

AWS


# Host a Static website on Amazon S3


## Using Cloud Computing

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# Whats next?

- Going to have some awareness on **AWS S3**.
- Create a **Bucket**.
- Enable static website hosting.
- Test your **website!**

# Amazon S3 in 2006

## Announcing Amazon S3 - Simple Storage Service

Posted On: Mar 13, 2006

[Amazon S3](#) is storage for the Internet. It is designed to make web-scale computing easier for developers. Amazon S3 provides a simple web services interface that can be used to store and retrieve any amount of data, at any time, from anywhere on the web. It gives any developer access to the same highly scalable, reliable, fast, inexpensive data storage infrastructure that Amazon uses to run its own global network of web sites.

# Amazon S3 today

Amazon S3 holds **trillions of objects** and regularly peaks at **millions of requests per second**.

(1,000,000,000,000; one million million;  $10^{12}$ ; SI prefix: tera-), ..American and British English

(1,000,000,000,000,000,000; one million million million;  $10^{18}$ ; SI prefix: exa-), ..non-English-speaking countries

<https://en.wikipedia.org/wiki/Trillion>

Netflix delivers billions of hours of content from Amazon S3.

The Netflix logo, consisting of the word "NETFLIX" in a bold, red, sans-serif font.

SmugMug stores billions of photos and images on Amazon S3.

The SmugMug logo, featuring the word "SmugMug" in a white, sans-serif font, followed by a green icon of a smiling face with two dots for eyes.

Airbnb handles over 10PB of user images on Amazon S3.

The Airbnb logo, featuring a red icon of a stylized 'A' made of two overlapping loops, followed by the word "airbnb" in a red, lowercase, sans-serif font.

Soundcloud currently stores 2.5 PB of data on Amazon Glacier.

The SoundCloud logo, featuring an orange icon of a sound wave with a heart shape on the right, followed by the word "SOUNDCLOUD" in an orange, sans-serif font.

Nasdaq uses Amazon S3 to support years of historical tick data down to the millisecond.

The Nasdaq OMX logo, featuring the words "NASDAQ OMX" in a bold, blue, sans-serif font.

## What is Amazon S3?

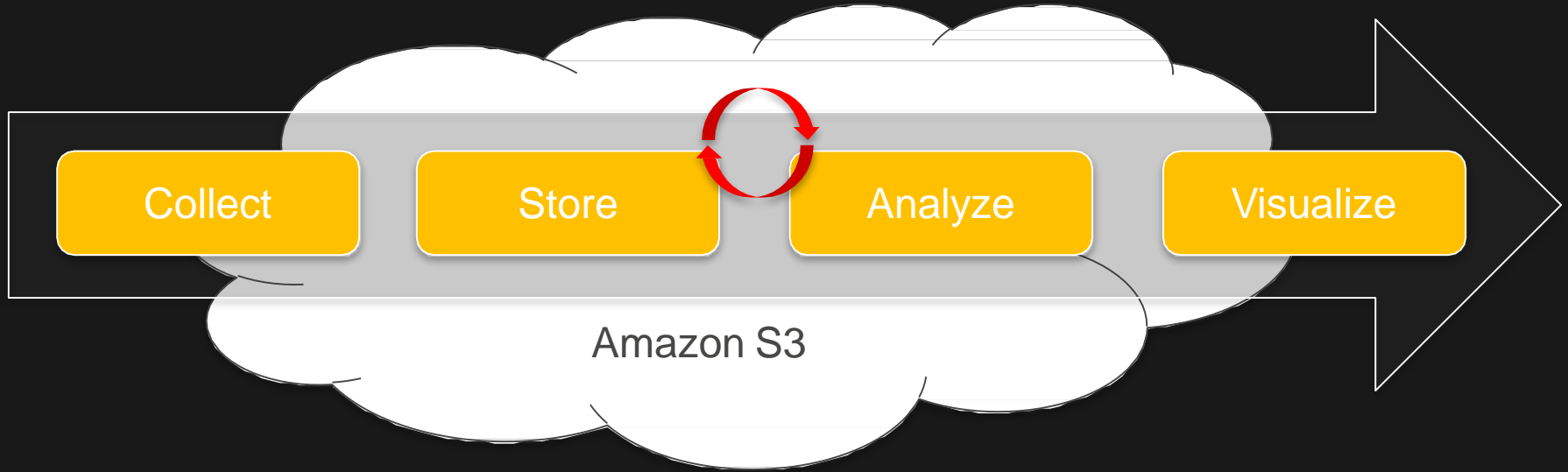
- ✓ Cloud storage
- ✓ Unlimited
- ✓ Pay-for-what-you-use

Amazon S3 is intentionally built with a minimal feature set that focuses on simplicity and robustness

## Why use it?

- ✓ Great performance
- ✓ Secure!
- ✓ Low cost and Scalable

# Amazon S3 usage pattern



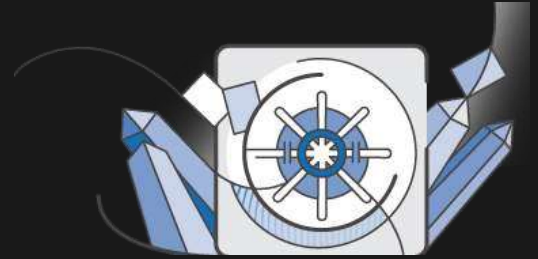
# Choice of storage classes on S3



Standard



Standard - Infrequent Access



Amazon Glacier

Active data

Infrequently accessed data

Archive data



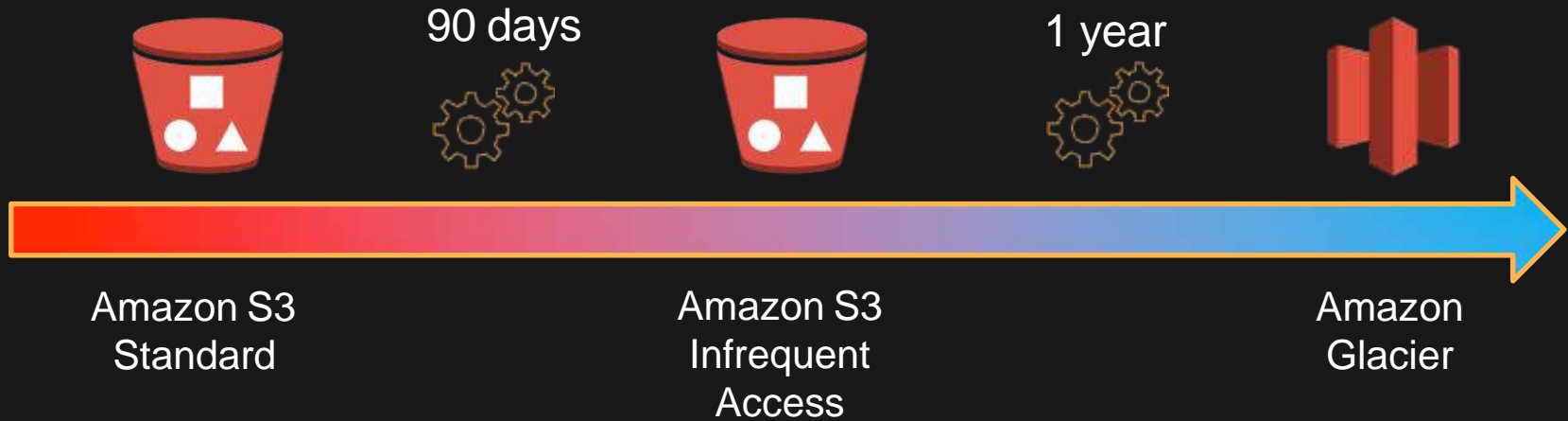
# Introduction

## Amazon S3 Concepts

- Buckets - A bucket is a container for objects stored in Amazon S3. Every object is contained in a bucket.
- Objects - Objects are the fundamental entities stored in Amazon S3. Objects consist of object data and metadata.
- Keys - A key is the unique identifier for an object within a bucket. Every object in a bucket has exactly one key.
- Regions - You can choose the geographical region where Amazon S3 will store the buckets you create. You might choose a region to optimize latency, minimize costs.

# Automate Lifecycle policies

## Transition



# Automate Lifecycle policies

## Deletion

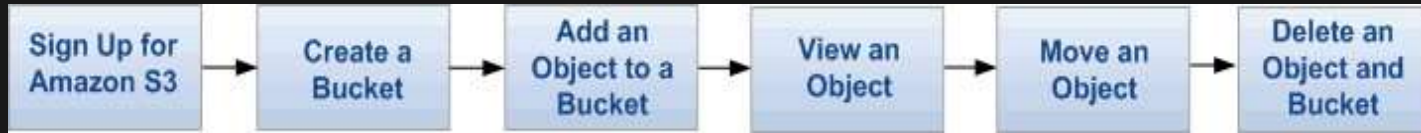


# AWS Global Infrastructure



# Website Hosting

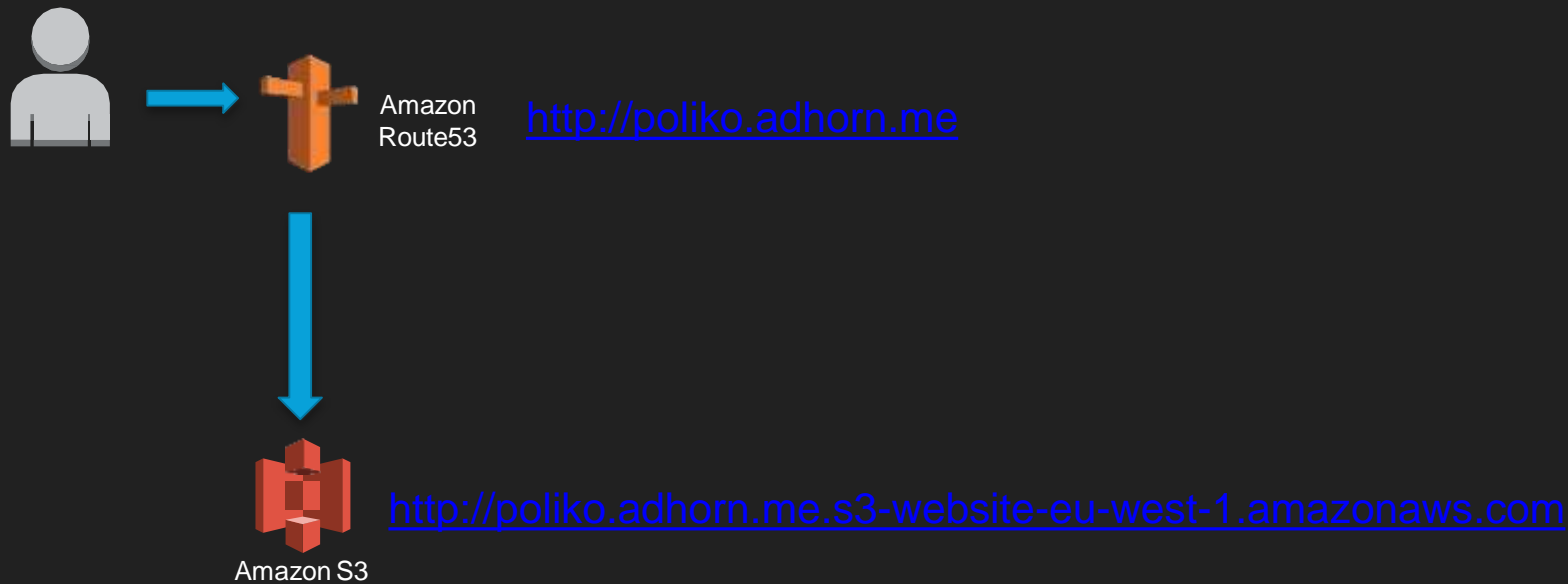
**So to host a static website using simple storage service, we need to follow to below steps**



## Steps

- Sign up/Login into Aws console at <https://aws.amazon.com/console/>
- Go to “S3” service and create bucket.
- Now add object(or)s into the bucket created.
- Make the Uploaded objects into public to view.
- Add a Bucket Policy
- Get an Endpoint Link and open it see your website

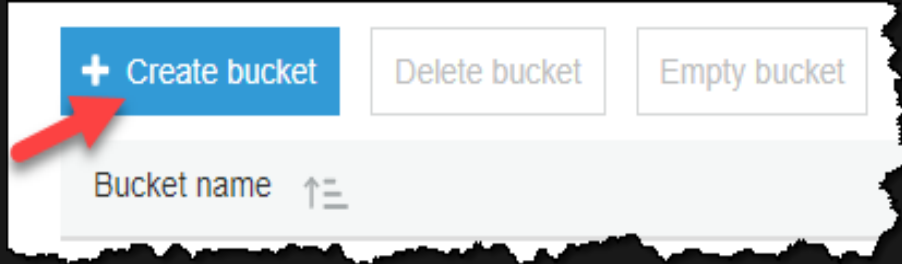
# Simple Static Website



## STEP 1 : To create an S3 bucket

1. Sign in to the AWS Management Console and open the Amazon S3 console at <https://console.aws.amazon.com/s3/>.

2. Choose **Create bucket**.



3. The name must be unique across all existing bucket names in Amazon S3.

4. For **Region**, choose US West (Oregon) as the region where you want the bucket to reside. Choose **Create**.



- Here we can view how to fill fields Like Name,Region.

- Also we can change Default Permissions.

- In order to make your website Public we need to turn on the Public access.

- Now you can click on Create Bucket

### Create bucket

✓ Name and region

✓ Configure options

✓ Set permissions

4 Review

Name and region

Edit

**Bucket name** gopi382 **Region** Asia Pacific (Mumbai)

Options

Edit

Versioning

Disabled

Server access logging

Disabled

Tagging

0 Tags

Object-level logging

Disabled

Default encryption

None

CloudWatch request metrics

Disabled

Object lock

Disabled

Permissions

Edit

Block all public access

Off

Block public access to buckets and objects granted through new access control lists (ACLs)

Off

Block public access to buckets and objects granted through any access control lists (ACLs)

Off

Previous

Create bucket

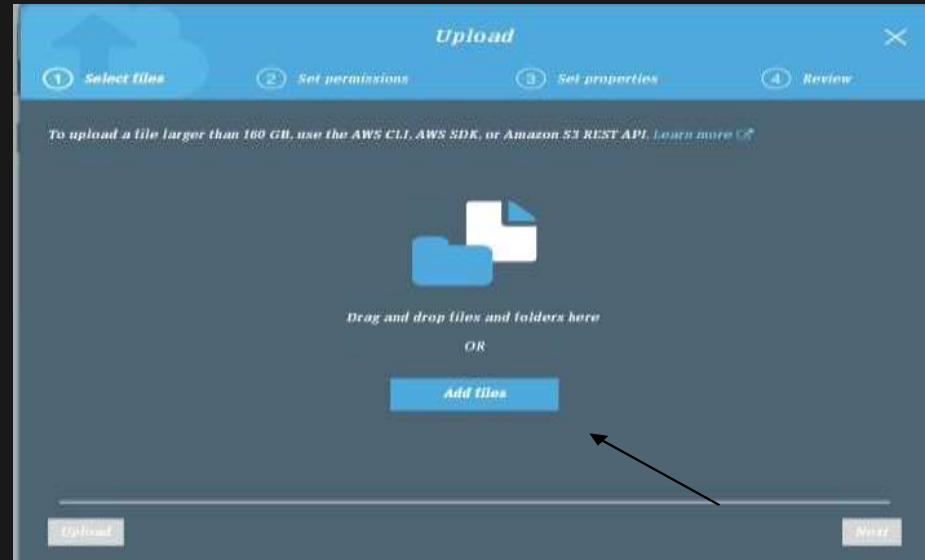
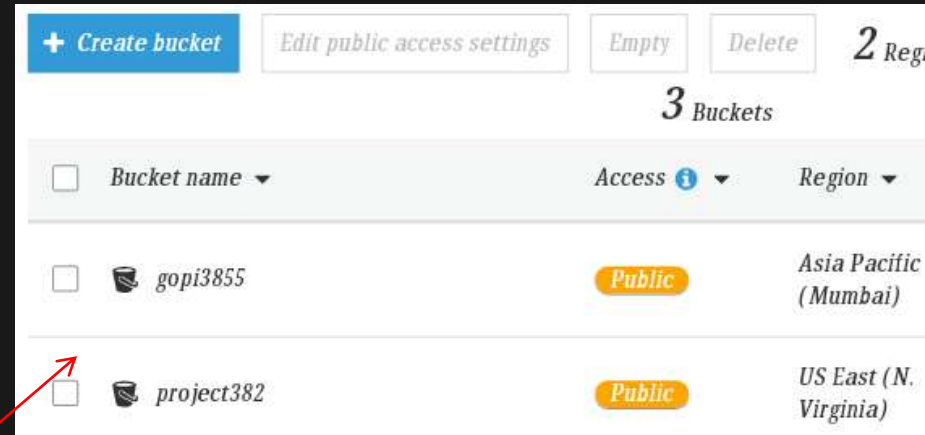
## STEP 2: Add Objects into the bucket created

Like this you will be able to view the bucket you created

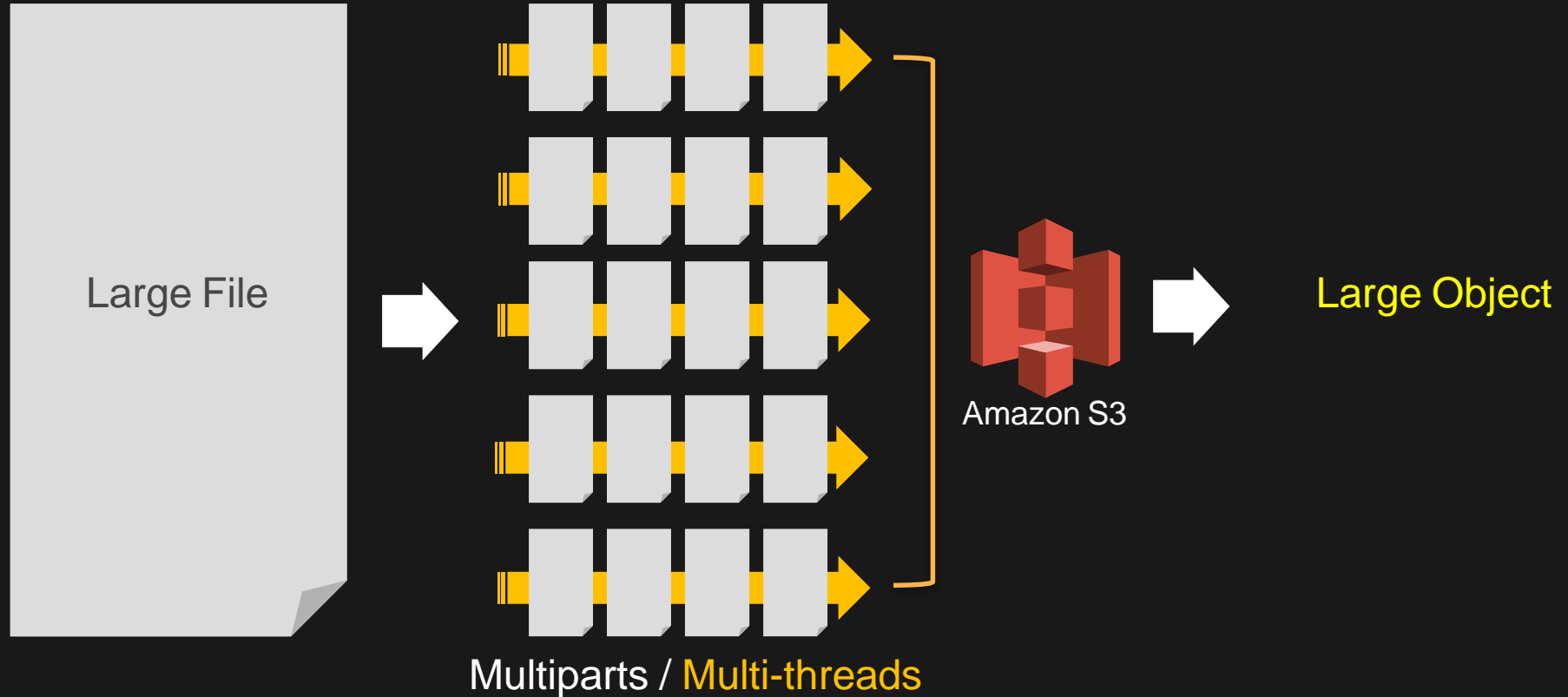
Now Click on that Bucket and Upload files Which are required for building website.

After clicking on the bucket ,you can see a new Window which asks you to upload files or data

We can upload files as much you want and just Select grant public access.



In case of Large Objects S3 makes it into Multiparts



## STEP 3 : Enabling Static website hosting

- Now click on Static website hosting menu available in Properties tab
- Fill the Index and error document names. In that case, Amazon **S3** serves up the **index document**, which is sometimes referred to as the default page.

### Static website hosting

Endpoint : <http://gopi382.s3-website.ap-south-1.amazonaws.com>

☒ Use this bucket to host a website [Learn more](#)

Index document [i](#)

Error document [i](#)

Redirection rules (optional) [i](#)

☐ Redirect requests [Learn more](#)

☐ Disable website hosting

☐ Disabled

[Cancel](#) [Save](#)

## STEP 4 : Enter Bucket Policy

We can find Bucket policy in Permissions Menu

- A bucket policy is a resource-based AWS Identity and Access Management (IAM) policy.
- You add a bucket policy to a bucket to grant other AWS accounts or IAM users access permissions for the bucket and the objects in it.
- Object permissions apply only to the objects that the bucket owner creates.
- Type the Bucket policy with Bucket name and save it.

The screenshot shows the AWS Bucket Policy editor interface. At the top, there are three tabs: "Block public access", "Access Control List", and "Bucket Policy". The "Bucket Policy" tab is selected, and a "Public" button is visible below it. The main heading is "Bucket policy editor" followed by the ARN "arn:aws:s3::gopi3855". Below this, a text prompt says "Type to add a new policy or edit an existing policy in the text area below." The text area contains a JSON policy document with line numbers 1 through 14 on the left. The policy allows public read access to the bucket.

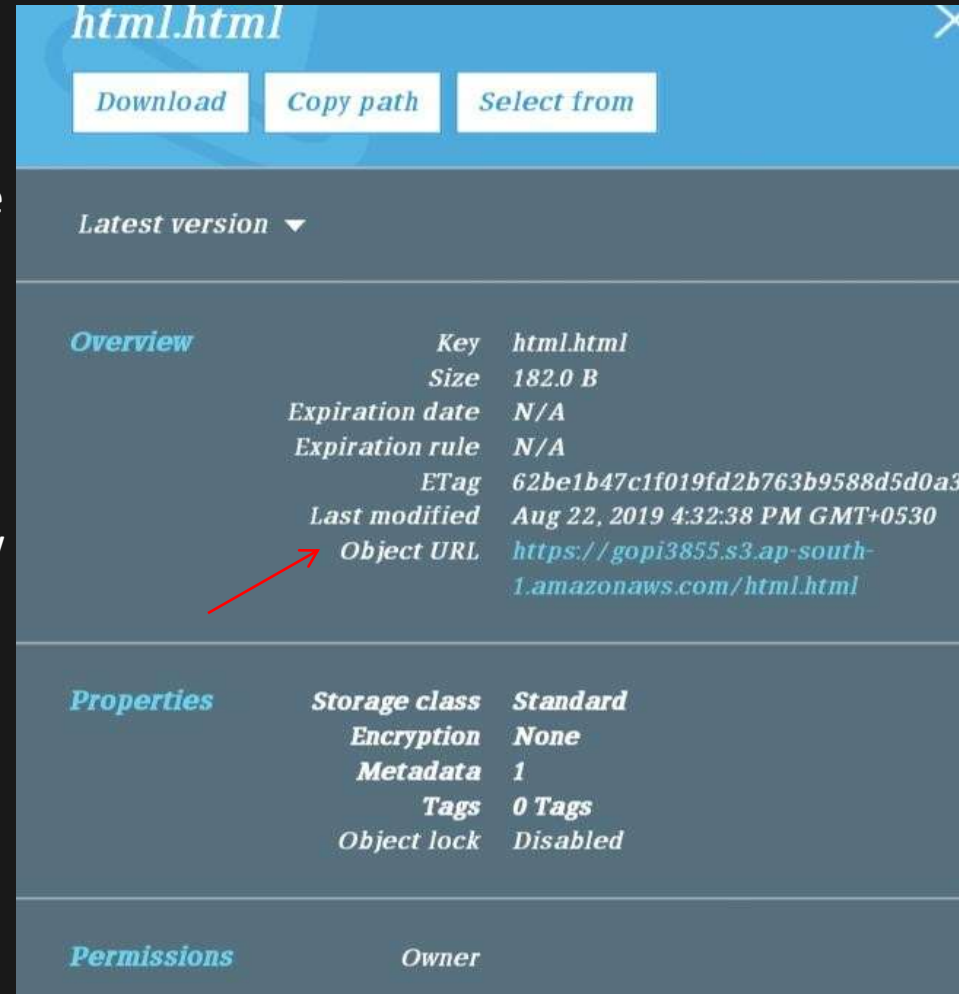
```
1 {  
2   "Version": "2008-10-17",  
3   "Statement": [  
4     {  
5       "Sid": "AllowPublicRead",  
6       "Effect": "Allow",  
7       "Principal": {  
8         "AWS": "*"   
9       },  
10      "Action": "s3:GetObject",  
11      "Resource": "arn:aws:s3::gopi3855/*"  
12    }  
13  ]  
14 }
```

## STEP 5 : Get Object Link

Finally once all the above steps are completed  
Now get the Object URL/Endpoint and use the  
Link to view your website.

We can create new link that redirect existing  
sites.

Try to make our own website using S3 with low  
cost and more security.



The screenshot shows the AWS S3 console interface for an object named 'html.html'. At the top, there are three buttons: 'Download', 'Copy path', and 'Select from'. Below these is a dropdown menu for 'Latest version'. The main content area is divided into three sections: 'Overview', 'Properties', and 'Permissions'. The 'Overview' section contains a table with object metadata. The 'Properties' section contains a table with storage and encryption settings. The 'Permissions' section is partially visible at the bottom.

Overview	
Key	html.html
Size	182.0 B
Expiration date	N/A
Expiration rule	N/A
ETag	62be1b47c1f019fd2b763b9588d5d0a3
Last modified	Aug 22, 2019 4:32:38 PM GMT+0530
Object URL	<a href="https://gopi3855.s3.ap-south-1.amazonaws.com/html.html">https://gopi3855.s3.ap-south-1.amazonaws.com/html.html</a>

Properties	
Storage class	Standard
Encryption	None
Metadata	1
Tags	0 Tags
Object lock	Disabled

Permissions
Owner

# References/External links

1) <https://docs.aws.amazon.com/s3/index.html>

Amazon Simple Storage Service (Amazon S3) is storage for the internet. You can use Amazon S3 to store and retrieve any amount of data at any time, from anywhere on the web. You can accomplish these tasks using the simple and intuitive web interface of the AWS Management Console.

2) <https://docs.aws.amazon.com/AmazonS3/latest/API/Welcome.html>

This guide explains the Amazon Simple Storage Service (Amazon S3) application programming interface (API). It describes various API operations, related request and response structures, and error codes.

3) <https://docs.aws.amazon.com/cli/latest/reference/s3/index.html>

S3Uri: represents the location of a S3 object, prefix, or bucket. This must be written in the form s3://mybucket/mykey where mybucket is the specified S3 bucket, mykey is the specified S3 key.

**"All Roads Lead to Rome ~~Rome~~ Amazon S3"**



AWS S3

**Thank you!!**

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