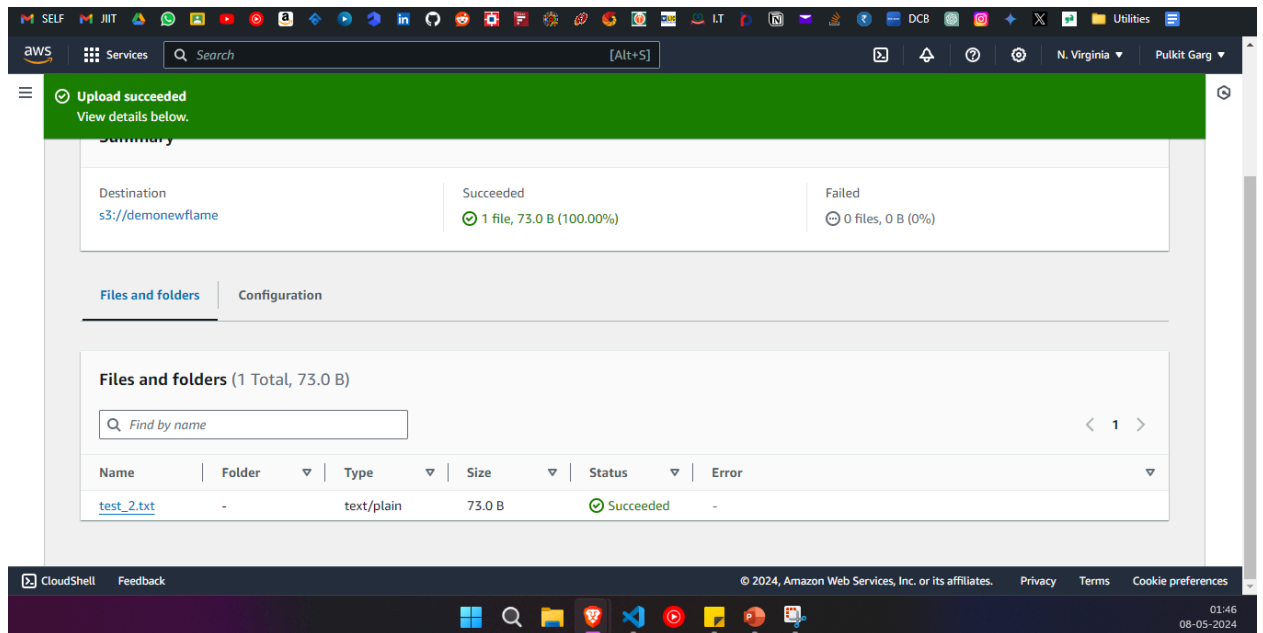
d. Upload failed for un-encrypted object



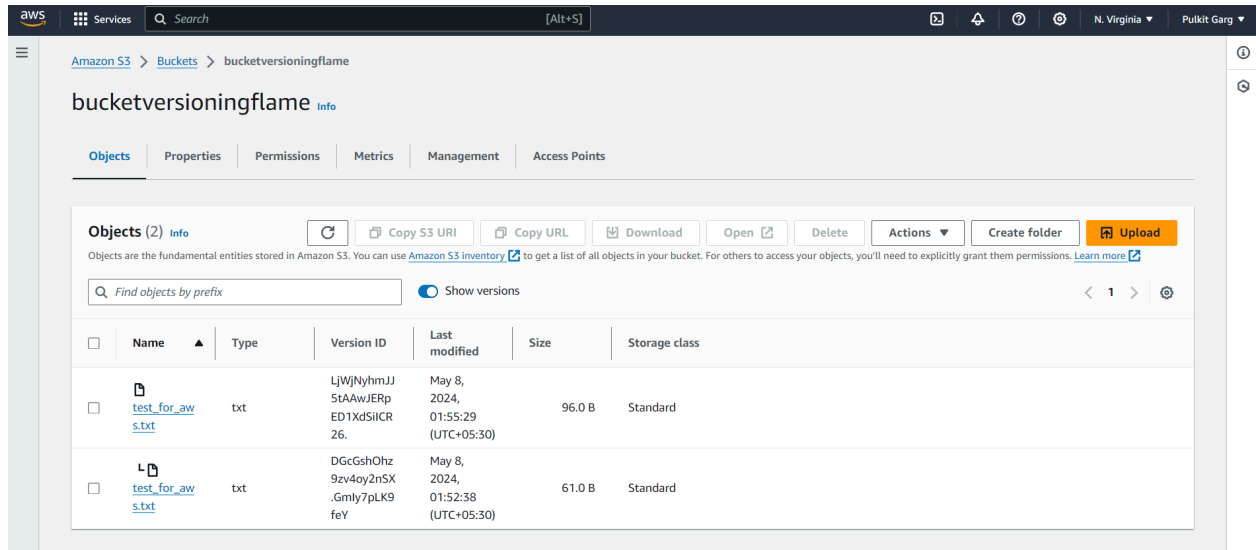
e. Giving encryption



f. Successfully uploaded after encryption



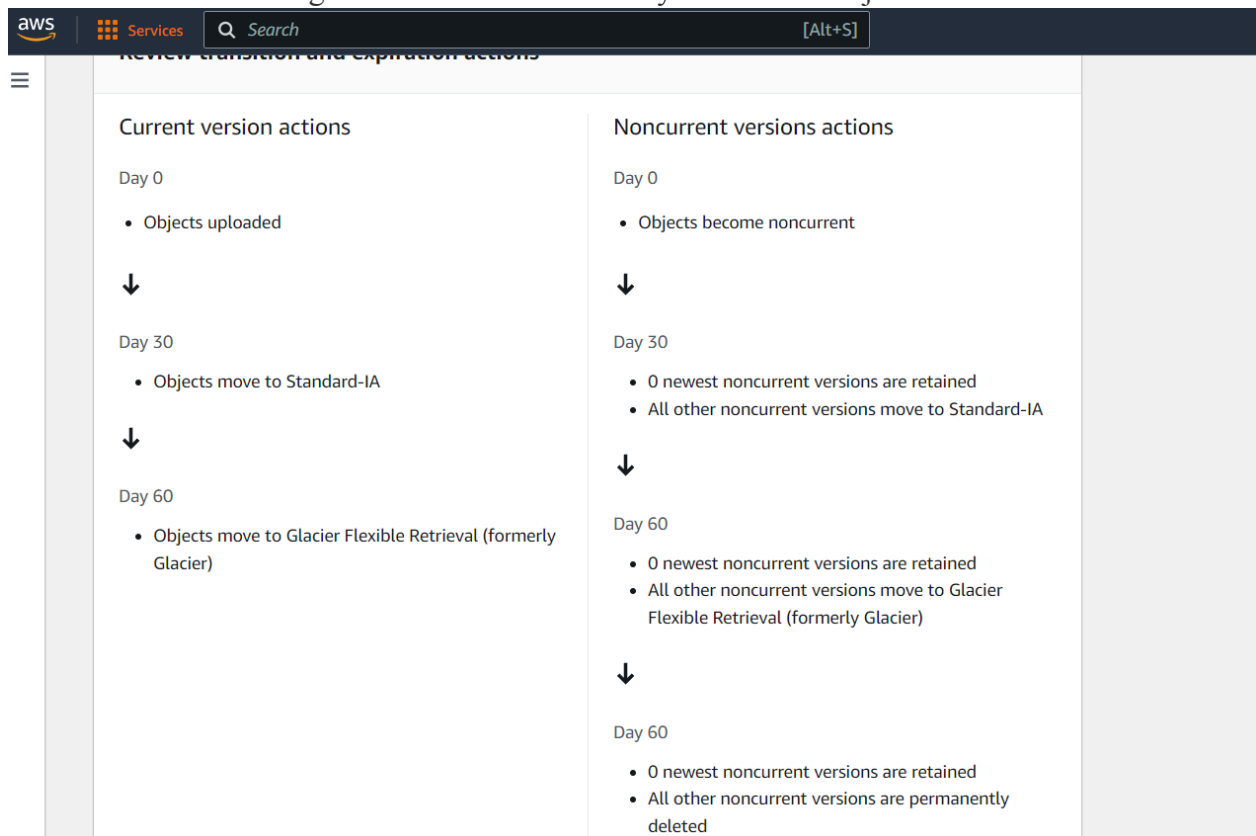
4. S3 versioning



The screenshot shows the AWS S3 console interface for a bucket named 'bucketversioningflame'. The 'Objects' tab is selected, displaying a list of two objects, both named 'test_for_aws.txt'. The first object has a Version ID of 'LjWjNyhmJJStAAwJERpED1XdSIICR26' and was last modified on May 8, 2024, at 01:55:29 (UTC+05:30), with a size of 96.0 B. The second object has a Version ID of 'DGcGshOhz9zv4oy2nSX.Gmly7pLK9feY' and was last modified on May 8, 2024, at 01:52:38 (UTC+05:30), with a size of 61.0 B. Both objects are stored in the 'Standard' storage class. The console also shows a search bar, a 'Show versions' toggle, and various action buttons like 'Copy S3 URI', 'Copy URL', 'Download', 'Open', 'Delete', 'Actions', 'Create folder', and 'Upload'.

	Name	Type	Version ID	Last modified	Size	Storage class
<input type="checkbox"/>	test_for_aws.txt	txt	LjWjNyhmJJStAAwJERpED1XdSIICR26	May 8, 2024, 01:55:29 (UTC+05:30)	96.0 B	Standard
<input type="checkbox"/>	test_for_aws.txt	txt	DGcGshOhz9zv4oy2nSX.Gmly7pLK9feY	May 8, 2024, 01:52:38 (UTC+05:30)	61.0 B	Standard

5. Understand S3 Storage classes and Create Lifecycle Rule for objects in AWS S3



The screenshot shows the 'Review transition and expiration actions' section of the AWS S3 console. It displays two columns: 'Current version actions' and 'Noncurrent versions actions'. The 'Current version actions' column shows a timeline starting at Day 0 with 'Objects uploaded', followed by a downward arrow, then Day 30 with 'Objects move to Standard-IA', another downward arrow, and finally Day 60 with 'Objects move to Glacier Flexible Retrieval (formerly Glacier)'. The 'Noncurrent versions actions' column shows a similar timeline starting at Day 0 with 'Objects become noncurrent', followed by a downward arrow, then Day 30 with '0 newest noncurrent versions are retained' and 'All other noncurrent versions move to Standard-IA', another downward arrow, then Day 60 with '0 newest noncurrent versions are retained' and 'All other noncurrent versions move to Glacier Flexible Retrieval (formerly Glacier)', and finally a downward arrow, then Day 60 with '0 newest noncurrent versions are retained' and 'All other noncurrent versions are permanently deleted'.

Current version actions	Noncurrent versions actions
Day 0 <ul style="list-style-type: none">Objects uploaded ↓	Day 0 <ul style="list-style-type: none">Objects become noncurrent ↓
Day 30 <ul style="list-style-type: none">Objects move to Standard-IA ↓	Day 30 <ul style="list-style-type: none">0 newest noncurrent versions are retainedAll other noncurrent versions move to Standard-IA ↓
Day 60 <ul style="list-style-type: none">Objects move to Glacier Flexible Retrieval (formerly Glacier)	Day 60 <ul style="list-style-type: none">0 newest noncurrent versions are retainedAll other noncurrent versions move to Glacier Flexible Retrieval (formerly Glacier) ↓
	Day 60 <ul style="list-style-type: none">0 newest noncurrent versions are retainedAll other noncurrent versions are permanently deleted

aws

Services

Search

[Alt+S]

N. Virginia

Pulkit Garg

The lifecycle configuration was updated. Lifecycle rule "FirstRuleflame" was successfully added.
It may take some time for the configuration to be updated. Press the refresh button if changes to the rule are not displayed.

Amazon S3

>

Buckets

>

bucketversioningflame

>

Lifecycle configuration

Lifecycle configuration

Info

To manage your objects so that they are stored cost effectively throughout their lifecycle, configure their lifecycle. A lifecycle configuration is a set of rules that define actions that Amazon S3 applies to a group of objects. Lifecycle rules run once per day.

Lifecycle rules (1)

View details

Edit

Delete

Actions

Create lifecycle rule

Use lifecycle rules to define actions you want Amazon S3 to take during an object's lifetime such as transitioning objects to another storage class, archiving them, or deleting them after a specified period of time. [Learn more](#)

Find lifecycle rules by name

< 1 >

Lifecyc...

Status

Scope

Curren...

Noncur...

Expired...

Incomplete multipart uploads

[FirstRuleflame](#)

Enabled

Entire bucket

Transition to St

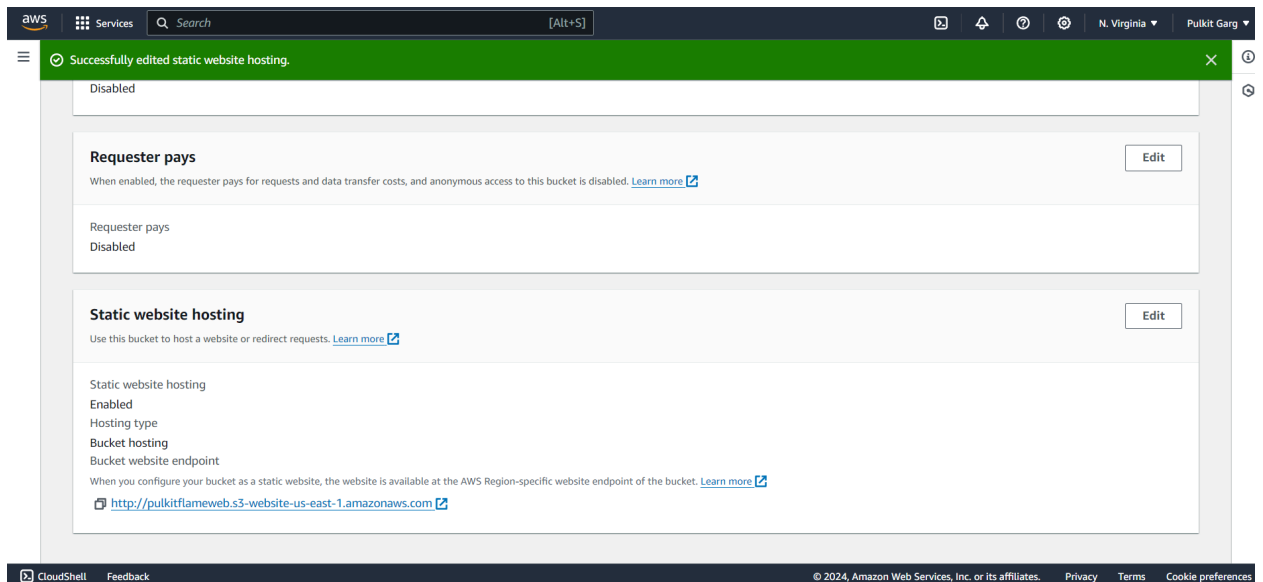
Transition to St

-

-

	S3 Standard	S3 Intelligent-Tiering*	S3 Standard-IA	S3 One Zone-IA	S3 Glacier	S3 Glacier Deep Archive
Designed for durability	99.999999999% (11 9's)	99.999999999% (11 9's)	99.999999999% (11 9's)	99.999999999% (11 9's)	99.999999999% (11 9's)	99.999999999% (11 9's)
Designed for availability	99.99%	99.9%	99.9%	99.5%	99.99%	99.99%
Availability SLA	99.9%	99%	99%	99%	99.9%	99.9%
Availability Zones	≥3	≥3	≥3	1	≥3	≥3
Minimum capacity charge per object	N/A	N/A	128KB	128KB	40KB	40KB
Minimum storage duration charge	N/A	30 days	30 days	30 days	90 days	180 days
Retrieval fee	N/A	N/A	per GB retrieved	per GB retrieved	per GB retrieved	per GB retrieved
First byte latency	milliseconds	milliseconds	milliseconds	milliseconds	select minutes or hours	select hours
Storage type	Object	Object	Object	Object	Object	Object
Lifecycle transitions	Yes	Yes	Yes	Yes	Yes	Yes

6. Create Static Website using S3
 - a. Enable static website hosting in properties



- b. Apply bucket policy

<http://pulkitflameweb.s3-website-us-east-1.amazonaws.com>



Welcome to My Website! - PG

This is my homepage. Explore and learn more about me!

[Get in touch](#)

[← Back](#)

✓ **Congratulations! You passed!**

Grade received 100% Latest Submission Grade 100% To pass 80% or higher

[Go to next item](#)

1. Bucket name has to be unique globally?

1 / 1 point

☒ True

☐ False

✓ **Correct**

Correct!! Bucket name has to be unique globally

2. ACL are used to manage access at object level?

1 / 1 point