

Advance AWS

AWS Project 5: Working with S3

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Teacher:

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Course:

Advance AWS Cloud Computing with DevOps
Fundamentals

Institute:

Lets Upgrade

Project 5: Working with S3

Topics Covered

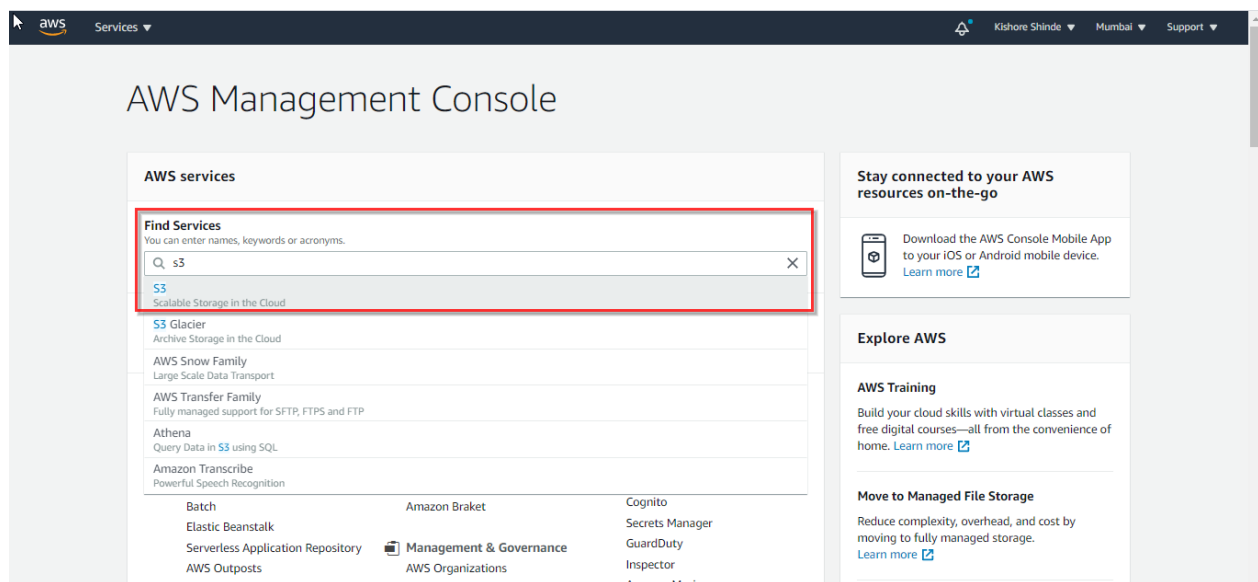
A: Working with S3

B: Static Web Hosting

C: Versioning

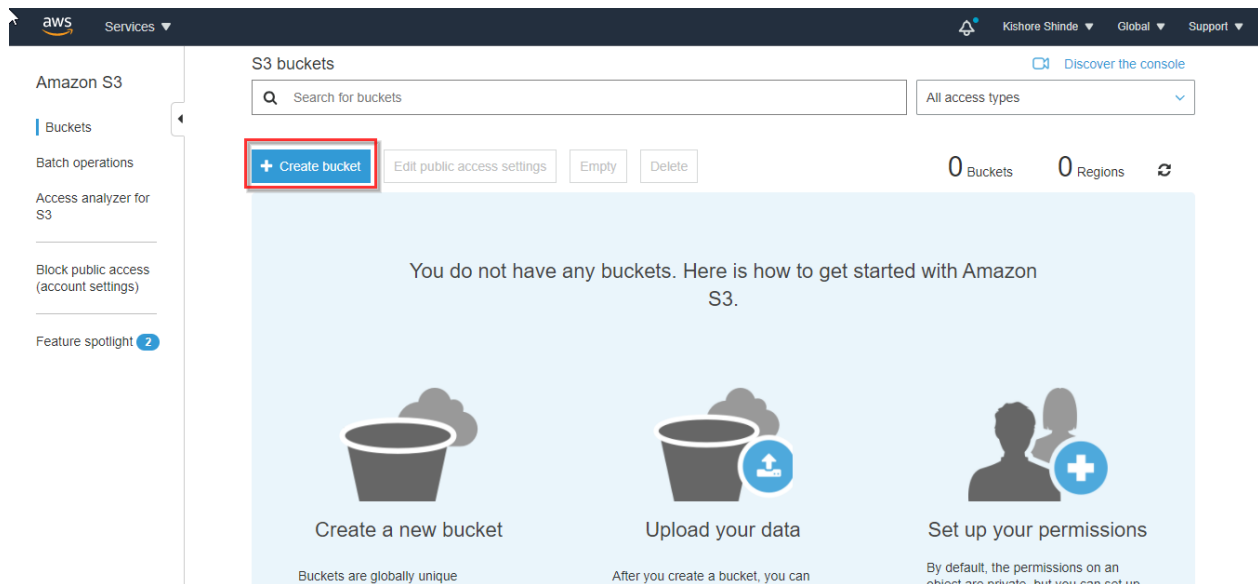
A: Working with S3

Go to AWS Management Console, type S3



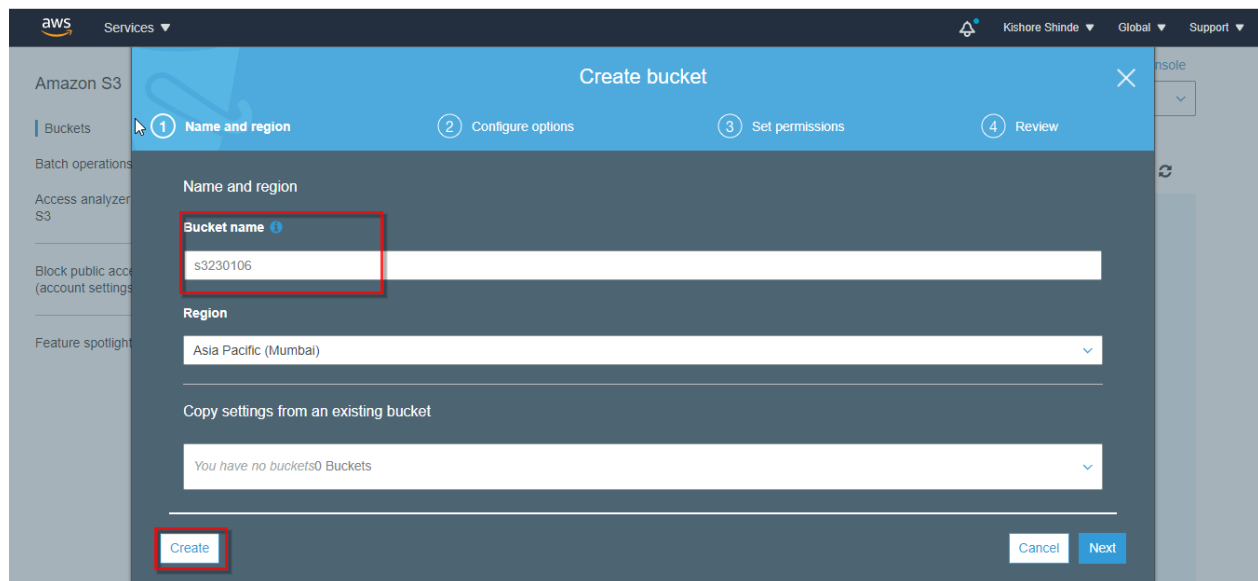
Select S3(Scalable Storage in the Cloud).

You will be able to see the S3 buckets dashboard.



For creating new bucket, click on Create bucket.

Create bucket wizard will start.

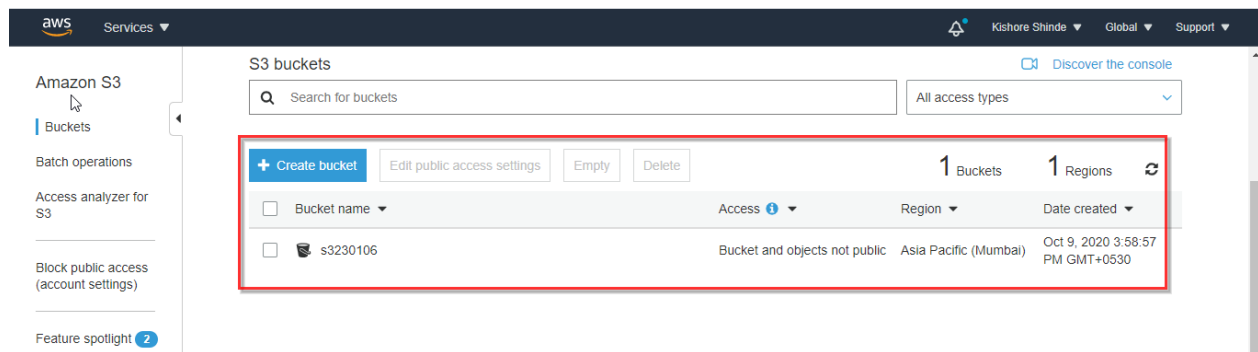


Give the bucket a unique name. An S3 bucket name is universally unique, and the namespaces is shared by all AWS accounts. This means the bucket name created will not be taken by any other AWS account, unless you delete the bucket e.g. *s3230106*.

Select the Region or let it be default. e.g. *Asia Pacific (Mumbai)*

Note: To optimize latency, minimize cost or address regulatory requirements choose any region that is geographically close to you.

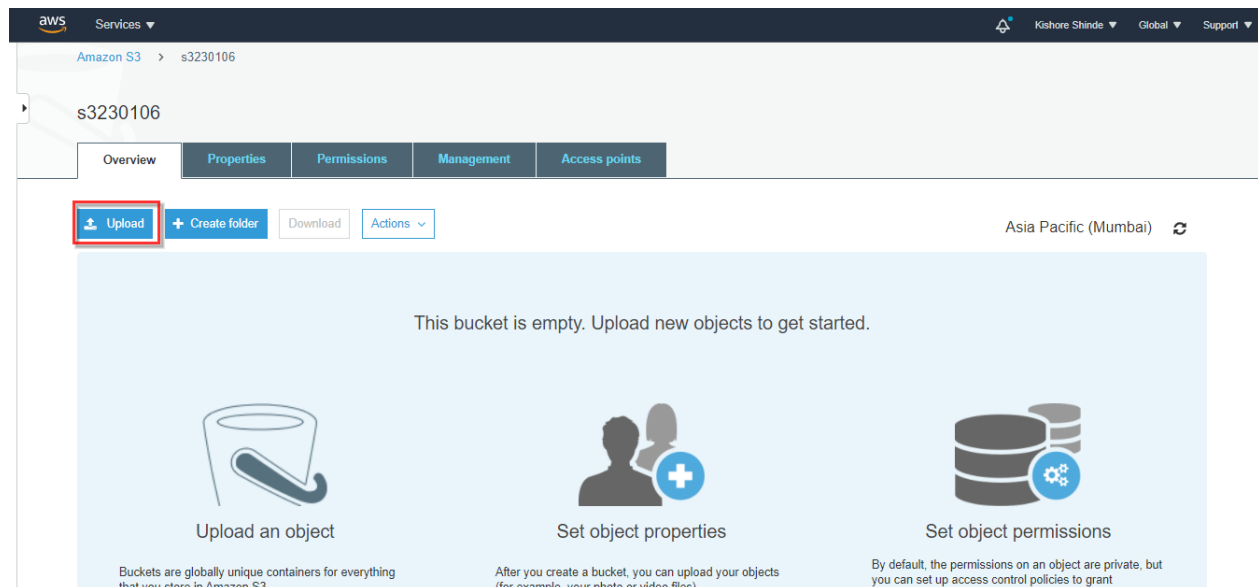
Click on Create.



You will be taken back to S3 bucket dashboard and will see the newly created bucket.

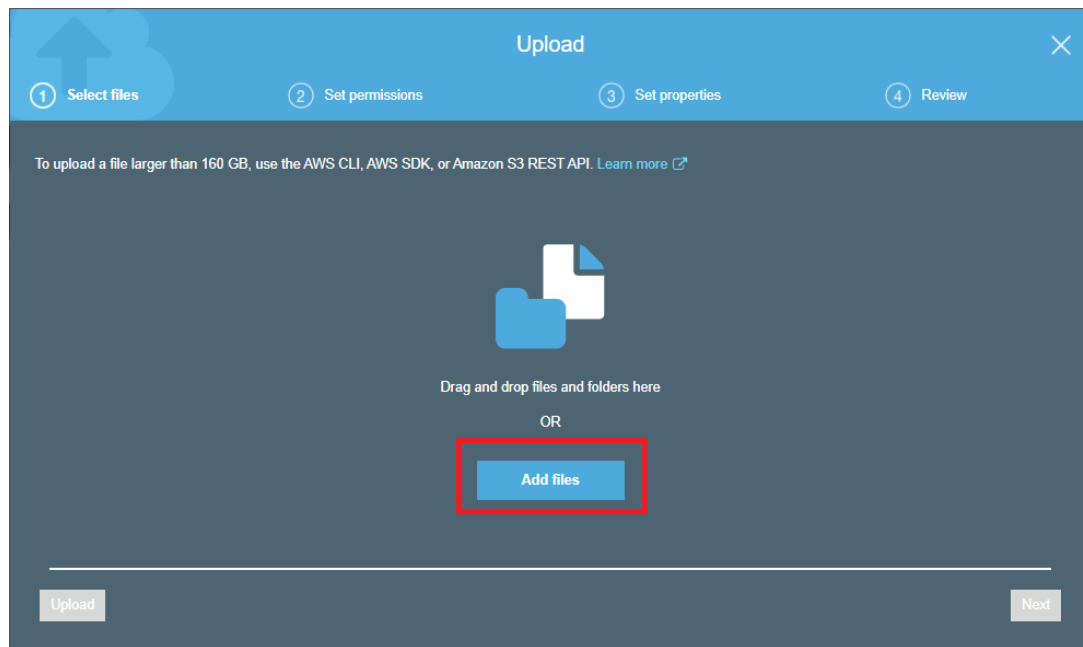
e.g. *s3230106*.

Click on the created bucket to go into the bucket.

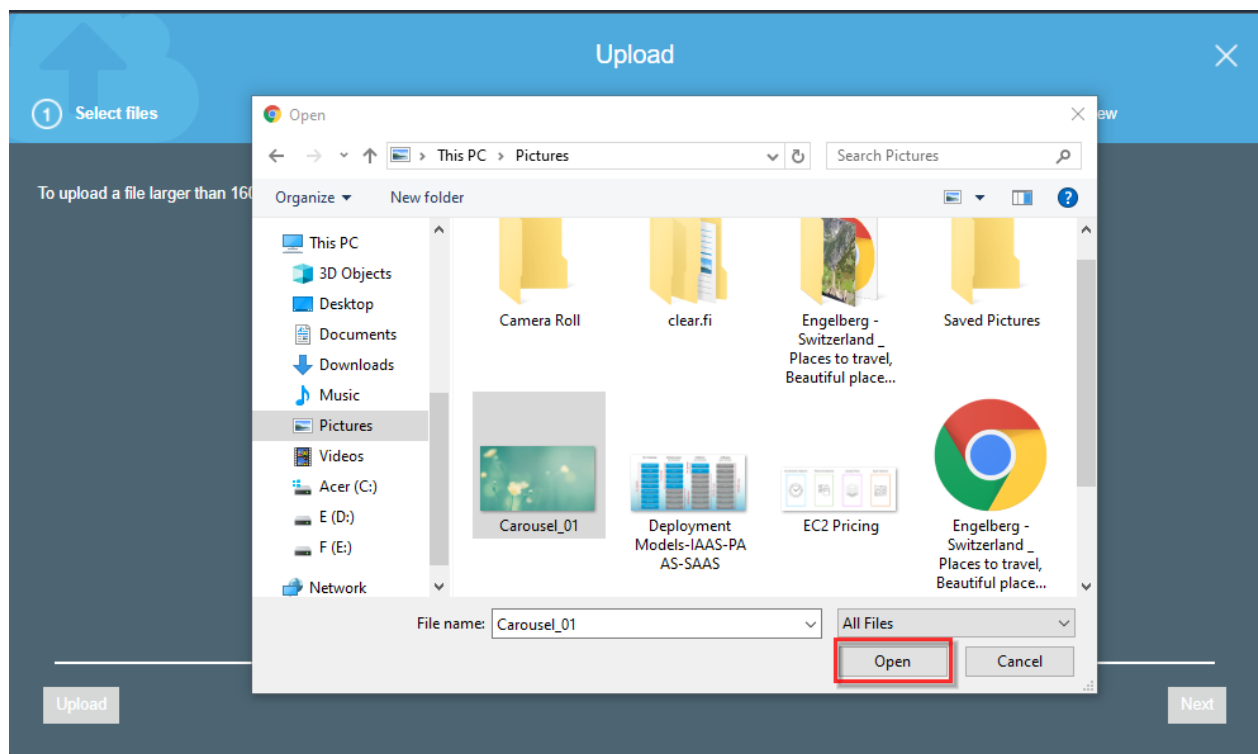


You can see the list of files that you have uploaded. Now it is blank.

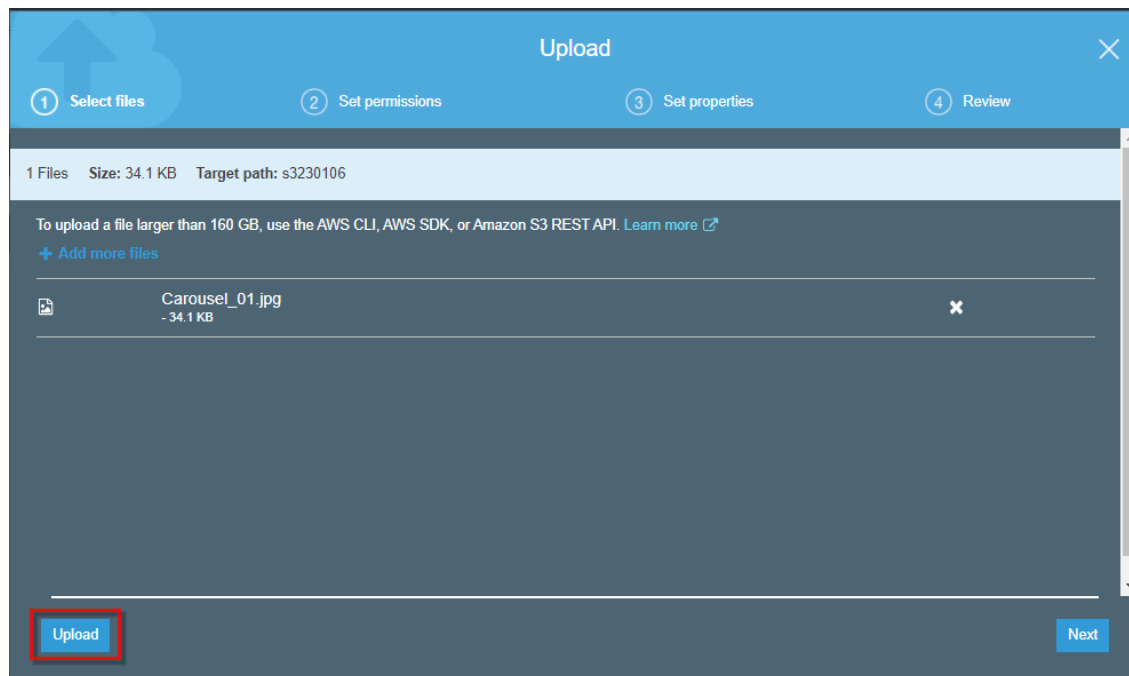
Click on Upload to upload the files in bucket.



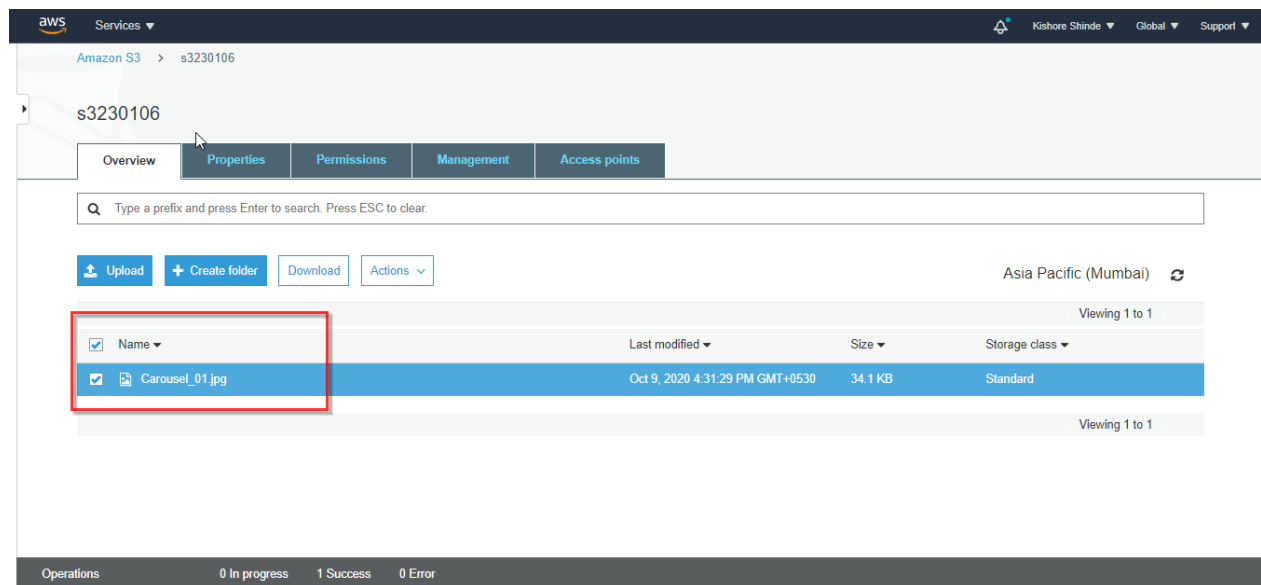
Click on Add files.



Select any file (e.g. image file etc.) & Click on Open.



Click on **Upload** to upload the file to bucket.



You can see the file is uploaded to the bucket.

Click on the uploaded file to open it.

The screenshot shows the AWS S3 console interface for an object named "Carousel_01.jpg". The "Properties" tab is selected. The object's metadata is displayed, including the owner's ID, the last modified date (Oct 9, 2020 4:31:29 PM GMT+0530), the Etag, storage class (Standard), server-side encryption (None), size (34.1 KB), and key (Carousel_01.jpg). The "Object URL" is highlighted with a red box and is https://s3230106.s3.ap-south-1.amazonaws.com/Carousel_01.jpg.

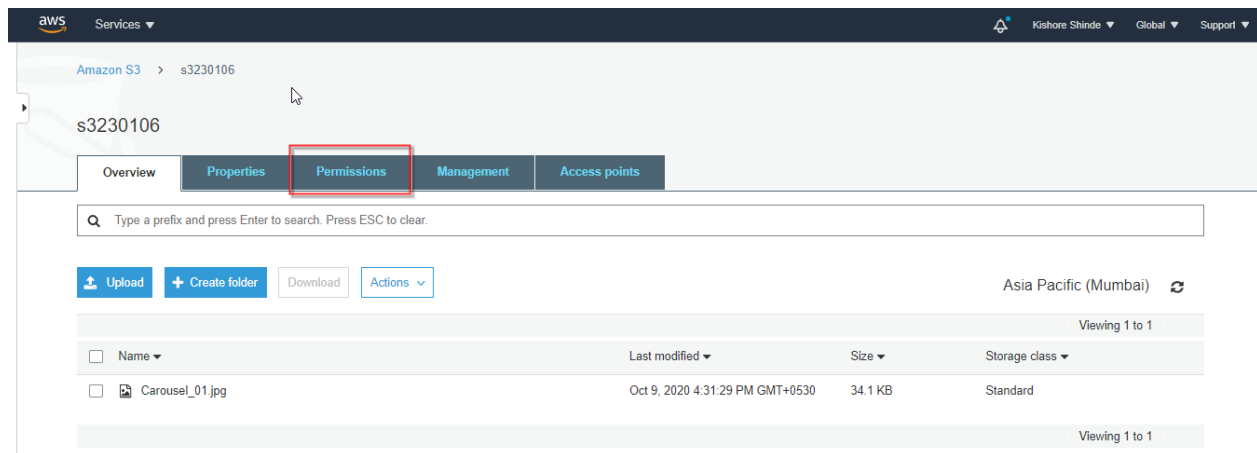
Copy the Object URL and paste it in any internet browser.

The screenshot shows a web browser window with the address bar displaying the URL https://s3230106.s3.ap-south-1.amazonaws.com/Carousel_01.jpg. The page content shows an error message: "This XML file does not appear to have any style information associated with it. The document tree is shown below." Below this message, the XML error details are displayed, with the code "AccessDenied" highlighted by a red box.

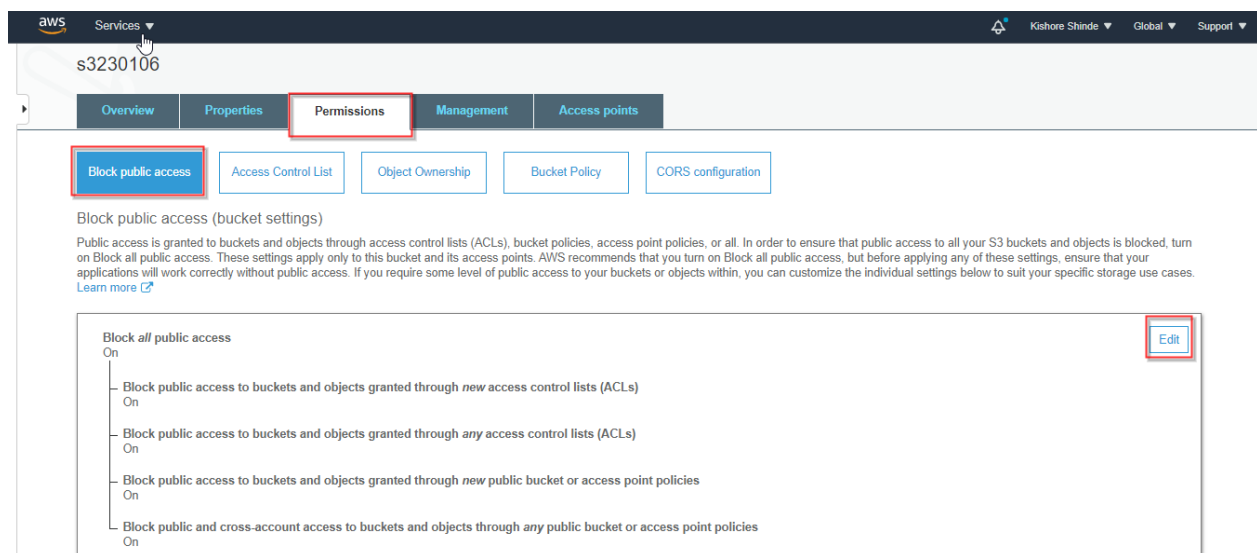
```
<?xml version="1.0" encoding="UTF-8" ?>
<Error>
  <Code>AccessDenied</Code>
  <Message>Access Denied</Message>
  <RequestId>22A91ED9FAC979E5</RequestId>
  <HostId>NJg38Z3fgtwQSV7egqATdqpdpJnhCvUI6hSQJ9Ukp11EVz980nmVXiLgg8wy7T1uwWrP4kFwF9M=</HostId>
</Error>
```

You will get **Access Denied** message because by default the content in the S3 bucket is private. To access the content, we will need to make it public.

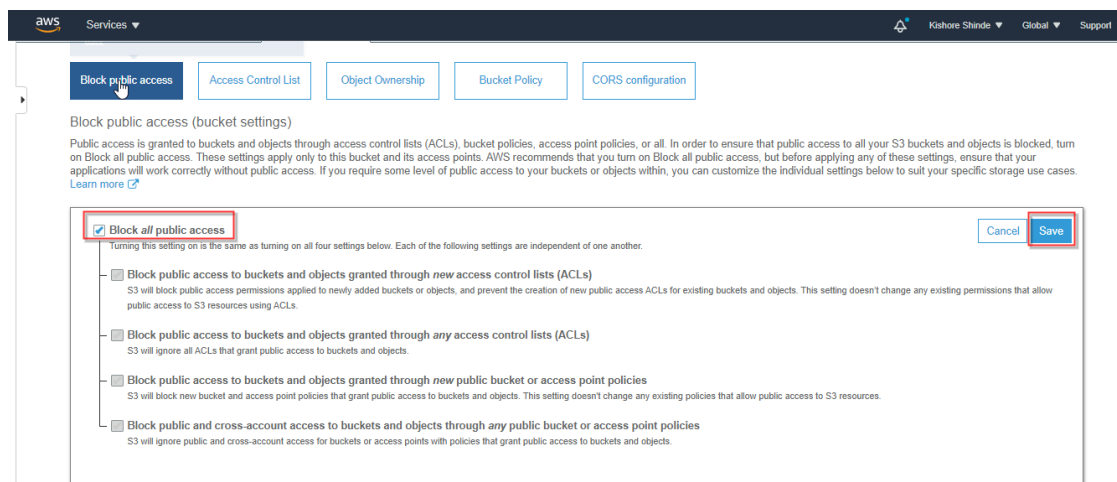
For doing that go inside your bucket.



In the Permissions Tab, by default Block Public access is selected.

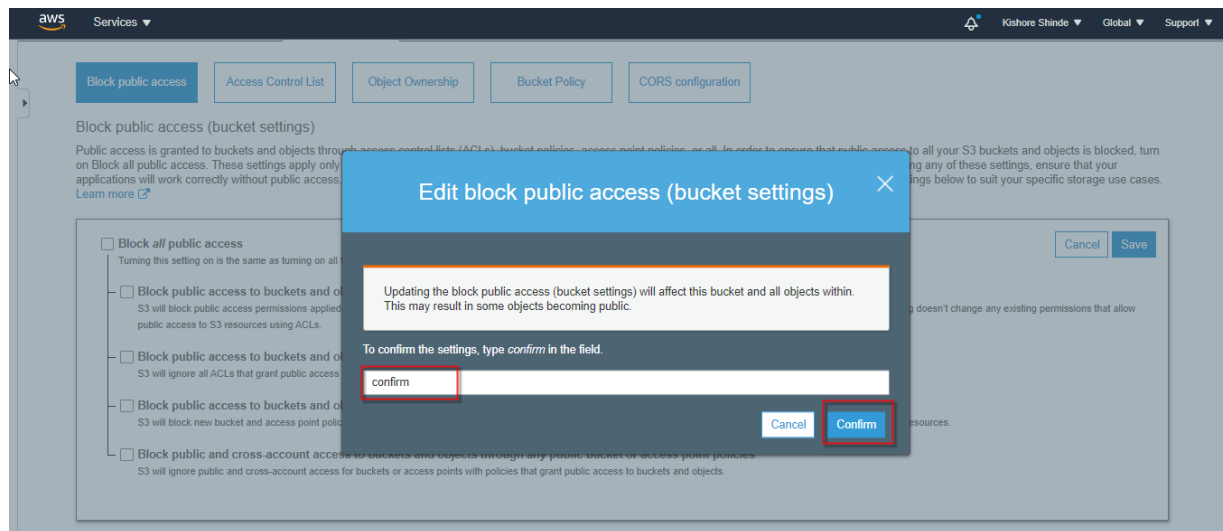


Click on Edit on the right side.



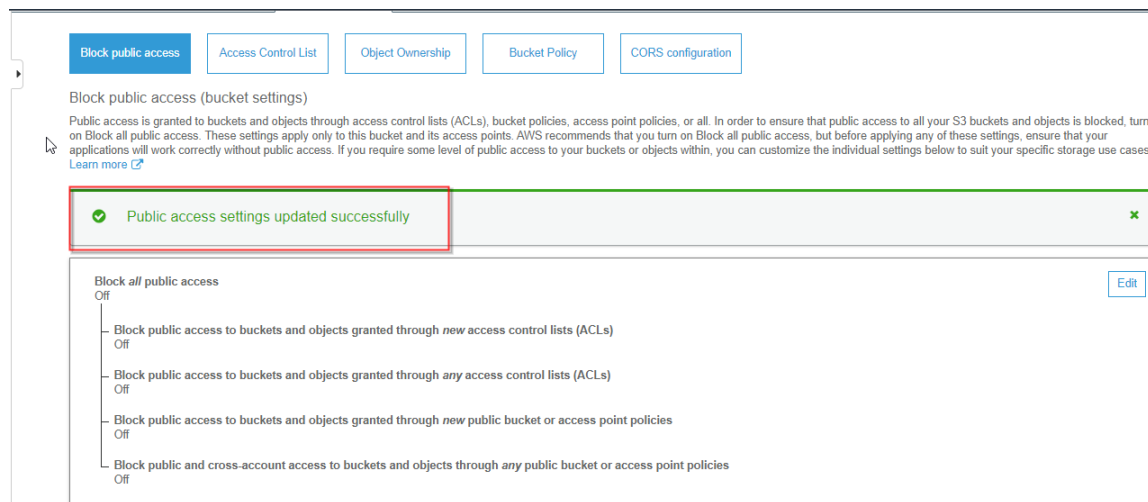
Uncheck **Block all public access** and click on **Save**.

You will be asked to confirm the changes.

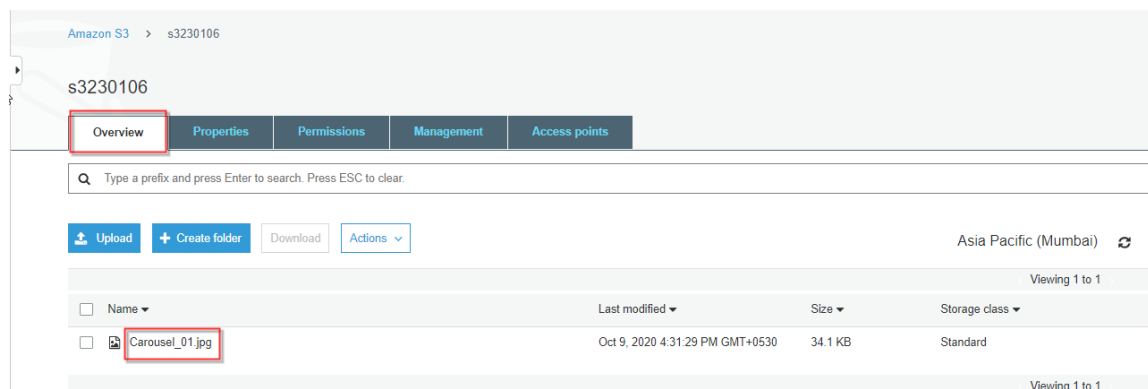


Type confirm & Click on **Confirm**.

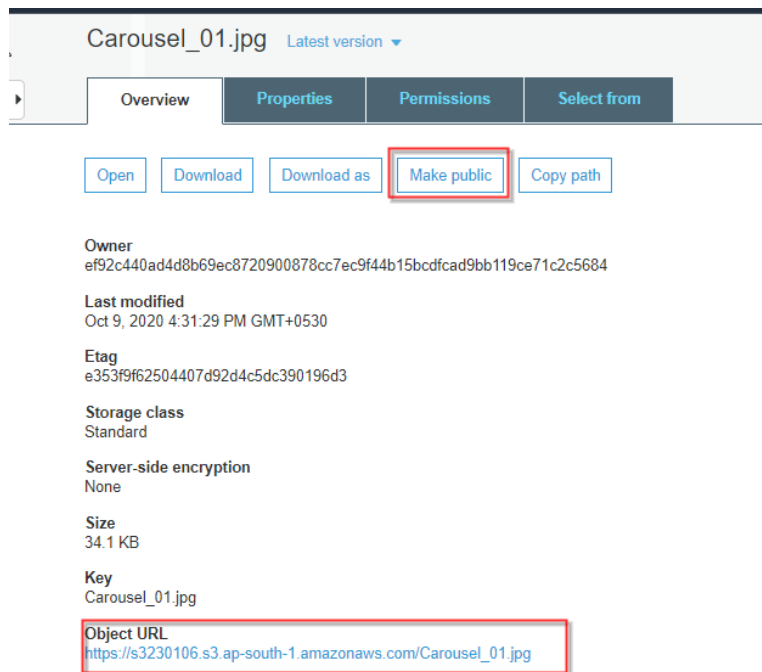
You will see a message **Public access settings updated successfully**.



Next navigate to Overview Tab.

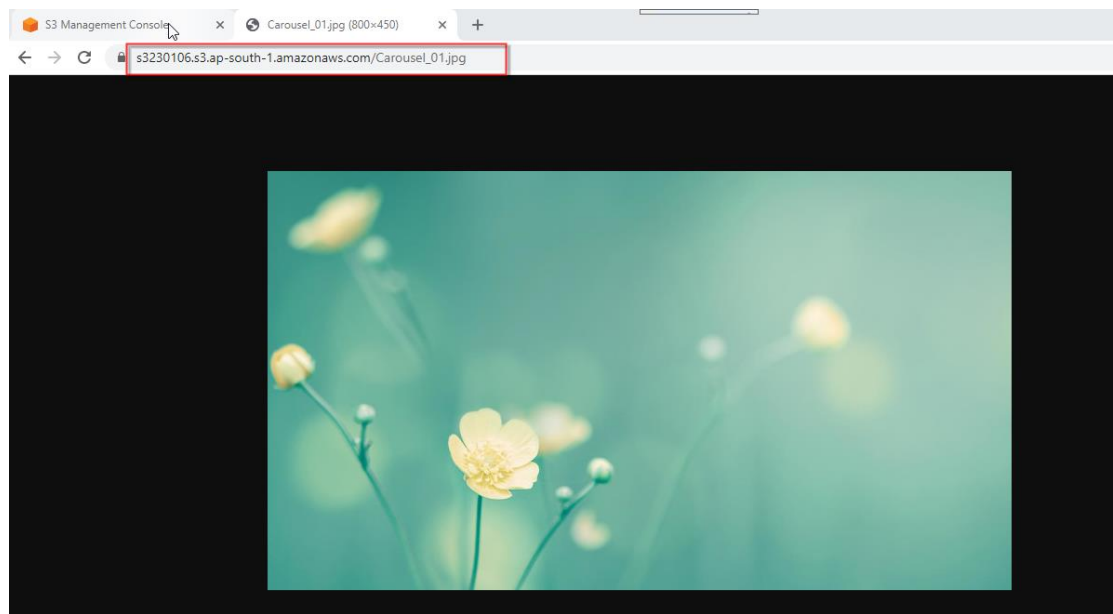


Click on the object or file. E.g. Carousel_01.jpg



Now click on **Make public**.

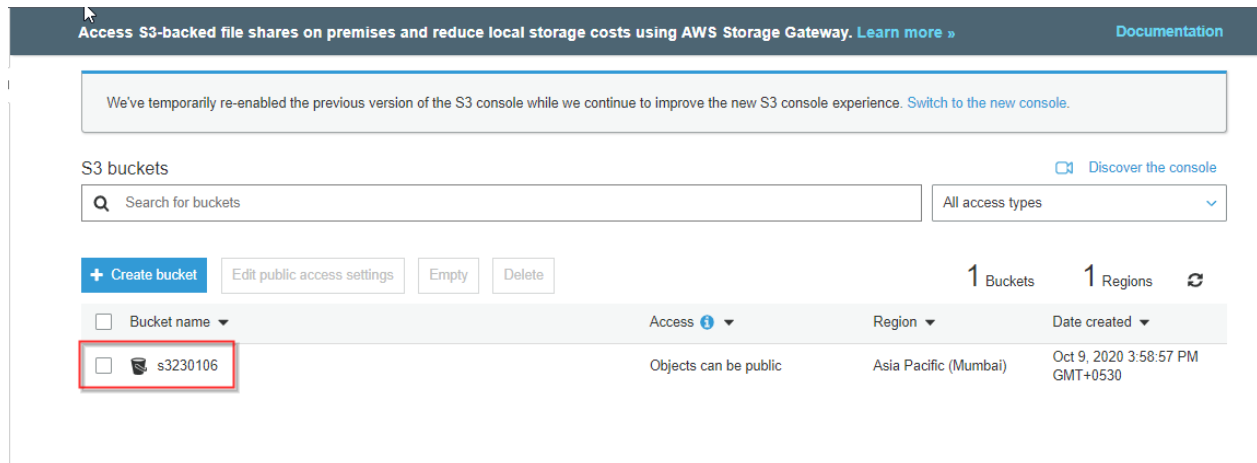
Copy the Object URL path and paste in your browser.



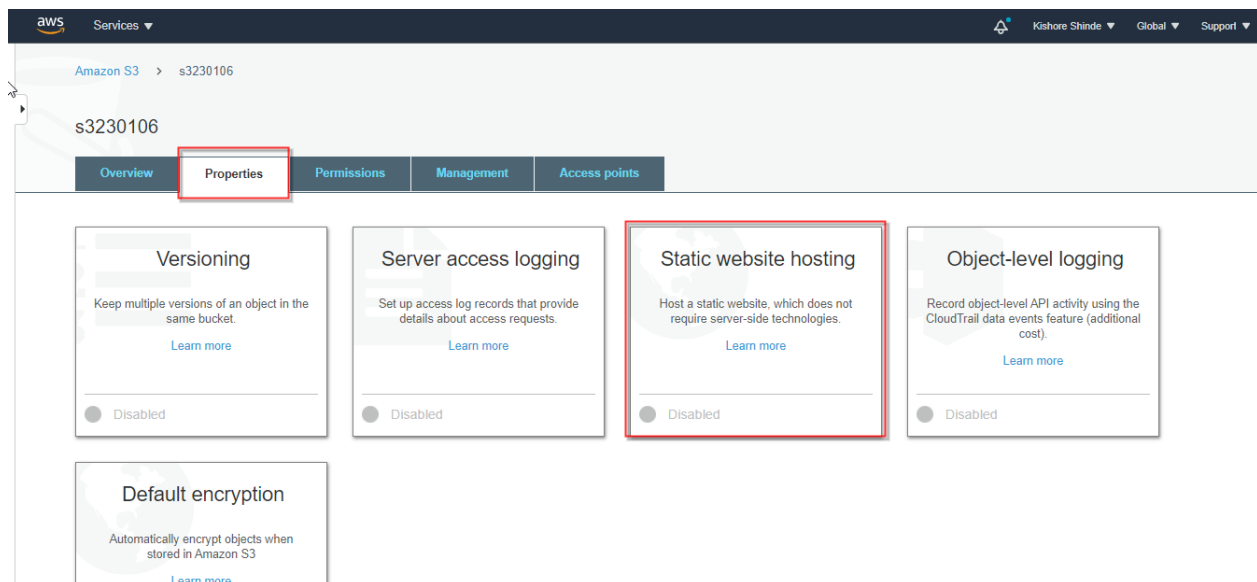
Now you can see the file.

B: Static Web Hosting

From the s3 bucket select the file.



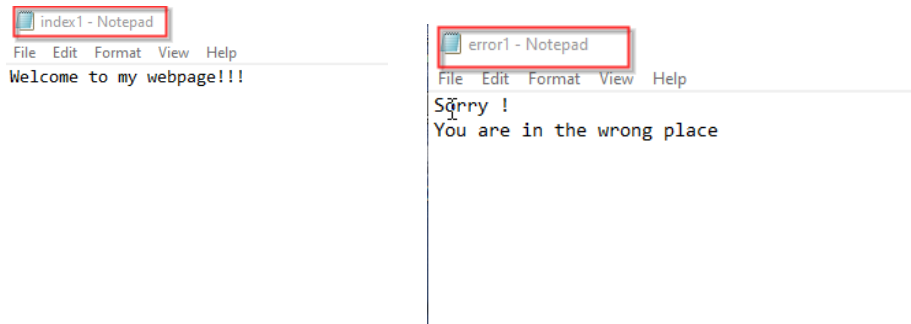
Now go into Properties.



Select **Static website hosting**.

In that select **Use this bucket to host website**.

Now create two text files (index1.txt & error.txt)

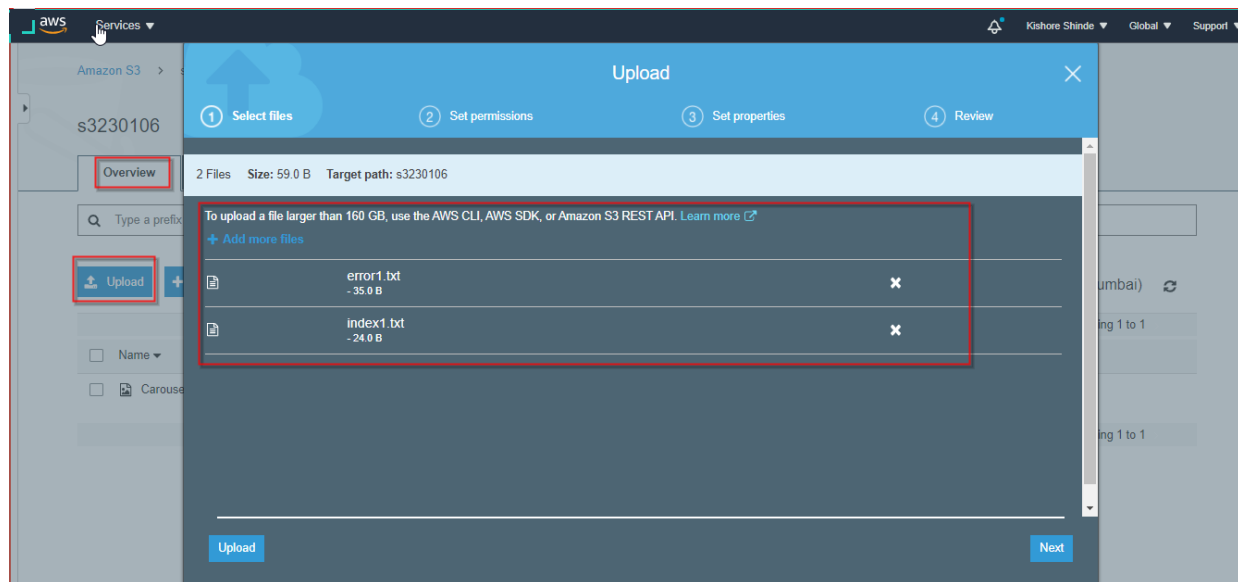


In **Index document** enter the file name index1.txt.

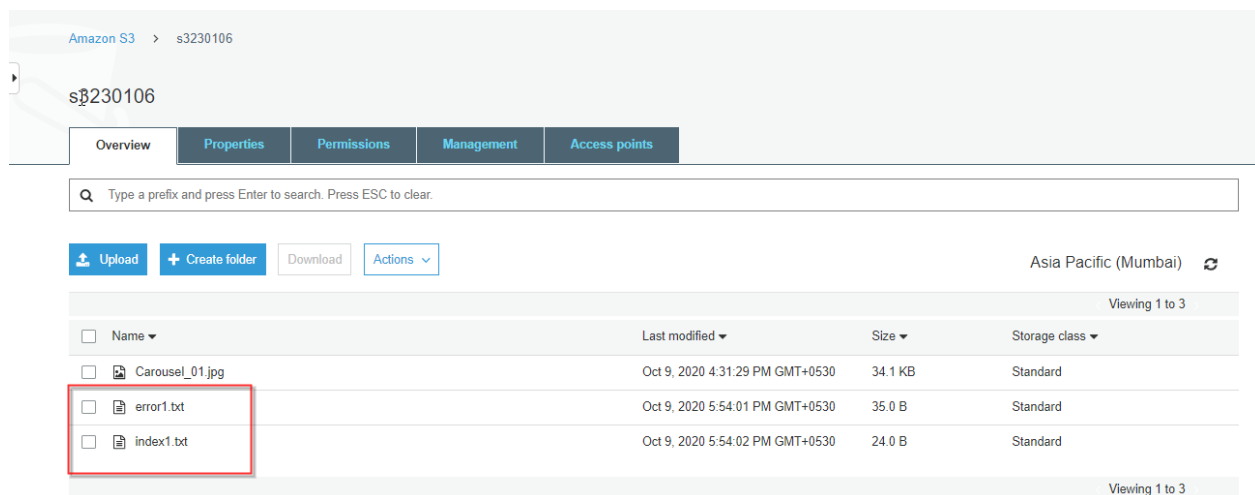
In **Error document** enter file error1.txt

Click on Save.

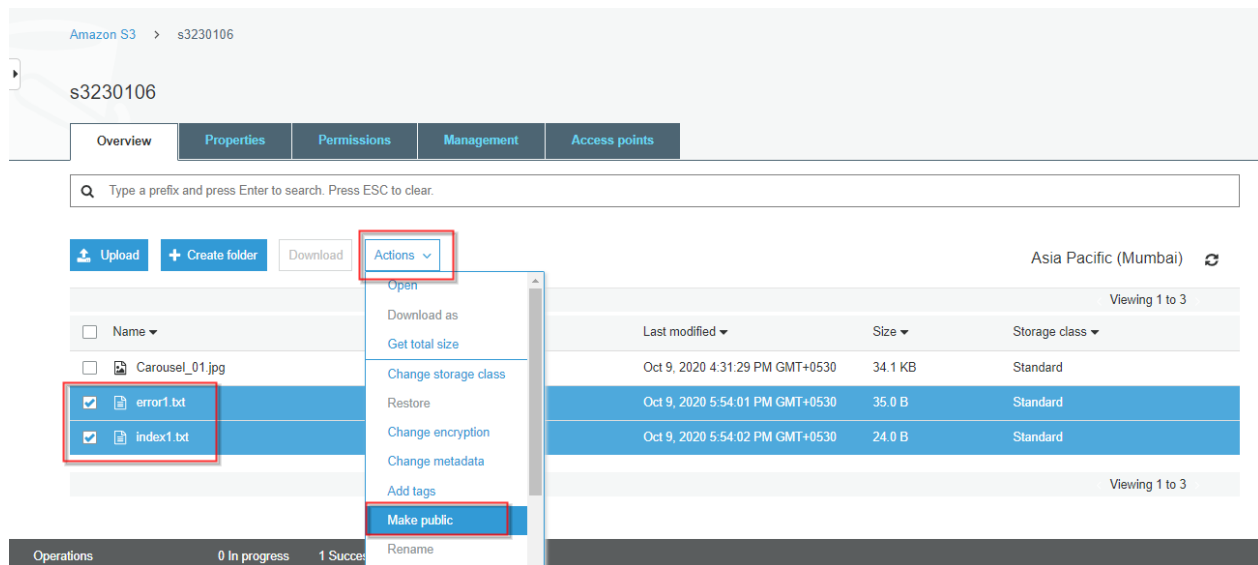
Next go into Overview Tab and upload both index1.txt and Error1.txt file.



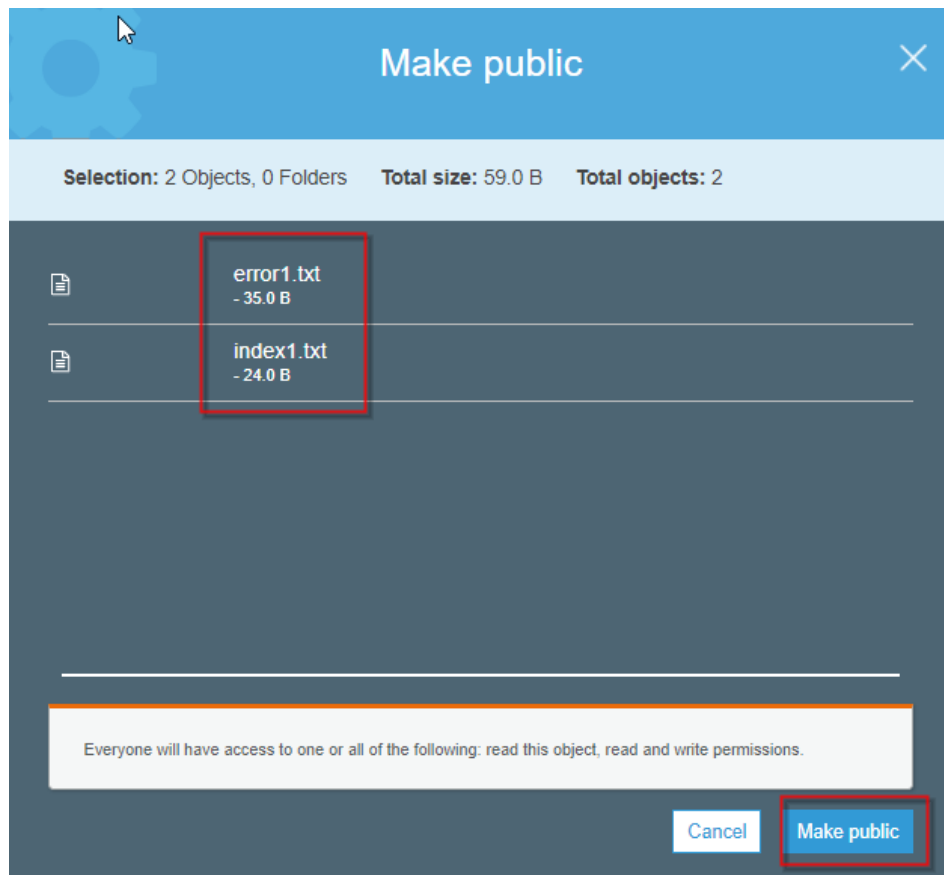
Click on upload.



Now make both files public.

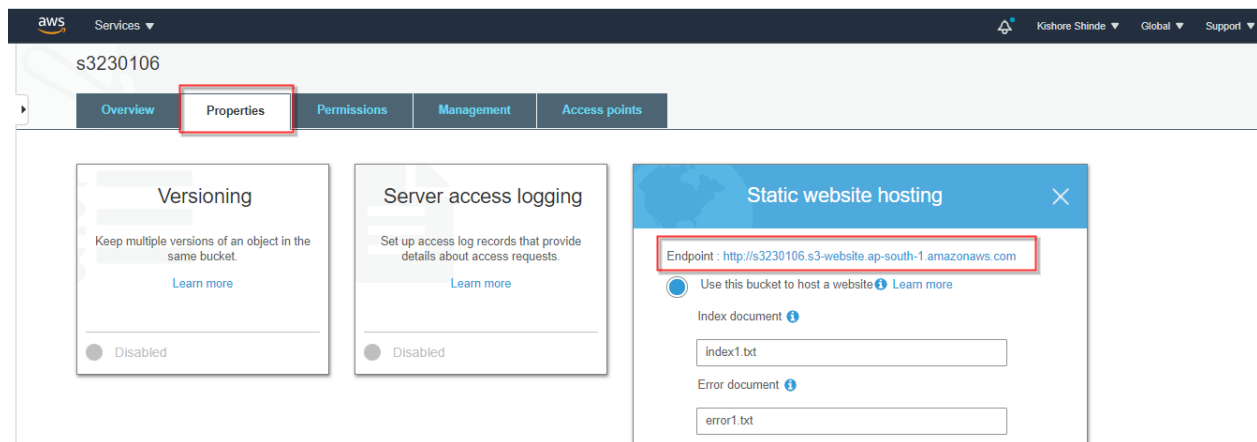


Select both the files, click on **Actions**, click **Make public**.



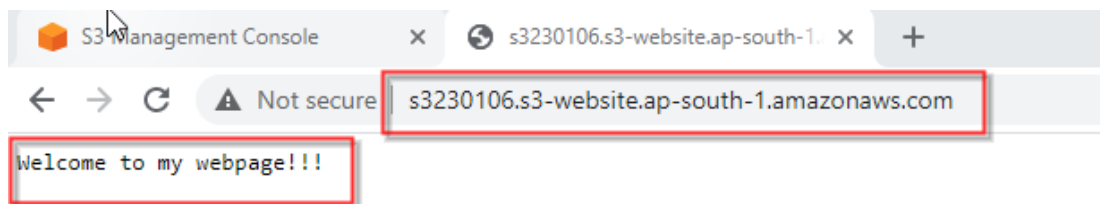
When asked confirmation, select **Make public**.

Go to the Properties tab.



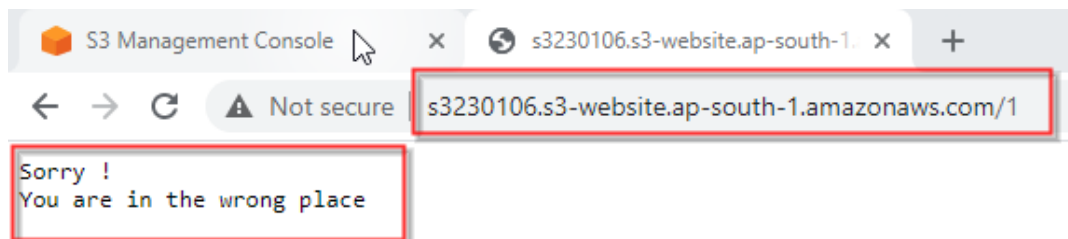
Select **Static website hosting**.

You can see the Endpoint, copy the link in it and paste it in internet browser.



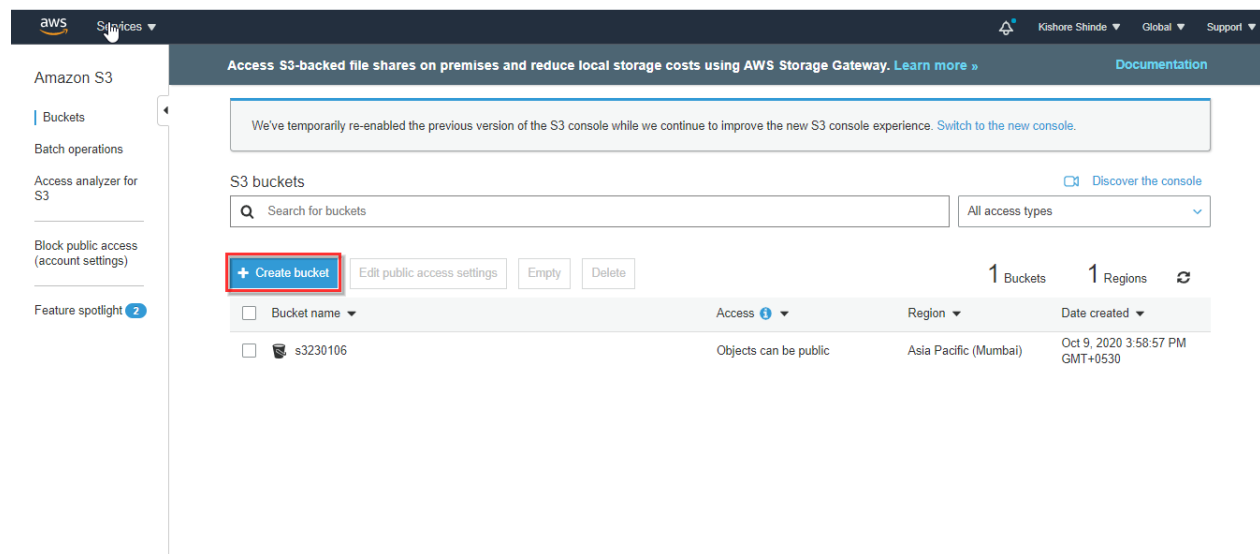
So, you can see your Static website is hosted using S3 bucket.

You can also see the error file if you enter wrong link.

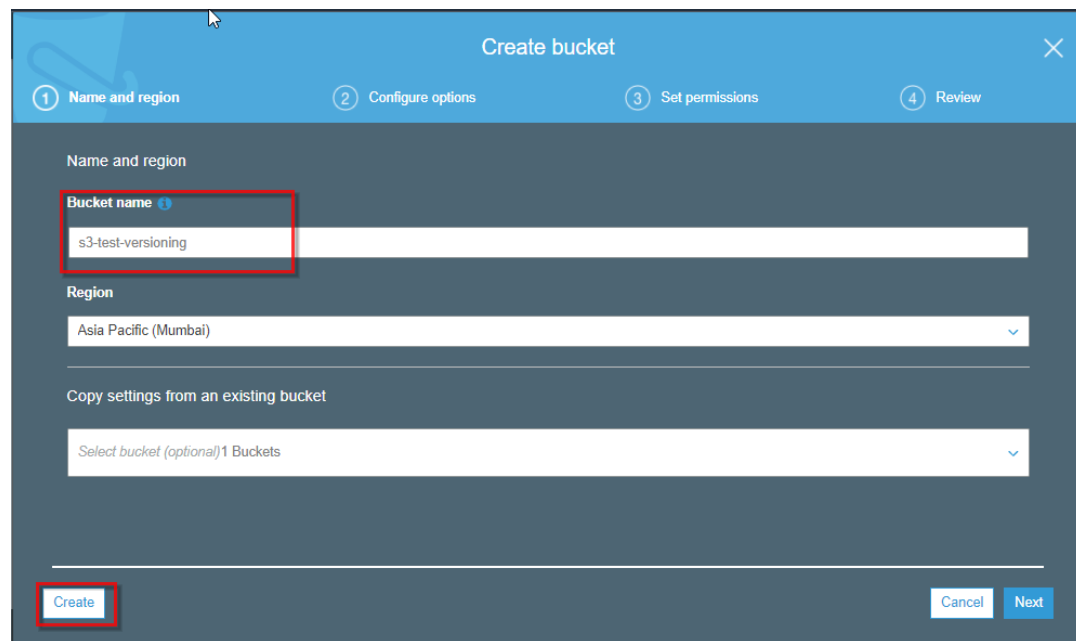


C. Versioning

Go into your Amazon S3 Console.

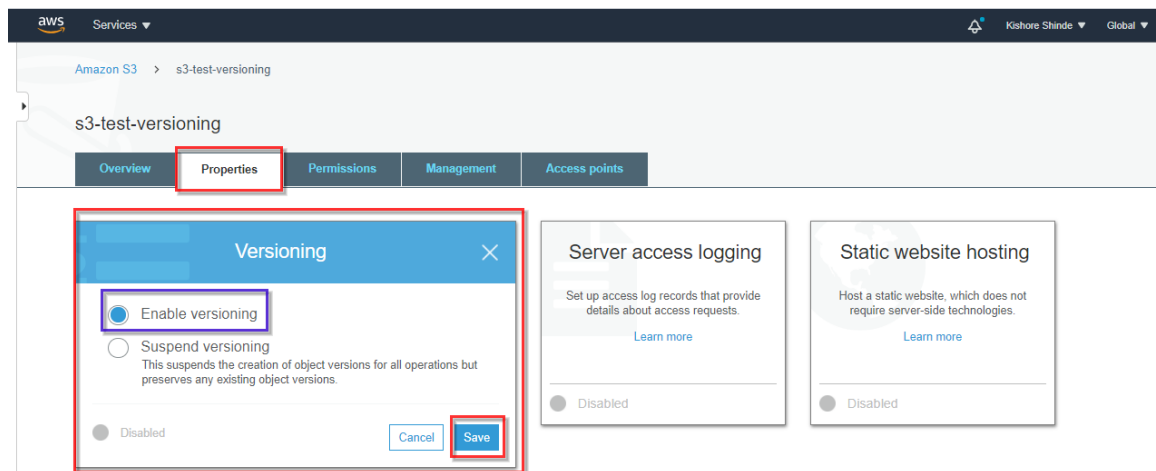


Let us first create a new bucket and Enable the versioning before adding any objects in the bucket.

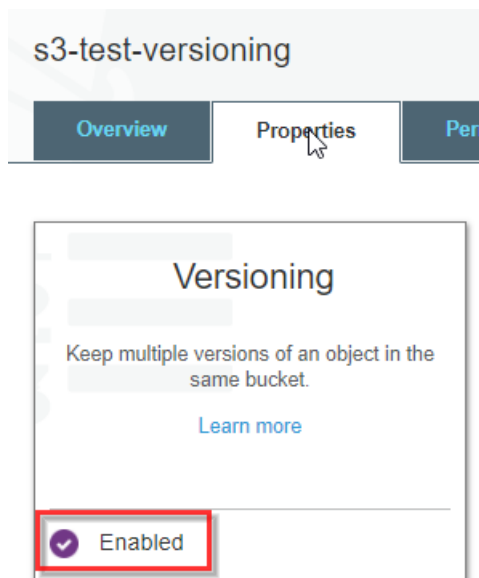


Give unique name to the bucket e.g. *s3-test-versioning* and click on **Create**.

Now select the bucket and open it. Go to the **Properties** tab and select **Versioning**.

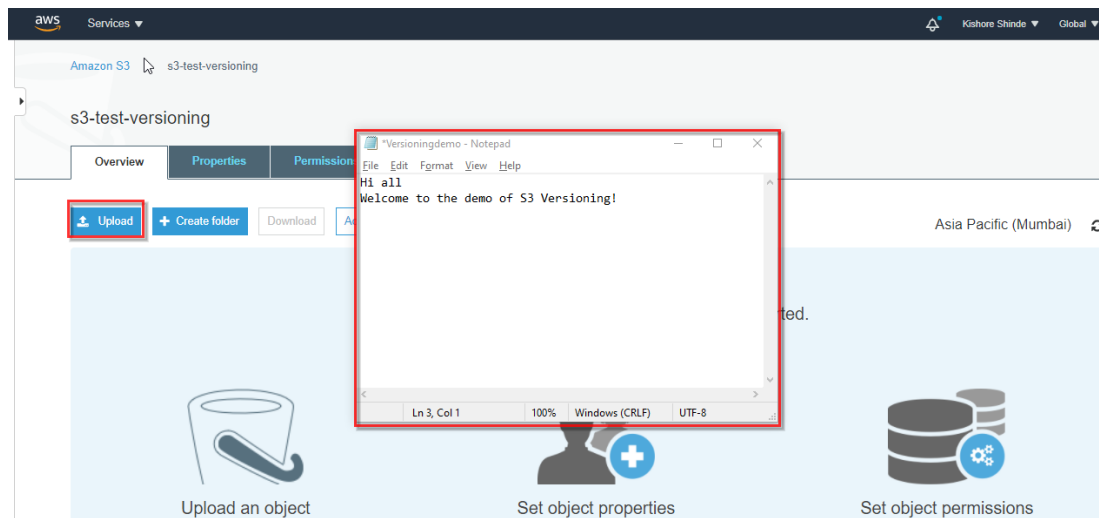


Select **Enable versioning** and click on **Save**.

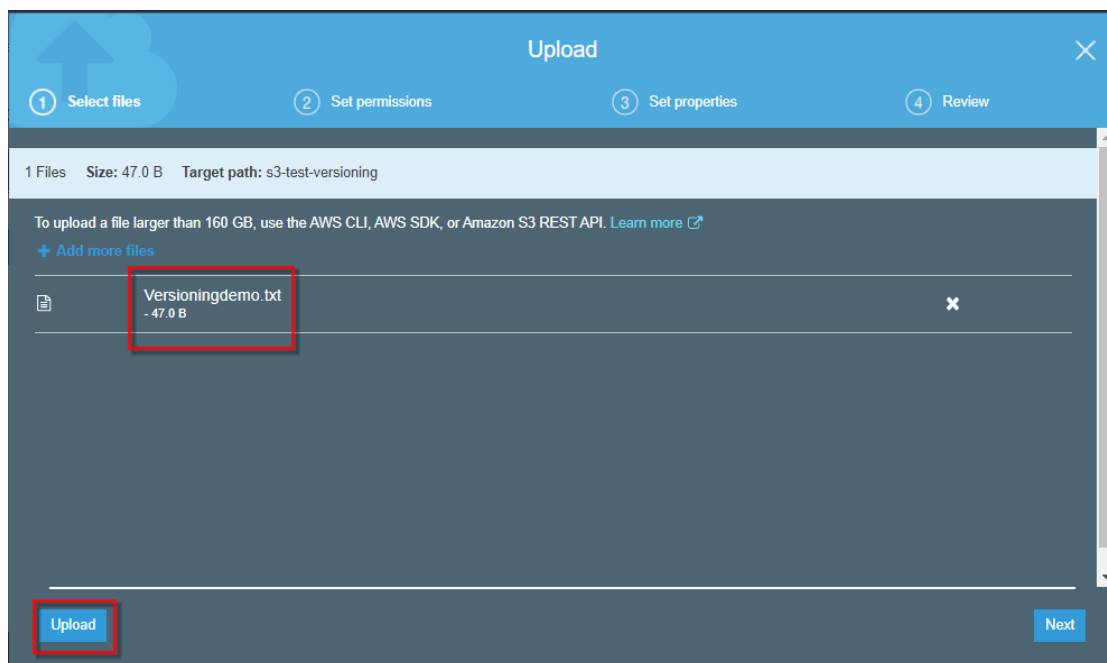


You will see Versioning is **Enabled**.

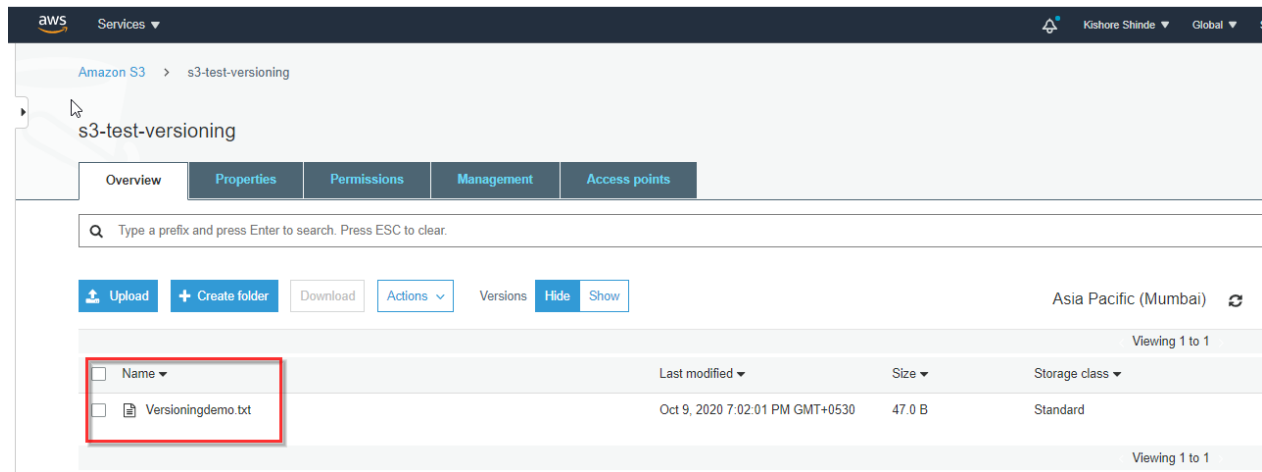
Create a text file e.g. Versioningdemo.txt.



Upload the file.

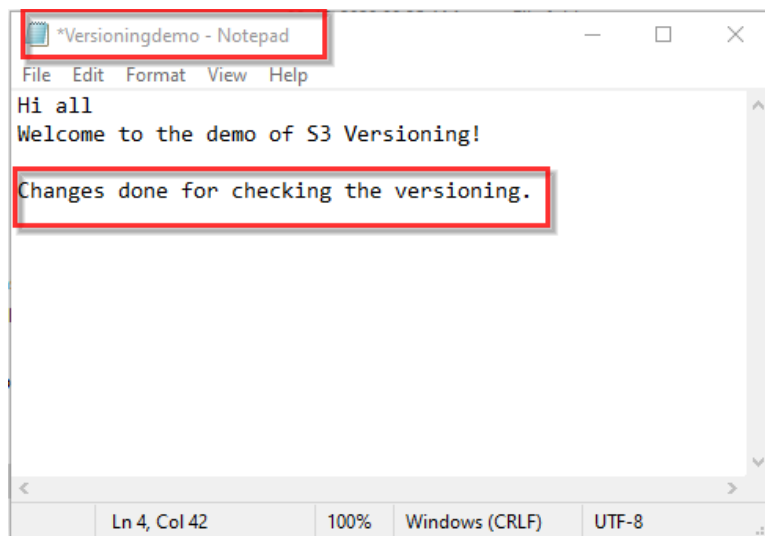


Browse & select the file. Click on **Upload**.



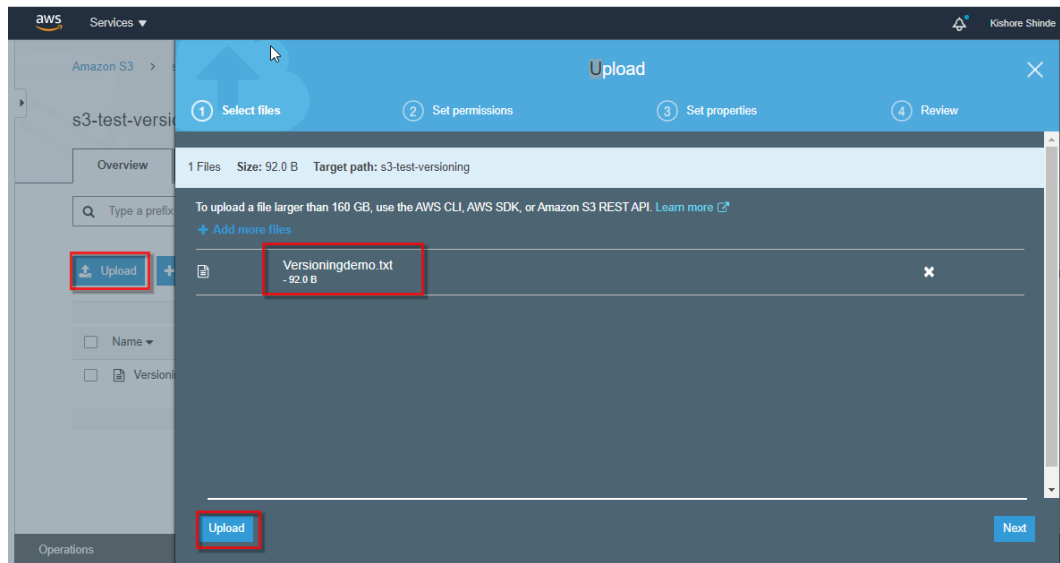
You can see the file is uploaded.

Now go to the same file which you have uploaded e.g. Versioningdemo.txt and add or update the content.

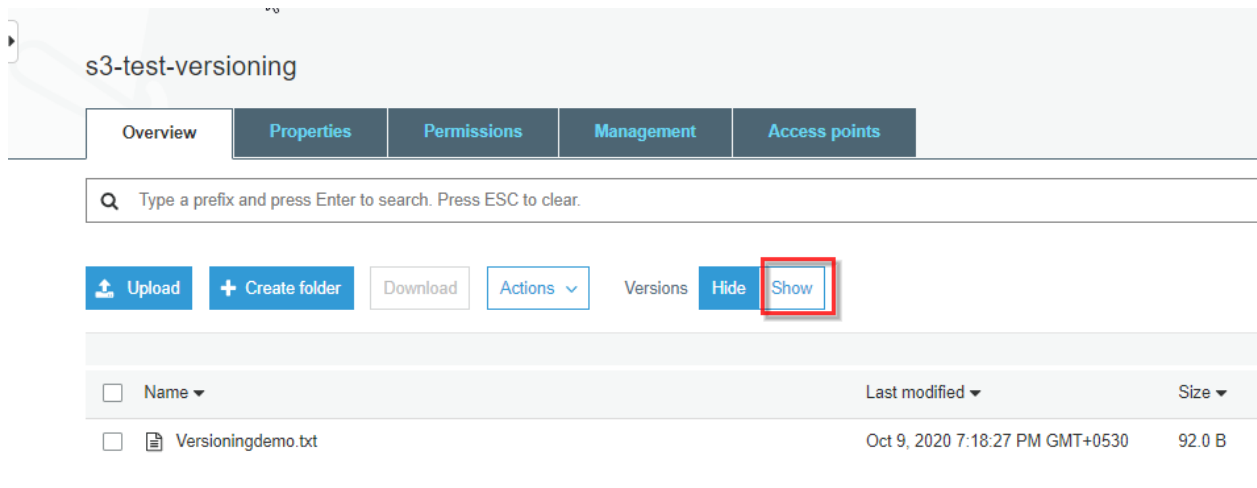


Save the file.

Note: Don't change the name



Click on Upload.



You will see you can see only one file and not two files.



Now click on Show next to Versions.

s3-test-versioning

Overview Properties Permissions Management Access points

Q Type a prefix and press Enter to search. Press ESC to clear.

Upload Create folder Download Actions Versions Hide Show

<input type="checkbox"/>	Name	Version ID	Last modified	Size
<input type="checkbox"/>	Versioningdemo.txt		Oct 9, 2020 7:18:27 PM	
<input type="checkbox"/>	 Oct 9, 2020 7:18:27 PM (Latest version)	QUEausU.5cUlw.Pu7qAo4hSAF8t9rp4d		92.0 B
<input type="checkbox"/>	 Oct 9, 2020 7:02:01 PM	sOw0ho.Kf9VPb047bLMSOb.3976o1u...		47.0 B

You can see two versions of the file (e.g. Versioningdemo.txt) with one showing the **Latest Version**.

Now click on **Hide** next to **Versions**.

Let us check if the file is accidentally deleted how Versioning will work.

Select the file and Click on **Actions** and Click **Delete**.


s3-test-versioning

Overview Properties Permissions Management Access points

Q Type a prefix and press Enter to search. Press ESC to clear.

Upload Create folder Download Actions Versions Hide Show

☒ Name ▾

☒  Versioningdemo.txt

Restore

Change encryption

Change metadata

Add tags

Make public

Rename

Delete

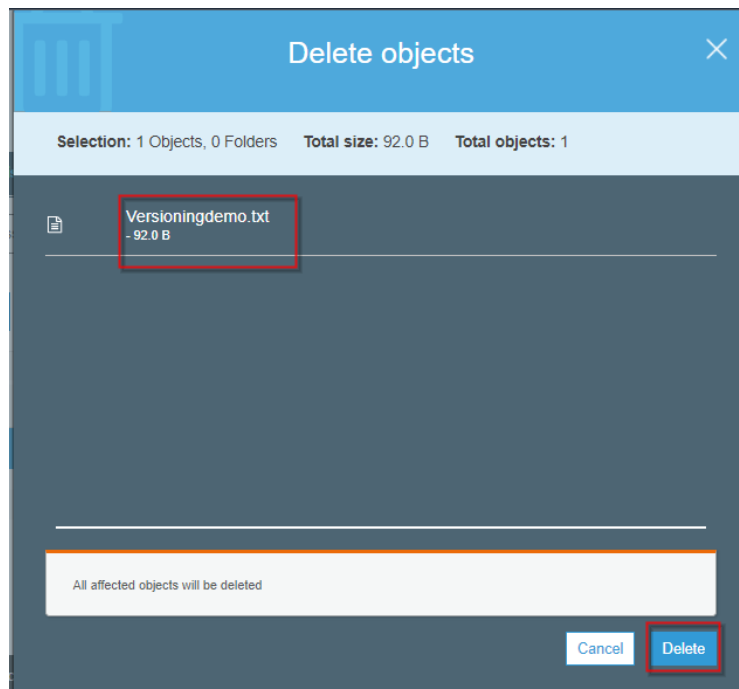
Undo delete

Copy

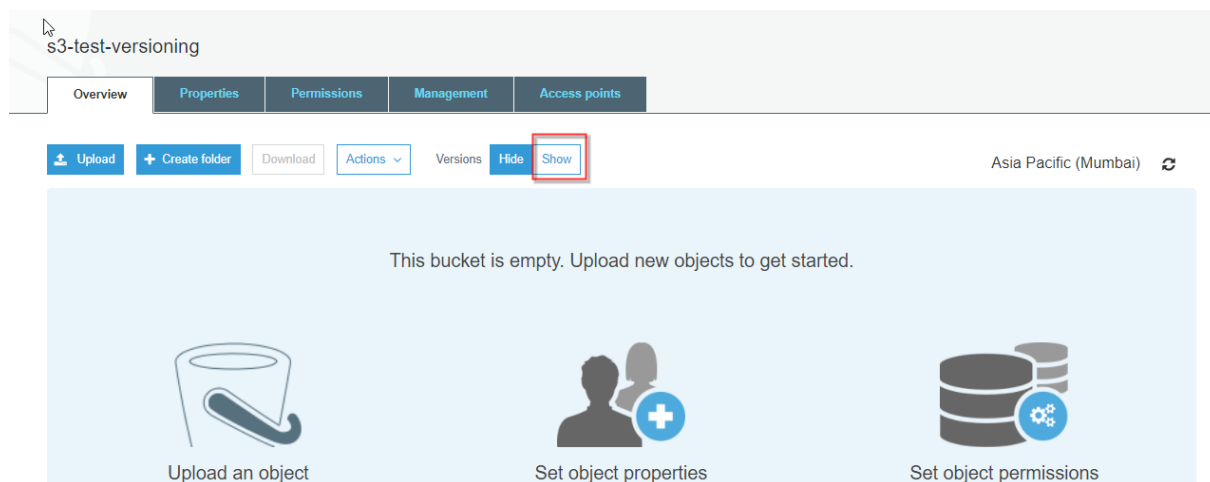
Move

Operations 0 In progress 5 Success

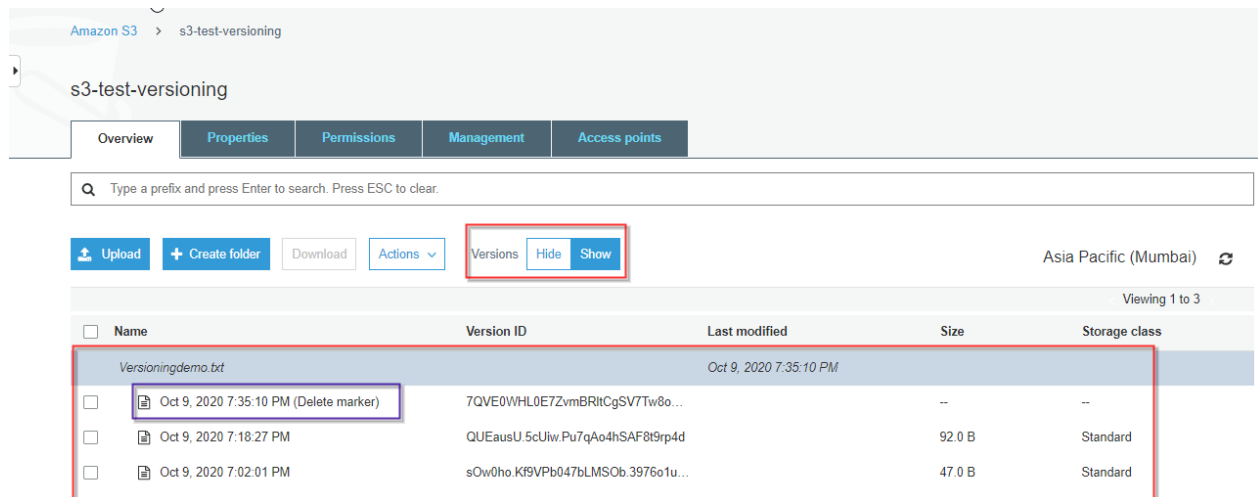
It will ask for confirmation click on **Delete**.



You can see the file is deleted and the bucket is empty.



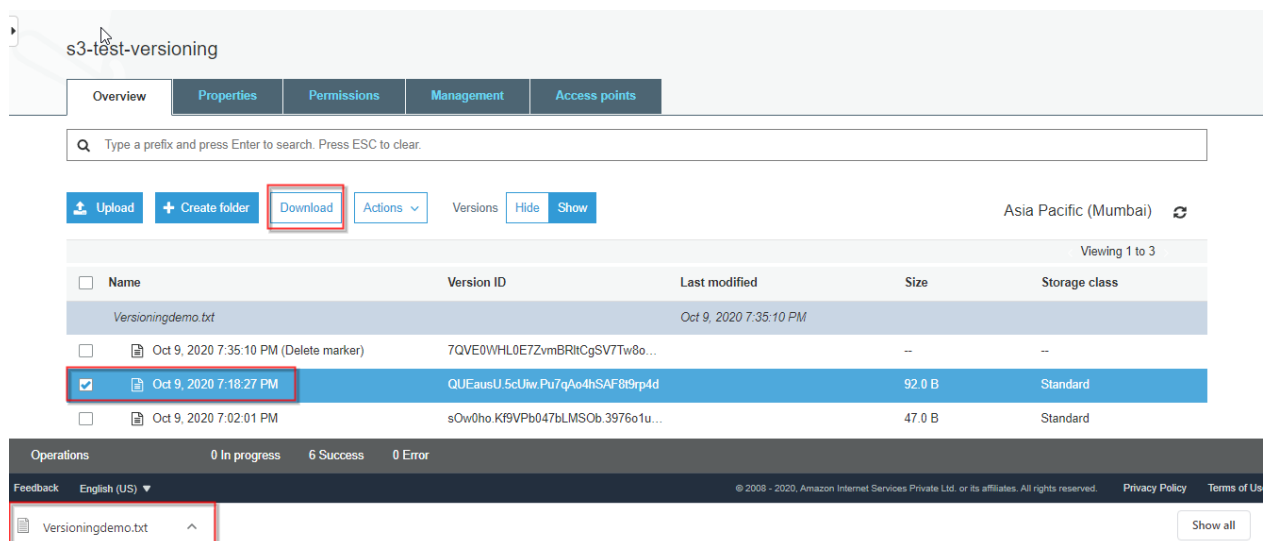
Click on **Show** next to **Versions**.



You will be able to see the file with all the versions and the file deleted with **Delete marker**.

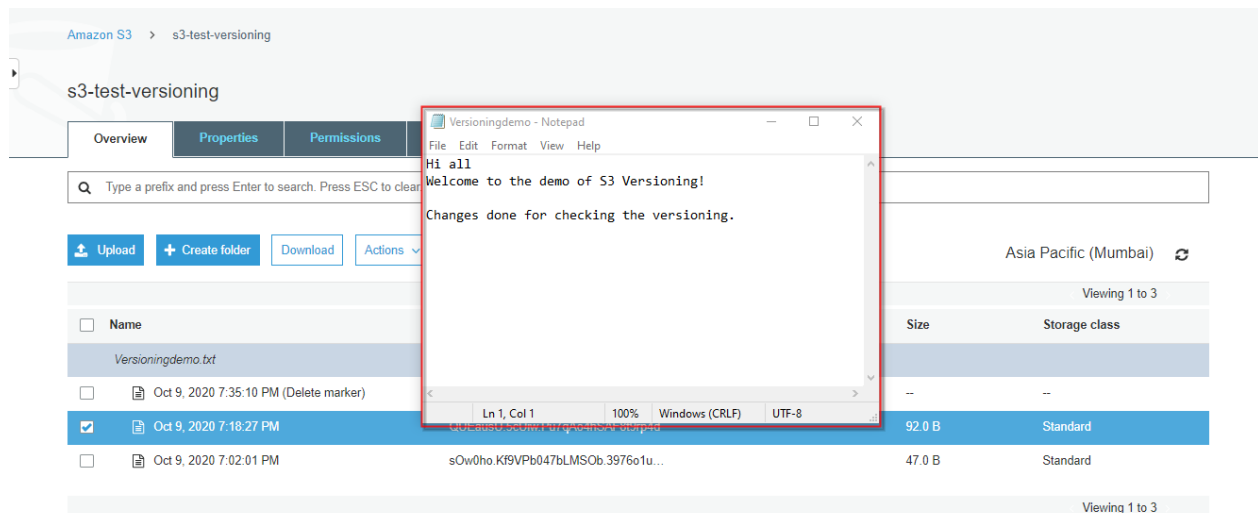
Note: When a file is deleted, it is not completely deleted only a **Delete Marker** is set.

If you want a backup of deleted file. Select the latest file.



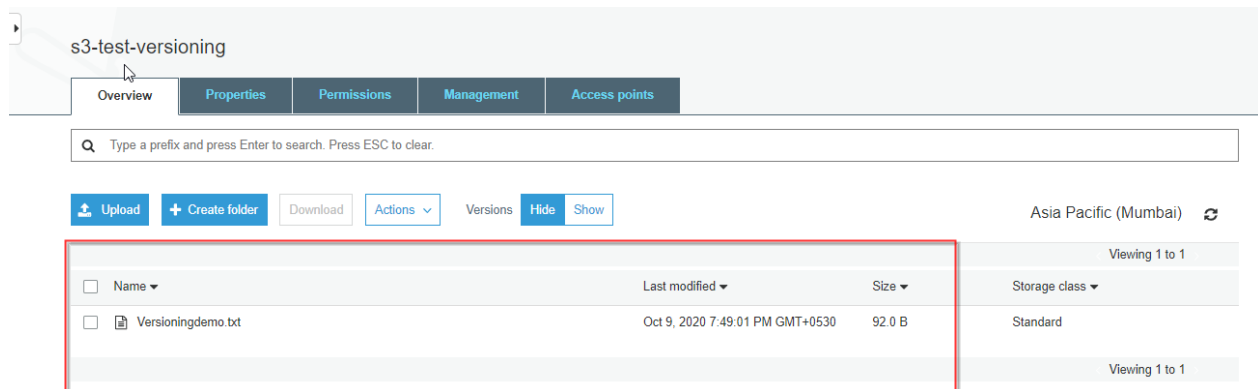
Click on **Download**.

Now open the downloaded file.



You will be able to see all the latest update you have done to the file before it was deleted.

You can again upload the document.



It will show the document that you uploaded again.

Now Click on **Versions** -> **Show**.

s3-test-versioning

Overview Properties Permissions Management Access points

Q Type a prefix and press Enter to search. Press ESC to clear.

Upload Create folder Download Actions Versions Hide Show Asia Pacific (Mumbai) Refresh

Viewing 1 to 4

<input type="checkbox"/>	Name	Version ID	Last modified	Size	Storage class
<input type="checkbox"/>	Versioningdemo.txt		Oct 9, 2020 7:49:01 PM		
<input type="checkbox"/>	Oct 9, 2020 7:49:01 PM (Latest version)	eElh0ktRPzZBmcE7IP_dk_goa20rMU8X		92.0 B	Standard
<input type="checkbox"/>	Oct 9, 2020 7:35:10 PM (Delete marker)	7QVE0VHL0E7ZvmBRltCgSV7Tw8o...		--	--
<input type="checkbox"/>	Oct 9, 2020 7:18:27 PM	QUEausU.5cUlw.Pu7qAo4hSAF8t9p4d		92.0 B	Standard
<input type="checkbox"/>	Oct 9, 2020 7:02:01 PM	sOv0ho.Kf9VPb047bLMSOb.3976o1u...		47.0 B	Standard

Viewing 1 to 4

You will be able to see all the versions of the file.

- Latest version
- Delete marker
- Previous versions file as well

Note: Don't change the file name, if it is the same, the versioning will be maintained and if you change the name it will be considered a new object and separate version of that file will be maintained. If Versioning is not enabled the file will directly be deleted, Delete marker will not be placed and versions will not be maintained.

Now let us delete the buckets.

S3 buckets

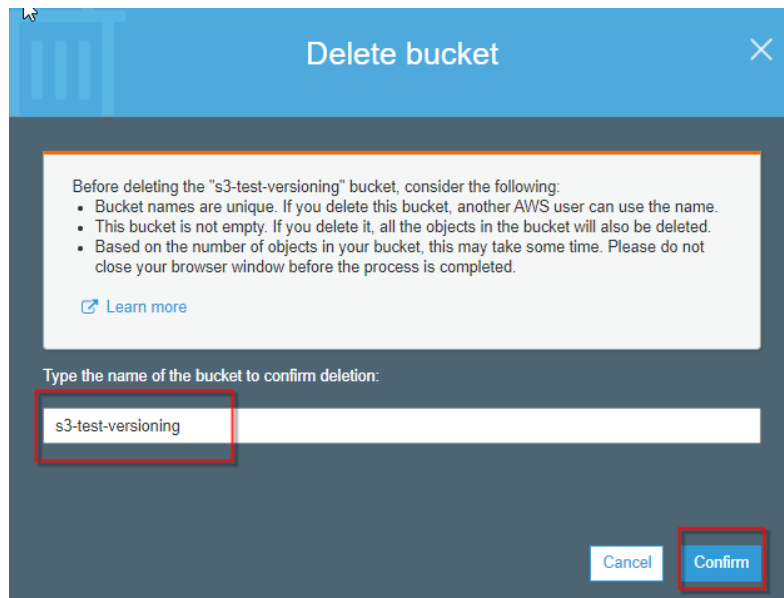
Search for buckets All access types

Create bucket Edit public access settings Empty Delete 2 Buckets 1 Regions Refresh

<input type="checkbox"/>	Bucket name	Access	Region	Date created
<input checked="" type="checkbox"/>	s3-test-versioning	Bucket and objects not public	Asia Pacific (Mumbai)	Oct 9, 2020 6:46:46 PM GMT+0530
<input type="checkbox"/>	s3230106	Objects can be public	Asia Pacific (Mumbai)	Oct 9, 2020 3:58:57 PM GMT+0530

Select the bucket and click on Delete.

It will ask for confirmation.



You will need to type the bucket name and then click on **Confirm** to delete it.

Project 5 is completed.