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Assignment No. 4

TITLE:

Deploy Web application using S3 Bucket (PHP/Python/Node js any application).

THEORY:

- What is Amazon S3? :

1. Amazon Simple Storage Service (Amazon S3) is an object storage service that offers industry-leading scalability, data availability, security, and performance.
2. Customers of all sizes and industries can use Amazon S3 to store and protect any amount of data for a range of use cases, such as data lakes, websites, mobile applications, backup and restore, archive, enterprise applications, IoT devices, and big data analytics.
3. Amazon S3 provides management features so that you can optimize, organize, and configure access to your data to meet your specific business, organizational, and compliance requirements.

- Features of Amazon S3:

1. you can store mission-critical production data in S3 Standard for frequent access.
2. save costs by storing infrequently accessed data in S3 Standard-IA or S3 One Zone-IA.
3. archive data at the lowest costs in S3 Glacier Instant Retrieval, S3 Glacier Flexible Retrieval, and S3 Glacier Deep Archive.
4. You can store data with changing or unknown access patterns in S3 Intelligent-Tiering, which optimizes storage costs by automatically moving your data between four access tiers when your access patterns change.

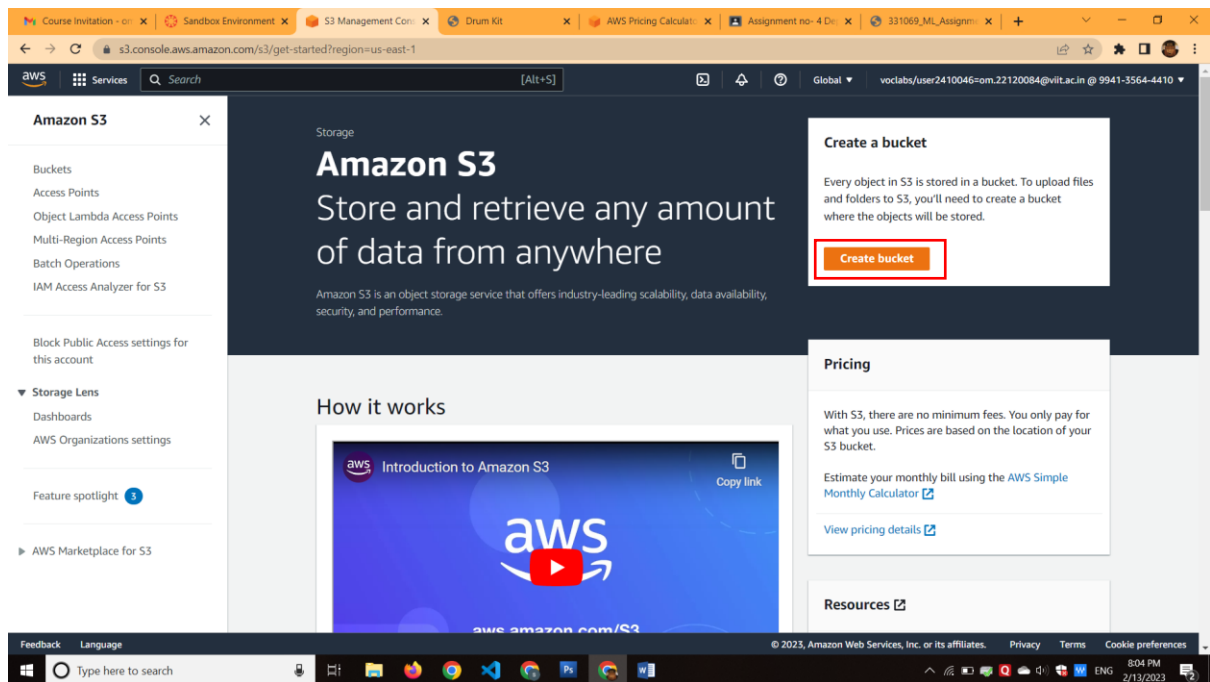
• Step-by-step screenshot to upload web application on the cloud using S3 service:

Step 1: Create a bucket.

Go to AWS Management Console.

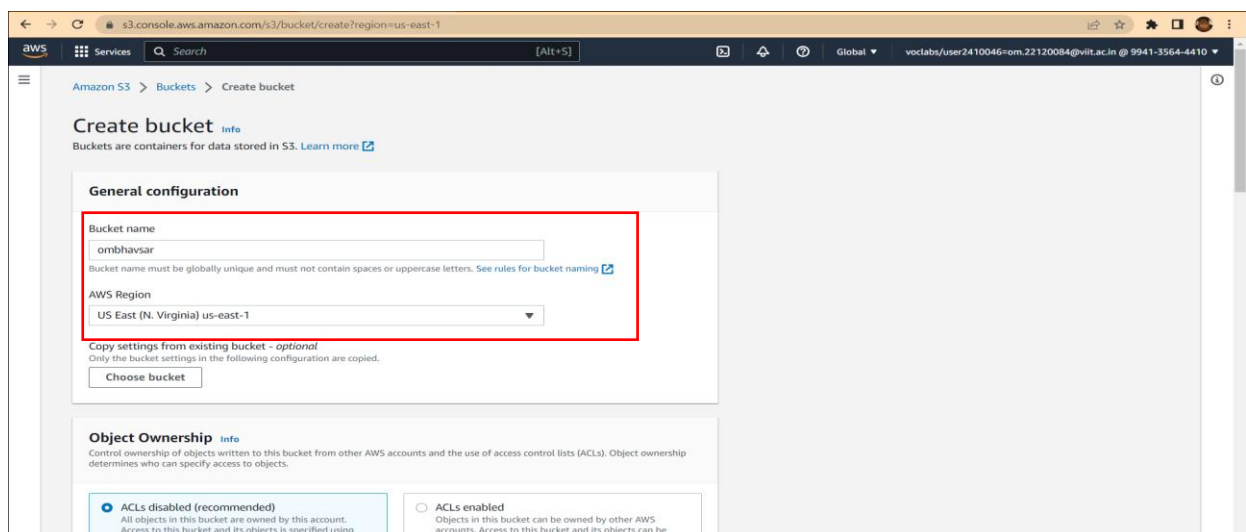
Search for S3.

Click on Create Bucket.

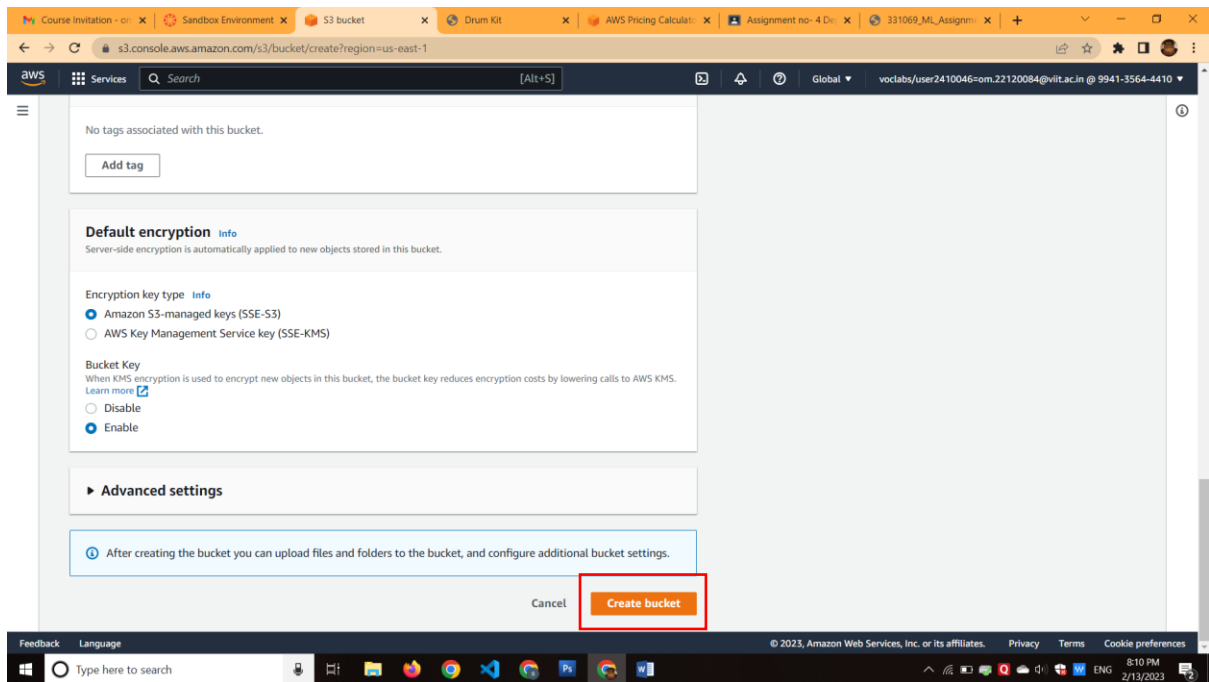


Enter the Bucket name.

Choose the Region where you want to create the bucket.



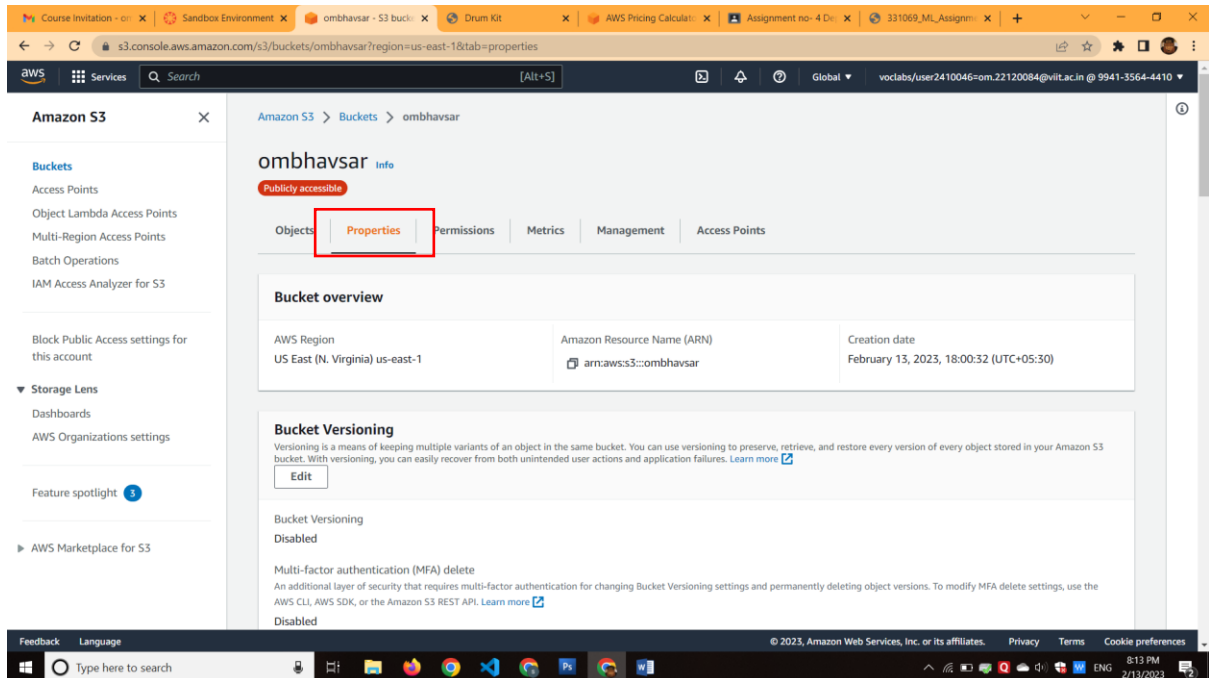
To accept the default settings and create the bucket, choose Create



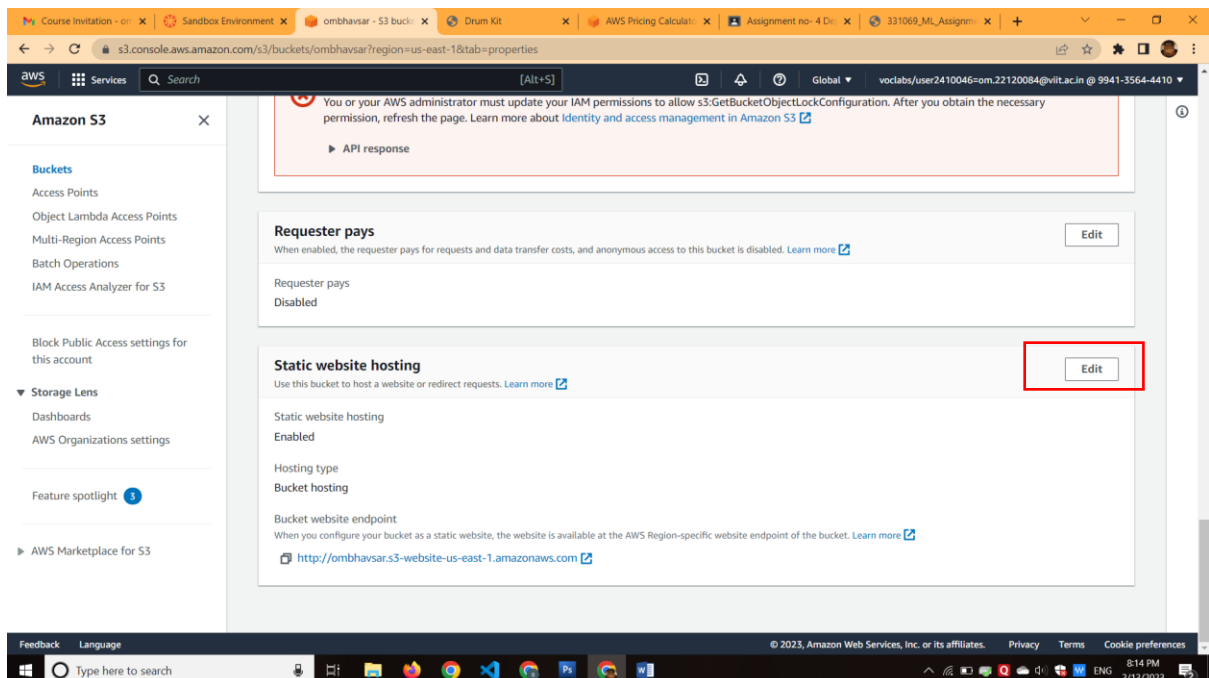
Step 2: Enable Static Website Hosting.

In the Buckets list, click on the name of the bucket that you want to enable static website hosting for.

Choose Properties

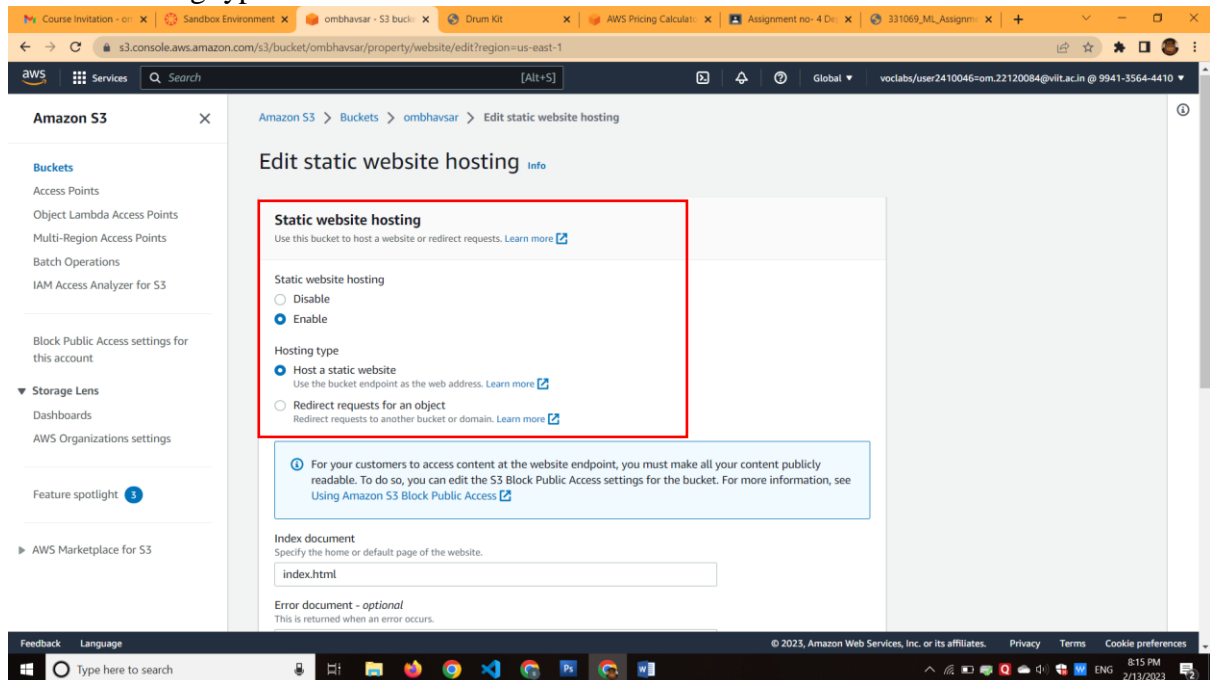


Under Static website hosting, choose Edit.

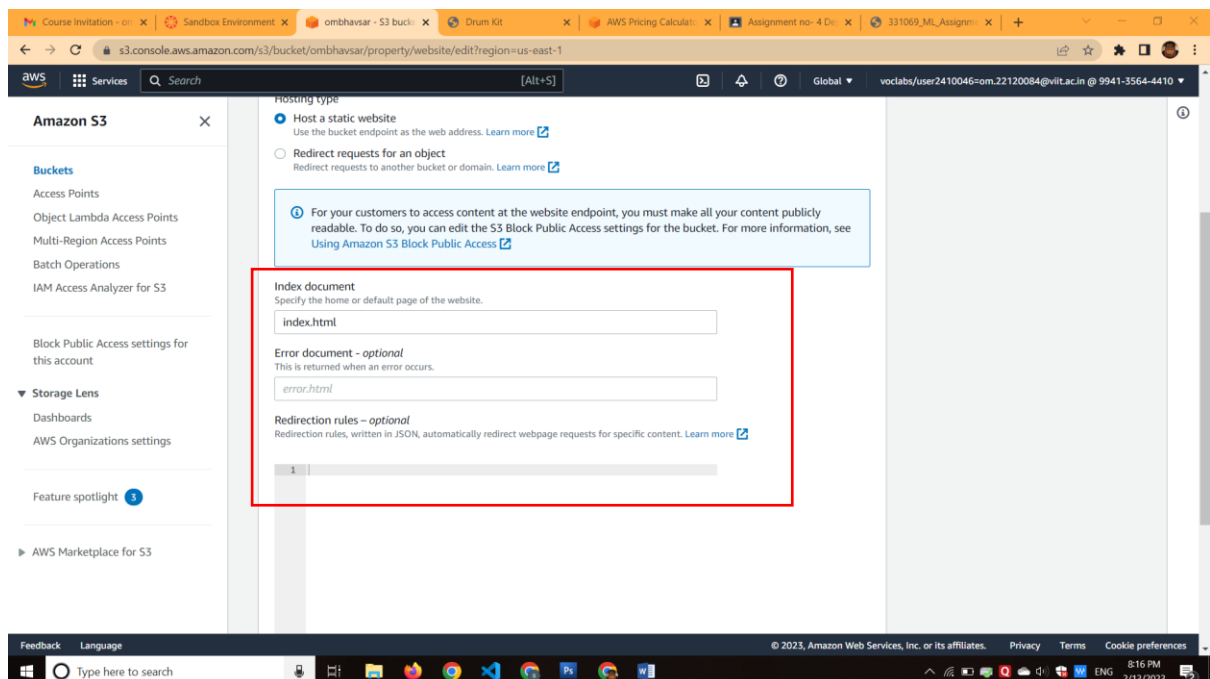


Under Static website hosting, choose Enable.

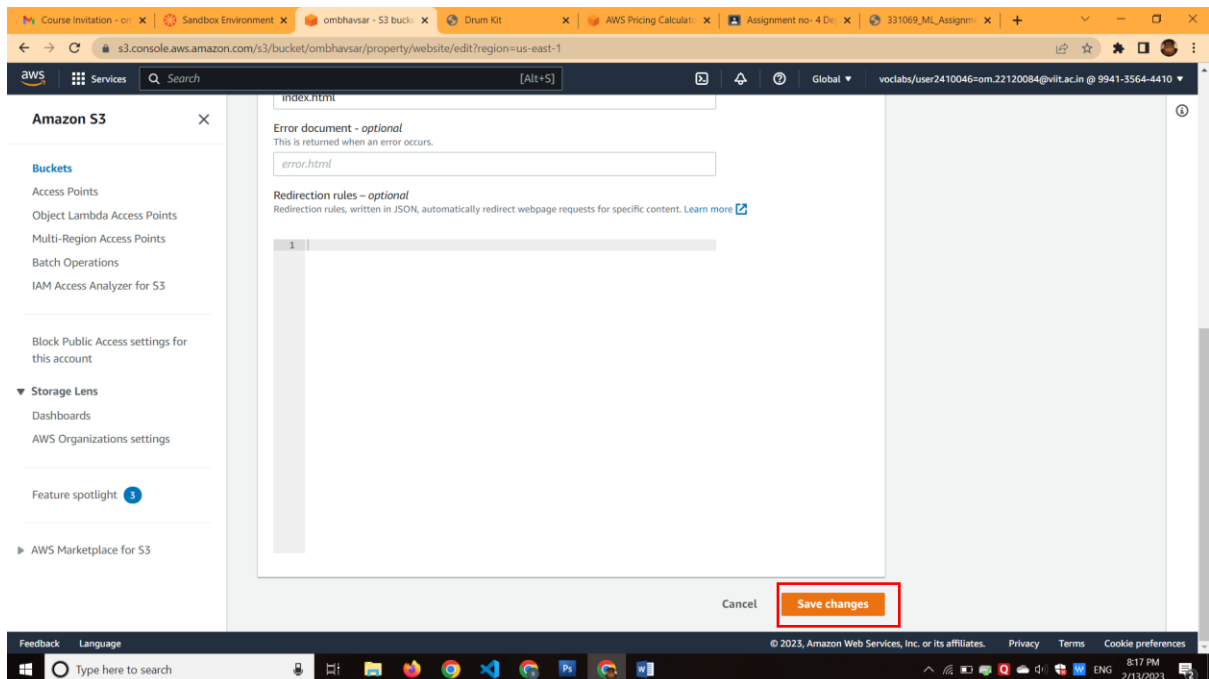
Choose hosting type as host a static website.



After enabling static website hosting, specify the index file of your project (the opening page of your website or web application).

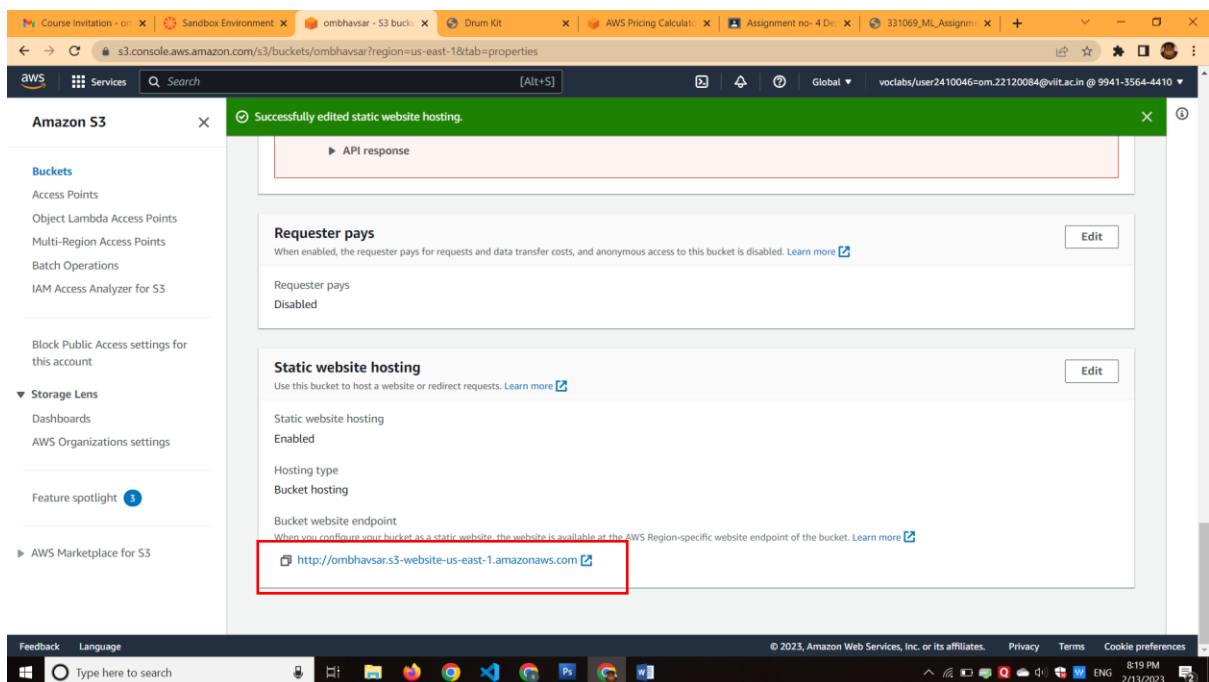


Choose Save changes.



Under Static website hosting, note the Endpoint.

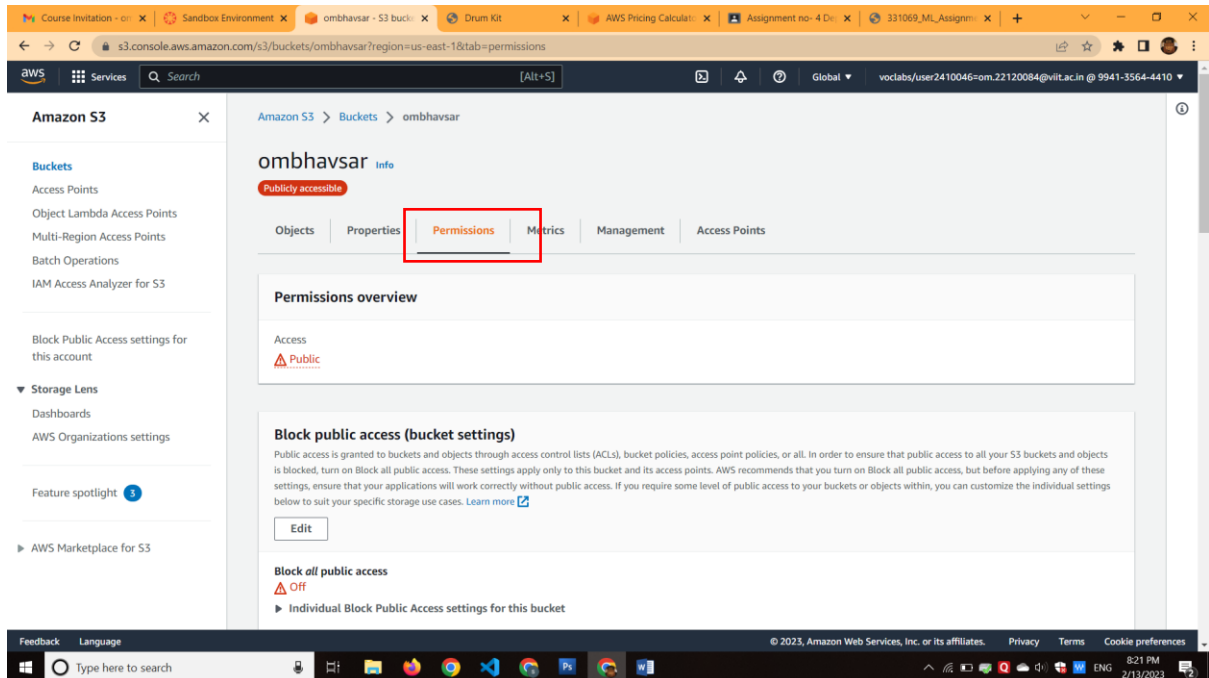
The Endpoint is the Amazon S3 website endpoint for your bucket. After you finish configuring your bucket as a static website, you can use this endpoint to test your website.



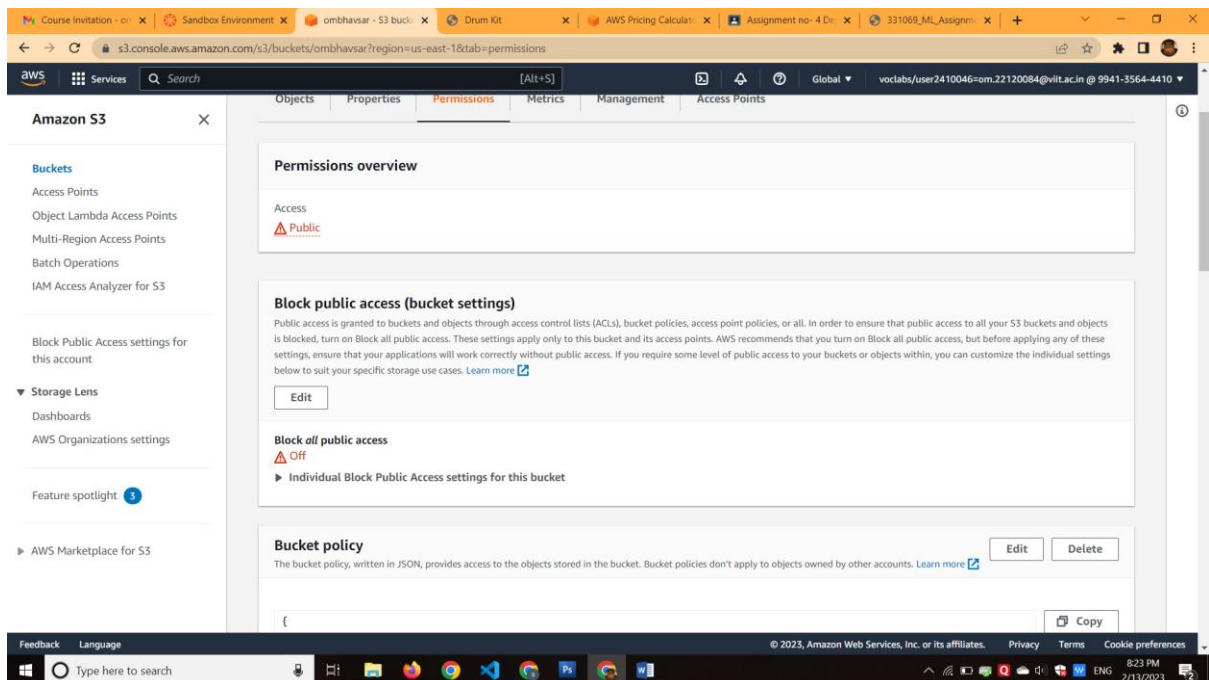
Step 3: Edit Block Public Access settings

Choose the name of the bucket that you have configured as a static website.

Choose Permissions.



Under Block public access (bucket settings), choose Edit.



Clear Block all public access, and choose Save changes

Course Invitation - x Sandbox Environment - x ombhavsar - S3 bucket - x Drum Kit - x AWS Pricing Calcula - x Assignment no- 4 Di - x 331069_ML_Assignm - x +

s3.console.aws.amazon.com/s3/bucket/ombhavsar/property/bpa/edit?region=us-east-1

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Amazon S3

- Buckets
- Access Points
- Object Lambda Access Points
- Multi-Region Access Points
- Batch Operations
- IAM Access Analyzer for S3

Block Public Access settings for this account

▼ Storage Lens

- Dashboards
- AWS Organizations settings

Feature spotlight 3

► AWS Marketplace for S3

Edit Block public access (bucket settings) [info](#)

Block public access (bucket settings)

Public access is granted to buckets and objects through access control lists (ACLs), bucket policies, access point policies, or all. In order to ensure that public access to all your S3 buckets and objects is blocked, turn on Block all public access. These settings apply only to this bucket and its access points. AWS recommends that you turn on Block all public access, but before applying any of these settings, ensure that your applications will work correctly without public access. If you require some level of public access to your buckets or objects within, you can customize the individual settings below to suit your specific storage use cases. [Learn more](#)

- ☐ **Block all public access**
Turning this setting on is the same as turning on all four settings below. Each of the following settings are independent of one another.
- ☐ **Block public access to buckets and objects granted through new access control lists (ACLs)**
S3 will block public access permissions applied to newly added buckets or objects, and prevent the creation of new public access ACLs for existing buckets and objects. This setting doesn't change any existing permissions that allow public access to S3 resources using ACLs.
- ☐ **Block public access to buckets and objects granted through any access control lists (ACLs)**
S3 will ignore all ACLs that grant public access to buckets and objects.
- ☐ **Block public access to buckets and objects granted through new public bucket or access point policies**
S3 will block new bucket and access point policies that grant public access to buckets and objects. This setting doesn't change any existing policies that allow public access to S3 resources.
- ☐ **Block public and cross-account access to buckets and objects through any public bucket or access point policies**
S3 will ignore public and cross-account access for buckets or access points with policies that grant public access to buckets and objects.

Cancel **Save changes**

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Step 4: Add a bucket policy that makes your bucket content publicly available

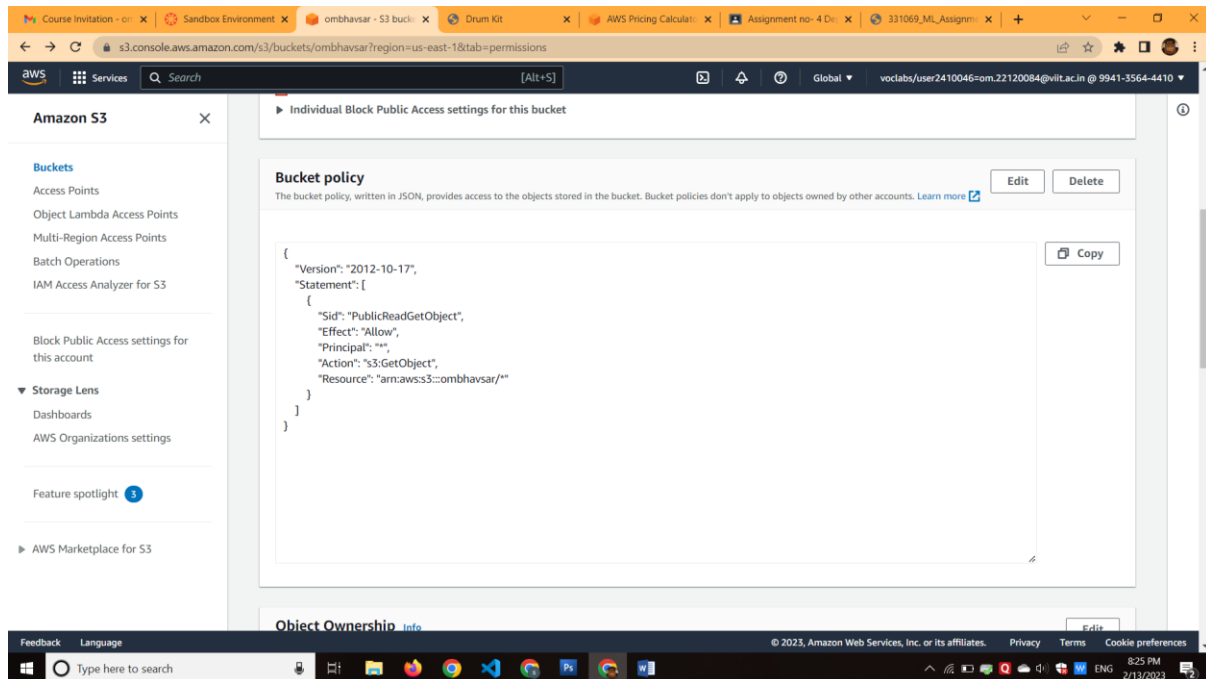
Under Buckets, click on the name of your bucket.

Choose Permissions.

Under Bucket Policy, choose Edit.

Make sure to replace “Bucket-name” with your S3 bucket name in the JSON policy.

Choose Save changes.



Step 5: Upload Your Website to the S3 Bucket.

When you enable static website hosting for your bucket, you enter the name of the index document (for example, index.html) and name of the error document (for example, 404.html). After you enable static website hosting for the bucket, you upload an HTML file with this index and error document name to your bucket. In the Buckets list, choose the name of the bucket that you want to upload your folders or files to.

Under objects , Choose Upload.

The screenshot shows the Amazon S3 console interface. On the left, there's a navigation pane with options like Buckets, Access Points, and IAM Access Analyzer for S3. The main area displays the 'ombhavsar' bucket with 18 objects. A table lists the objects with their names, types, last modified dates, sizes, and storage classes. The objects are: .DS_Store (6.0 KB), crash.mp3 (33.8 KB), crash.png (19.1 KB), index.html (680.0 B), index.js (1.5 KB), kick-bass.mp3 (1.5 KB), kick.png (51.9 KB), snare.mp3 (25.7 KB), snare.png (16.8 KB), styles.css (1.1 KB), tom-1.mp3 (22.3 KB), tom-2.mp3 (35.4 KB), tom-3.mp3 (28.9 KB), and tom-4.mp3 (27.8 KB). All objects are stored in the 'Standard' storage class.

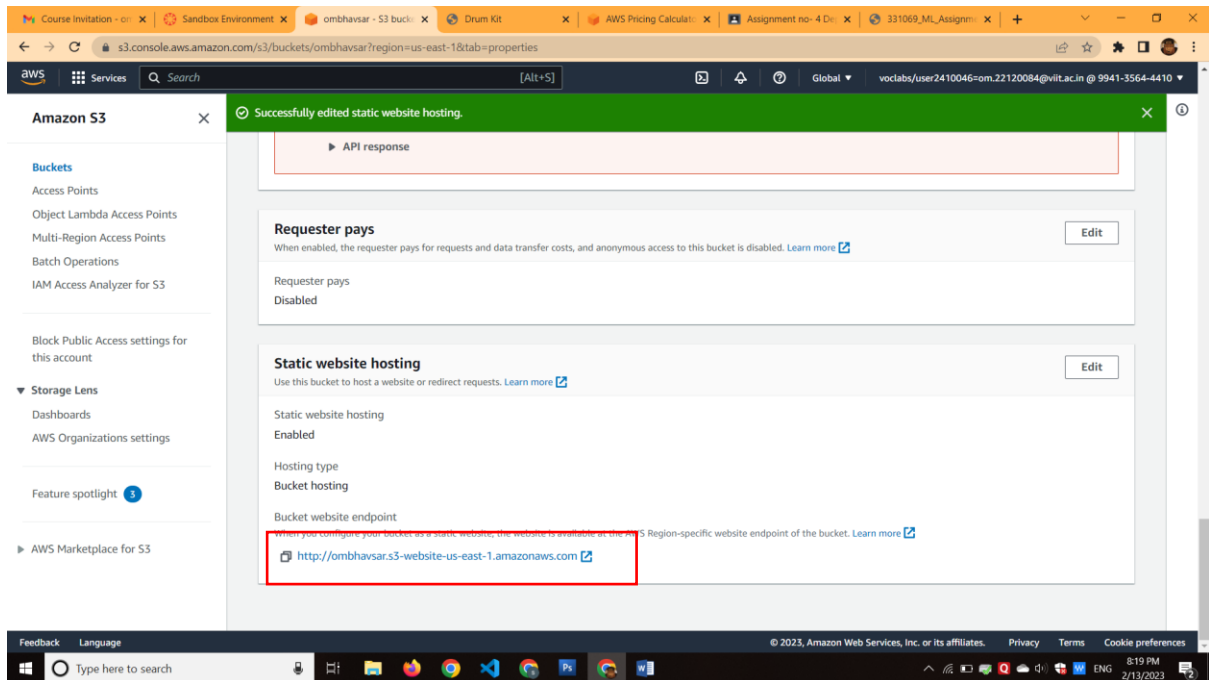
Name	Type	Last modified	Size	Storage class
.DS_Store	D5_Store	February 13, 2023, 19:40:22 (UTC+05:30)	6.0 KB	Standard
crash.mp3	mp3	February 13, 2023, 19:40:14 (UTC+05:30)	33.8 KB	Standard
crash.png	png	February 13, 2023, 19:40:06 (UTC+05:30)	19.1 KB	Standard
index.html	html	February 13, 2023, 19:40:23 (UTC+05:30)	680.0 B	Standard
index.js	js	February 13, 2023, 19:40:24 (UTC+05:30)	1.5 KB	Standard
kick-bass.mp3	mp3	February 13, 2023, 19:40:16 (UTC+05:30)	1.5 KB	Standard
kick.png	png	February 13, 2023, 19:40:07 (UTC+05:30)	51.9 KB	Standard
snare.mp3	mp3	February 13, 2023, 19:40:17 (UTC+05:30)	25.7 KB	Standard
snare.png	png	February 13, 2023, 19:40:08 (UTC+05:30)	16.8 KB	Standard
styles.css	css	February 13, 2023, 19:40:25 (UTC+05:30)	1.1 KB	Standard
tom-1.mp3	mp3	February 13, 2023, 19:40:18 (UTC+05:30)	22.3 KB	Standard
tom-2.mp3	mp3	February 13, 2023, 19:40:19 (UTC+05:30)	35.4 KB	Standard
tom-3.mp3	mp3	February 13, 2023, 19:40:20 (UTC+05:30)	28.9 KB	Standard
tom-4.mp3	mp3	February 13, 2023, 19:40:21 (UTC+05:30)	27.8 KB	Standard

Step 6: Test your website endpoint.

Under Buckets, choose the name of your bucket.

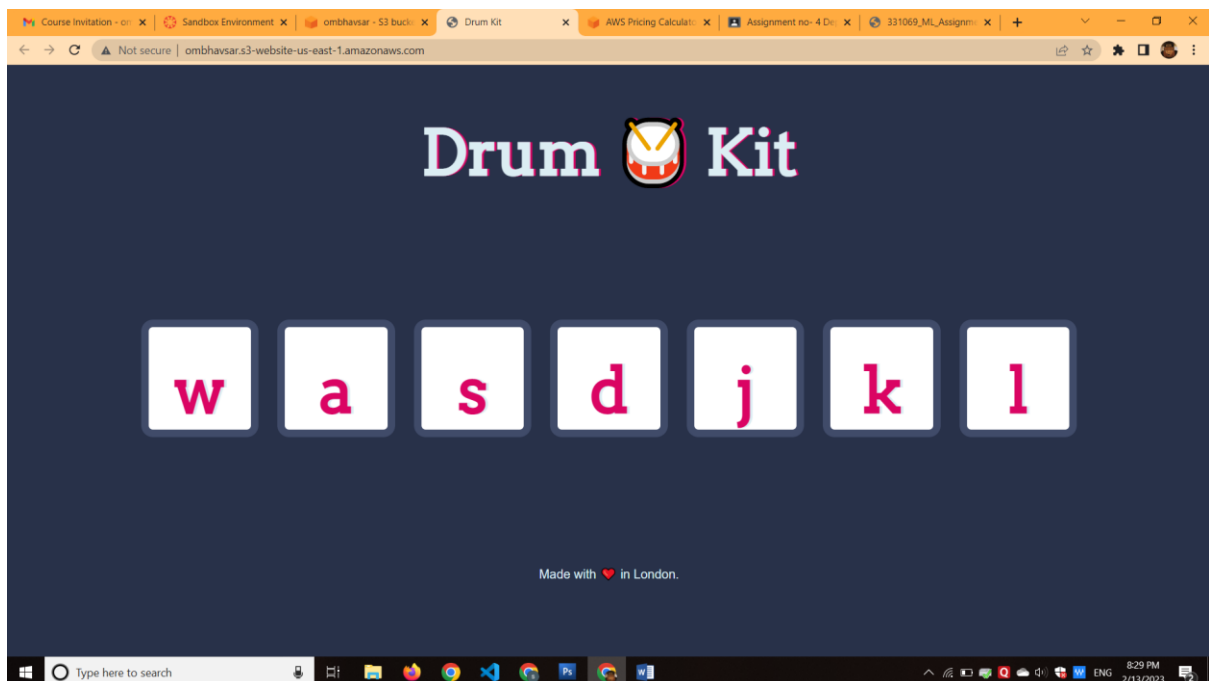
Choose Properties.

At the bottom of the page, under Static website hosting, click on the link under your Bucket website endpoint.



Your index document opens in a separate browser window.

You now successfully hosted a website on Amazon S3.



Step 7: Clean up

Make sure the bucket is empty – You can only delete buckets that don't have any objects in them. Make sure the bucket is empty.

In the Buckets list, select the option next to the name of the bucket that you want to delete, and then choose Delete at the top of the page

