Part 2: Hosting a Static Portfolio Website on S3

Objective: Learn to host a static website (such as a personal portfolio) on Amazon S3.

Approach:

1. **Create an S3 Bucket**: Start by creating a new S3 bucket. Configure the bucket for website hosting, which includes setting permissions to make the content publicly accessible.
2. **Upload Website Files**: Upload the static files of your portfolio website (HTML, CSS, JavaScript, images) to the S3 bucket.
3. **Configure DNS**: Use Amazon Route 53 or another DNS service to point a domain name to the S3 bucket. This makes the website accessible via a user-friendly URL.
4. **Enable Additional Features** (Optional): Implement features like HTTPS for secure access and CloudFront for content delivery optimization.

Goal: Students will understand how to use S3 for hosting static websites, manage bucket permissions, and integrate with other AWS services for a complete web hosting solution.

Create a S3 bucket:

General purpose buckets	Directory buckets			

General purpose buckets (2) Info

Buckets are containers for data stored in S3. Learn more

🔍 Find buckets by name

	Name ▲	AWS Region ▽	Access ▽	Creation date ▽
○	myfirstbucket-1313	US East (N. Virginia) us-east-1	Objects can be public	January 22, 2024, 14:50:41 (UTC+05:45)
○	static-bucket36	US East (N. Virginia) us-east-1	Objects can be public	February 12, 2024, 15:27:46 (UTC+05:45)

US East (N. Virginia) us-east-1 ▼

Bucket type   Info

● General purpose
Recommended for most use cases and access patterns.
General purpose buckets are the original S3 bucket type.
They allow a mix of storage classes that redundantly
store objects across multiple Availability Zones.

○ Directory - *New*
Recommended for low-latency use cases. These buckets
use only the S3 Express One Zone storage class, which
provides faster processing of data within a single
Availability Zone.

Bucket name   Info

web13staticlab2

Bucket name must be unique within the global namespace and follow the bucket naming rules. See rules for bucket naming ↗

Copy settings from existing bucket - *optional*
Only the bucket settings in the following configuration are copied.

Choose bucket

Format: s3://bucket/prefix

Upload index.html to the s3 bucket:

Files and folders (1 Total, 832.0 B)   Remove   **Add files**   **Add folder**
All files and folders in this table will be uploaded.

🔍 *Find by name*   ‹   **1**   ›

☐	**Name** ▽	**Folder** ▽	**Type**
☐	index1.html	-	text/html

Destination Info

Destination
s3://web13staticlab2

▶ **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.

Enable static hosting:

Edit static website hosting Info

Static website hosting
Use this bucket to host a website or redirect requests. Learn more ⧉

Static website hosting
○ Disable
● Enable

Hosting type
● Host a static website
  Use the bucket endpoint as the web address. Learn more ⧉
○ Redirect requests for an object
  Redirect requests to another bucket or domain. Learn more ⧉

ⓘ For your customers to access content at the website endpoint, you must make all your content publicly readable. To do so, you can edit the S3 Block Public Access settings for the bucket. For more information, see Using Amazon S3 Block Public Access ⧉

Index document
Specify the home or default page of the website.

index1.html

Set S3 bucket policy for as:

Bucket policy

The bucket policy, written in JSON, provides access to the objects stored in the buck

Bucket ARN

arn:aws:s3:::web13staticlab2

Policy

```
1 ▼ {
2     "Version":"2012-10-17",
3 ▼   "Statement":[{
4         "Sid":"PublicReadGetObject",
5         "Effect":"Allow",
6         "Principal": "*",
7         "Action":["s3:GetObject"],
8         "Resource":["arn:aws:s3:::web13staticlab2/*"]
9     }]
10 }
```

Hosted website default URL:

Static website hosting

Use this bucket to host a website or redirect requests. Learn more

Static website hosting
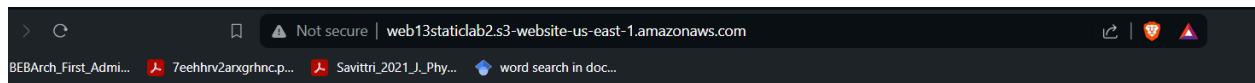Enabled
Hosting type
Bucket hosting
Bucket website endpoint
When you configure your bucket as a static website, the website is available at the AWS Region-specific website endpoint of the bucket. Learn more

http://web13staticlab2.s3-website-us-east-1.amazonaws.com

Hosted website:

Dipesh Tripathi

Enthusiastic developer and lifelong learner.
Passionate about technology and innovation.

Using Amazon Route 53:
Creating a hosted zone:

Get started Info

Choose your starting point

○ **Register a domain**
Register the name, such as example.com, that your users use to access your application.

○ **Transfer domain**
You can transfer domain names to Route 53 that you registered with another domain registrar.

● **Create hosted zones**
A hosted zone tells Route 53 how to respond to DNS queries for a domain such as example.com.

○ **Configure health checks**
Health checks monitor your applications and web resources, and direct DNS queries to healthy resources.

○ **Configure traffic flow**
A visual tool that lets you easily create policies for multiple endpoints in complex configurations.

○ **Configure resolvers**
A regional service that lets you route DNS queries between your VPCs and your network.

Cancel   **Get started**

Add your domain name:

Hosted zone configuration

A hosted zone is a container that holds information about how you want to route traffic for a domain, such as example.com, and its subdomains.

Domain name | Info
This is the name of the domain that you want to route traffic for.

```
tripathidipesh.com.np
```

Valid characters: a-z, 0-9, ! " # $ % & ' ( ) * + , - / : ; < = > ? @ [\ ] ^ _ ` { | } . ~

Description - *optional* | Info
This value lets you distinguish hosted zones that have the same name.

```
The hosted zone is used for...
```

The description can have up to 256 characters. 0/256

Type | Info
The type indicates whether you want to route traffic on the internet or in an Amazon VPC.

● **Public hosted zone**
A public hosted zone determines how traffic is routed on the internet.

○ **Private hosted zone**
A private hosted zone determines how traffic is routed within an Amazon VPC.

Edit server name:

Edit DNS Records

Domain name

tripathidipesh.com.np

Name server

Primary name server : *

ns-782.awsdns-33.net

eg: ns1.hosting.net.np

Secondary name server : *

ns-464.awsdns-58.com

eg: ns2.hosting.net.np

Create record for Dns:

Create record Info

Quick create record

Switch to wizard

▼ Record 1

Delete

Record name | Info

s3

.tripathidipesh.com.np

Keep blank to create a record for the root domain.

⚪ Alias

Value | Info

http://web13staticlab2.s3-website-us-east-1.amazonaws.com

Enter multiple values on separate lines.

Record type | Info

CNAME – Routes traffic to another domain name and to some AWS reso... ▼

TTL (seconds) | Info

300

1m 1h 1d

Recommended values: 60 to 172800 (two days)

Routing policy | Info

Simple routing ▼

Add another record

Due to issue with DNS, I cannot provide my own url:

| 2 | tripathidipesh.com.np | Under DNS modification | Edit info | Edit DNS | View |

Showing 1 to 2 of 2 entries

Previous | 1 | Next