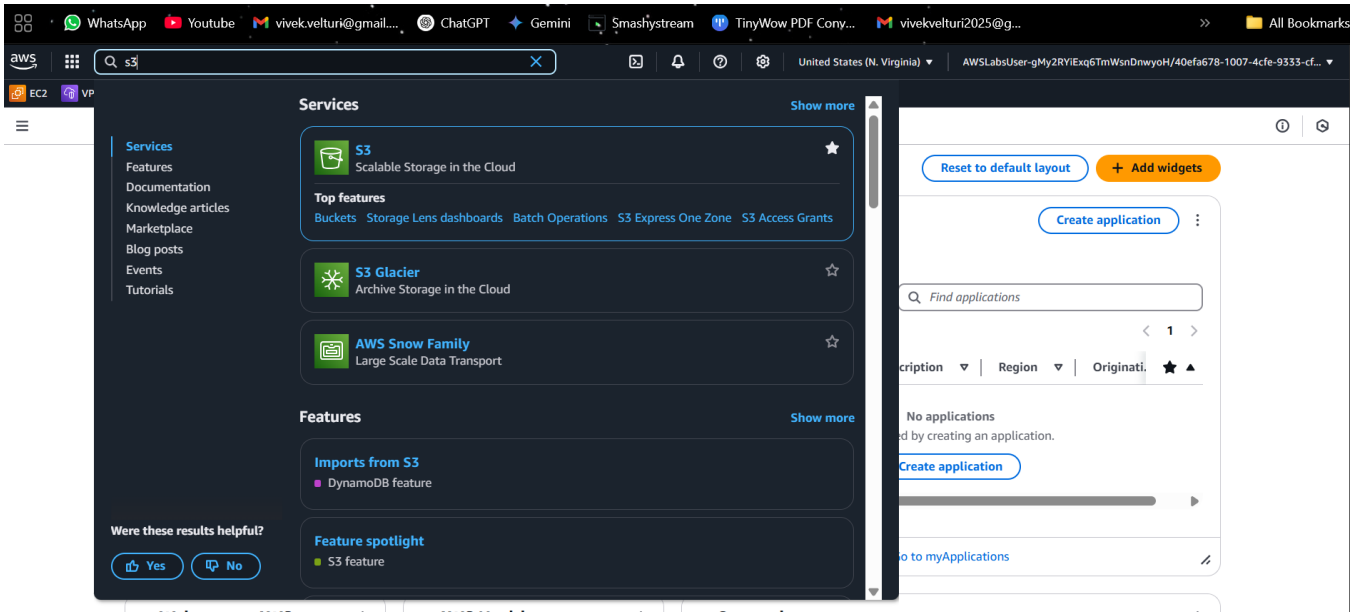
AMAZON S3 STATIC WEBSITE CONFIGURATION

Objectives:

- Review a bucket policy to secure a bucket in Amazon S3.
- Enable static website hosting.
- Rename index.html to waves.html.

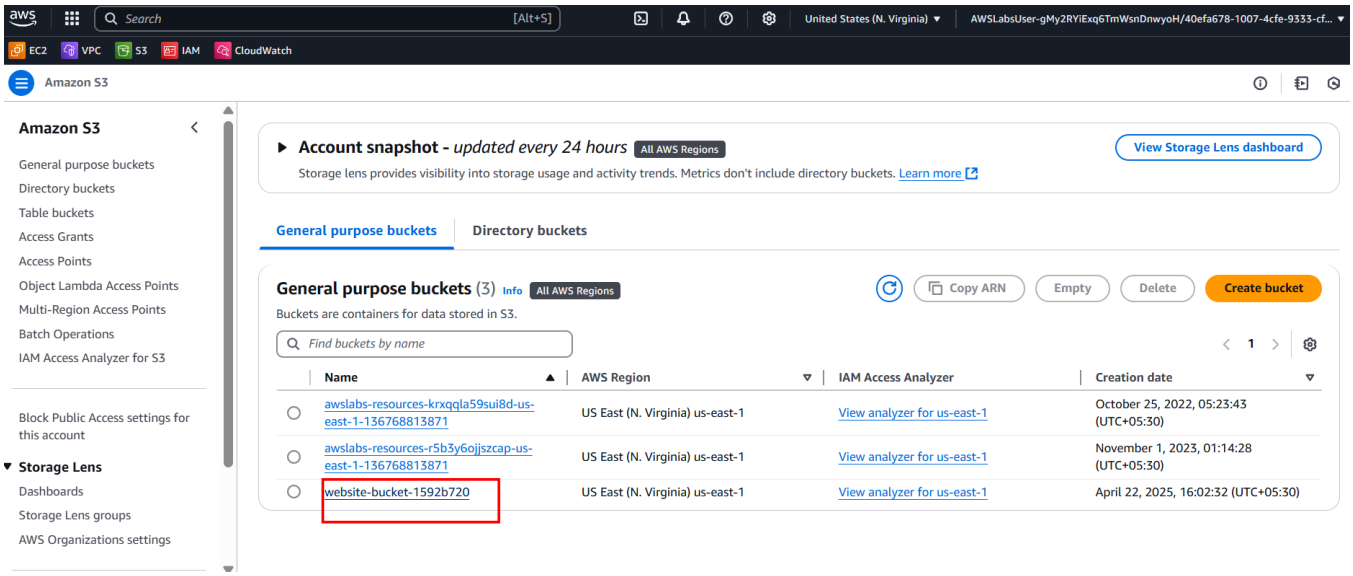
Steps / Procedures / Instructions:

- In the top navigation bar search box, type:s3
- In the search results, under Services, click S3.



- On the General purpose buckets tab, click the bucket name that starts with website-bucket-.

  - The bucket name that starts with website-bucket- contains code required for this lab.



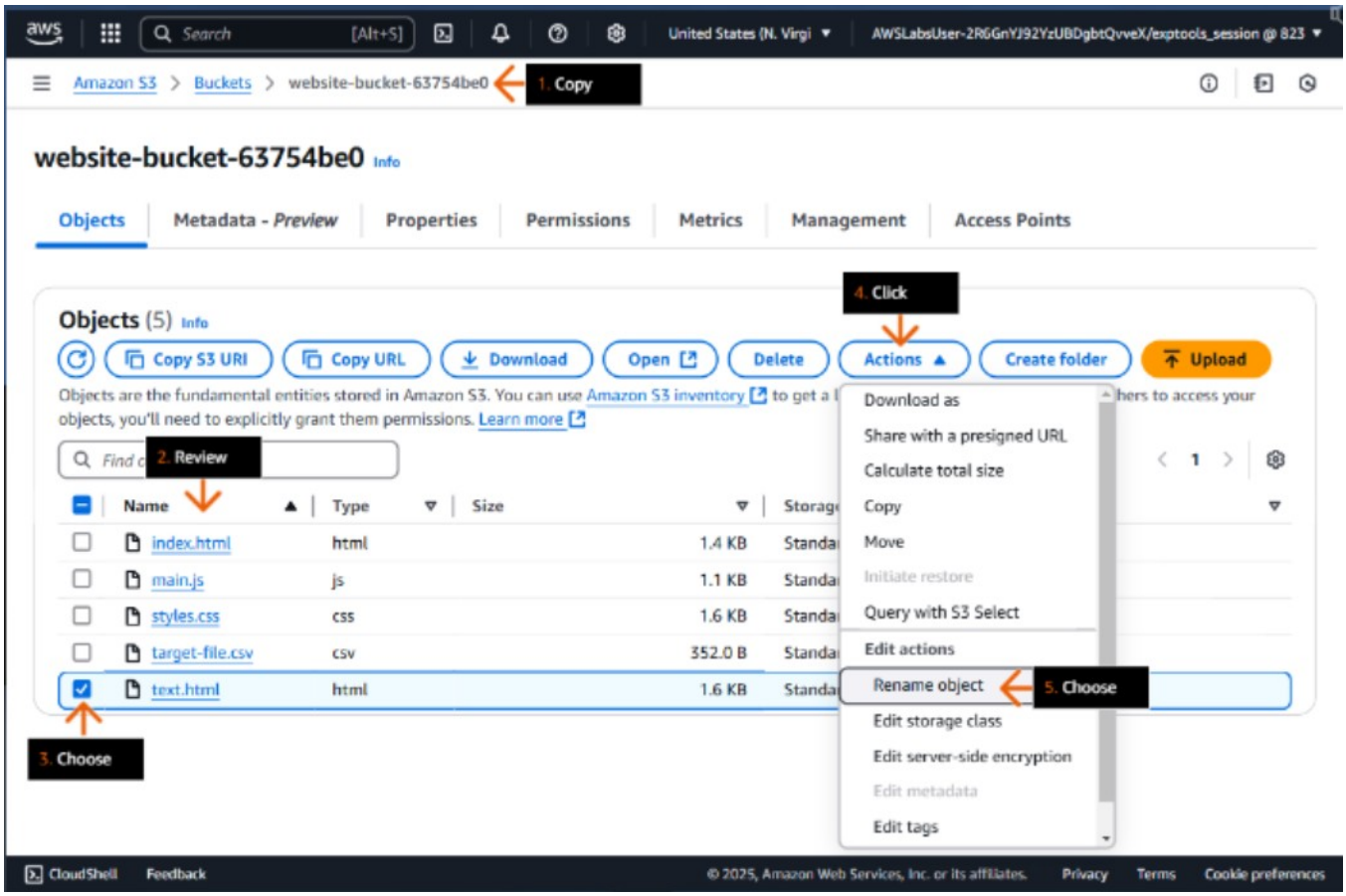
- At the top of the page, select (highlight) and copy the bucket name, and then paste it in the text editor of your choice on your device.
  - You must use this bucket name in the later DIY section of this solution.
- On the Objects tab, review the objects in the bucket.

    - Five files should be displayed.

    - These files contain the contents of the static webpage.

    - Local files can be loaded into this S3 bucket by using the Upload button.

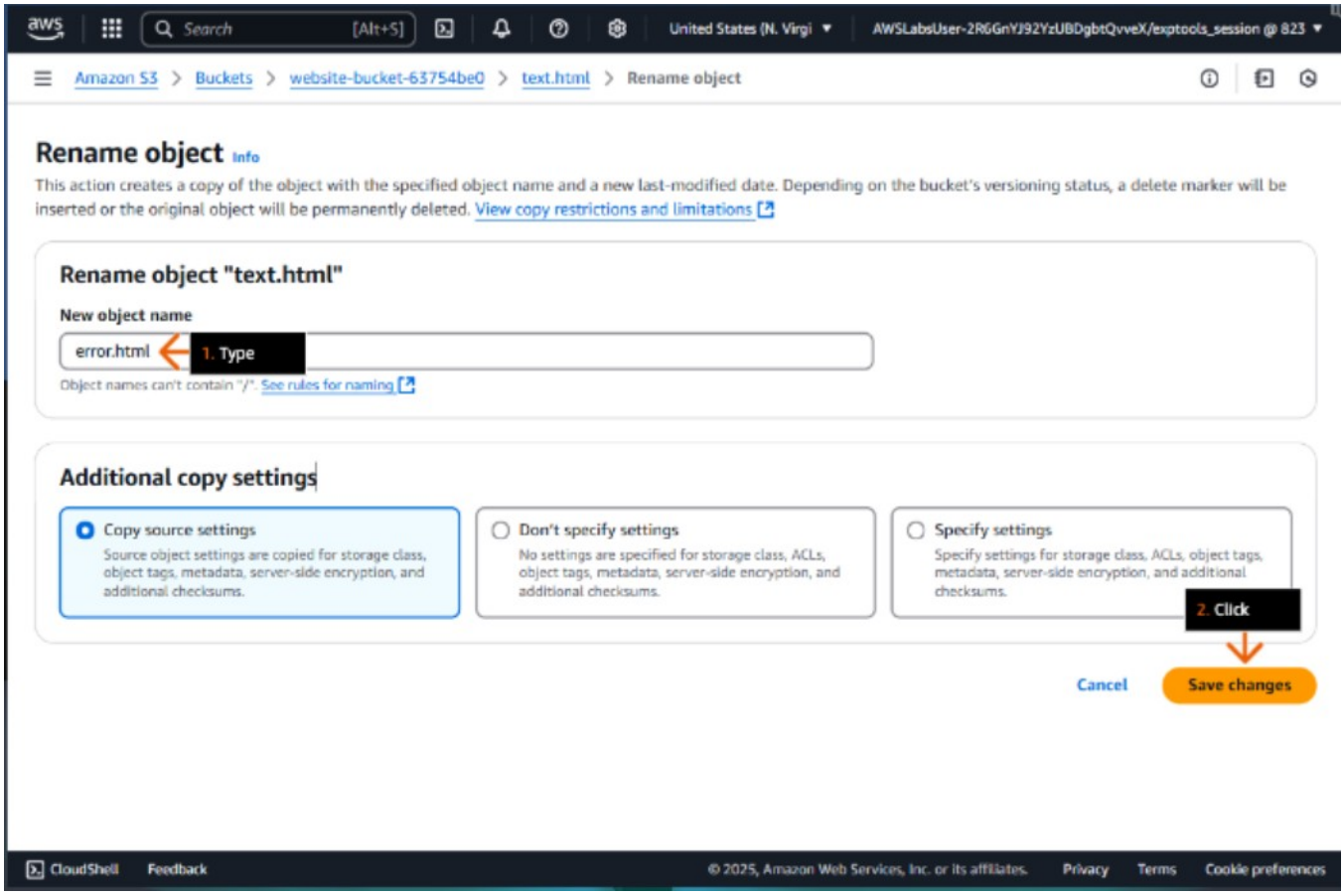
- Choose the check box to select text.html.
- Click Actions to expand the dropdown menu.
- Choose Rename object.



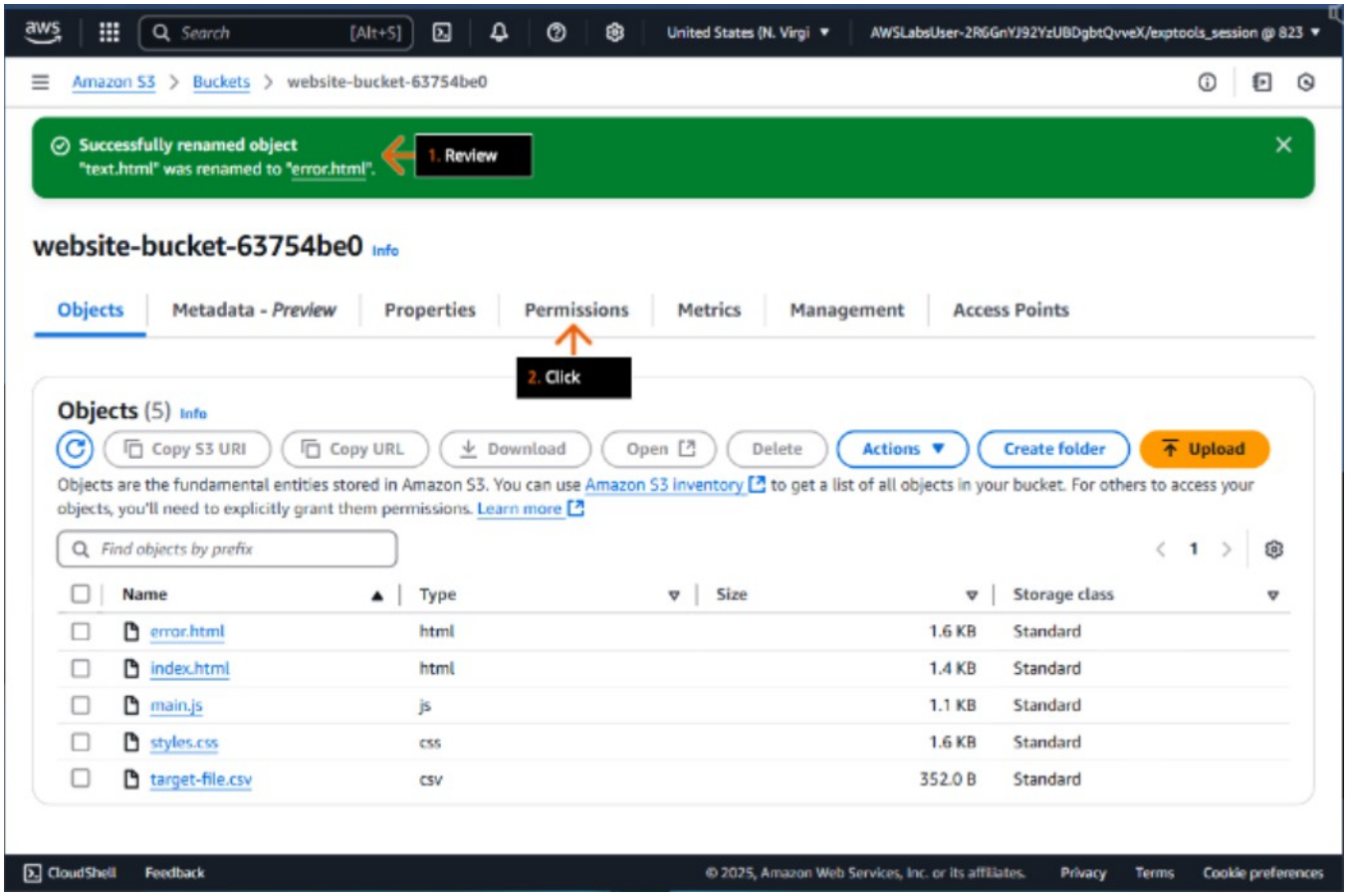
- For New object name, type: error.html

    - This file contains the code for the error page, which opens whenever something goes wrong.

- Click Save changes.

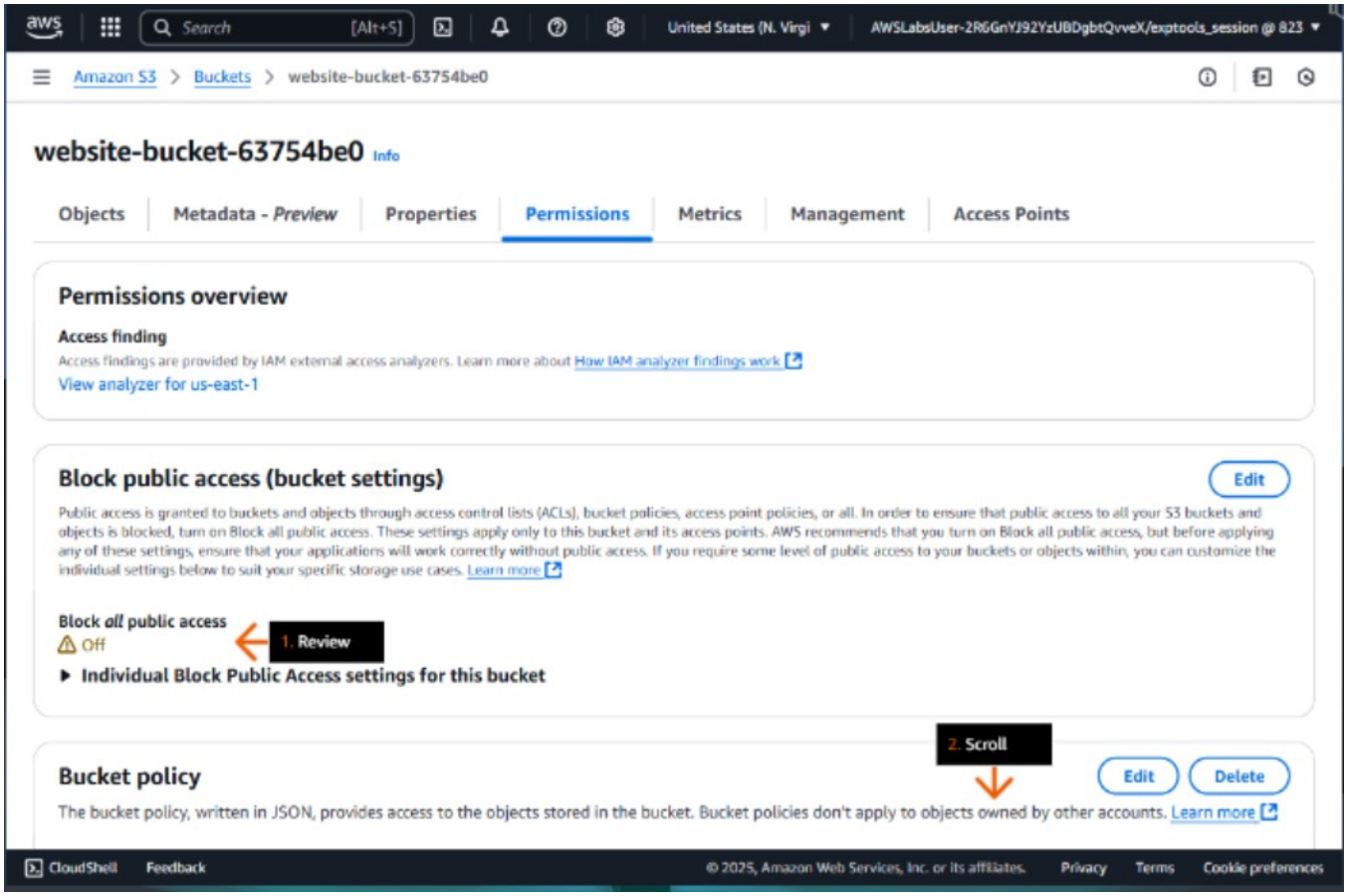


- In the success alert, review the message.
- Click the Permissions tab.

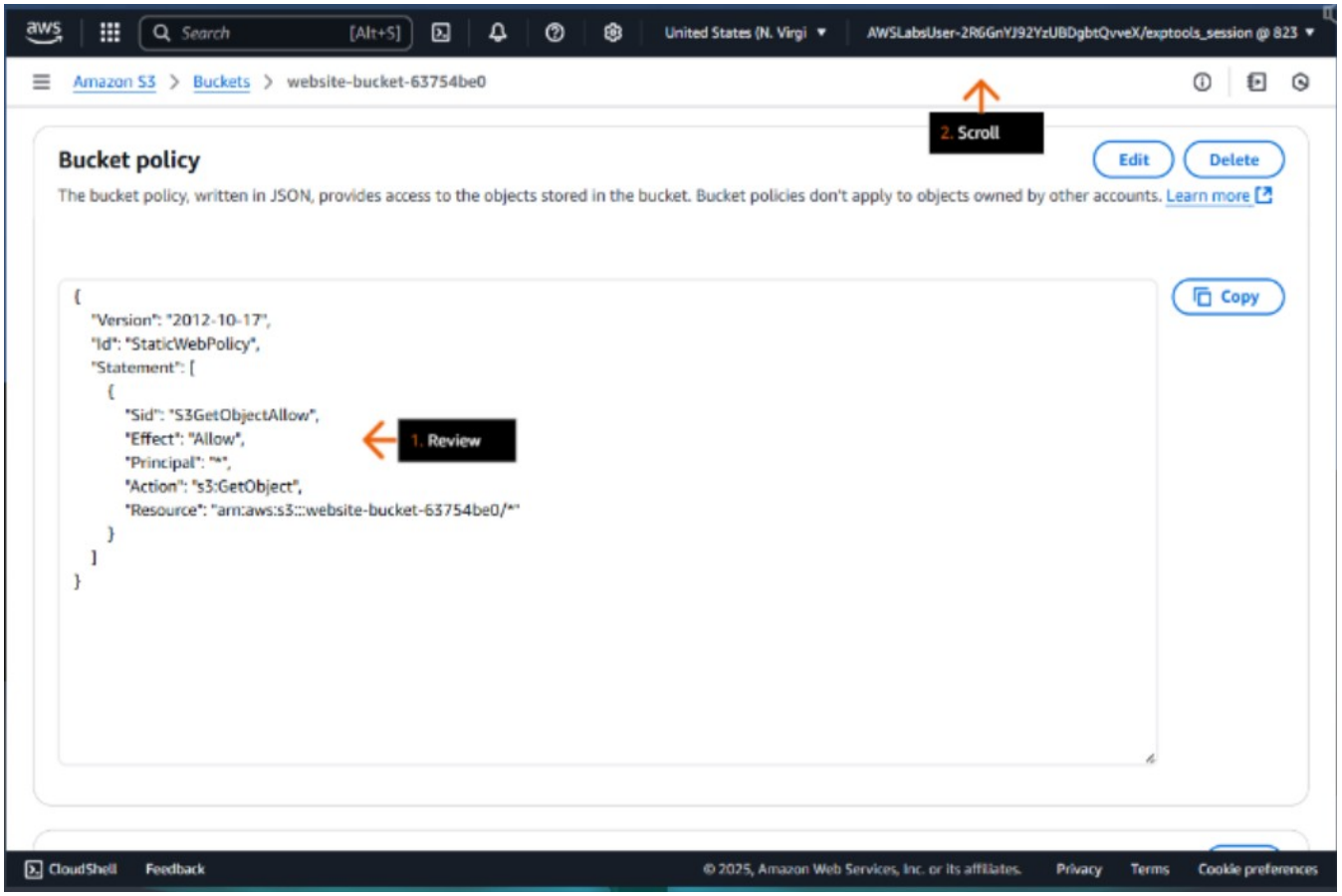


- In the Block public access (bucket settings) section, review to ensure that Block all public access is set to Off.
    - Turning off "Block all public access" is necessary for static web hosting through your S3 bucket.

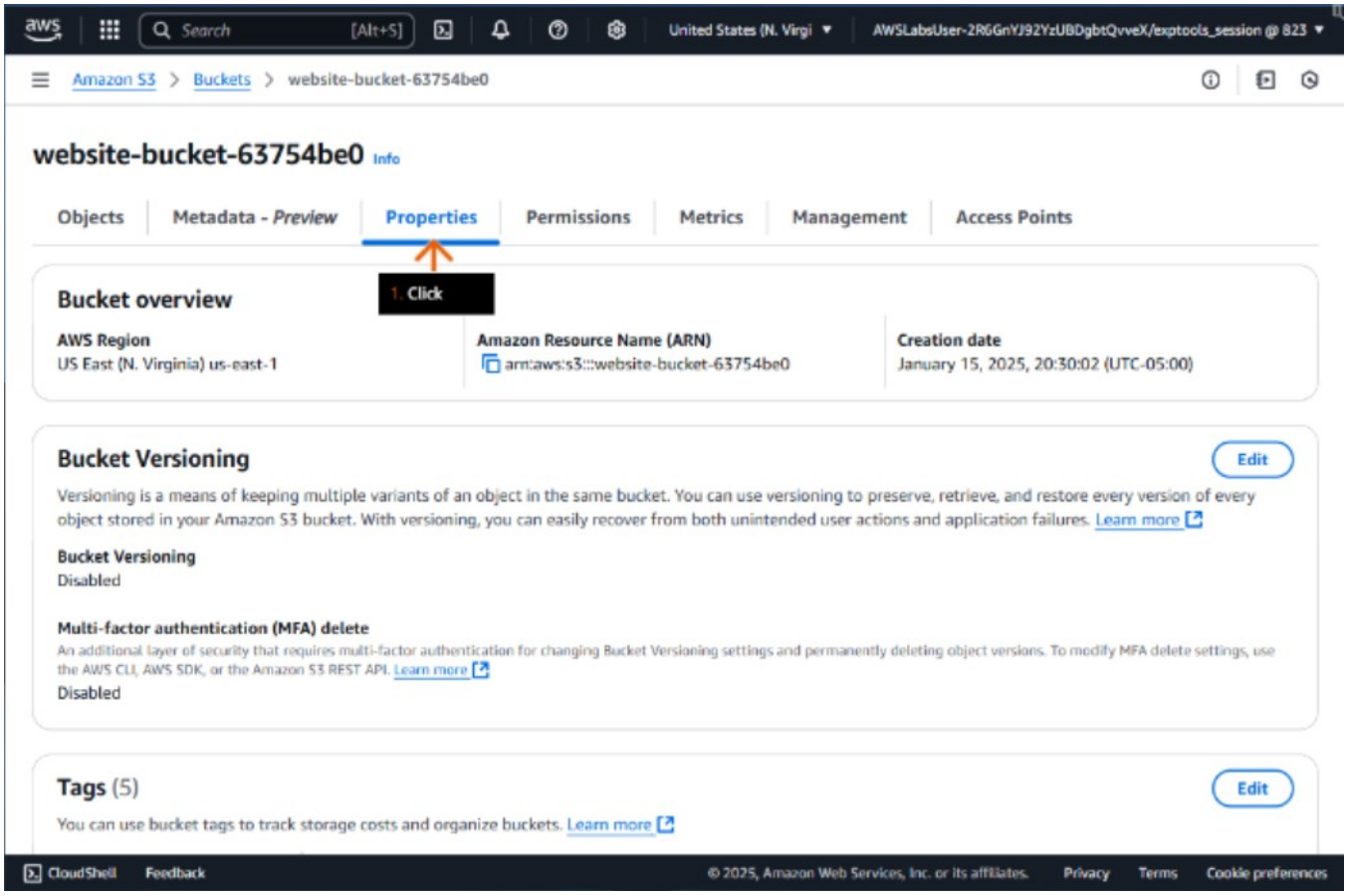
- Scroll down to Bucket policy.



- In the Bucket policy editor window, review the policy.
    - This S3 bucket policy allows public read-only access (GetObject) to anyone for all objects within the specified bucket. However, for production environments, it's recommended to implement stricter permissions to prevent unintended data exposure.
- Scroll up to the top of the page.

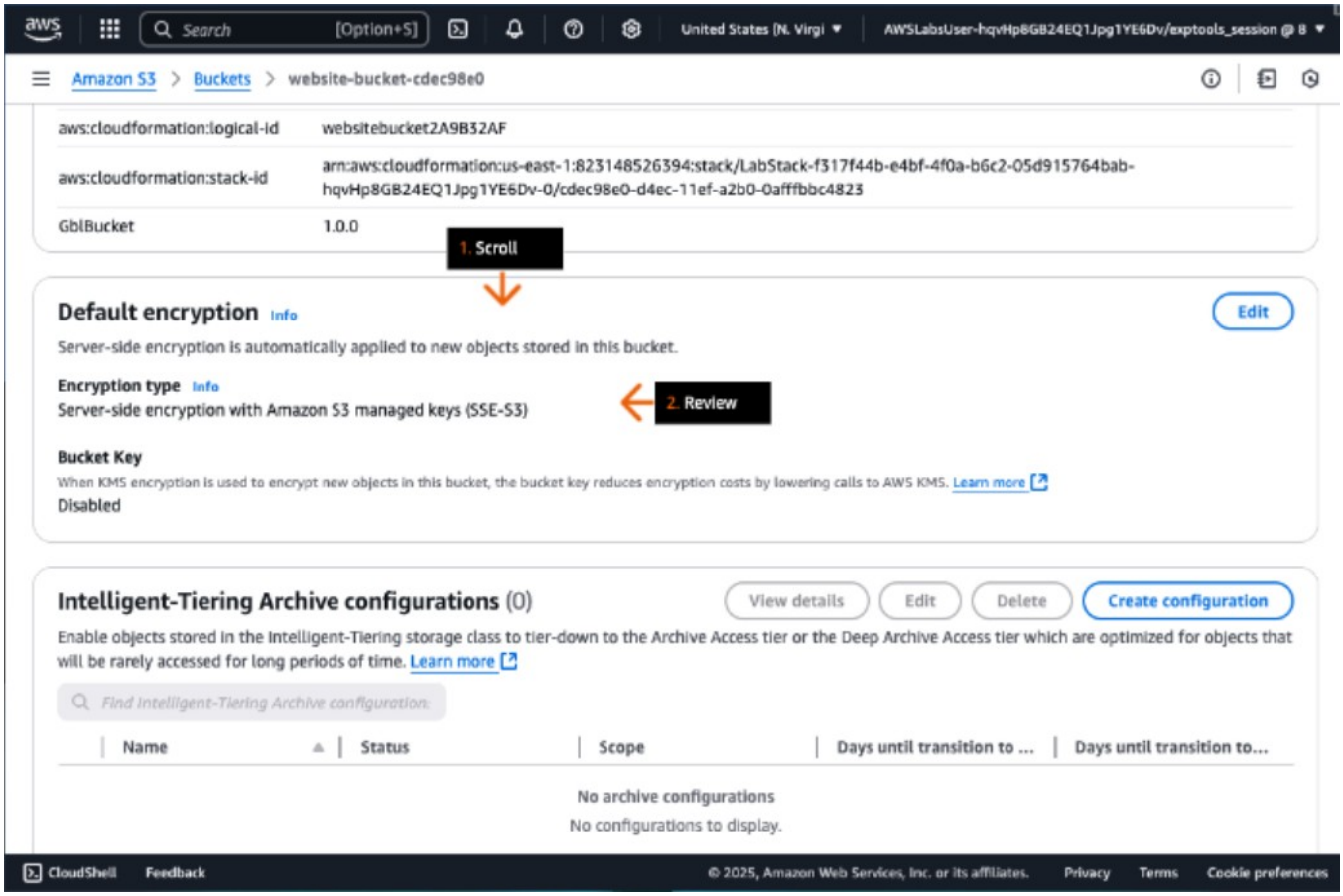


- Click the Properties tab.



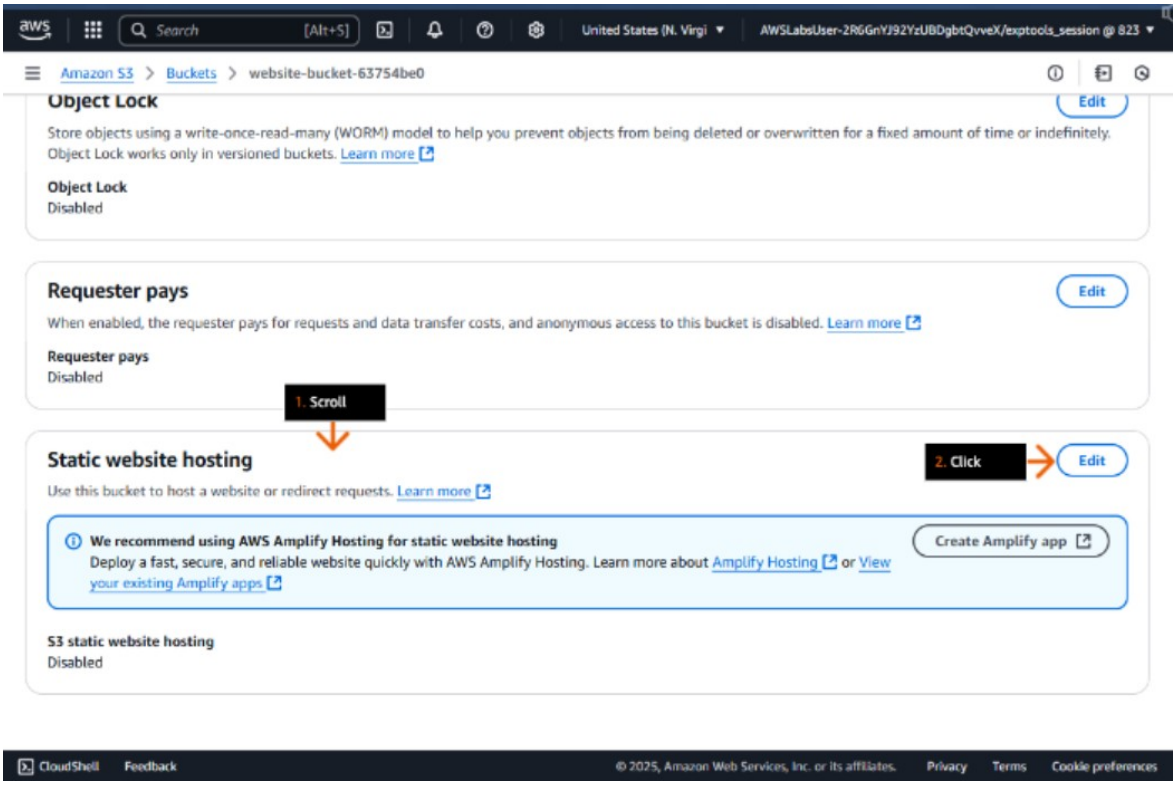
To host a static website on Amazon S3, configure your bucket for static website hosting, set permissions, and add an index document. Available options include redirects, logging, and error documents.

- Scroll down to Default encryption.
- Review the encryption settings.



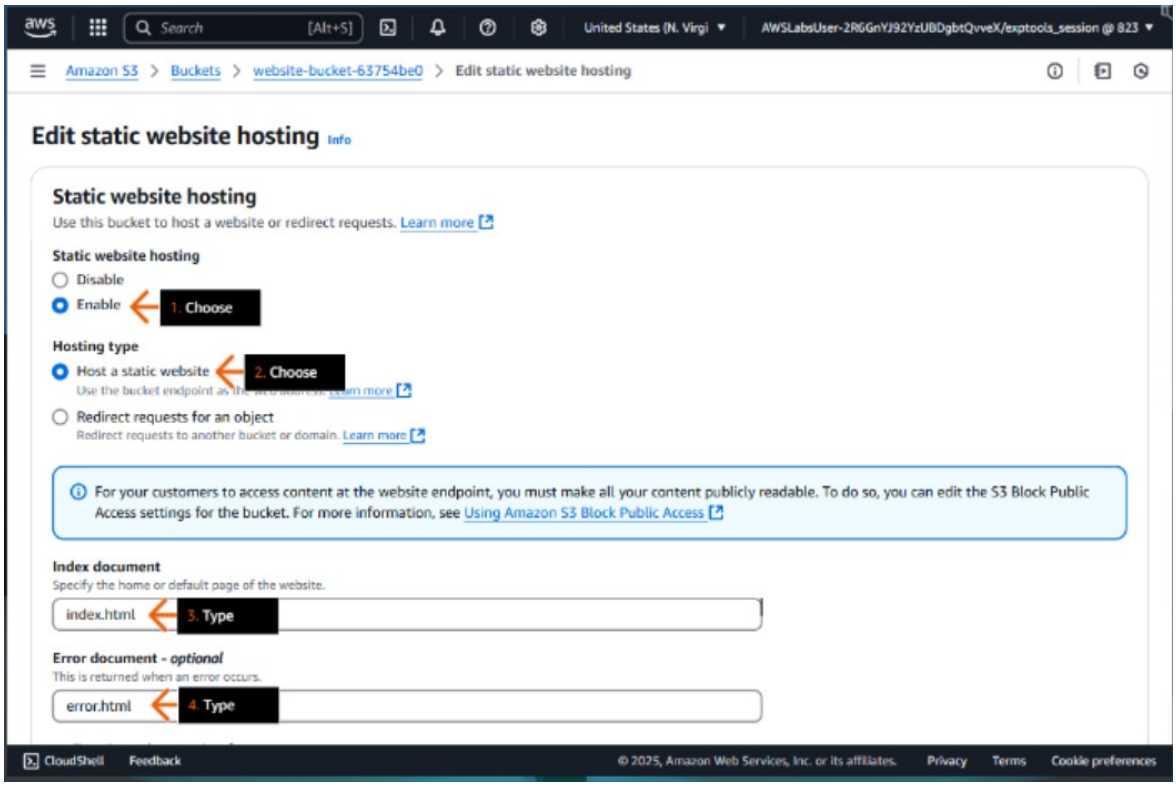
Server-side encryption is the encryption of data at its destination by the application or service that receives it. Amazon S3 encrypts your data at the object level as it writes it to disks in AWS data centers and decrypts it for you when you access it.

- Scroll down to Static website hosting.
- Click Edit.



On a static website, individual webpages include static (unchanged) content. They might also contain client-side scripts.

- For Static website hosting, choose Enable.
- For Hosting type, choose Host a static website.
- For Index document, type: **index.html**
- For Error document, type: **error.html**

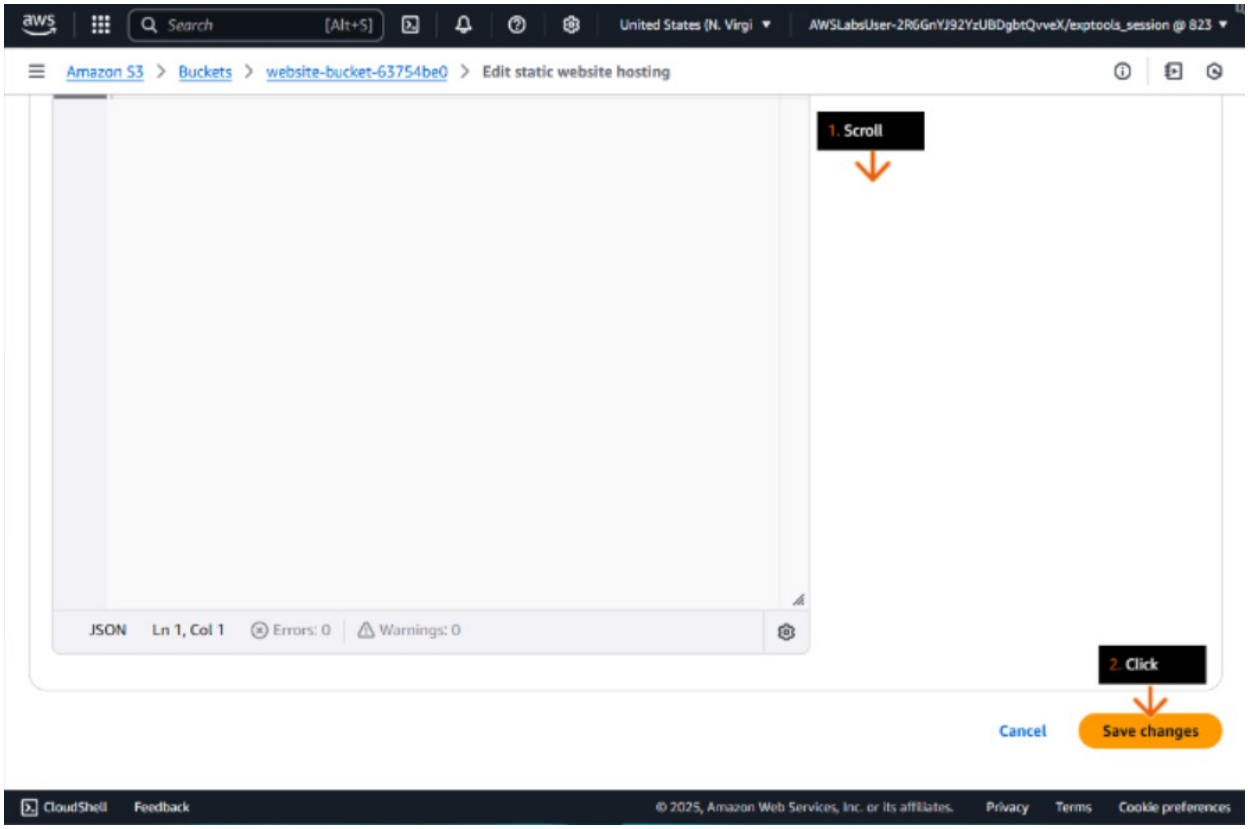


Amazon S3 supports virtual-hosted-style URLs and path-style URLs.

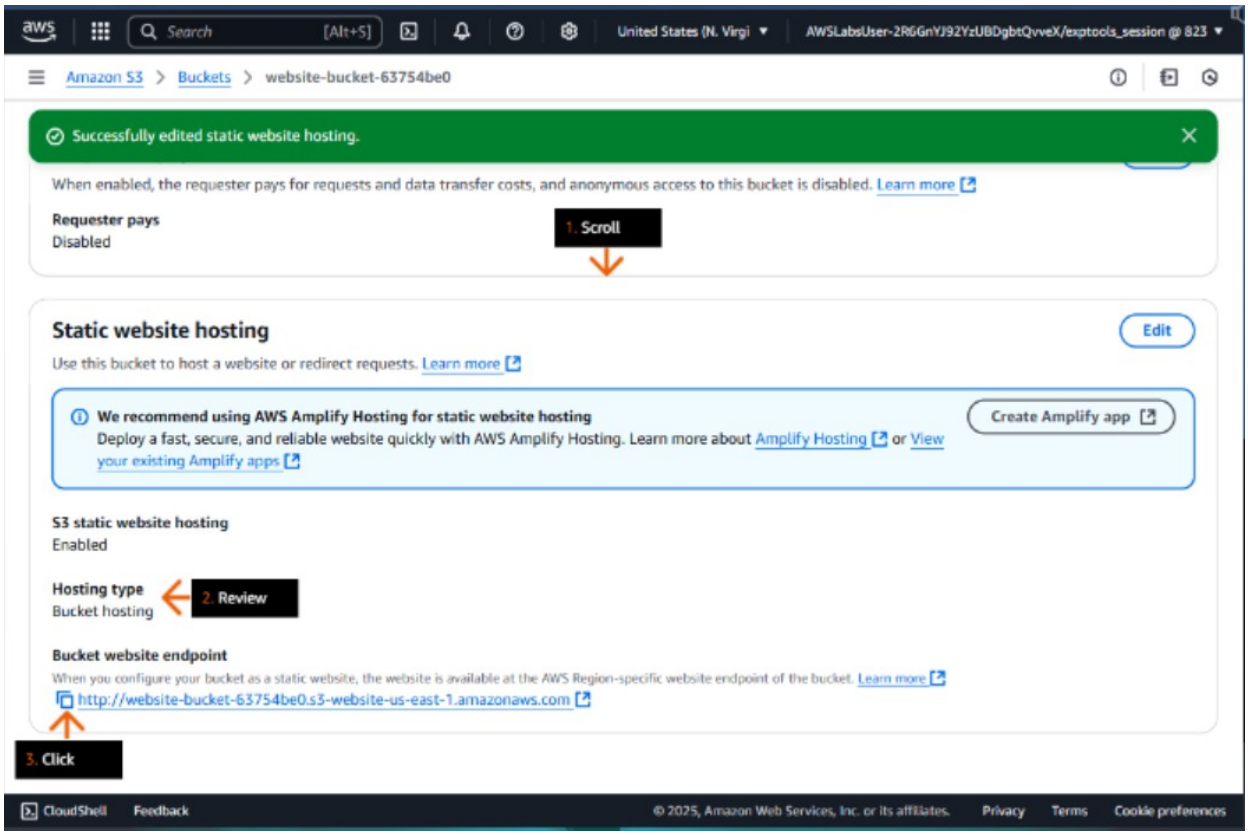
A virtual-hosted-style URL looks like: https://bucket-name.s3.Region.amazonaws.com/key

A path-style URL looks like: https://s3.Region.amazonaws.com/bucket-name/keyname

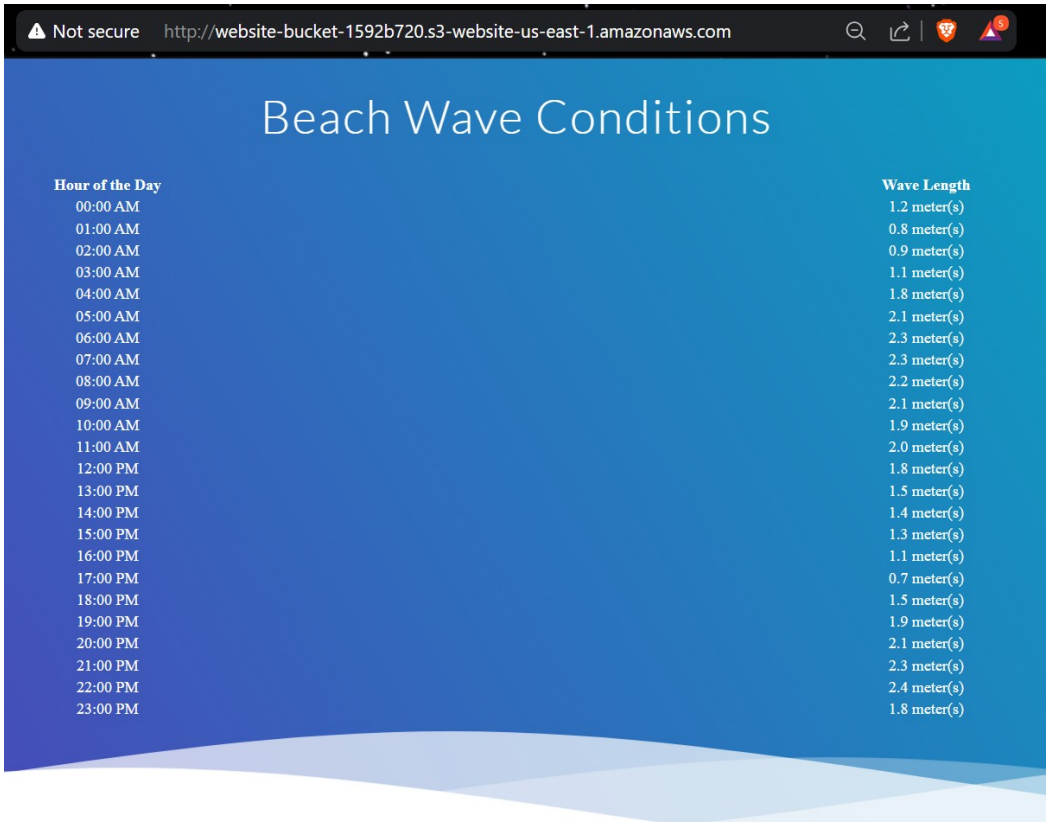
- Scroll down to the bottom of the page.
- Click Save changes.



- Scroll down to Static website hosting.
- Review to ensure that Hosting type is set to Bucket hosting.
- Under Bucket website endpoint, click the copy icon to copy the provided endpoint.

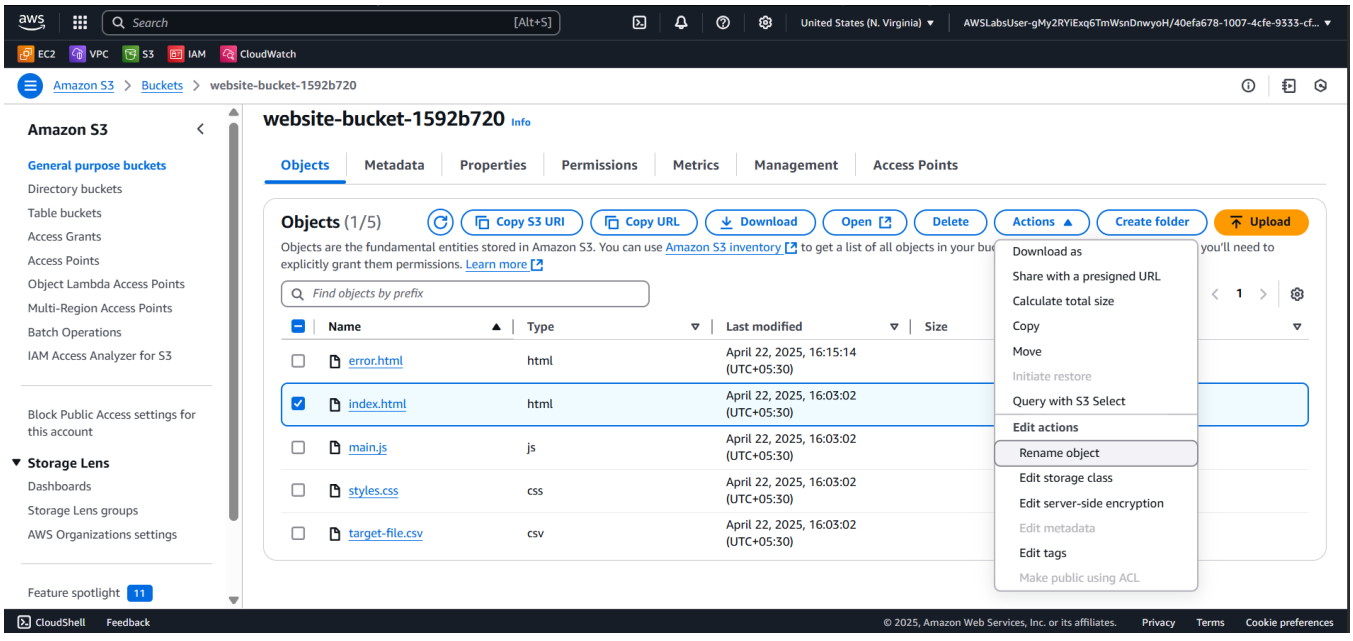


- To load the Beach Wave Conditions webpage, in a new browser tab (or window) address bar, paste the bucket website endpoint that you just copied, and then press Enter.

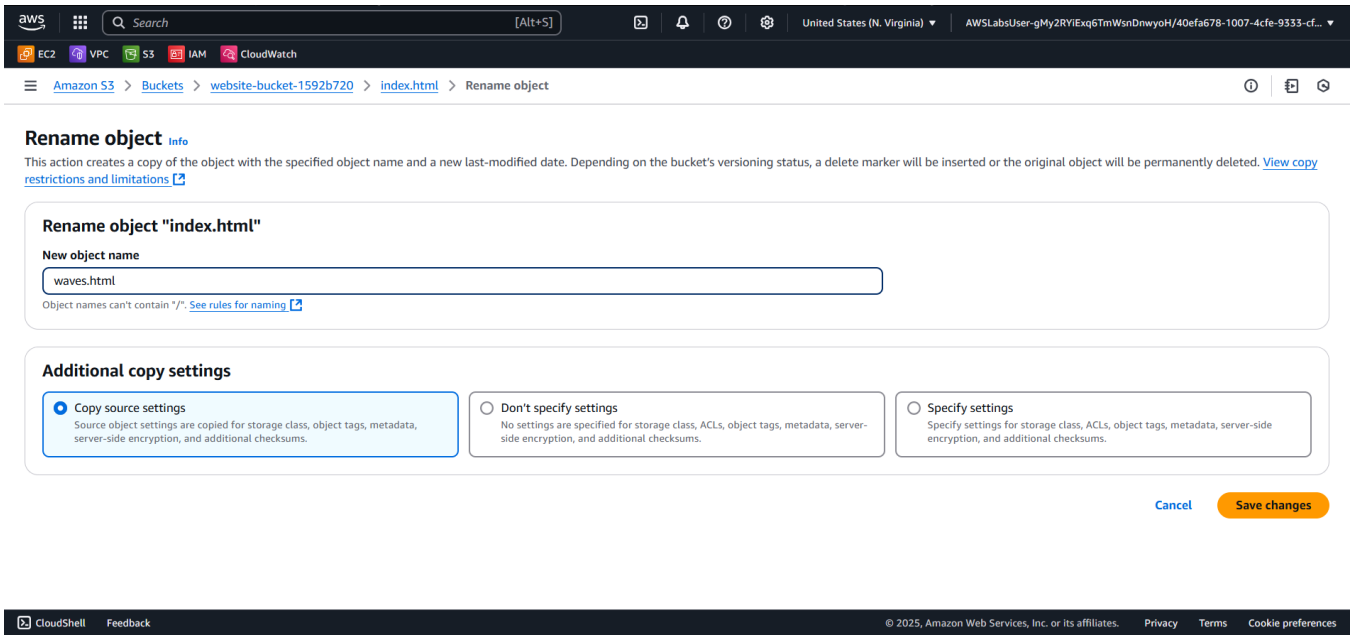


Hour of the Day	Wave Length
00:00 AM	1.2 meter(s)
01:00 AM	0.8 meter(s)
02:00 AM	0.9 meter(s)
03:00 AM	1.1 meter(s)
04:00 AM	1.8 meter(s)
05:00 AM	2.1 meter(s)
06:00 AM	2.3 meter(s)
07:00 AM	2.3 meter(s)
08:00 AM	2.2 meter(s)
09:00 AM	2.1 meter(s)
10:00 AM	1.9 meter(s)
11:00 AM	2.0 meter(s)
12:00 PM	1.8 meter(s)
13:00 PM	1.5 meter(s)
14:00 PM	1.4 meter(s)
15:00 PM	1.3 meter(s)
16:00 PM	1.1 meter(s)
17:00 PM	0.7 meter(s)
18:00 PM	1.5 meter(s)
19:00 PM	1.9 meter(s)
20:00 PM	2.1 meter(s)
21:00 PM	2.3 meter(s)
22:00 PM	2.4 meter(s)
23:00 PM	1.8 meter(s)

- On the General purpose buckets tab, click the bucket name that starts with website-bucket-.
  - The bucket name that starts with website-bucket- contains code required for this lab.
- On the Objects tab, review the objects in the bucket.
  - Several files should be displayed.
  - These files likely contain the contents for the static webpage.
  - Local files can be loaded into this S3 bucket by using the Upload button.
- Choose the check box to select index.html.
- Click **Actions** to expand the dropdown menu.
- Choose **Rename object**.



- For **New object name**, type: waves.html
    - This file will now serve as the main page, which opens when you access the website (assuming you configure the static website hosting to use waves.html as the index document).
- Click **Save changes**.



You have successfully completed the tasks. By reviewing a bucket policy, you have gained experience in securing your data in Amazon S3, and by enabling static website hosting, you have configured your bucket to serve web content. These steps are fundamental to hosting secure and functional static websites on AWS.

You have successfully navigated to the specified Amazon S3 bucket and completed the task of renaming the `index.html` object to `waves.html`. This action is often a part of configuring or customizing a static website hosted on S3, potentially setting `waves.html` as the new index document for your site.