

STATIC WEBSITE HOSTING USING AWS S3 & CLOUDFRONT

AWS PROJECT

PRESENTED BY :
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INTRODUCTION

- What is a static website?

A static website consists of fixed web pages built with HTML, CSS, and JavaScript, delivering the same content to all users without server-side processing. These pages are pre-built and served as-is from the server, ensuring faster load times and enhanced security.

- What is AWS S3?

Amazon S3 (Simple Storage Service) is a cloud-based object storage service offered by Amazon Web Services (AWS) that provides scalable, secure, and durable storage for data. It enables users to store and retrieve any amount of data at any time, from anywhere on the web.

- What is Amazon CloudFront?

Amazon CloudFront is a content delivery network (CDN) service that accelerates the delivery of static and dynamic web content to users by caching it at edge locations worldwide. This reduces latency and improves performance by serving content from the nearest server to the user.

- Purpose of combining S3 + CloudFront

Combining S3 with CloudFront delivers static content globally with ultra-low latency and high throughput by caching S3 objects at edge locations. It also enables HTTPS on custom domains, tighter access control, and often lowers data transfer costs compared to serving directly from S3.

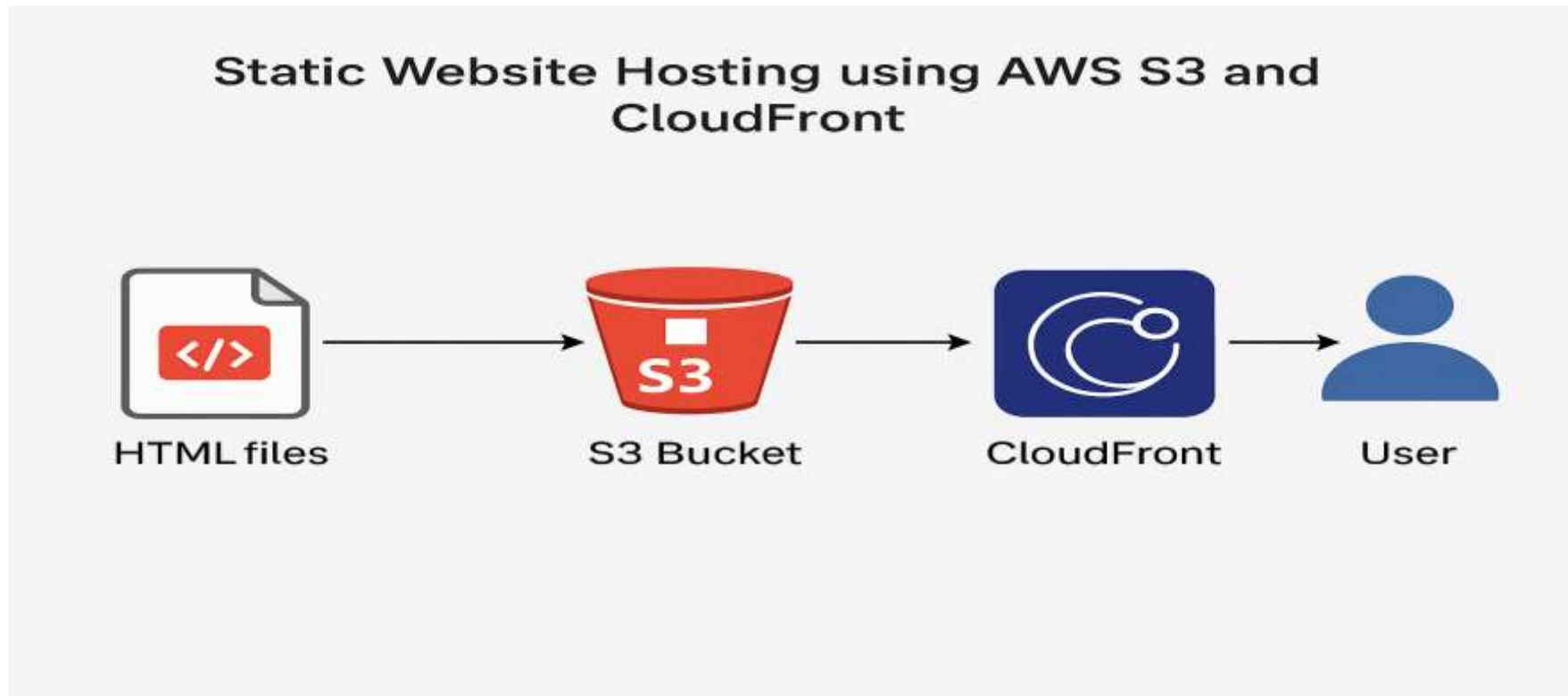
OBJECTIVE

- To host a **static website** using **Amazon S3**.
- To use **Amazon CloudFront** for fast and secure content delivery.
- To understand the **workflow of deploying web content on the cloud**.
- To gain hands-on experience with **AWS services** like S3, CloudFront, and IAM.
- To explore how **CDNs (Content Delivery Networks)** improve website performance globally.
- To learn basic **permission management and bucket policies** for public access.

ARCHITECTURE DIAGRAM

❓ A simple diagram showing:

HTML files → S3 Bucket → CloudFront → User



TOOLS & SERVICES USED

- Amazon S3
- CloudFront
- HTML/CSS
- AWS Console

STEP-BY-STEP WORKFLOW

1. Create a Note of webpage code
2. Create an S3 Bucket and upload static website files
3. Create a **CloudFront distribution** pointing to the S3 bucket
4. Configure CloudFront settings
5. Access the site via the **CloudFront domain URL**

IMPLEMENTATION

STEP 1 :

Search webpage on google for which you need to create website.

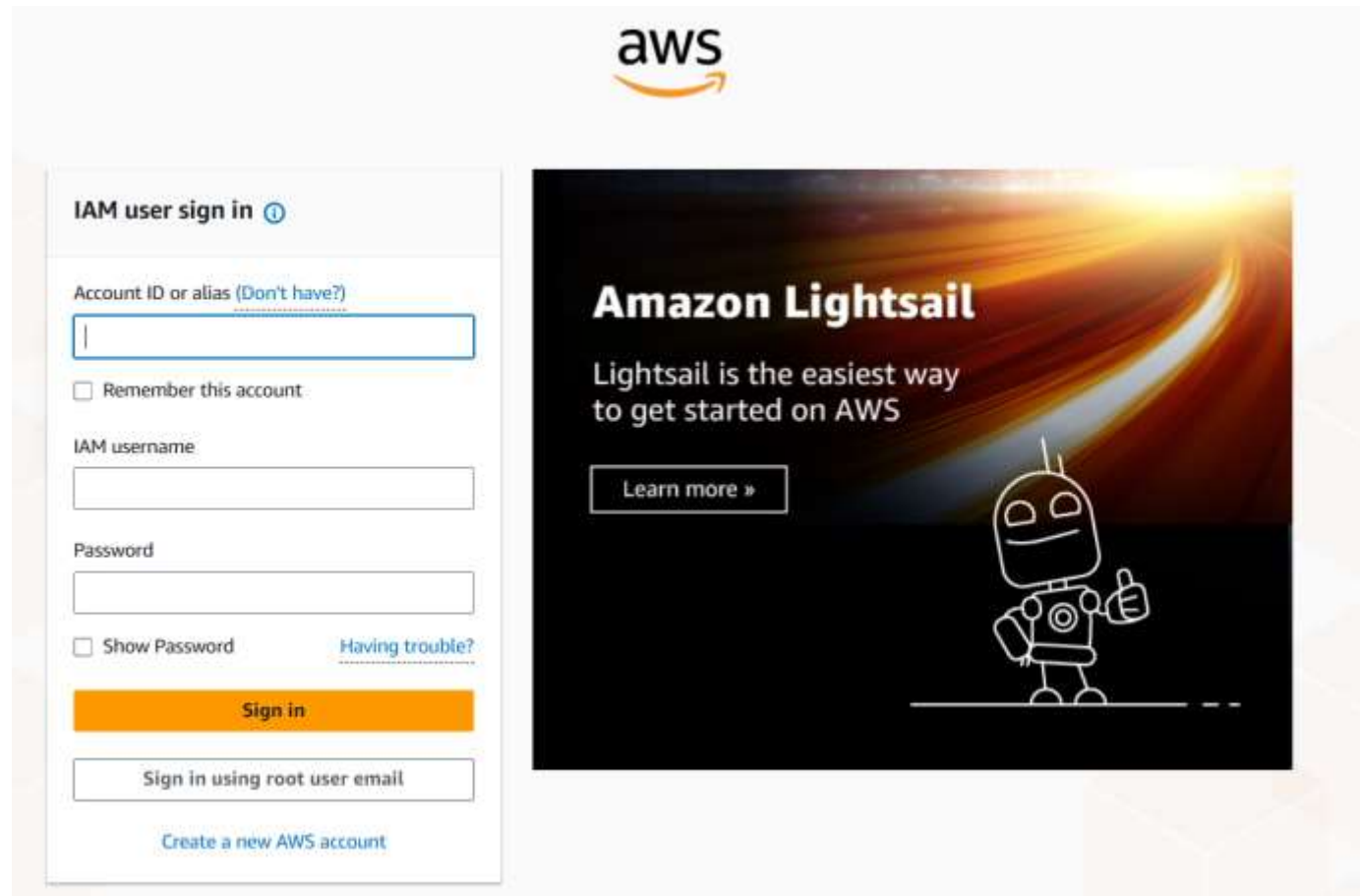
1. right-click somewhere on the Web page and select "View Source.
2. Copy Code in Notepad.
3. Save as, Name of the file select file type as All.

STEP 2 :

1. Login to AWS Management Console.

Link: <https://aws.amazon.com/console/>

2. Login as Root Username and Password



The screenshot displays the AWS IAM user sign-in interface. On the left, the 'IAM user sign in' section includes a header with a help icon, a text input for 'Account ID or alias (Don't have?)', a checkbox for 'Remember this account', a text input for 'IAM username', a text input for 'Password', a checkbox for 'Show Password', a 'Sign in' button, a 'Sign in using root user email' button, and a link to 'Create a new AWS account'. On the right, an 'Amazon Lightsail' promotional banner features the text 'Lightsail is the easiest way to get started on AWS', a 'Learn more »' button, and a cartoon robot character.

aws

IAM user sign in ⓘ

Account ID or alias (Don't have?)

☐ Remember this account

IAM username

Password

☐ Show Password [Having trouble?](#)

Sign in

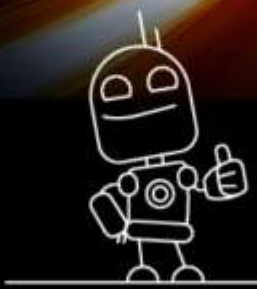
Sign in using root user email

[Create a new AWS account](#)

Amazon Lightsail

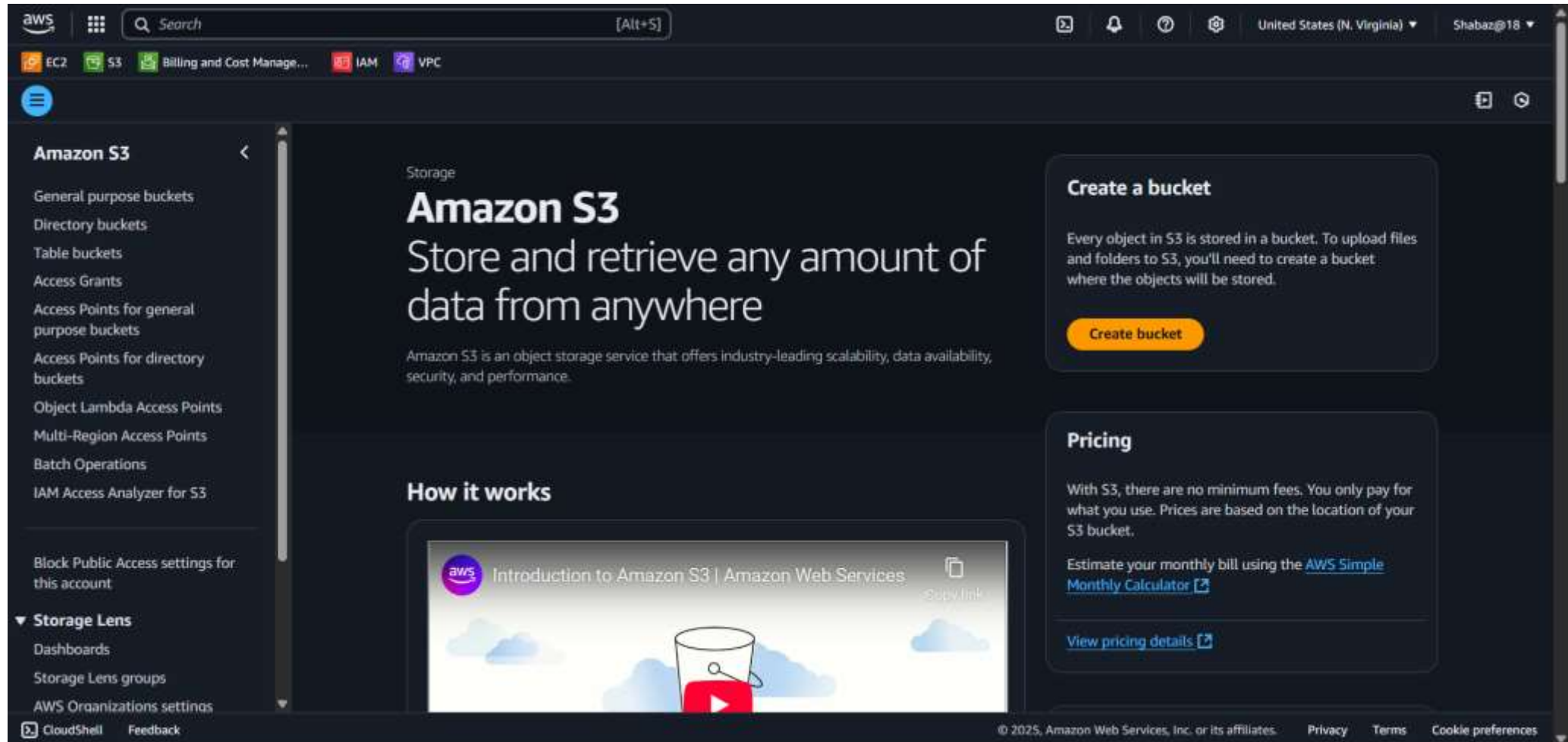
Lightsail is the easiest way to get started on AWS

[Learn more »](#)



STEP 3:

- Navigate to S3 Bucket (Simple Storage Service)
- And Click on Create Bucket



- Select Bucket Type as General Purpose
 - Give Bucket Name as my-aws-new-project (whatever you want) –
- But Remember one thing it case sensitive so use small letters only

The screenshot shows the AWS Management Console interface for creating a new S3 bucket. The top navigation bar includes the AWS logo, a search bar, and various service icons (EC2, S3, Billing and Cost Management, IAM, VPC). The breadcrumb trail indicates the path: Amazon S3 > Buckets > Create bucket. The main heading is 'Create bucket' with an 'Info' link. Below this, a sub-header states 'Buckets are containers for data stored in S3.' The 'General configuration' section is active, showing the 'AWS Region' as 'US East (N. Virginia) us-east-1'. Under 'Bucket type', two options are presented: 'General purpose' (selected with a radio button) and 'Directory'. The 'General purpose' option is described as 'Recommended for most use cases and access patterns. General purpose buckets are the original S3 bucket type. They allow a mix of storage classes that redundantly store objects across multiple Availability Zones.' The 'Directory' option is described as 'Recommended for low-latency use cases. These buckets use only the S3 Express One Zone storage class, which provides faster processing of data within a single Availability Zone.' The 'Bucket name' field is populated with 'my-aws-new-project'. A note below the field states: 'Bucket names must be 3 to 63 characters and unique within the global namespace. Bucket names must also begin and end with a letter or number. Valid characters are a-z, 0-9, periods (.), and hyphens (-). Learn More'. Below this, there is a section for 'Copy settings from existing bucket - optional' with a 'Choose bucket' button and a format example 's3://bucket/prefix'. The 'Object Ownership' section is partially visible at the bottom. The footer contains links for CloudShell, Feedback, and copyright information for Amazon Web Services, Inc. or its affiliates, along with links for Privacy, Terms, and Cookie preferences.

aws | Search [Alt+S] | United States (N. Virginia) | Shabaz@18

EC2 S3 Billing and Cost Manage... IAM VPC

Amazon S3 > Buckets > Create bucket

Create bucket [Info](#)

Buckets are containers for data stored in S3.

General configuration

AWS Region
US East (N. Virginia) us-east-1

Bucket type [Info](#)

☒ **General purpose**
Recommended for most use cases and access patterns. General purpose buckets are the original S3 bucket type. They allow a mix of storage classes that redundantly store objects across multiple Availability Zones.

☐ **Directory**
Recommended for low-latency use cases. These buckets use only the S3 Express One Zone storage class, which provides faster processing of data within a single Availability Zone.

Bucket name [Info](#)
my-aws-new-project

Bucket names must be 3 to 63 characters and unique within the global namespace. Bucket names must also begin and end with a letter or number. Valid characters are a-z, 0-9, periods (.), and hyphens (-). [Learn More](#)

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

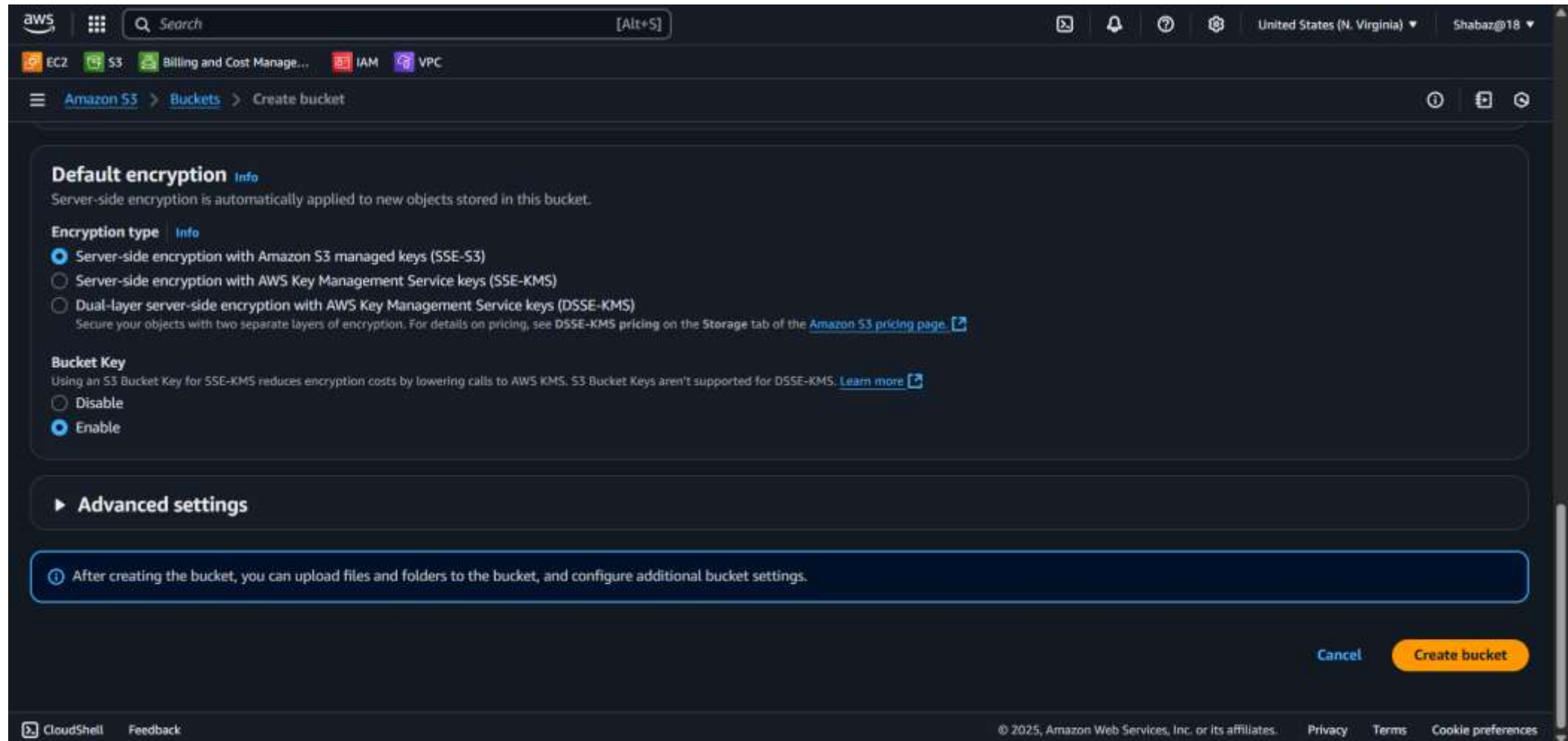
[Choose bucket](#)

Format: s3://bucket/prefix

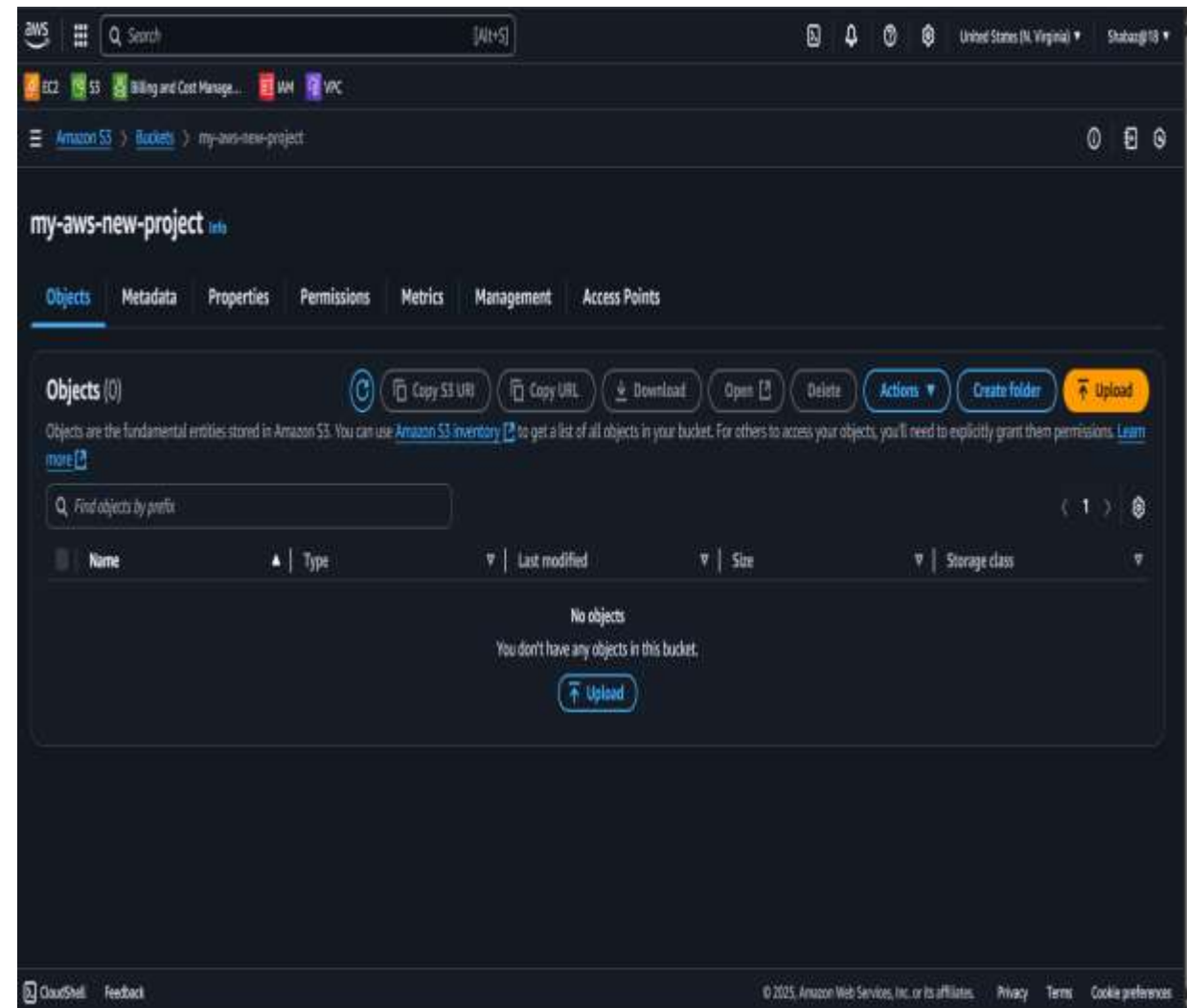
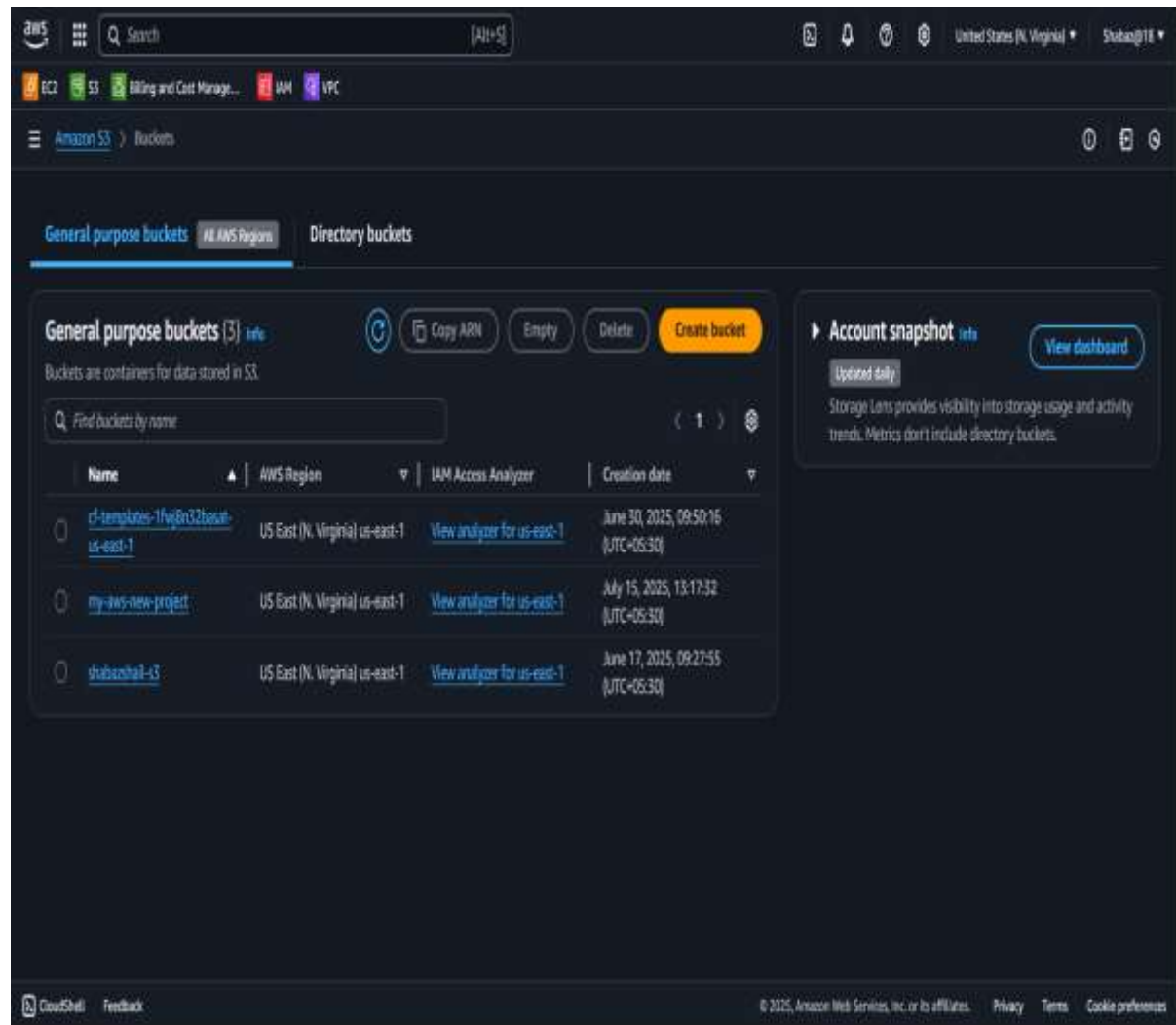
Object Ownership [Info](#)

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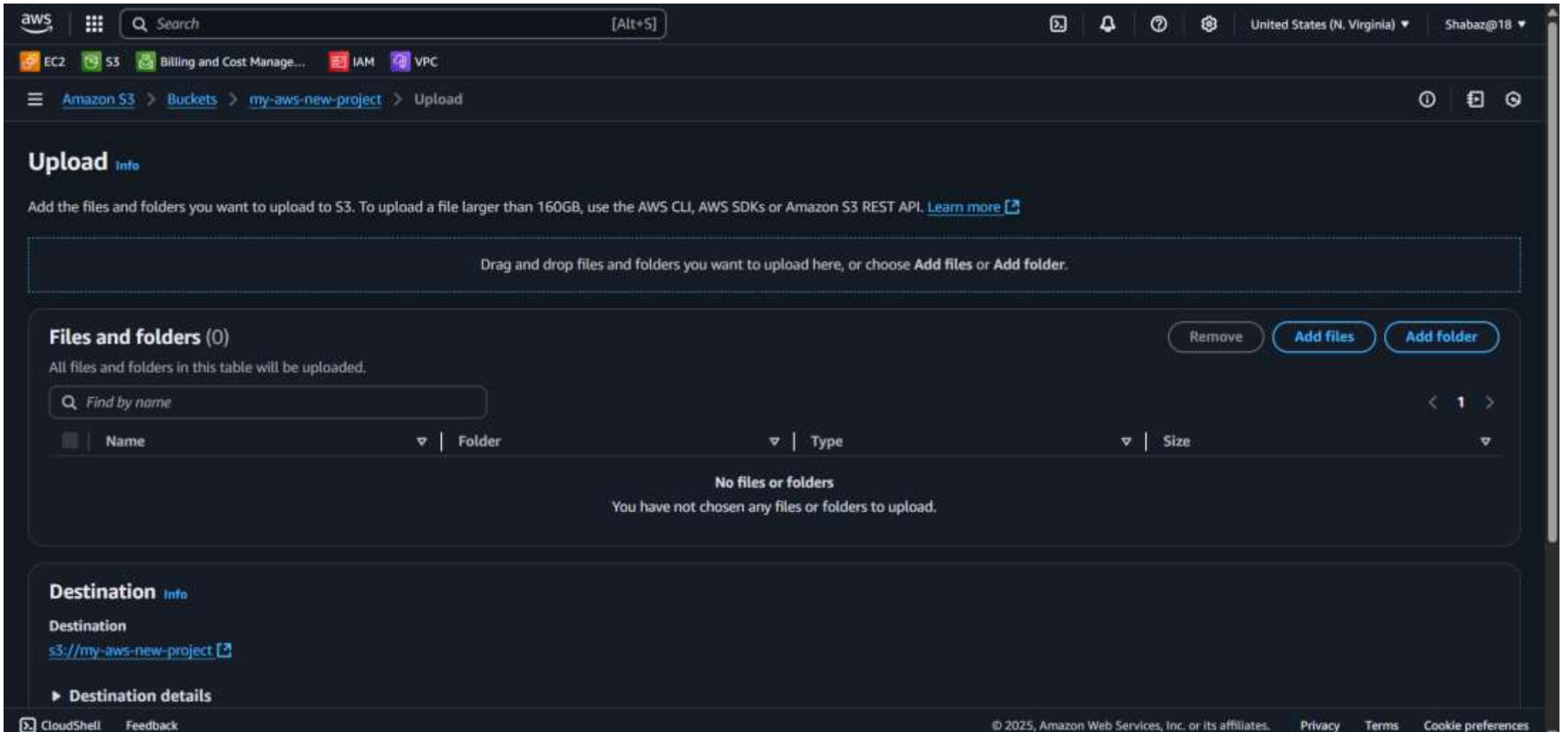
- Don't Change anything
- Scroll down and Click on Create Bucket



- After Creating the Bucket, if you click on Buckets list you can see your created bucket name in the list
- Next click on your created Bucket name & click upload



- If you Click on upload the interface will be shown like this , Just click on ADD files and add your saved Website Note



The screenshot displays the AWS Management Console's S3 'Upload' page. At the top, the navigation bar includes the AWS logo, a search bar, and user information for 'Shabaz@18' in the 'United States (N. Virginia)' region. The breadcrumb trail shows the path: 'Amazon S3 > Buckets > my-aws-new-project > Upload'. The main heading is 'Upload' with an 'Info' link. Below this, a message states: 'Add the files and folders you want to upload to S3. To upload a file larger than 160GB, use the AWS CLI, AWS SDKs or Amazon S3 REST API. [Learn more](#)'. A large dashed box contains the instruction: 'Drag and drop files and folders you want to upload here, or choose [Add files](#) or [Add folder](#).' Below this is a section titled 'Files and folders (0)' with a 'Remove' button and 'Add files' and 'Add folder' buttons. A search bar labeled 'Find by name' is present. A table header shows columns for 'Name', 'Folder', 'Type', and 'Size'. The table body is empty, displaying 'No files or folders' and 'You have not chosen any files or folders to upload.' At the bottom, the 'Destination' section shows the path 's3://my-aws-new-project' and a 'Destination details' link. The footer contains 'CloudShell', 'Feedback', and copyright information for Amazon Web Services, Inc. or its affiliates, along with links for 'Privacy', 'Terms', and 'Cookie preferences'.

aws [Search] [Alt+S] United States (N. Virginia) Shabaz@18

EC2 S3 Billing and Cost Manage... IAM VPC

Amazon S3 > Buckets > my-aws-new-project > Upload

Upload [Info](#)

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

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

Files and folders (0) [Remove](#) [Add files](#) [Add folder](#)

All files and folders in this table will be uploaded.

Name	Folder	Type	Size
No files or folders			
You have not chosen any files or folders to upload.			

Destination [Info](#)

Destination

[s3://my-aws-new-project](#)

[Destination details](#)

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- Open Cusmized Bucket, Click on Objects
- Here you can see the my added file

The screenshot displays the AWS Management Console interface for a bucket named 'my-aws-new-project'. The top navigation bar includes the AWS logo, a search bar, and various service shortcuts (EC2, S3, Billing and Cost Manage..., IAM, VPC). The breadcrumb trail shows 'Amazon S3 > Buckets > my-aws-new-project'. The main content area has tabs for 'Objects', 'Metadata', 'Properties', 'Permissions', 'Metrics', 'Management', and 'Access Points'. The 'Objects' tab is active, showing a list of objects. Above the list are buttons for 'Copy S3 URI', 'Copy URL', 'Download', 'Open', 'Delete', 'Actions', 'Create folder', and 'Upload'. A search bar labeled 'Find objects by prefix' is present. The object list has columns for 'Name', 'Type', 'Last modified', 'Size', and 'Storage class'. One object is listed: 'WEB PAGE DOC.index.html' with a type of 'html', last modified on 'July 15, 2025, 16:22:22 (UTC+05:30)', size of '1.6 KB', and storage class of 'Standard'. The footer includes 'CloudShell', 'Feedback', and copyright information for Amazon Web Services, Inc. or its affiliates, along with links for 'Privacy', 'Terms', and 'Cookie preferences'.

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EC2 S3 Billing and Cost Manage... IAM VPC

Amazon S3 > Buckets > my-aws-new-project

my-aws-new-project info

Objects Metadata Properties Permissions Metrics Management Access Points

Objects (1) [Refresh] [Copy S3 URI] [Copy URL] [Download] [Open] [Delete] [Actions] [Create folder] [Upload]

Objects are the fundamental entities stored in Amazon S3. You can use [Amazon S3 Inventory](#) to get a list of all objects in your bucket. For others to access your objects, you'll need to explicitly grant them permissions. [Learn more](#)

Find objects by prefix

<input type="checkbox"/>	Name	Type	Last modified	Size	Storage class
<input type="checkbox"/>	WEB PAGE DOC.index.html	html	July 15, 2025, 16:22:22 (UTC+05:30)	1.6 KB	Standard

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- After that click on search bar & Search CLOUDFRONT

The screenshot displays the AWS Management Console interface. At the top, the search bar contains the text "Amazon Cloudfront". The left sidebar shows the "my-aws-Objects" navigation menu. The main content area is divided into two sections: "Services" and "Features".

Services Section:

- CloudFront**: Global Content Delivery Network (with a star icon)
- AWS Private Certificate Authority**: Managed private certificate authority service (with a star icon)
- Amazon Redshift**: Fast, Serverless, and cost effective SQL analytics and data warehousing (with a star icon)

Features Section:

- AMIs**: EC2 feature
- Dashboard**: Amazon OpenSearch Service feature
- Export snapshots to EC2**: Lightsail feature

At the bottom of the Services section, there is a feedback prompt: "Were these results helpful?" with "Yes" and "No" buttons.

On the right side of the console, there is a section for "Actions" with buttons for "Create folder" and "Upload". Below this, there is a table with columns for "Storage class" and "1.6 KB".

The footer of the console shows the URL: <https://us-east-1.console.aws.amazon.com/s3/buckets/my-aws-new-project?region=us-east-1&bucketType=general&tab=objects#serviceF...> and the copyright notice: "© 2025, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences".

- Click on Create a Cloudfront Distribution
- Give name as AWS-WEB , Scroll down & Click on Next

The screenshot shows the Amazon CloudFront landing page within the AWS Management Console. The page features the AWS logo and navigation tabs for EC2, S3, Billing and Cost Management, IAM, and VPC. The main heading is "Amazon CloudFront" with the subtext "Securely deliver content with low latency and high transfer speeds". Below this, there is a "Get started with CloudFront" section with a "Create a CloudFront distribution" button. To the right, the "AWS Free Tier" section lists 1 TB of data transfer out, 10,000,000 HTTP or HTTPS requests, 2,000,000 CloudFront Function invocations, and "Each month, always free". At the bottom, the "Benefits and features" section highlights "Reduce latency" and "Improve security".

The screenshot shows the "Create distribution" wizard in the AWS Management Console. The breadcrumb trail indicates the path: CloudFront > Distributions > Create distribution. A blue banner at the top states: "We've streamlined the process of creating a CloudFront distribution. Continue here and let us know what you think. Or go to the previous Create Distribution page." The wizard consists of five steps: 1. Get started (selected), 2. Specify origin, 3. Enable security, 4. Get TLS certificate, and 5. Review and create. The "Get started" step includes a "Distribution name" field with the value "AWS-WEB" and a "Description - optional" field. Below these, there are two radio button options: "Single website or app" (selected) and "Multi-tenant architecture - New". The "Custom domain - optional" section is partially visible at the bottom.

- Select Amazon S3

The screenshot shows the AWS CloudFront console interface. At the top, there's a navigation bar with the AWS logo, a search bar, and user information. Below it, a breadcrumb trail shows 'CloudFront > Distributions > Create distribution'. A blue banner at the top of the main content area contains a message about streamlining the distribution creation process. On the left, a vertical sidebar lists the steps: 'Step 1: Get started', 'Step 2: Specify origin' (which is highlighted with a blue circle), 'Step 3: Enable security', and 'Step 4: Review and create'. The main content area is titled 'Specify origin' and includes a sub-header 'Origin type'. Below this, there's a descriptive sentence: 'Your origin is where your content (such as a website or app) lives. CloudFront works with AWS-based origins and origins hosted on other cloud providers.' There are six origin type options, each with a radio button and a description: 'Amazon S3' (selected), 'Elastic Load Balancer', 'API Gateway', 'Elemental MediaPackage', 'VPC origin', and 'Other'. Below the origin type section, there's another section titled 'Origin' with a sub-header 'S3 origin'. It contains a text input field with the placeholder 'Choose or enter origin' and a 'Browse S3' button. At the bottom of the page, there's a footer with 'CloudShell', 'Feedback', and copyright information for Amazon Web Services, Inc. or its affiliates, along with links for 'Privacy', 'Terms', and 'Cookie preferences'.

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CloudFront > Distributions > Create distribution

① We've streamlined the process of creating a CloudFront distribution. Continue here and [let us know what you think](#). Or go to the previous [Create Distribution](#) page.

Step 1
● Get started

Step 2
● **Specify origin**

Step 3
○ Enable security

Step 4
○ Review and create

Specify origin

Origin type

Your origin is where your content (such as a website or app) lives. CloudFront works with AWS-based origins and origins hosted on other cloud providers.

- ☒ **Amazon S3**
Deliver static assets like files and images, statically generated websites or single page applications (SPA).
- ☐ **Elastic Load Balancer**
Deliver applications hosted behind ELB such as dynamic websites, web services, and APIs.
- ☐ **API Gateway**
Deliver API endpoints for REST APIs hosted on API Gateway.
- ☐ **Elemental MediaPackage**
Deliver end-to-end live events or video on demand (VOD).
- ☐ **VPC origin**
Deliver applications and content hosted within private VPCs, such as EC2 instances and Application Load Balancers.
- ☐ **Other**
Refer to any AWS or non-AWS origin through its publicly resolvable URL.

Origin

S3 origin

Choose an AWS origin, or enter your origin's domain name. [Learn more](#)

Choose or enter origin [Browse S3](#)

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- Next, At Origin click on **Browse S3** and select your created S3 Bucket , Scroll Down & Click on Next

The screenshot shows the AWS CloudFront 'Create distribution' page, specifically the 'Origin' tab. The page has a dark theme. At the top, there's a navigation bar with the AWS logo, a search bar, and user information. Below that, a breadcrumb trail shows 'CloudFront > Distributions > Create distribution'. A blue banner at the top of the main content area contains a message about streamlined distribution creation. The 'Origin' section is the active tab, showing an 'S3 origin' configuration. A text input field contains the domain 'my-aws-new-project.s3.us-east-1.amazonaws.com', and a 'Browse S3' button is to its right. Below this, the 'Origin path - optional' section has a text input field with '/path'. The 'Settings' section includes a link to 'View default settings for S3' and a checkbox for 'Allow private S3 bucket access to CloudFront', which is checked and labeled 'Recommended'. The footer contains 'CloudShell', 'Feedback', and copyright information.

aws Search [Alt+S]

EC2 S3 Billing and Cost Manage... IAM VPC

CloudFront > Distributions > Create distribution

We've streamlined the process of creating a CloudFront distribution. Continue here and [let us know what you think](#). Or go to the previous [Create Distribution](#) page.

Origin

S3 origin
Choose an AWS origin, or enter your origin's domain name. [Learn more](#)

my-aws-new-project.s3.us-east-1.amazonaws.com [Browse S3](#)

Origin path - optional
The directory path within your origin where your content is stored. [Learn more](#)

/path

Settings [info](#)
CloudFront provides default origin and cache settings based on what origin you selected. [View default settings for S3](#)

Allow private S3 bucket access to CloudFront [info](#)
CloudFront will update your S3 bucket policy to allow CloudFront to access your S3 bucket. The policy allows CloudFront to access the bucket only when the request is on behalf of the CloudFront distribution that contains the S3 origin.

☒ Allow private S3 bucket access to CloudFront - *Recommended*

Origin settings
Origin settings control how CloudFront connects to the specified origin.

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- Next , At Enable security – if you want to select Enable WAF, you can, but remember one thing it is chargeable
- I Don't want to select so I selected Don't not Enable & Click on Next

The screenshot shows the AWS Management Console interface for creating a CloudFront distribution. The top navigation bar includes the AWS logo, a search bar, and user information. The breadcrumb trail indicates the current path: CloudFront > Distributions > Create distribution. A blue informational banner at the top states: "We've streamlined the process of creating a CloudFront distribution. Continue here and [let us know what you think](#). Or go to the previous [Create Distribution](#) page."

The main content area is titled "Enable security" and features a section for "Web Application Firewall (WAF)" with an "Info" link. There are two radio button options:

- ☐ **Enable security protections**
Keep your application secure from the most common web threats and security vulnerabilities using AWS WAF. Blocked requests are stopped before they reach your web servers.
- ☒ **Do not enable security protections**
Select this option if your application does not need security protections from AWS WAF.

On the left side, a vertical progress bar shows four steps: "Step 1 Get started", "Step 2 Specify origin", "Step 3 **Enable security**", and "Step 4 Review and create". The "Next" button is highlighted in orange, while "Previous" and "Cancel" are in blue.

• Next Click on Create Distribution

aws

Search

[Alt+S]

EC2

S3

Billing and Cost Manage...

IAM

VPC

CloudFront

Distributions

Create distribution

Shabaz@18

Step 1

Get started

Step 2

Specify origin

Step 3

Enable security

Step 4

Review and create

Review and create

General configuration

Distribution name

AWS-WEB

Description

-

Edit

Origin

Because you granted CloudFront access to your origin, CloudFront can write and update S3 bucket policies that restrict access to your S3 origin to CloudFront.

S3 origin

my-aws-new-project.s3.us-east-1.amazonaws.com

Origin path

-

Grant CloudFront access to origin

Yes

Enable Origin Shield

No

Connection attempts

3

Connection timeout

10

Cache settings

CloudFront will apply default cache settings tailored to serving content from a S3 origin. You can customize settings after you create your distribution.

Edit

Security

Security protections

None

Use monitor mode

No

Use existing WAF configuration

No

Edit

Cancel

Previous

Create distribution

CloudShell

Feedback

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- Distribution created, Next Click on Origins tab

The screenshot shows the AWS CloudFront console interface. At the top, a green notification bar states "Successfully created new distribution." The breadcrumb navigation shows "CloudFront > Distributions > E33WLOWUKR0PUB". The "Origins" tab is selected in the top navigation bar. The "Details" section shows the distribution name "AWS-WEB", its domain name "d3p4pityqqxs3d.cloudfront.net", its ARN, and its status "Deploying". The "Settings" section includes a description, price class, supported HTTP versions, alternate domain names, and logging options. The "Continuous deployment" section has a "Create staging distribution" button.

AWS Search [Alt+S]

EC2 S3 Billing and Cost Manage... IAM VPC

CloudFront > Distributions > E33WLOWUKR0PUB

Successfully created new distribution.

AWS-WEB Standard View metrics

General Security Origins Behaviors Error pages Invalidations Tags Logging

Details

Name AWS-WEB	Distribution domain name d3p4pityqqxs3d.cloudfront.net	ARN arn:aws:cloudfront::722599784033:distribution/E33WLOWUKR0PUB	Last modified Deploying
------------------------	--	--	-----------------------------------

Settings Edit

Description -	Alternate domain names Add domain	Standard logging Off
Price class Use all edge locations (best performance)		Cookie logging Off
Supported HTTP versions HTTP/2, HTTP/1.1, HTTP/1.0		Default root object -

Continuous deployment Info Create staging distribution

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- After Clicking on origins, Scroll down & Click on CREATE NEW OAC

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EC2 S3 Billing and Cost Manage... IAM VPC

CloudFront > Distributions > E33WLOWUKR0PUB > Edit origin

Origin path - optional
Enter a URL path to append to the origin domain name for origin requests.

Name
Enter a name for this origin.

Origin access Info

☐ Public
Bucket must allow public access.

☒ Origin access control settings (recommended)
Bucket can restrict access to only CloudFront.

☐ Legacy access identities
Use a CloudFront origin access identity (OAI) to access the S3 bucket.

Origin access control
Select an existing origin access control (recommended) or create a new control.

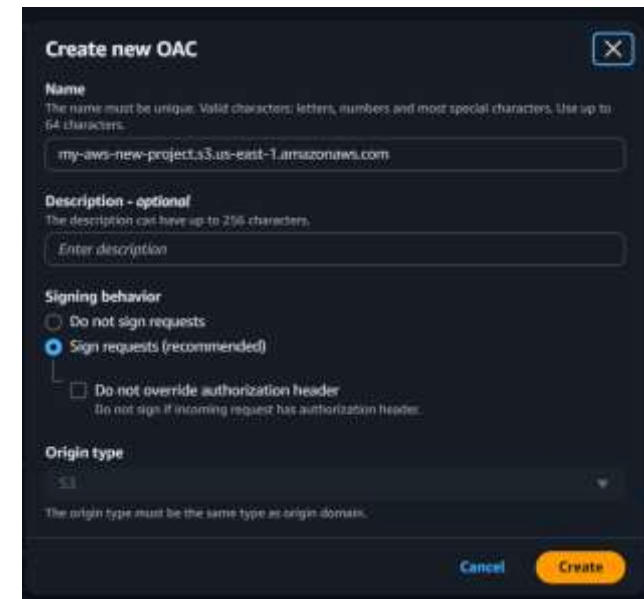
You must allow access to CloudFront using this policy statement. Learn more about [giving CloudFront permission to access the S3 bucket](#).

☐ Go to S3 bucket permissions

Add custom header - optional

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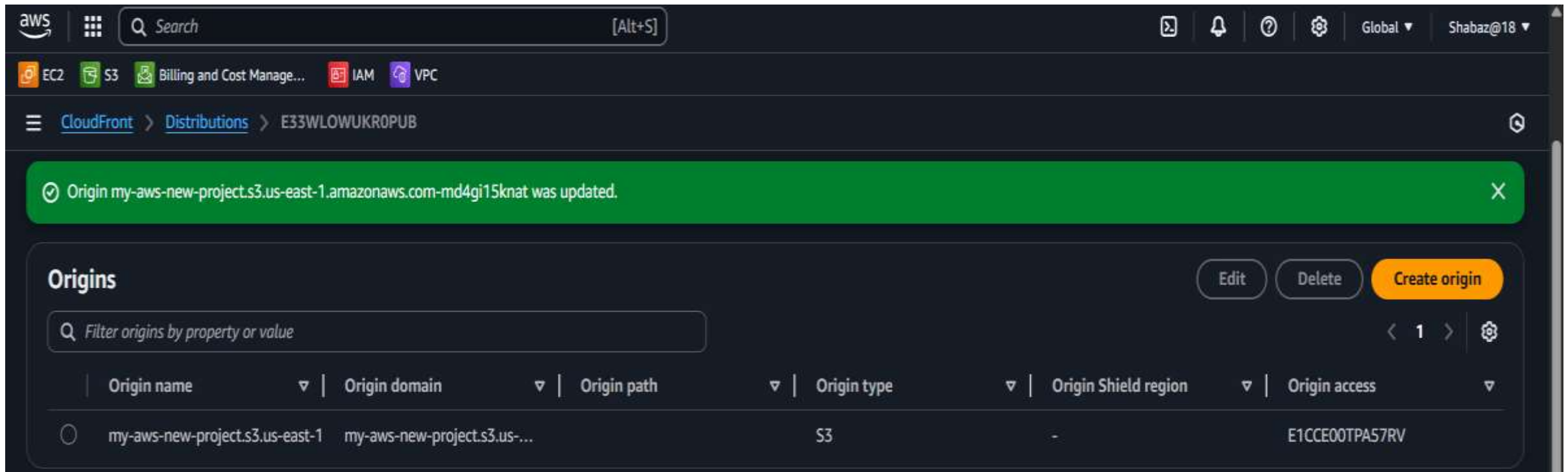
- Don't do Anything, Click on Create
- After that you will get one pop-up Notification as shown in the below picture



The screenshot shows a 'Create new OAC' (Origin Access Control) dialog box. It has a title bar with a close button. The form includes:

- Name:** A text input field containing 'my-aws-new-project.s3.us-east-1.amazonaws.com'. A note below says 'The name must be unique. Valid characters: letters, numbers and most special characters. Use up to 64 characters.'
- Description - optional:** A text input field with a placeholder 'Enter description'. A note below says 'The description can have up to 256 characters.'
- Signing behavior:** Two radio buttons: 'Do not sign requests' (unselected) and 'Sign requests (recommended)' (selected). Below these is a checkbox 'Do not override authorization header' (unchecked) with a note 'Do not sign if incoming request has authorization header.'
- Origin type:** A dropdown menu showing 'S3'. A note below says 'The origin type must be the same type as origin domain.'

At the bottom right are 'Cancel' and 'Create' buttons.



The screenshot shows the AWS CloudFront console. At the top, there's a navigation bar with the AWS logo, a search bar, and user information 'Shabaz@18'. Below the navigation bar, there's a breadcrumb trail: 'CloudFront > Distributions > E33WLOWUKR0PUB'. A green notification banner at the top of the main content area says 'Origin my-aws-new-project.s3.us-east-1.amazonaws.com-md4gi15knat was updated.' Below the notification, there's a section titled 'Origins'. It has a search bar 'Filter origins by property or value' and buttons 'Edit', 'Delete', and 'Create origin'. Below the buttons is a table with the following columns: 'Origin name', 'Origin domain', 'Origin path', 'Origin type', 'Origin Shield region', and 'Origin access'. The table contains one entry:

Origin name	Origin domain	Origin path	Origin type	Origin Shield region	Origin access
my-aws-new-project.s3.us-east-1	my-aws-new-project.s3.us-...		S3	-	E1CCE00TPA57RV

- Next, Click on Copy policy and copy that

The screenshot shows the AWS CloudFront console interface. At the top, there's a navigation bar with the AWS logo, a search bar, and user information (Shabaz@18). Below this is a breadcrumb trail: CloudFront > Distributions > E33WLOWUKR0PUB > Edit origin. The main content area is titled 'Origin path - optional' and contains a text input field labeled 'Enter the origin path'. Below this is the 'Name' section with a text input field containing 'my-aws-new-project.s3.us-east-1.amazonaws.com-md4gi15knat'. The 'Origin access' section has three radio button options: 'Public', 'Origin access control settings (recommended)', and 'Legacy access identities'. The 'Origin access control settings' option is selected. Below this is the 'Origin access control' section with a dropdown menu showing 'my-aws-new-project.s3.us-east-1.amazonaws.com' and a 'Create new OAC' button. At the bottom, there's a warning box with an information icon and the text: 'You must allow access to CloudFront using this policy statement. Learn more about giving CloudFront permission to access the S3 bucket [?].' A 'Copy policy' button is located to the right of the warning. At the very bottom, there's a footer with 'CloudShell', 'Feedback', and copyright information.

aws Search [Alt+S]

EC2 S3 Billing and Cost Manage... IAM VPC

CloudFront > Distributions > E33WLOWUKR0PUB > Edit origin

Origin path - optional
Enter a URL path to append to the origin domain name for origin requests.

Enter the origin path

Name
Enter a name for this origin.

my-aws-new-project.s3.us-east-1.amazonaws.com-md4gi15knat

Origin access Info

☐ Public
Bucket must allow public access.

☒ Origin access control settings (recommended)
Bucket can restrict access to only CloudFront.

☐ Legacy access identities
Use a CloudFront origin access identity (OAI) to access the S3 bucket.

Origin access control
Select an existing origin access control (recommended) or create a new control.

my-aws-new-project.s3.us-east-1.amazonaws.com Create new OAC

Go to S3 bucket permissions

Add custom header - optional

Copy policy

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- Next Navigate to your customized S3 Bucket (my-aws-new-project)

The screenshot displays the AWS Management Console interface for an Amazon S3 bucket named 'my-aws-new-project'. The top navigation bar includes the AWS logo, a search bar, and various service icons (EC2, S3, Billing and Cost Manager, IAM, VPC). The breadcrumb trail shows 'Amazon S3 > Buckets > my-aws-new-project'. The bucket name 'my-aws-new-project' is prominently displayed with an 'Info' link. Below this, a series of tabs allows navigation between 'Objects', 'Metadata', 'Properties', 'Permissions', 'Metrics', 'Management', and 'Access Points'. The 'Objects' tab is active, showing a list of objects. Above the list, there are action buttons: 'Copy S3 URI', 'Copy URL', 'Download', 'Open', 'Delete', 'Actions' (with a dropdown arrow), 'Create folder', and 'Upload'. A search bar for objects is also present. The object list has columns for selection, Name, Type, Last modified, Size, and Storage class. One object is listed: 'WEB PAGE DOC index.html' with a type of 'html', last modified on 'July 15, 2025, 16:22:22 (UTC+05:30)', size of '1.6 KB', and storage class of 'Standard'. The footer contains links for 'CloudShell', 'Feedback', and copyright information for Amazon Web Services, Inc. or its affiliates, along with 'Privacy', 'Terms', and 'Cookie preferences' links.

aws [Search] [Alt+S] United States (N. Virginia) Shabaz@18

EC2 S3 Billing and Cost Manage... IAM VPC

Amazon S3 > Buckets > my-aws-new-project

my-aws-new-project Info

Objects Metadata Properties Permissions Metrics Management Access Points

Objects (1) [Refresh] [Copy S3 URI] [Copy URL] [Download] [Open] [Delete] [Actions] [Create folder] [Upload]

Objects are the fundamental entities stored in Amazon S3. You can use [Amazon S3 inventory](#) to get a list of all objects in your bucket. For others to access your objects, you'll need to explicitly grant them permissions. [Learn more](#)

Find objects by prefix

<input type="checkbox"/>	Name	Type	Last modified	Size	Storage class
<input type="checkbox"/>	WEB PAGE DOC index.html	html	July 15, 2025, 16:22:22 (UTC+05:30)	1.6 KB	Standard

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- Click on bucket name & choose permissions
- Then, Scroll down & Click on Edit at the Bucket Policy

The screenshot displays the AWS Management Console interface. At the top, the navigation bar includes the AWS logo, a search bar, and a list of services: EC2, S3, Billing and Cost Management, IAM, and VPC. The breadcrumb trail indicates the current location: Amazon S3 > Buckets > my-aws-new-project. The main content area is titled 'my-aws-new-project' with an 'Info' link. Below this, a series of tabs are visible: Objects, Metadata, Properties, Permissions (which is the active tab), Metrics, Management, and Access Points. The 'Permissions overview' section contains an 'Access finding' subsection with a link to 'View analyzer for us-east-1'. The 'Block public access (bucket settings)' section shows that 'Block all public access' is turned 'On' (indicated by a green checkmark) and provides an 'Edit' button. Below this, there is a link to 'Individual Block Public Access settings for this bucket'. The 'Bucket policy' section at the bottom shows an 'Edit' button and a 'Delete' button. The footer of the console includes 'CloudShell', 'Feedback', and copyright information for Amazon Web Services, Inc. or its affiliates, along with links for 'Privacy', 'Terms', and 'Cookie preferences'.

aws [Search] [Alt+S] United States (N. Virginia) Shabaz@18

EC2 S3 Billing and Cost Manage... IAM VPC

Amazon S3 > Buckets > my-aws-new-project

my-aws-new-project [Info](#)

Objects Metadata Properties **Permissions** Metrics Management Access Points

Permissions overview

Access finding
Access findings are provided by IAM external access analyzers. Learn more about [How IAM analyzer findings work](#)
[View analyzer for us-east-1](#)

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

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
✔ On
▶ Individual Block Public Access settings for this bucket

Bucket policy [Edit](#) [Delete](#)

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](#)

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- Next, at the Policy Delete that Policy and Paste our copied policy

The screenshot shows the AWS IAM console interface for editing a bucket policy. The breadcrumb navigation at the top indicates the path: Amazon S3 > Buckets > my-aws-new-project > Edit bucket policy. The main heading is 'Edit bucket policy' with an 'Info' link. Below this, there's a 'Bucket policy' section with a description and a 'Learn more' link. To the right of the description are two buttons: 'Policy examples' and 'Policy generator'. The 'Bucket ARN' is displayed as 'arn:aws:s3::my-aws-new-project'. The 'Policy' section contains a JSON policy document. On the right side of the policy editor, there's a panel titled 'Edit statement' which includes a 'Select a statement' section with instructions to select an existing statement or add a new one, and a '+ Add new statement' button.

aws Search [Alt+S] United States (N. Virginia) Shabaz@18

EC2 S3 Billing and Cost Manage... IAM VPC

Amazon S3 > Buckets > my-aws-new-project > 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::my-aws-new-project

Policy

```
1 {  
2   "Version": "2008-10-17",  
3   "Id": "PolicyForCloudFrontPrivateContent",  
4   "Statement": [  
5     {  
6       "Sid": "AllowCloudFrontServicePrincipal",  
7       "Effect": "Allow",  
8       "Principal": {  
9         "Service": "cloudfront.amazonaws.com"  
10      },  
11      "Action": "s3:GetObject",  
12      "Resource": "arn:aws:s3::my-aws-new-project/*",  
13      "Condition": {  
14        "StringEquals": {
```

Edit statement

Select a statement

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

[+ Add new statement](#)

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- Scroll down Click on Save Changes

The screenshot shows the AWS IAM console interface. The breadcrumb navigation indicates the path: **Amazon S3** > **Buckets** > **my-aws-new-project** > **Edit bucket policy**. The main area contains a JSON policy editor with the following content:

```
13  "condition": {  
14    "StringEquals": {  
15      "AWS:SourceArn": "arn:aws:cloudfront::722599784033:distribution/E33WLOMUKR0PUB"  
16    }  
17  }  
18 }  
19 }  
20 }
```

Below the editor, there are two buttons: **+ Add new statement** and **Preview external access**. At the bottom right, there are two buttons: **Cancel** and **Save changes** (highlighted in orange). The footer includes the CloudShell logo, a feedback link, and copyright information for Amazon Web Services, Inc. or its affiliates, along with links for Privacy, Terms, and Cookie preferences.

- After saving changes, a pop-up notification will be appear

The screenshot shows the AWS Management Console interface. At the top, there's a navigation bar with the AWS logo, a search bar, and user information (United States (N. Virginia), Shabaz@18). Below the navigation bar, there's a breadcrumb trail: Amazon S3 > Buckets > my-aws-new-project. A green notification banner at the top states: "Successfully edited bucket policy." Below this, a blue informational box contains the text: "Public access is blocked because Block Public Access settings are turned on for this bucket. To determine which settings are turned on, check your Block Public Access settings for this bucket. Learn more about using Amazon S3 Block Public Access." The main content area displays a JSON snippet for a bucket policy, with a "Copy" button to the right. The JSON snippet is as follows:

```
{
  "Version": "2008-10-17",
  "Id": "PolicyForCloudFrontPrivateContent",
  "Statement": [
    {
      "Sid": "AllowCloudFrontServicePrincipal",
      "Effect": "Allow",
      "Principal": {
        "Service": "cloudfront.amazonaws.com"
      },
      "Action": "s3:GetObject",
      "Resource": "arn:aws:s3::my-aws-new-project/*",
      "Condition": {
        "StringEquals": {
          "AWS:SourceArn": "arn:aws:cloudfront::722599784033:distribution/E33WLOWUKR0PUB"
        }
      }
    }
  ]
}
```

At the bottom of the console, there's a footer with "CloudShell" and "Feedback" links on the left, and copyright information "© 2025, Amazon Web Services, Inc. or its affiliates." along with "Privacy", "Terms", and "Cookie preferences" links on the right.

- After that go back to Cloudfront > Your Customized Distribution (AWS-WEB)
- Click on General & copy the DISTRIBUTION DOMAIN NAME

The screenshot displays the AWS CloudFront console interface for a specific distribution. At the top, the navigation bar shows the AWS logo, a search bar, and various service icons (EC2, S3, Billing and Cost Management, IAM, VPC). The breadcrumb trail indicates the path: CloudFront > Distributions > E33WLOWUKR0PUB. The main header shows the distribution name 'AWS-WEB' with a 'Standard' type label and a 'View metrics' button. Below this, a series of tabs are visible: General (selected), Security, Origins, Behaviors, Error pages, Invalidations, Tags, and Logging. The 'Details' section contains the following information:

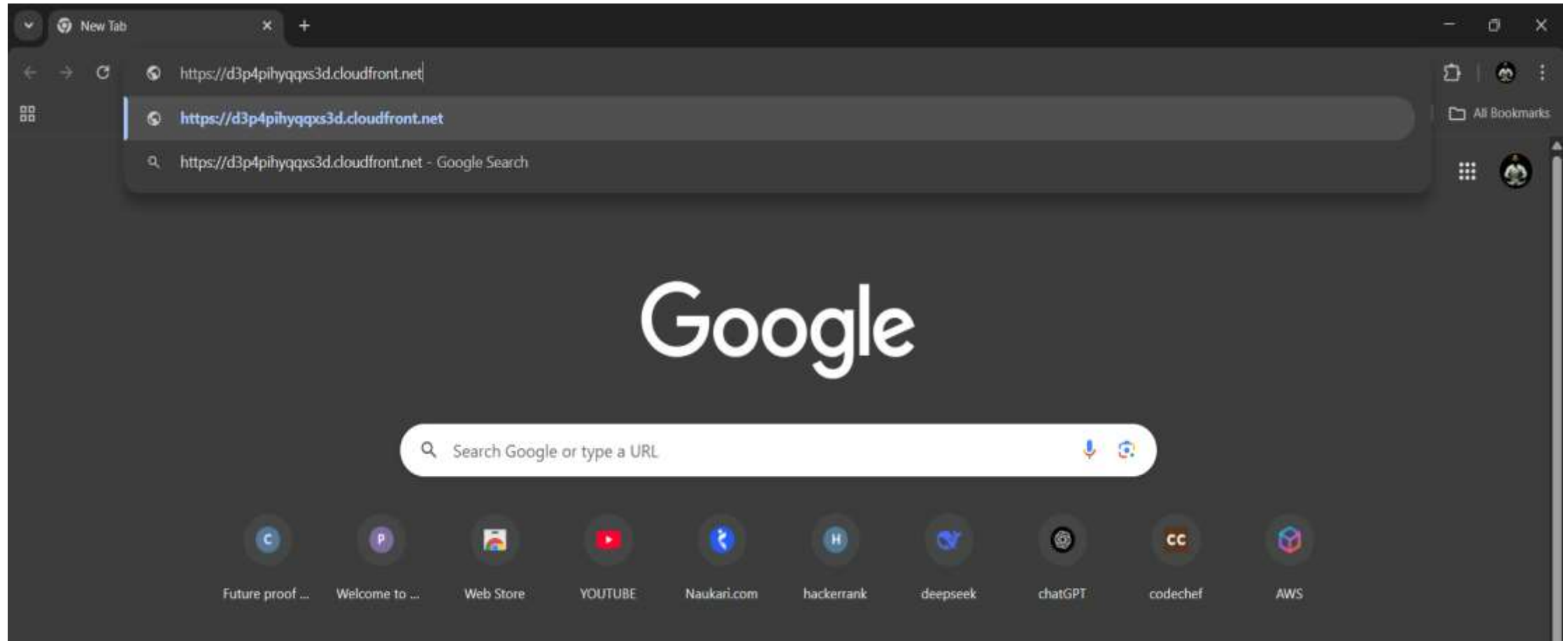
- Name:** AWS-WEB (with an edit icon)
- Distribution domain name:** d3p4pihyqqxs3d.cloudfront.net (with a copy icon and a tooltip stating 'Distribution domain name copied')
- ARN:** arn:aws:cloudfront::722599784033:distribution/E33WLOWUKR0PUB
- Last modified:** July 15, 2025 at 11:47:53 AM UTC

The 'Settings' section is divided into three columns:

- Description:** -
- Price class:** Use all edge locations (best performance)
- Supported HTTP versions:** HTTP/2, HTTP/1.1, HTTP/1.0
- Alternate domain names:** - (with an 'Add domain' button)
- Standard logging:** Off
- Cookie logging:** Off
- Default root object:** -

At the bottom, the 'Continuous deployment' section is partially visible, showing a link to 'Info'. The footer includes the CloudShell icon, a feedback link, and copyright information for Amazon Web Services, Inc. or its affiliates, along with links for Privacy, Terms, and Cookie preferences.

- Open Browser and open a new Tab Paste that Distribution Domain Name URL and see the Magic



SUMMARY

- Hosting with S3 is simple but powerful
- CloudFront helps in faster global delivery
- Importance of correct policy and cache settings
- **Pay-as-you-go pricing and reduced egress costs** makes S3 + CloudFront a highly cost-effective hosting combo
- **Origin Access Control restricts direct S3 access**, improving security by funneling all traffic through CloudFront

CONCLUSION

- Successfully hosted a fast and secure static website
- Learned core AWS services (S3 + CloudFront)
- Real-world deployment experience
- **Simplified architecture:** No need to manage servers—just upload files to S3, configure CloudFront, and you're live
- **Global scalability & availability:** S3 provides 99.999999999% data durability and CloudFront handles sudden traffic spikes seamlessly
- **Great learning experience:** You now understand core AWS services and CDN-based hosting workflows, a great foundation for more advanced cloud work