

CLOUD COMPUTING LABORATORY- 08 & 09

AWS ACADEMY LAB 4.2 & 5.0

Amazon Web Services

Name: Drishti.

Roll No: 1928228

Date: 16/03/2022

LAB 4.2

Aim: Create an Amazon Simple Storage Service (Amazon S3) bucket to host a static website.

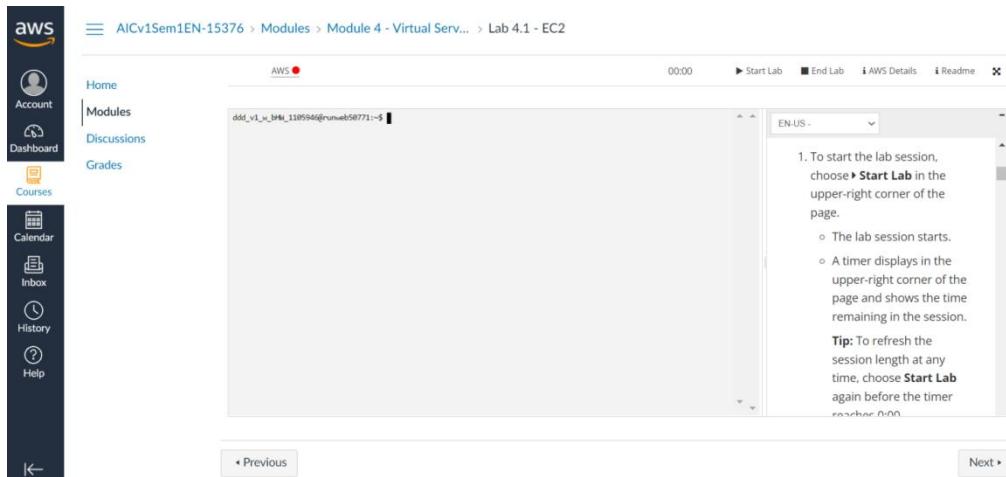
Time Duration: Approximately 1 hour 30 minutes.

Requirements: - AWS account (access to AWS console dashboard)

- Internet connection

A static website is fixed and displays the same content for each user. In contrast, a dynamic website uses advanced programming to provide user interaction and display different content depending on the user's selections.

1. If we use AWS academy to log in, we go to LAB4.2 and click on start lab, allowing the light beside AWS to turn green, before clicking on AWS on the left side, which automatically displays the AWS console dashboard.



2. We go to <https://aws.amazon.com>, click on 'Sign in to Console', and login with our root account.

The screenshot shows the AWS sign-in page. The 'Root user' option is selected, and the 'Root user email address' field contains '1928228@kiit.ac.in'. A 'Next' button is at the bottom.



Create an S3 bucket

3. We are directed to our "AWS Management Console," where we click on "Services" menu and locate the "Storage" services and select "S3". Select Create bucket on the right side of the page. For Bucket name, enter a unique Domain Name System (DNS)-compliant name for your new bucket. (*I chose dris228shti following all the naming guidelines*)

■ *Follow these naming guidelines:*

- ◆ *The name must be unique across all existing bucket names in Amazon S3.*
- ◆ *The name must only contain lowercase characters.*
- ◆ *The name must start with a letter or number.*
- ◆ *The name must be between 3 and 63 characters long.*
- ◆ *After you create the bucket, you cannot change the name, so choose wisely.*
- ◆ *Choose a bucket name that reflects the objects in the bucket. This is because the bucket name is visible in the URL that points to the objects that you're going to put in your bucket.*

4. For Region, choose the AWS Region where you want the bucket to reside.

*Choose a Region close to you to minimize latency and costs, or to address regulatory requirements.
(We chose Mumbai as it is nearby and it appeared as ap-south-1)*

Amazon S3 > Create bucket

Create bucket Info

Buckets are containers for data stored in S3. [Learn more](#)

General configuration

Bucket name
dris228shti

Bucket name must be unique and must not contain spaces or uppercase letters. [See rules for bucket naming](#)

AWS Region
Asia Pacific (Mumbai) ap-south-1

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

[Choose bucket](#)

5. Uncheck the Block all public access box because you want to be able to test if the website is working.

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.

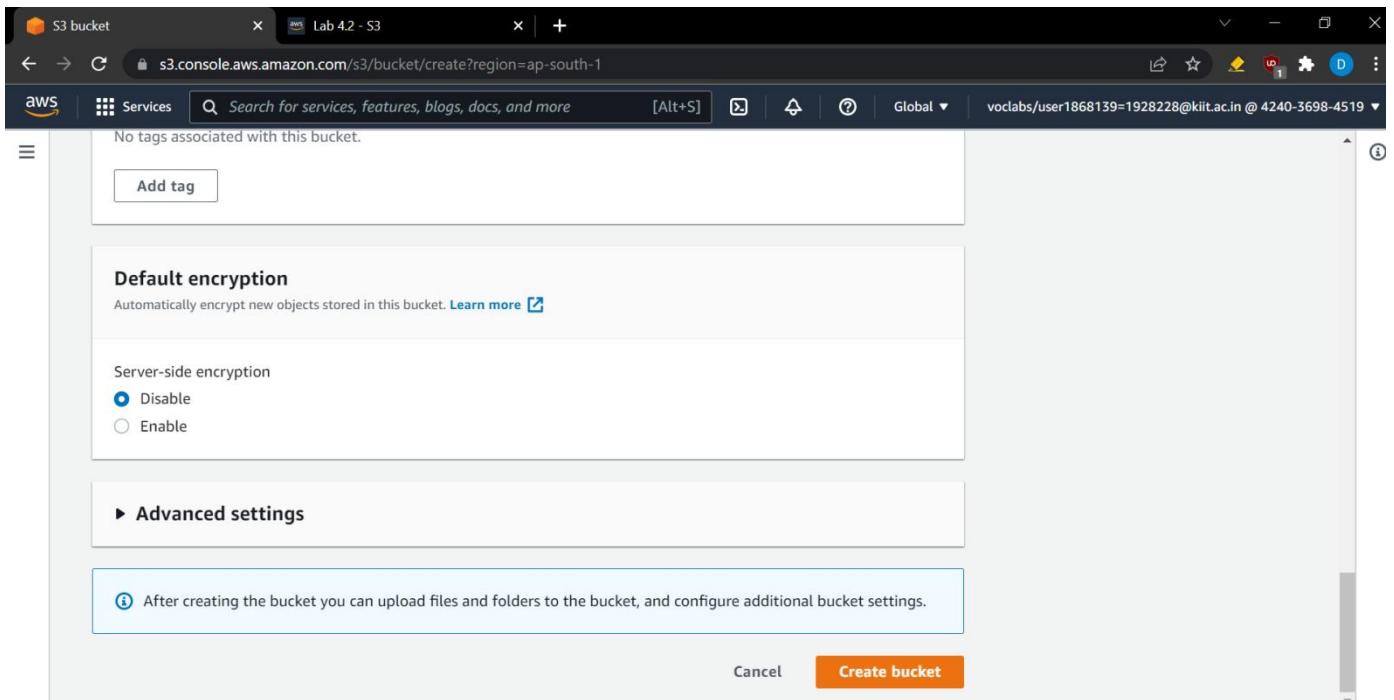
⚠ Turning off block all public access might result in this bucket and the objects within becoming public

AWS recommends that you turn on block all public access, unless public access is required for specific and verified use cases such as static website hosting.

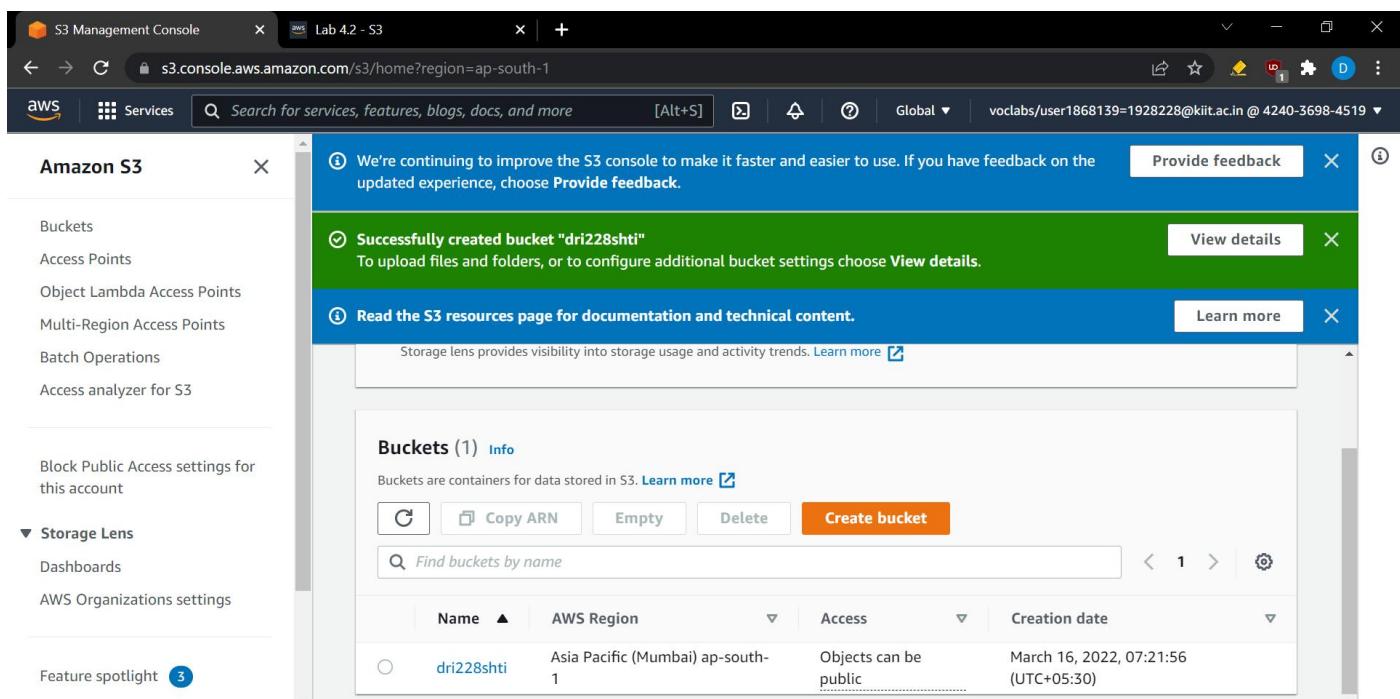
I acknowledge that the current settings might result in this bucket and the objects within becoming public.

A warning message similar to Turning off block all public access might result in this bucket and the objects within becoming public appears below the security setting you deselected. Below the warning, check the box next to I acknowledge that....

6. Scroll to the bottom of the page, and select Create bucket.



7. Your new bucket appears in the Buckets list.



Add a bucket policy to make the content publicly available

8. Choose the link for your bucket's name, and then select the Permissions tab.
9. In the Bucket policy section, choose Edit.
10. To grant public read access for your website, copy the following bucket policy, and paste it in the policy editor.
11. In the policy, replace example-bucket with the name of your bucket.
12. Select Save changes.

Amazon S3 - dri228shti - S3 bucket Lab 4.2 - S3 s3.console.aws.amazon.com/s3/bucket/dri228shti/property/policy/edit?region=ap-south-1 Services Search for services, features, blogs, docs, and more [Alt+S] Global vocabs/user1868139=1928228@kiit.ac.in @ 4240-3698-4519 ▾

Amazon S3 > dri228shti > Edit bucket policy

Edit bucket policy Info

Bucket policy
The bucket policy, written in JSON, provides access to the objects stored in the bucket. Bucket policies don't apply to objects owned by other accounts.
[Learn more](#)

[Policy examples](#) [Policy generator](#)

Bucket ARN
arn:aws:s3:::dri228shti

Policy

```
1 {  
2   "Version": "2012-10-17",  
3   "Statement": [  
4     {  
5       "Sid": "PublicReadGetObject",  
6       "Effect": "Allow",  
7       "Principal": "*",  
8       "Action": [  
9         "s3:GetObject"  
10      ],  
11      "Resource": [  
12        "arn:aws:s3:::example-bucket/*"  
13      ]  
14    }  
15  ]  
16 }
```

Edit statement

Amazon S3 - dri228shti - S3 bucket Lab 4.2 - S3 s3.console.aws.amazon.com/s3/bucket/dri228shti/property/policy/edit?region=ap-south-1 Services Search for services, features, blogs, docs, and more [Alt+S] Global vocabs/user1868139=1928228@kiit.ac.in @ 4240-3698-4519 ▾

Amazon S3 > dri228shti > Edit bucket policy

Bucket ARN
arn:aws:s3:::dri228shti

Policy

```
1 {  
2   "Version": "2012-10-17",  
3   "Statement": [  
4     {  
5       "Sid": "PublicReadGetObject",  
6       "Effect": "Allow",  
7       "Principal": "*",  
8       "Action": [  
9         "s3:GetObject"  
10      ],  
11      "Resource": [  
12        "arn:aws:s3:::example-bucket/*"  
13      ]  
14    }  
15  ]  
16 }
```

Edit statement

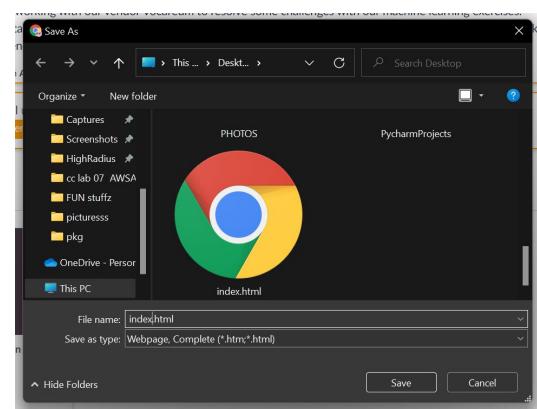
Select a statement
Select an existing statement in the policy or add a new statement.

[+ Add new statement](#)

```
{  
  "Version": "2012-10-17",  
  "Statement": [  
    {  
      "Sid": "PublicReadGetObject",  
      "Effect": "Allow",  
      "Principal": "*",  
      "Action": [  
        "s3:GetObject"  
      ],  
      "Resource": [  
        "arn:aws:s3:::example-bucket/*"  
      ]  
    }  
  ]  
}
```

Upload an HTML document

13. Open the context menu (right-click) for the following link, and then choose Save link as: index.html. Save the index.html file to your local computer.



14. In the console, choose the Objects tab.
15. Upload the index.html file to your bucket. (*Choose Upload. Drag and drop the index.html file onto the upload page. As an alternative, choose Add files, navigate to the file, and choose Open.*)

The screenshot shows the AWS S3 console interface. On the left, there's a sidebar with navigation links like 'Buckets', 'Access Points', etc. The main area shows the 'dri228shti' bucket details, including its public access status. Below that is a table for managing objects, currently showing 0 objects. At the bottom of this section is a search bar and a toolbar with actions like 'Upload', 'Copy S3 URI', 'Copy URL', 'Download', 'Open', 'Delete', and 'Actions'.

A modal window titled 'Upload' is overlaid on the main interface. It has a large text input field with placeholder text 'Drag and drop files and folders you want to upload here, or choose Add files, or Add folders.' Below this is a table titled 'Files and folders' showing one item: 'index.html' (1 Total, 64.0 B). The table includes columns for Name, Folder, Type, and Size. The 'index.html' row is highlighted. At the bottom of the modal is a 'Destination' section which is currently empty.

16. Expand the Permissions section.
17. Under Predefined ACLs, select Grant public-read access. (*A warning message similar to Granting public-read access is not recommended appears below the setting you selected. Below the warning, check the box next to I understand....*)

Object Ownership

Control ownership of objects written to this bucket from other AWS accounts and the use of access control lists (ACLs). Object ownership determines who can specify access to objects.

ACLs disabled (recommended)
All objects in this bucket are owned by this account. Access to this bucket and its objects is specified using only policies.

ACLs enabled
Objects in this bucket can be owned by other AWS accounts. Access to this bucket and its objects can be specified using ACLs.

⚠️ Enabling ACLs turns off the bucket owner enforced setting for Object Ownership
Once the bucket owner enforced setting is turned off, access control lists (ACLs) and their associated permissions are restored. Access to objects that you do not own will be based on ACLs and not the bucket policy.

I acknowledge that ACLs will be restored.

Permissions

Grant public access and access to other AWS accounts.

Access control list (ACL)

Grant basic read/write permissions to other AWS accounts. [Learn more](#)

⚠️ AWS recommends using S3 bucket policies or IAM policies for access control. [Learn more](#)

Access control list (ACL)

Choose from predefined ACLs

Specify individual ACL permissions

Predefined ACLs

Private (recommended)
Only the object owner will have read and write access.

Grant public-read access
Anyone in the world will be able to access the specified objects. The object owner will have read and write access. [Learn more](#)

⚠️ Granting public-read access is not recommended
Anyone in the world will be able to access the specified objects. [Learn more](#)

18. Expand the Properties section. (*This section lists the storage classes that are available in Amazon S3. You will learn more about storage classes later, but take a minute to review them now.*)

Server-side encryption settings

Server-side encryption protects data at rest. [Learn more](#)

Server-side encryption

Do not specify an encryption key

Specify an encryption key

⚠️ If your bucket policy requires encrypted uploads, you must specify an encryption key or your upload will fail.

⚠️ Since default encryption is disabled for this bucket, no encryption settings will be applied to the objects when storing them in Amazon S3.

Object Lock

Store objects using a write-once-read-many (WORM) model to help you prevent objects from being deleted or overwritten for a fixed amount of time or indefinitely. [Learn more](#)

19. Ensure that the Standard storage class is selected.

The screenshot shows the 'Properties' section of the AWS S3 console. Under 'Storage class', it lists four options:

Storage class	Designed for	Availability Zones	Min storage duration
Standard	Frequently accessed data (more than once a month) with milliseconds access	≥ 3	-
Intelligent-Tiering	Data with changing or unknown access patterns	≥ 3	-
Standard-IA	Infrequently accessed data (once a month) with milliseconds access	≥ 3	30 days
One Zone-IA	Recreatable, infrequently accessed data (once a month) stored in a single Availability Zone with milliseconds access	1	30 days

The 'Standard' option is selected, indicated by a blue outline around the radio button. At the bottom of the page, there are links for 'Feedback', 'English (US)', and 'Cookie preferences'.

The screenshot shows the 'Object Lock' section of the AWS S3 console. It contains a note about Object Lock settings and a section for 'Additional checksums'.

Note: Object Lock settings can't be specified on upload using the S3 console. If your bucket policy requires new objects stored in this bucket to have specific Object Lock settings on upload, use the AWS CLI, AWS SDK or Amazon S3 REST API. [Learn more](#)

Additional checksums: Checksum functions are used for additional data integrity verification of new objects. [Learn more](#)

Additional checksums:

- Off: Amazon S3 will use a combination of MD5 checksums and Etags to verify data integrity.
- On: Specify a checksum function for additional data integrity validation.

At the bottom of the page, there are links for 'Feedback', 'English (US)', and 'Cookie preferences'.

20. At the bottom of the page, choose Upload.

The screenshot shows the final step of the upload process. It includes sections for 'Tags - optional' and 'Metadata - optional', both of which are currently empty. At the bottom right, there are 'Cancel' and 'Upload' buttons.

21. The index.html file appears in the Objects list.

The screenshot shows two stacked screenshots of the AWS S3 console. The top screenshot displays the 'Upload: status' page after a file has been uploaded. It shows a summary table with one succeeded file (index.html) and zero failed files. The bottom screenshot shows the 'Objects' list page, where the uploaded 'index.html' file is listed. The file is a text/html type, 64.0 B in size, and its status is marked as 'Succeeded' with a green checkmark.

Destination	Succeeded	Failed
s3://dri228shti	1 file, 64.0 B (100.00%)	0 files, 0 B (0%)

Name	Folder	Type	Size	Status	Error
index.html	-	text/html	64.0 B	Succeeded	-

Test your website

22. Select the Properties tab, and scroll down to the Static website hosting section. Choose Edit.

The screenshot shows the 'Properties' tab of an AWS S3 bucket. In the 'Static website hosting' section, there is a note about IAM permissions and a link to learn more. Below this, the 'Requester pays' setting is shown as 'Disabled'. The 'Static website hosting' setting is also shown as 'Disabled'. At the bottom of the page, the URL 'https://s3.console.aws.amazon.com/s3/' is visible.

23. Select Enable.

24. In the Index document text box, enter index.html. Select Save changes.

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.

index.html

Error document - optional

25. Scroll down to the Static website hosting section again, and copy the Bucket website endpoint URL to your clipboard.

Successfully edited static website hosting.

Amazon S3 > dri228shti

dri228shti [Info](#)

Objects [Properties](#) Permissions Metrics Management Access Points

Bucket overview

AWS Region	Amazon Resource Name (ARN)	Creation date
C	arn:aws:s3:::dri228shti	C

Bucket Versioning

Versioning is a means of keeping multiple variants of an object in the same bucket. You can use versioning to preserve, retrieve, and restore every version of every object stored in your Amazon S3 bucket. With versioning, you can easily recover from both unintended user actions and application failures. [Learn more](#)

Edit

S3 Management Console x dri228shti - S3 bucket x Lab 4.2 - S3 x - x

s3.console.aws.amazon.com/s3/buckets/dri228shti?region=ap-south-1&tab=properties

aws Services Search for services, features, blogs, docs, and more [Alt+S] Global voclabs/user1868139=1928228@kiit.ac.in @ 4240-3698-4519

Successfully edited static website hosting.

Requester pays
Disabled

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](#)

Bucket website endpoint [dri228shti-1.amazonaws.com](#) copied

The screenshot shows the AWS S3 Management Console with three tabs open: 'S3 Management Console', 'dri228shti - S3 bucket', and 'Lab 4.2 - S3'. The 'dri228shti - S3 bucket' tab is active, displaying the 'Static website hosting' configuration. A green success message at the top says 'Successfully edited static website hosting.' Below it, under 'Requester pays', it shows 'Disabled'. The 'Static website hosting' section is enabled. It includes options for 'Hosting type' (Bucket hosting) and 'Bucket website endpoint' (http://dri228shti.s3-website.ap-south-1.amazonaws.com). An 'Edit' button is visible in the top right corner of this section.

26. Open a new tab in your web browser, paste the URL you just copied, and press Enter.
27. The Hello World webpage should display. You have successfully hosted a static website using an S3 bucket!

The screenshot shows a web browser window with the URL http://dri228shti.s3-website.ap-south-1.amazonaws.com. The page displays the text 'Hello World. Take me to your leader.' The browser interface includes a back/forward navigation bar, a search/address bar, and a toolbar with icons for refresh, stop, and other functions. The status bar at the bottom shows system information like battery level, signal strength, and the date/time (16-03-2022, 07:45 AM).

Close the lab

28. Log out of the AWS Management Console.
29. In the upper-right corner of the page, choose your user name. Your user name begins with voclabs/user.
30. Choose Sign Out.
31. Choose End Lab at the top of this page, and then select Yes to confirm that you want to end the lab

S3 Management Console x dri228shti - S3 bucket x Lab 4.2 - S3 x dri228shti.s3-website.ap-south-1 x +

s3.console.aws.amazon.com/s3/buckets/dri228shti?region=ap-south-1&tab=properties

aws Services Search for services, features, blogs, docs, and more [Alt+S] Global v voclabs/user1868139=1928228@kiit.ac.in @ 4240-3698-4519

Amazon S3 > dri228shti

dri228shti Info

Publicly accessible

Objects Properties Permissions Metrics Management Access Points

Bucket overview

AWS Region Asia Pacific (Mumbai) ap-south-1	Amazon Resource Name (ARN) arn:aws:s3:::dri228shti	Creation date March 16, 2022, 07:21:56 (UTC+05:30)
--	---	---

Switch role Sign out

Bucket Versioning

Versioning is a means of keeping multiple variants of an object in the same bucket. You can use versioning to preserve, retrieve, and restore every version of every object stored in your Amazon S3 bucket. With versioning, you can easily recover from both unintended user actions and application failures. [Learn more](#)

Edit

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[Logout](#)

[S3 Management Console](#) x [AWS Management Console](#) x [Lab 4.2 - S3](#) x [dri228shti.s3-website.ap-south-1](#) x +

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AWS Management Console Overview Features FAQs

AWS Management Console

Everything you need to access and manage the AWS cloud — in one web interface

Log back in

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Waiting for your first course to sync with AWS

Access 350+ free digital courses with Explore the resources available to help Advance your career with AWS Cloud

ENG IN 07:47 AM 16-03-2022

[AWS Management Console](#) x [Lab 4.2 - S3](#) x [dri228shti.s3-website.ap-south-1](#) x +

awsacademy.instructure.com/courses/15376/modules/items/1280959

AICv1Sem1EN-15376 > Modules > Module 4 - Virtual Servers > Lab 4.2 - S3

Home Modules Discussions Grades

Calendar Inbox History Help

EN-US - The **Hello world** webpage should display. You have successfully hosted a static website using an S3 bucket!

Lab complete

Congratulations! You have completed the lab.

33. Log out of the AWS Management Console.

- o In the upper-right corner of the page, choose your user name. Your user name begins with **voclabs/user**.
- o Choose **Sign Out**.

34. Choose **End Lab** at the top of this page, and then select **Yes** to confirm that you want to end the lab.

◀ Previous Next ▶

ENG IN 07:47 AM 16-03-2022

The screenshot shows the AWS Management Console interface. On the left, there's a sidebar with icons for Account, Dashboard, Courses, Calendar, Inbox, History, and Help. The main content area has a breadcrumb trail: AICv1Sem1EN-15376 > Modules > Module 4 - Virtual Servers > Lab 4.2 - S3. At the top right, there are buttons for Start Lab, End Lab, AWS Details, and Readme. A modal dialog box is open, asking "Are you sure you want to end the lab?". It includes a warning: "If you choose yes, all the resources and data that have been configured in your AWS account will be permanently deleted." Below the dialog, a message says "Congratulations! You have completed the lab." followed by two numbered steps: 33. Log out of the AWS Management Console. (with sub-points about choosing user name and signing out) and 34. Choose End Lab at the top of this page, and then select Yes to confirm that you want to end the lab. At the bottom of the page are "Previous" and "Next" buttons.

LAB 5.0

Aim: Using CloudFront as a CDN for a Website

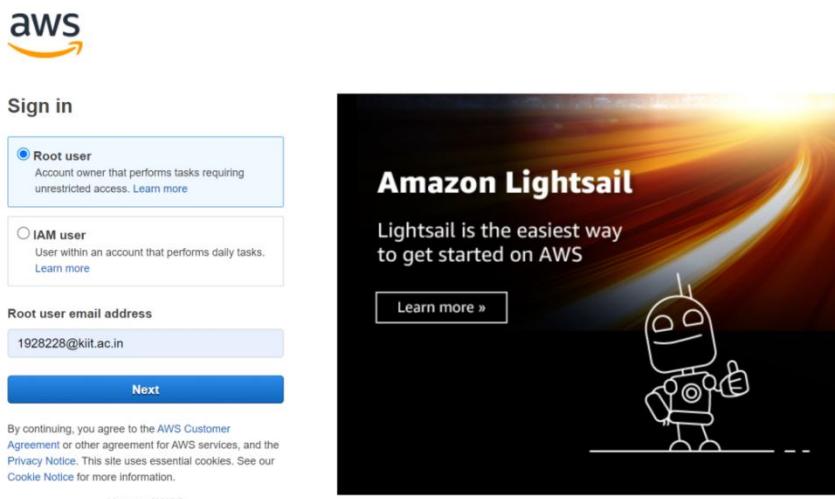
Time Duration: Approximately 1 hour 30 minutes.

Requirements: - AWS account (access to AWS console dashboard)
- Internet connection

- If we use AWS academy to log in, we go to LAB4.2 and click on start lab, allowing the light beside AWS to turn green, before clicking on AWS on the left side, which automatically displays the AWS console dashboard.

The screenshot shows the AWS Management Console interface. The left sidebar is identical to the previous one. The main content area has a breadcrumb trail: AICv1Sem1EN-15376 > Modules > Module 4 - Virtual Servers > Lab 4.1 - EC2. At the top right, there are buttons for Start Lab, End Lab, AWS Details, and Readme. A tip box is open on the right side, containing the following text:
1. To start the lab session, choose Start Lab in the upper-right corner of the page.
o The lab session starts.
o A timer displays in the upper-right corner of the page and shows the time remaining in the session.
Tip: To refresh the session length at any time, choose Start Lab again before the timer reaches 0:00.

- We go to <https://aws.amazon.com>, click on ‘Sign in to Console’, and login with our root account



Create an S3 bucket using the AWS CLI

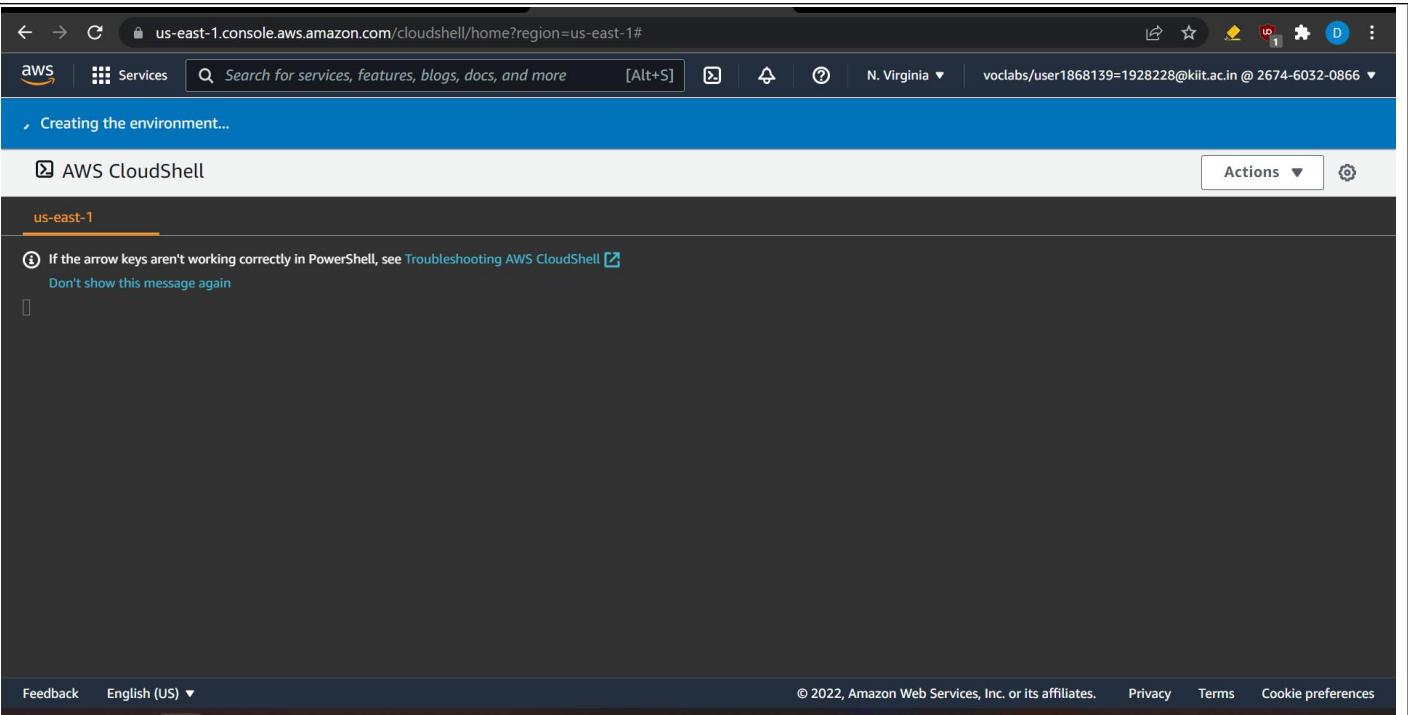
- In this task, you will create an S3 bucket using the AWS Command Line Interface (AWS CLI). The AWS CLI is an open-source tool that you can use to interact with AWS services using commands in your command line shell.
- Choose the Services menu, locate the Developer Tools services, and select CloudShell.

The screenshot shows the AWS Management Console with the 'Developer Tools' section open. The sidebar on the left is collapsed, showing various service icons. The main content area displays a list of developer tools:

- Cloud9**: A Cloud IDE for Writing, Running, and Debugging Code
- CloudShell**: A browser-based shell with AWS CLI access from the AWS Management Console
- CodeArtifact**: Secure, scalable, and cost-effective artifact management for software development
- CodeBuild**: Build and Test Code
- CodeCommit**: Store Code in Private Git Repositories
- CodeDeploy**: Automate Code Deployments

At the bottom of the page, there are links for Feedback, English (US), Copyright notice (© 2022, Amazon Web Services, Inc. or its affiliates.), Privacy, Terms, and Cookie preferences.

- AWS CloudShell is a browser-based shell that gives you command line access to your AWS resources in the selected AWS Region.



- Copy and paste the following code into a text editor:
*cd ~
aws s3api create-bucket --bucket (bucket-name) --region us-east-1*
- In the code that you copied, replace (bucket-name) with a unique Domain Name System (DNS)-compliant name for your new bucket.
Follow these naming guidelines:
 - ◆ *The name must be unique across all existing bucket names in Amazon S3.*
 - ◆ *The name must be between 3 and 63 characters long.*
 - ◆ *The name can consist only of lowercase letters, numbers, dots (.), and hyphens (-).*
 - ◆ *The name must begin and end with a letter or number.*
 - ◆ *The name must not be formatted as an IP address (for example, 192.168.5.4).*
 - ◆ *After you create the bucket, you cannot change the name, so choose wisely.*
 - ◆ *Choose a bucket name that reflects the objects in the bucket. This is because the bucket name is visible in the URL that points to the objects that you're going to put in your bucket.*
- Note: The us-east-1 Region has been entered in the command. When you create a bucket, the best practice is to choose a Region close to you to minimize latency and costs, or to address regulatory requirements. Objects stored in a Region never leave that Region unless you explicitly transfer them to another Region.
- Run the updated code in the CloudShell terminal.
- If a pop-up window appears, choose Paste.
- The output should look similar to the following:

```
{  
  "Location": "/mylabbucket12345"  
}
```
- Note: When you create a bucket with this command, the bucket is open to the public. We recommend that you keep all settings enabled unless you know that you need to turn off one or more of them for your use case, such as to host a public website.

```
If the arrow keys aren't working correctly in PowerShell, see Troubleshooting AWS CloudShell [?]
Don't show this message again
Preparing your terminal...
[cloudshell-user@ip-10-1-176-181 ~]$ Try these commands to get started:
aws help or aws <command> help or aws <command> --cli-auto-prompt
[cloudshell-user@ip-10-1-176-181 ~]$ cd ~
[cloudshell-user@ip-10-1-176-181 ~]$ aws s3api create-bucket --bucket d228rishti --region us-east-1
{
  "Location": "/d228rishti"
}[cloudshell-user@ip-10-1-176-181 ~]$
```

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Add a bucket policy

- In this task, you will add a bucket policy through the AWS CLI to make the content publicly available.
- In the console, choose the Services menu, locate the Storage section, and choose S3.
- Choose the name of the bucket that you just created.
- Choose the Permissions tab.
- In the Bucket policy section, choose Edit.
- To grant public read access for your website, copy and paste the following bucket policy into the policy editor.

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Sid": "PublicReadForGetBucketObjects",
      "Effect": "Allow",
      "Principal": "*",
      "Action": [
        "s3:GetObject"
      ],
      "Resource": [
        "arn:aws:s3:::example-bucket/*"
      ]
    }
  ]
}
```

- In the policy, replace example-bucket with the name of your bucket.
- At the bottom of the page, choose Save changes.

The screenshot shows the AWS S3 console interface. On the left, there's a sidebar with options like Buckets, Storage Lens, and Feature spotlight. The main area is titled 'd228rishti' and shows the 'Objects' tab selected. It displays a message stating 'Objects (0)' and provides instructions on how to use Amazon S3 inventory to get a list of all objects. Below this are buttons for 'Create folder' and 'Upload', a search bar, and a table header with columns for Name, Type, Last modified, Size, and Storage class. At the bottom, there's a note about no objects and standard footer links.

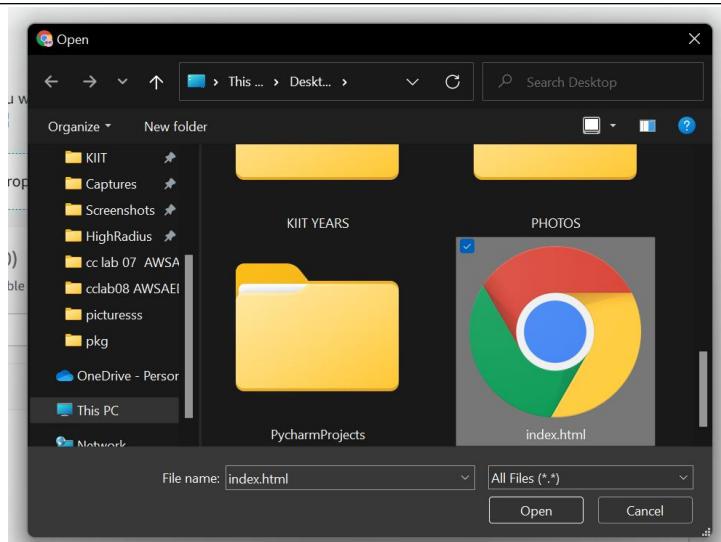
The screenshot shows the AWS S3 console interface for editing a bucket policy. The left sidebar is identical to the previous screenshot. The main area is titled 'Policy' and shows the JSON code for the bucket policy:

```
1 [ {  
2     "Version": "2012-10-17",  
3     "Statement": [  
4         {  
5             "Sid": "PublicReadForGetBucketObjects",  
6             "Effect": "Allow",  
7             "Principal": "*",  
8             "Action": [  
9                 "s3:GetObject"  
10            ],  
11             "Resource": [  
12                 "arn:aws:s3:::example-bucket/*"  
13            ]  
14        }  
15    ]
```

To the right, there's an 'Edit statement' panel with a 'Select a statement' dropdown, a note about selecting or adding a new statement, and a button to 'Add new statement'.

Upload an HTML document

- In this task, you will upload the index.html file for your webpage to the S3 bucket.
- Open the context menu (right-click) for the following link, and then choose Save link as: index.html
- Save the index.html file to your local computer.



- In the console, choose the Objects tab.
- Upload the index.html file to your bucket.
- Choose Upload.
- Drag and drop the index.html file onto the upload page. An alternative is to choose Add files, navigate to the file, and choose Open.

Add the files and folders you want to upload to S3. To upload a file larger than 160GB, use the AWS CLI, AWS SDK or Amazon S3 REST API. [Learn more](#)

Drag and drop files and folders you want to upload here, or choose [Add files](#), or [Add folders](#).

Files and folders (0)
All files and folders in this table will be uploaded.

Name	Type	Size
No files or folders		

You have not chosen any files or folders to upload.

- Expand the Permissions section.
- Under Predefined ACLs, select Grant public-read access.
- A warning message similar to Granting public-read access is not recommended appears below the setting you selected. Below the warning, check the box next to I understand....

Grant basic read/write permissions to other AWS accounts. [Learn more](#)

Access control list (ACL)

AWS recommends using S3 bucket policies or IAM policies for access control. [Learn more](#)

Access control list (ACL)

Choose from predefined ACLs
 Specify individual ACL permissions

Predefined ACLs

Private (recommended)
Only the object owner will have read and write access.

Grant public-read access
Anyone in the world will be able to access the specified objects. The object owner will have read and write access. [Learn more](#)

Granting public-read access is not recommended
Anyone in the world will be able to access the specified objects. [Learn more](#)

I understand the risk of granting public-read access to the specified objects.

- At the bottom of the page, choose Upload.
- Choose Close.
- The index.html file appears in the Objects list.

Screenshot of the AWS S3 Management Console showing the upload process and successful upload results.

Upload: status

The information below will no longer be available after you navigate away from this page.

Summary

Destination	Succeeded	Failed
s3://d228rishti	0 files, 0 B (0%)	0 files, 0 B (0%)

Files and folders Configuration

Upload succeeded
View details below.

Upload: status

The information below will no longer be available after you navigate away from this page.

Summary

Destination	Succeeded	Failed
s3://d228rishti	1 file, 64.0 B (100.00%)	0 files, 0 B (0%)

Files and folders (1 Total, 64.0 B)

Name	Folder	Type	Size	Status	Error
index.html	-	text/html	64.0 B	Succeeded	-

Test your website

- Select the Properties tab, and scroll down to the Static website hosting section.
- Choose Edit.
- Select Enable.
- In the Index document text box, enter index.html
- Select Save changes.
- Scroll down to the Static website hosting section again, and copy the Bucket website endpoint URL to your clipboard.
- Open a new tab in your web browser, paste the URL you just copied, and press Enter.
- The Hello World webpage should display. You have successfully hosted a static website using an S3 bucket

The screenshot shows the AWS S3 console with the 'Static website hosting' configuration for a bucket named 'd228rishti'. The 'Enable' option is selected under 'Static website hosting'. Under 'Hosting type', 'Host a static website' is selected, with a note explaining that the bucket endpoint will be used as the web address. The 'Index document' field contains 'index.html'. A success message at the top indicates that the static website hosting was successfully edited. The 'Bucket website endpoint' is listed as <http://d228rishti.s3-website-us-east-1.amazonaws.com>.

Hello World. Take me to your leader.

Create a CloudFront distribution to serve your website

- In this task, you will create an Amazon CloudFront distribution to serve your website.
- Choose the Services menu, locate the Networking & Content Delivery section, and choose CloudFront.
- Choose Create Distribution.
- Under Web, choose Get Started.
- Choose the text box next to Origin Domain Name and select the endpoint from your S3 bucket.
- For Viewer Protocol Policy, ensure that HTTP and HTTPS is selected.
- Scroll to the bottom of the page and select Create Distribution.
- A new CloudFront distribution displays in the distributions list. The Status will say In Progress until your website has been distributed. This may take up to 20 minutes.
- When the Status says Deployed, you can test your distribution.
- Copy the Domain Name value for your distribution and save it to a text editor to use in a later step.
- Create a new HTML file to test the distribution.
- Find and download an image from the internet.
- Navigate to your S3 bucket and upload the image file to it, making sure to grant public access as you did when uploading the HTML file earlier in this lab.
- Create a new text file using Notepad and copy the following text into it:

```
<html>
<head>My CloudFront Test</head>
<body>
    <p>My test content goes here.</p>
    <p>
</body>
</html>
```

- Replace domain-name with the domain name that you copied earlier for your CloudFront distribution.
- Replace object-name with the file name of the picture file that you uploaded to your S3 bucket.
- The edited line of code should look similar to the following:

```
<p>
```

- Save the text file with an HTML extension.
- Use an internet browser to open the HTML file that you just created.
- If the image that you uploaded shows, your CloudFront distribution was successful. If not, repeat the lab.

Screenshot of the AWS Services console showing the Networking & Content Delivery section. The left sidebar lists various services, with 'Networking & Content Delivery' selected. The main content area displays several services under this category:

- API Gateway**: Build, Deploy and Manage APIs.
- AWS App Mesh**: Easily monitor and control microservices.
- AWS Cloud Map**: Build a dynamic map of your cloud.
- CloudFront**: Global Content Delivery Network.
- Direct Connect**: Dedicated Network Connection to AWS.
- Global Accelerator**: Improve your application's availability and performance using the AWS Global Network.

The CloudFront service card includes an 'Edit' button and a 'Configure in CloudTrail' link. The URL in the address bar is <https://console.aws.amazon.com/cloudfront/v3/home?region=us-east-1>.

Screenshot of the Amazon CloudFront service page. The title is 'Amazon CloudFront' and the subtitle is 'Securely deliver content with low latency and high transfer speeds'. A 'Get started with CloudFront' box contains the text: 'Enable accelerated, reliable and secure content delivery for Amazon S3 buckets, Application Load Balancers, Amazon API Gateway APIs, and more in 5 minutes or less.' with a 'Create a CloudFront distribution' button. Below this, a 'Benefits and features' section has tabs for 'Reduce latency' and 'Improve security'. The 'AWS Free Tier' box indicates 1 TB of data transfer out and 10,000,000 HTTP or HTTPS requests. The URL in the address bar is <https://us-east-1.console.aws.amazon.com/cloudfront/v3/home?region=us-east-1>.

Screenshot of the Amazon S3 service page for the bucket 'drish228ti'. A green success message at the top says 'Successfully edited bucket policy.'. The main content area shows the bucket details: 'drish228ti' (Info), 'Publicly accessible'. The 'Permissions' tab is selected in the navigation bar. The 'Permissions overview' section shows 'Access' and 'Public'. The 'Block public access (bucket settings)' section states: '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'. The URL in the address bar is <https://us-east-1.console.aws.amazon.com/s3/buckets/drish228ti?region=us-east-1>.

S3 Management Console X Lab 5 - CloudFront X Meet - aid-dhyc-kwg X

s3.console.aws.amazon.com/s3/upload/drish228ti?region=us-east-1

aws Services Search for services, features, blogs, docs, and more [Alt+S] Global v voclabs/user1868139=1928228@kiit.ac.in @ 2674-6032-0866

Upload succeeded View details below.

Destination s3://drish228ti	Succeeded 2 files, 33.4 KB (100.00%)	Failed 0 files, 0 B (0%)
--------------------------------	---	-----------------------------

Files and folders Configuration

Files and folders (2 Total, 33.4 KB)

Find by name

< 1 >

Name	Folder	Type	Size	Status	Error
index.html	-	text/html	64.0 B	✓ Succeeded	-
pikachu.jpg	-	image/jpeg	33.3 KB	✓ Succeeded	-

Feedback English (US) ▾

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Upload succeeded View details below.

Summary

Destination s3://drish228ti	Succeeded 2 files, 33.4 KB (100.00%)	Failed 0 files, 0 B (0%)
--------------------------------	---	-----------------------------

Files and folders Configuration

Files and folders (2 Total, 33.4 KB)

Find by name

< 1 >

Name	Folder	Type	Size	Status	Error
index.html	-	text/html	64.0 B	✓ Succeeded	-

Feedback English (US) ▾

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Upload succeeded View details below.

Upload: status

Close

The information below will no longer be available after you navigate away from this page.

Summary

Destination s3://drish228ti	Succeeded 0 files, 0 B (0%)	Failed 0 files, 0 B (0%)
--------------------------------	--------------------------------	-----------------------------

Files and folders Configuration

Files and folders (1 Total, 298.0 B)

The screenshot shows the AWS CloudFront 'Distributions' page with a green success banner at the top stating 'Successfully created new distribution.' Below it, the distribution name 'EXAQ2Q3UM5OM9' is displayed. The 'General' tab is selected. A note 'Distribution domain name copied' is shown above the ARN field. The ARN is listed as 'arn:aws:cloudfront::267460320866:distribution/EXAQ2Q3UM5OM9'. The 'Last modified' timestamp is 'March 16, 2022 at 5:14:46 AM UTC'. The 'Settings' section includes fields for 'Description' and 'Alternate domain names' (empty), and a 'Standard logging' switch set to 'Off'. The bottom navigation bar includes links for Feedback, English (US), and various AWS services.

Make a text file like given under and upload it where we uploaded the index.html and the pikachu picture.

The screenshot shows a Notepad window titled 'drishtisayshi.txt'. The content is an HTML file with the following code:

```
<html>
<head>My CloudFront Test</head>
<body>
<p> Hi, this is Drishti</p>
<p> I completed my LAB05!!</p>
<p> My test content goes here.</p>
<p>
</body>
</html>
```

The screenshot shows the AWS S3 'Object overview' page for the object 'drishtisayshi.html'. The object was uploaded by 'awslabsc0w3950291t1646950103' from the 'US East (N. Virginia) us-east-1' region on March 16, 2022, at 10:48:03 (UTC+05:30). The file size is 297.0 B and the type is html. The S3 URI is 's3://drish228ti/drishtisayshi.html', the ARN is 'arn:aws:s3:::drish228ti/drishtisayshi.html', and the Entity tag (Etag) is '7bce1cca85dbf90e5be69d63e0bd075e'. The Object URL is 'https://drish228ti.s3.amazonaws.com/drishtisayshi.html'. The bottom navigation bar includes links for Feedback, English (US), and various AWS services.

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CloudFront > Distributions

Distributions (3) Info

	ID	Description	Domain name	Alternate do...	Origins	Status	Last modified
<input type="checkbox"/>	EXAQ2Q3UM5OM9	-	d4c4vvf7qkpkh...	-	drish228ti.s3.us-east-	Enabled	March 16, 2022...
<input type="checkbox"/>	E2P7PORXJDKCDS	-	d2q6j963rc2tv...	-	d228rishti.s3.us-east-	Disabled	March 16, 2022...
<input type="checkbox"/>	ENMPHAQGF5D21	-	d3hxsgomo547...	-	drish228ti.s3.us-east-	Disabled	March 16, 2022...

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OUTPUT:

