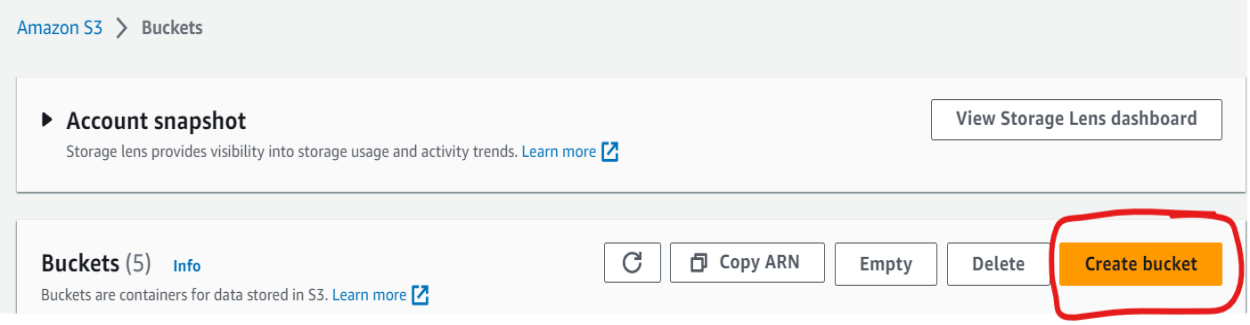
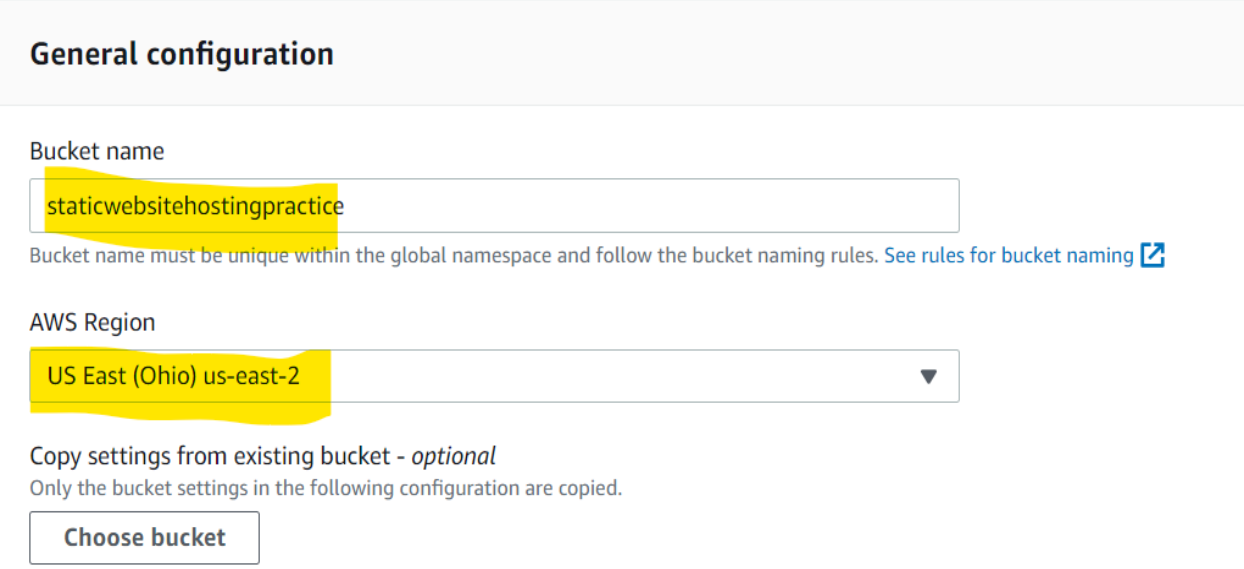
BUILDING A STATIC WEBSITE WITH AMAZON S3: FROM BUCKET CREATION TO HOSTING AND POLICIES

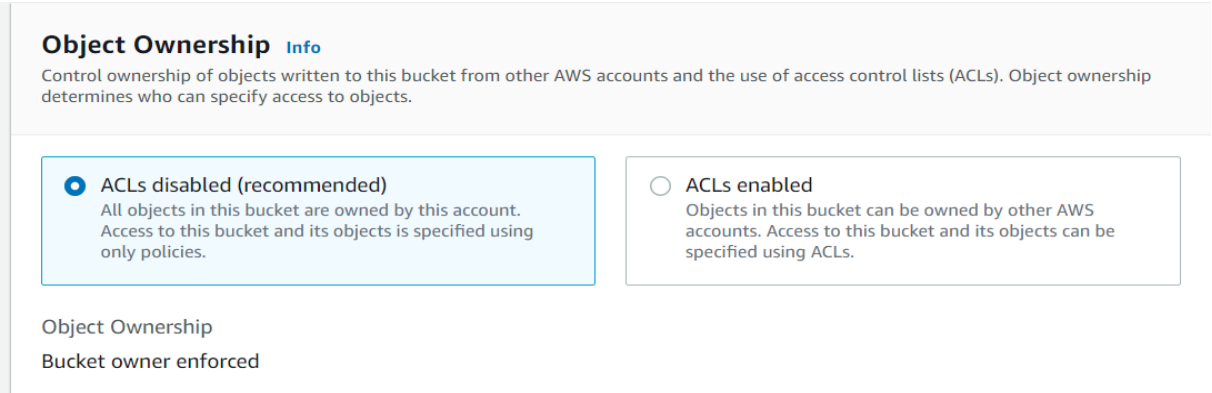
While dynamic websites often require complex infrastructure, hosting a static website can be achieved effortlessly using Amazon S3 (Simple Storage Service). Amazon S3 provides a reliable, scalable, and cost-effective solution for hosting static websites, allowing you to focus on your website's content and user experience.

- To create a bucket, search for the Amazon S3 Service and then click on create bucket.



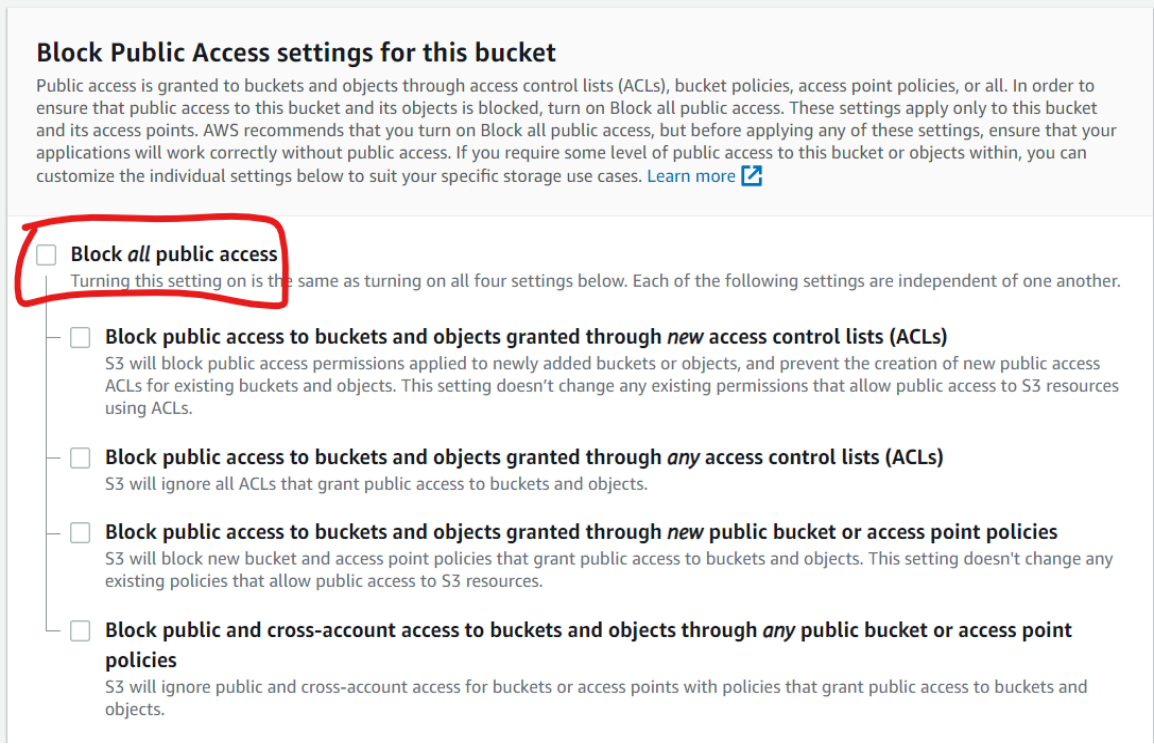
- Provide a unique name for your bucket.
- Choose a region for your bucket that aligns with your target audience.



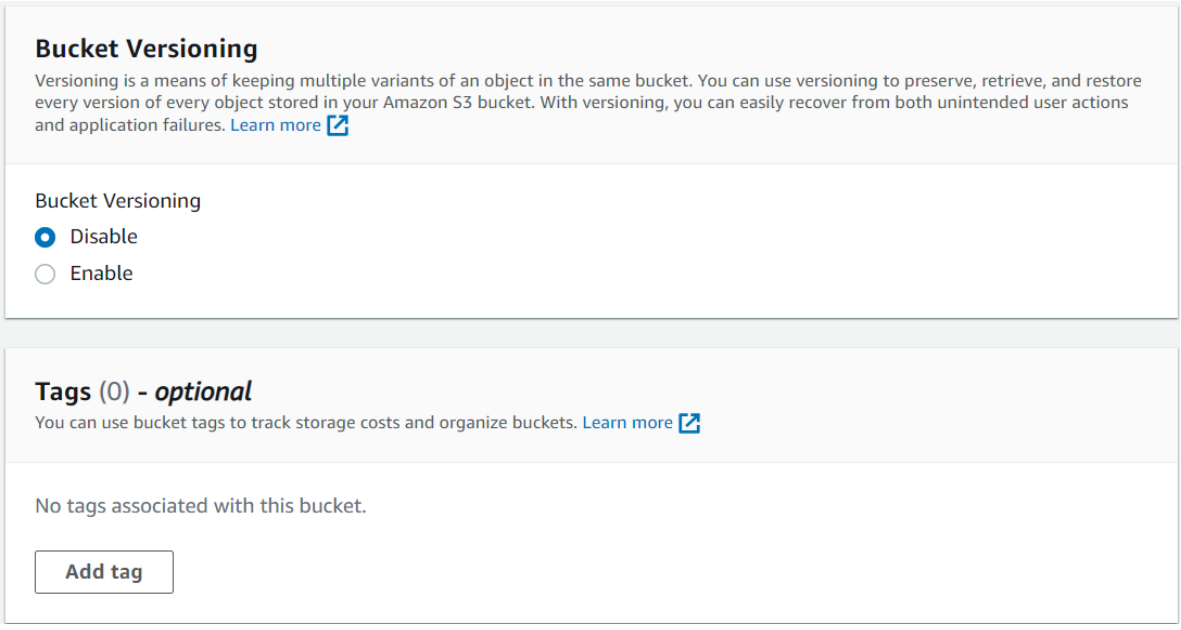


- Uncheck "Block all public access" and acknowledge the implications.

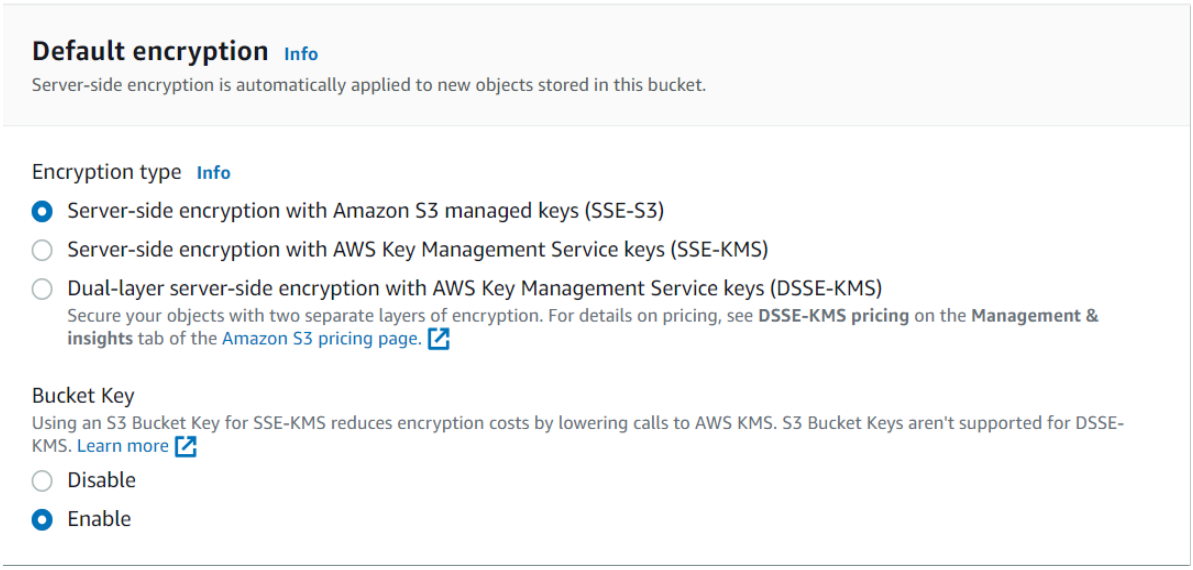
- If you intend to host a static website and make it accessible to the public, unchecking this option is essential. It enables the necessary permissions for public access to your website files.
- Unchecking this option allows Amazon S3 to serve your website files to users efficiently. When users access your website, the content can be delivered directly from S3 without any restrictions, ensuring optimal performance.
- If you want to share specific files or content stored in your S3 bucket publicly, unchecking this option is necessary. It allows you to generate URLs or provide direct access to the files for others to download or view.



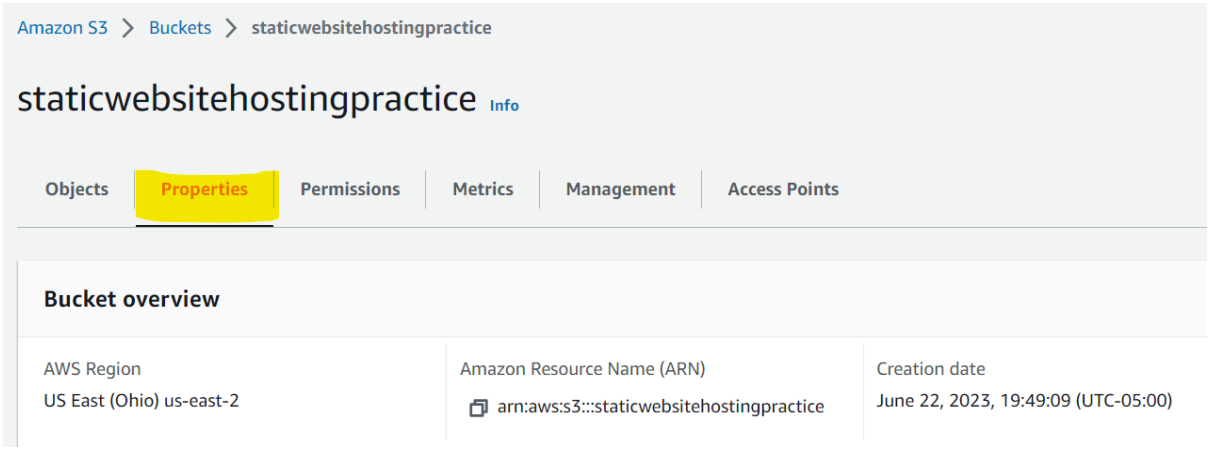
- Choose the same default options during the rest of the bucket creation process.



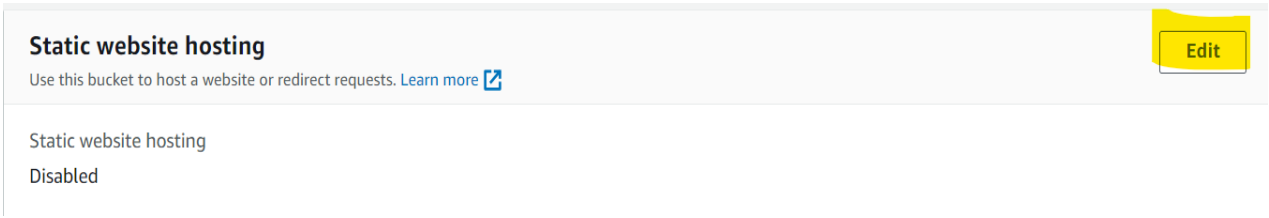
- After choosing this, click on Create bucket option.

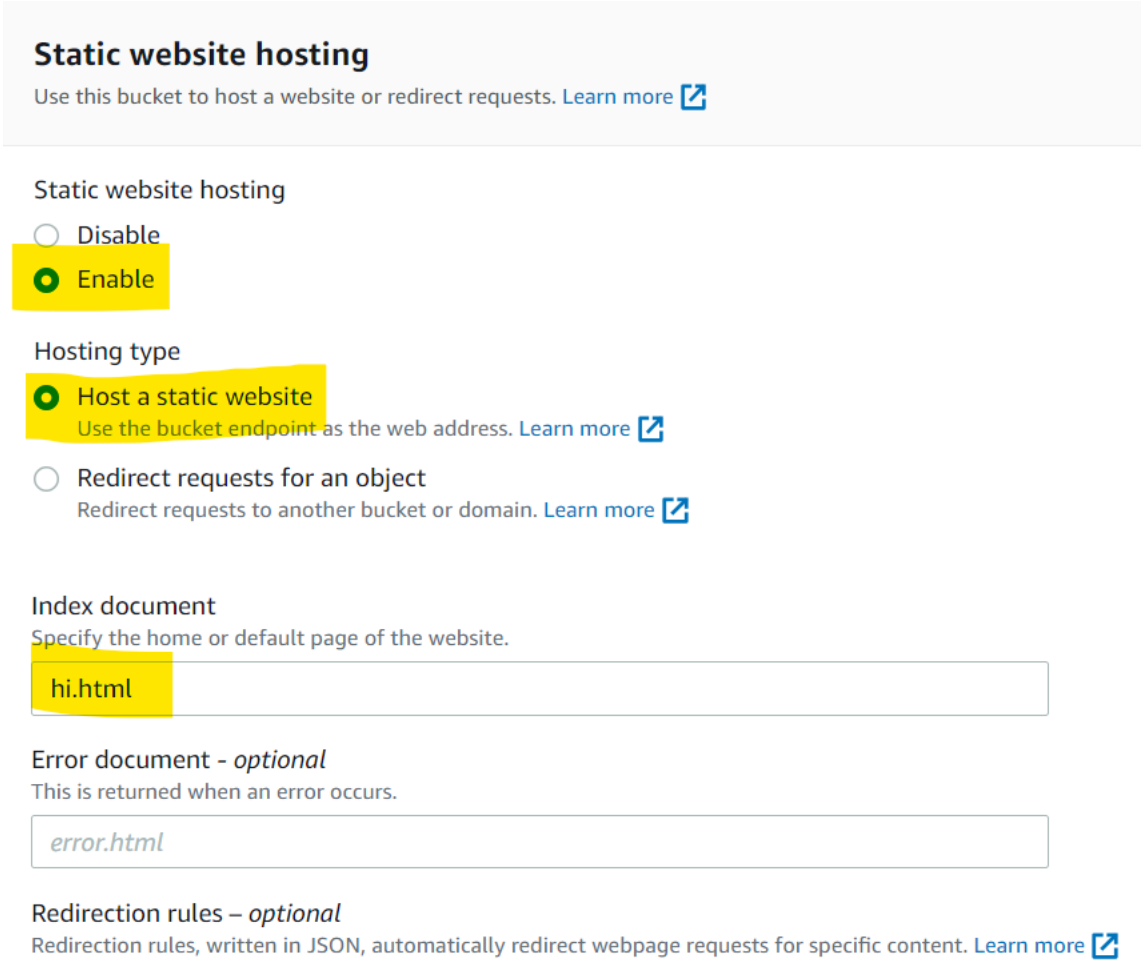


- After successfully creating the bucket, click on the properties tab of the bucket.

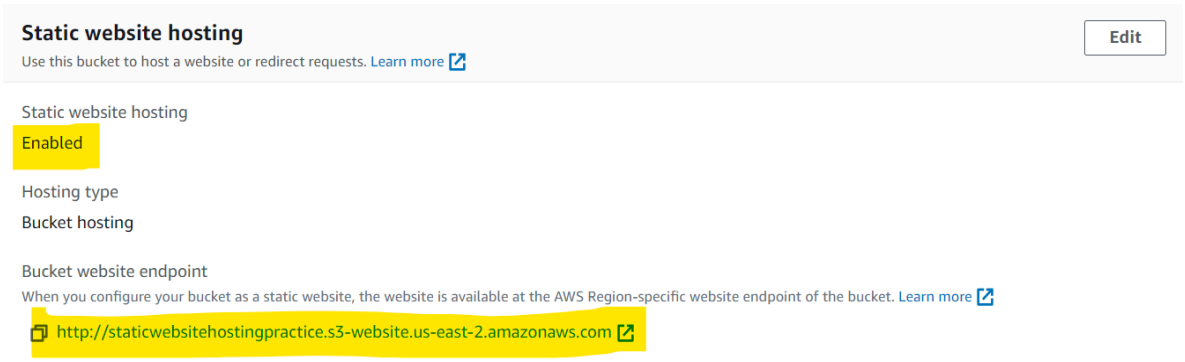


- Here, click on edit to enable the static website hosting.
- Enabling static website hosting in your S3 bucket allows Amazon S3 to handle the necessary configurations and settings for hosting your static website.
- It simplifies the process by eliminating the need for additional infrastructure or complex server setups.
- Enabling static website hosting generates a unique website endpoint (e.g., bucketname.s3-website-region.amazonaws.com).
- This endpoint allows you to access your website directly from a browser using a friendly URL, without the need for complex routing configurations.

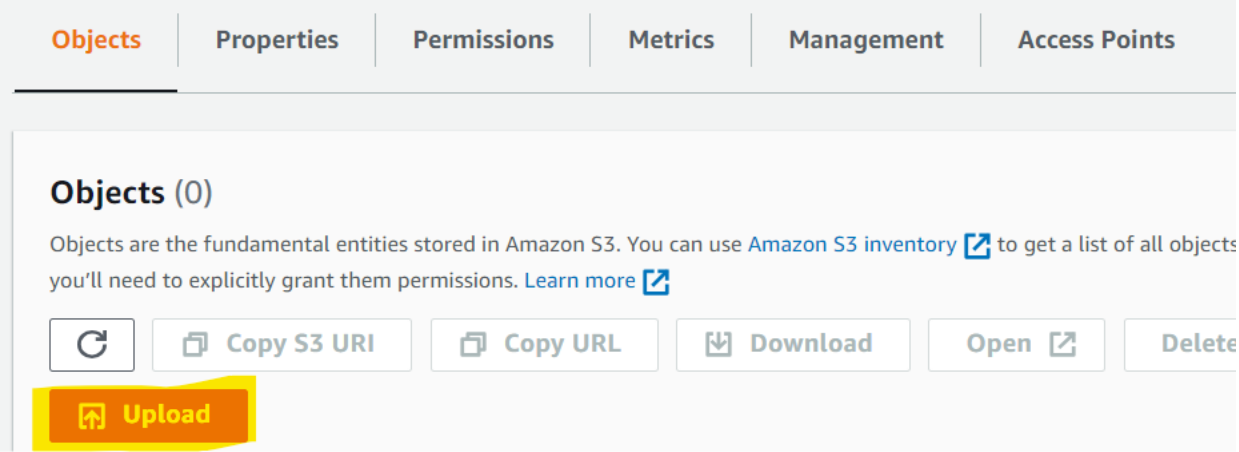




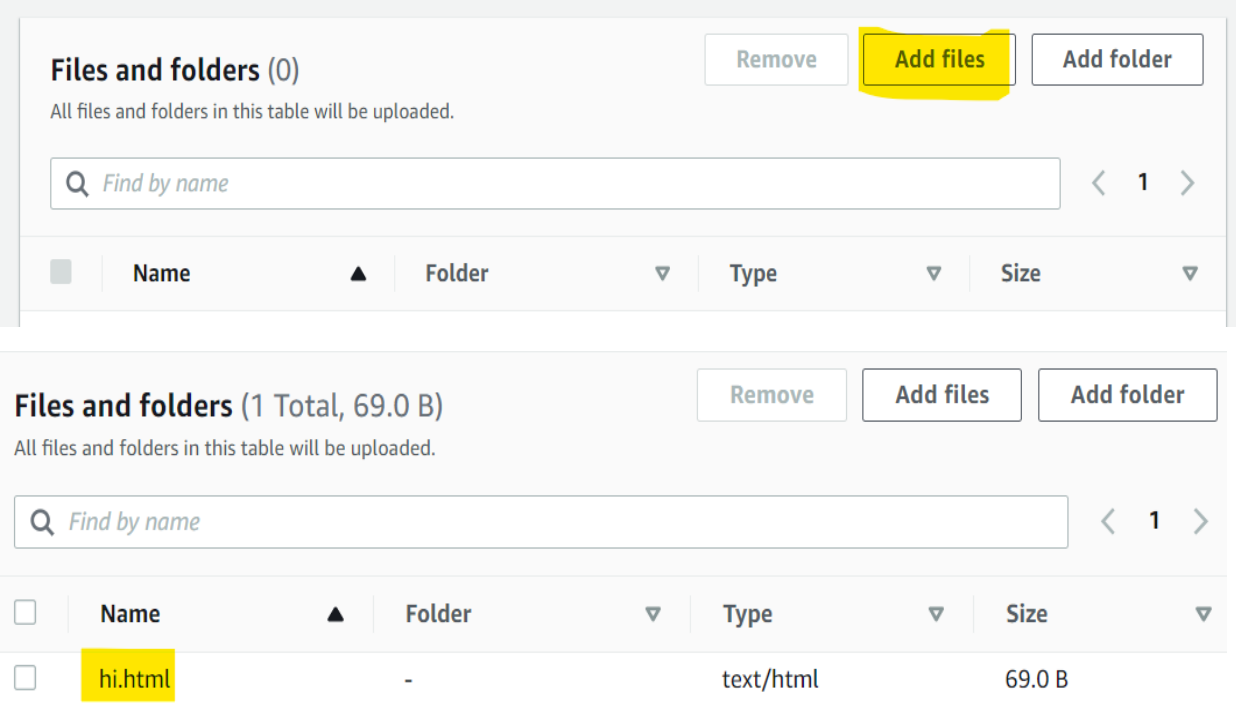
- After choosing these, save the bucket configurations, then we can see that the bucket website endpoint is created.



- In the S3 bucket, click on the “Upload” button under the Objects tab to add the HTML, CSS, JavaScript, and other files that would make up your website.
- Ensure that your main webpage file is named according to the "Index document" (hi.html) specified in the bucket settings.



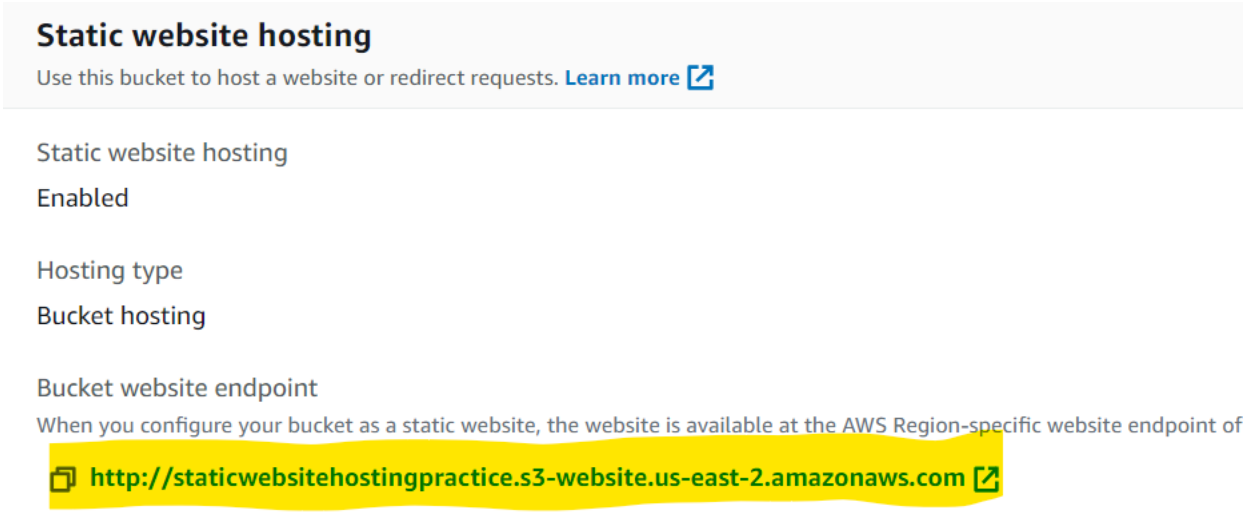
- Click on Add files, and select the files and click on Upload.



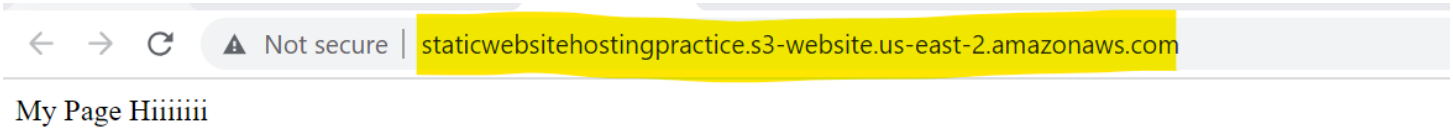
- To complete the setup, it is essential to include a Bucket Policy for your S3 Bucket.
- To proceed, navigate to the Permissions Tab of your S3 bucket once more. This time, locate the Bucket policy section and select the edit option.

```
{
    "Version": "2012-10-17",
    "Statement": [
        {
            "Sid": "AllowPublicAccesstoObjects",
            "Effect": "Allow",
            "Principal": "*",
            "Action": "s3:GetObject",
            "Resource": "YOUR-BUCKET-ARN/*"
        }
    ]
}
```

- Replace “YOUR-BUCKET-ARN” with your Bucket ARN.
- This Bucket Policy allows any user or entity ("Principal": "") to perform the "s3:GetObject" action, which allows them to retrieve or download objects from the specified S3 bucket ("Resource": "YOUR-BUCKET-ARN/*"). This policy essentially grants public read access to the objects in the bucket for anyone who requests them.



- To view your static website, either click on the bucket's website endpoint URL or manually copy and paste the link into your web browser. By taking either of these actions, you can confirm that your static website is successfully deployed and accessible.
- The following is the outcome of hosting my sample web page on Amazon S3.



My Page Hiiiiiii