

Week 16: AWS Storage Assignment

Problem Statement

You're tasked with creating a basic storage solution using Amazon S3 to upload and download files.

Guidelines and Goals:

1. Create S3 bucket

- Create a new S3 bucket with unique name.
- Choose a region and configure public access settings

2. Upload and Download:

- Use the AWS Management Console to upload a text file to your S3 bucket
- Set the file to be publicly accessible and note its URL.

3. Versioning:

- Enable versioning on your S3 bucket
- Upload a new version of the text file and observe version changes.

4. Static Website Hosting:

- Configure your S3 bucket for static website hosting
- Upload an HTML file and test accessing it via the provided endpoint.

1. Create S3 bucket

The screenshot shows the AWS Management Console interface. At the top, there's a navigation bar with the AWS logo, 'Services', a search bar, and user information. A green banner at the top of the main content area states: 'Successfully created bucket "joshbucketassignment"'. Below this, the breadcrumb 'Amazon S3 > Buckets' is visible. The main content area has a section for 'Account snapshot' and a 'Buckets (1)' section. The 'Buckets (1)' section includes a search bar, a table with one bucket, and buttons for 'Copy ARN', 'Empty', 'Delete', and 'Create bucket'. The table has columns for Name, AWS Region, Access, and Creation date. The footer contains links for 'CloudShell', 'Feedback', 'Language', and copyright information.

aws Services Search [Alt+S] Global Joshua

S3

☑ Successfully created bucket "joshbucketassignment"

To upload files and folders, or to configure additional bucket settings choose [View details](#).

Amazon S3 > Buckets

▶ Account snapshot

Storage lens provides visibility into storage usage and activity trends. [Learn more](#)

[View Storage Lens dashboard](#)

Buckets (1) [Info](#)

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

Find buckets by name

< 1 > ⚙

	Name	AWS Region	Access	Creation date
<input type="radio"/>	joshbucketassignment	US East (N. Virginia) us-east-1	Bucket and objects not public	August 30, 2023, 10:39:47 (UTC+03:00)

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2. Upload and Download

- Using my AWS Console to upload a textfile to my S3 bucket

The screenshot shows the AWS S3 console interface. At the top, there's a navigation bar with the AWS logo, 'Services' menu, a search bar, and user information 'Joshua'. Below the navigation bar, the breadcrumb trail reads 'Amazon S3 > Buckets > joshbucketassignment'. The main heading is 'joshbucketassignment' with an 'Info' link. Below this, there are tabs for 'Objects', 'Properties', 'Permissions', 'Metrics', 'Management', and 'Access Points'. The 'Objects' tab is active, showing 'Objects (1)'. A descriptive text explains that objects are fundamental entities stored in Amazon S3. Below the text are buttons for 'Copy S3 URI', 'Copy URL', 'Download', 'Open', 'Delete', 'Actions', 'Create folder', and 'Upload'. A search bar 'Find objects by prefix' is present. A table lists the objects:

<input type="checkbox"/>	Name	Type	Last modified	Size	Storage class
<input type="checkbox"/>	textfile	-	August 30, 2023, 10:54:09 (UTC+03:00)	145.0 B	Standard

The footer of the console shows 'CloudShell', 'Feedback', 'Language', and copyright information for 2023.

S3 bucket set to be public

This screenshot shows the 'Buckets' page in the AWS S3 console. The left sidebar contains navigation links for 'Object Lambda Access Points', 'Multi-Region Access Points', 'Batch Operations', 'IAM Access Analyzer for S3', 'Storage Lens' (with a sub-menu for 'Dashboards' and 'AWS Organizations settings'), 'Feature spotlight' (with a badge '7'), and 'AWS Marketplace for S3'. The main content area has a breadcrumb trail 'Amazon S3 > Buckets'. It includes an 'Account snapshot' section with a 'View Storage Lens dashboard' button. Below this is the 'Buckets (1)' section with an 'Info' link. It contains buttons for 'Copy ARN', 'Empty', 'Delete', and 'Create bucket'. A search bar 'Find buckets by name' is also present. A table lists the buckets:

<input type="radio"/>	Name	AWS Region	Access	Creation date
<input type="radio"/>	joshbucketassignment	US East (N. Virginia) us-east-1	Objects can be public	August 30, 2023, 10:39:47 (UTC+03:00)

The footer of the console shows 'CloudShell', 'Feedback', 'Language', and copyright information for 2023.

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Services

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S3

Object Lambda Access Points

Multi-Region Access Points

Batch Operations

IAM Access Analyzer for S3

Block Public Access settings for this account

Storage Lens

Dashboards

AWS Organizations settings

Feature spotlight 7

AWS Marketplace for S3

To see the full list of ACLs, use the Amazon S3 REST API, AWS CLI, or AWS SDKs.

Grantee	Objects	Bucket ACL
Bucket owner (your AWS account) Canonical ID: 2edf856f1d7fc157abdaf799f52e0ef4eddc5b546cb56dba32c75f671c8e6a7	List, Write	Read, Write
Everyone (public access) Group: http://acs.amazonaws.com/groups/global/AllUsers	-	-
Authenticated users group (anyone with an AWS account) Group: http://acs.amazonaws.com/groups/global/AuthenticatedUsers	-	-
S3 log delivery group Group: http://acs.amazonaws.com/groups/s3/LogDelivery	-	-

CloudShell

Feedback

Language

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3. Versioning

S3 bucket Versioning

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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](#)

Bucket Versioning

☐ Suspend

This suspends the creation of object versions for all operations but preserves any existing object versions.

☒ Enable

After enabling Bucket Versioning, you might need to update your lifecycle rules to manage previous versions of objects.

Multi-factor authentication (MFA) delete

An additional layer of security that requires multi-factor authentication for changing Bucket Versioning settings and permanently deleting object versions. To modify MFA delete settings, use the AWS CLI, AWS SDK, or the Amazon S3 REST API. [Learn more](#)

Disabled

Cancel

Save changes

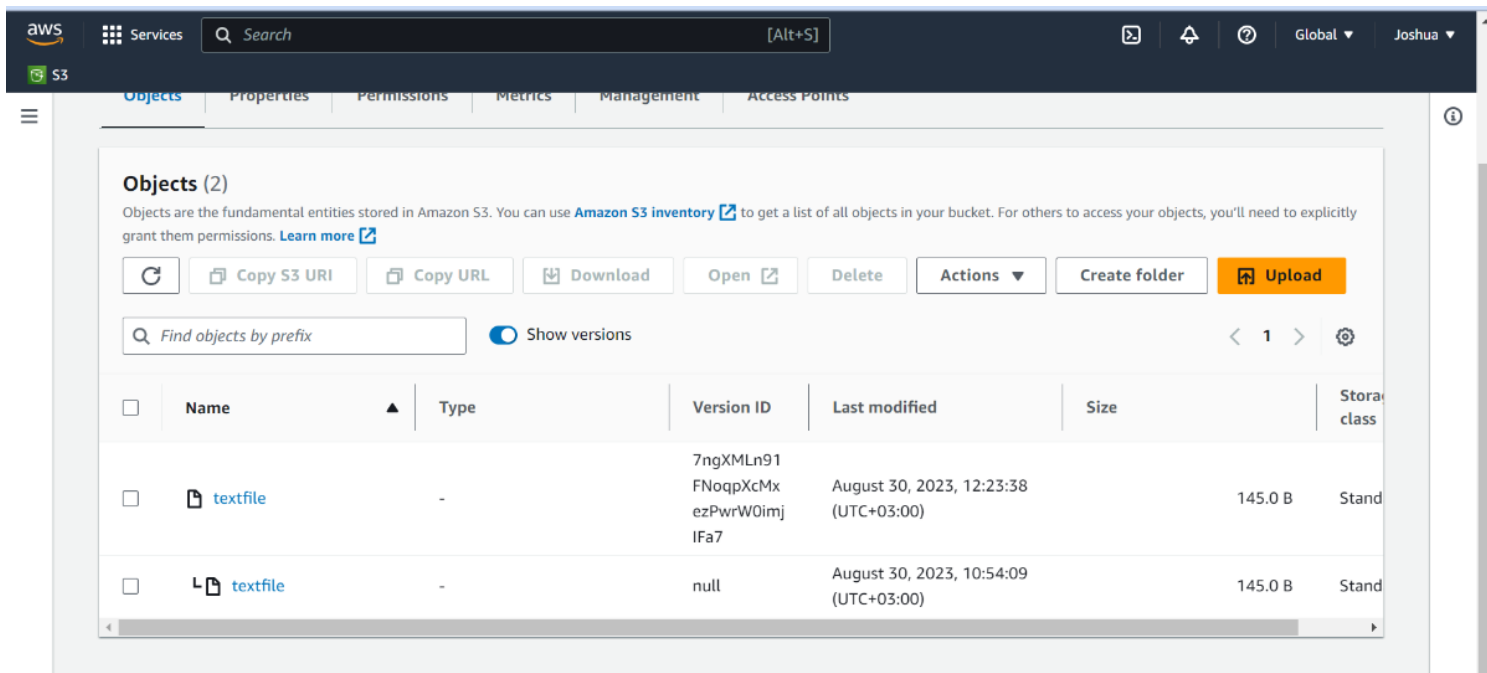
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Objects Version changes

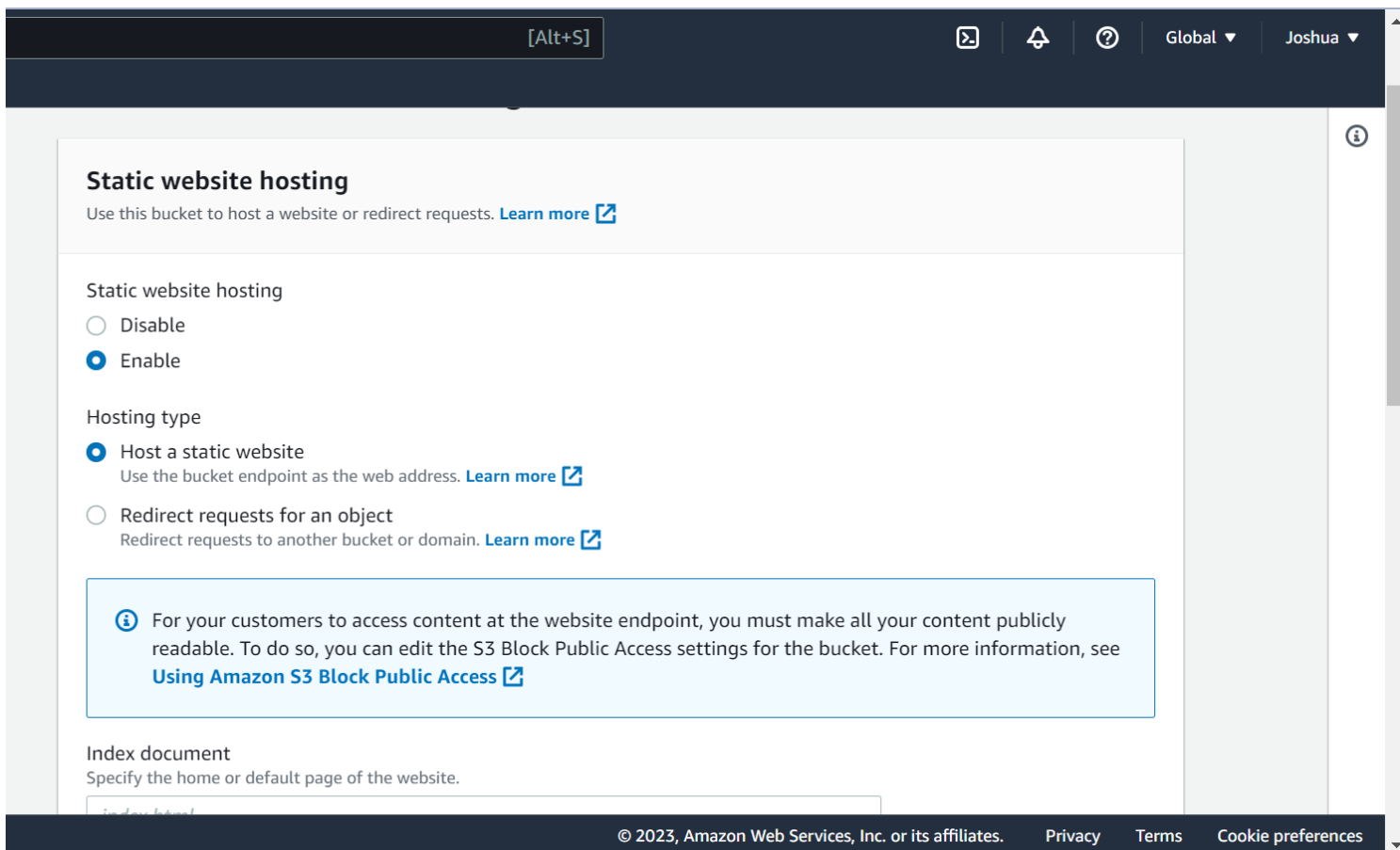


The screenshot shows the AWS S3 console interface. At the top, there's a navigation bar with the AWS logo, 'Services' menu, a search bar, and user information 'Joshua'. Below the navigation bar, the 'Objects' tab is selected, showing a list of objects in a bucket. The list has columns for Name, Type, Version ID, Last modified, Size, and Storage class. Two objects are listed: 'textfile' with a version ID and 'textfile' with a null version ID. Both are 145.0 B in size and have a 'Standard' storage class. Above the list, there are buttons for 'Copy S3 URI', 'Copy URL', 'Download', 'Open', 'Delete', 'Actions', 'Create folder', and 'Upload'. A search bar and a 'Show versions' toggle are also present.

<input type="checkbox"/>	Name	Type	Version ID	Last modified	Size	Storage class
<input type="checkbox"/>	textfile	-	7ngXMLn91 FNoqpXcMx ezPwrW0imj IFa7	August 30, 2023, 12:23:38 (UTC+03:00)	145.0 B	Standard
<input type="checkbox"/>	textfile	-	null	August 30, 2023, 10:54:09 (UTC+03:00)	145.0 B	Standard

4. Static Web Hosting

- Static Web Hosting configuration.



The screenshot shows the 'Static website hosting' configuration page in the AWS S3 console. The page has a dark header with the AWS logo, 'Services' menu, a search bar, and user information 'Joshua'. The main content area is titled 'Static website hosting' and includes a description: 'Use this bucket to host a website or redirect requests. Learn more'. Below this, there are two sections: 'Static website hosting' and 'Hosting type'. The 'Static website hosting' section has two radio buttons: 'Disable' and 'Enable', with 'Enable' selected. The 'Hosting type' section has two radio buttons: 'Host a static website' and 'Redirect requests for an object', with 'Host a static website' selected. Below the 'Host a static website' option, there's a note: 'Use the bucket endpoint as the web address. Learn more'. Below the 'Redirect requests for an object' option, there's a note: 'Redirect requests to another bucket or domain. Learn more'. At the bottom, there's a section for 'Index document' with a text input field. A footer bar at the bottom contains copyright information and links for 'Privacy', 'Terms', and 'Cookie preferences'.

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](#)

Index document
Specify the home or default page of the website.

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Upload html file on your S3 bucket

The screenshot shows the AWS S3 console interface for a bucket named 'joshbucketassignment'. The 'Objects' tab is selected, displaying a list of two objects:

	Name	Type	Last modified	Size	Storage class
<input type="checkbox"/>	index.html	html	August 30, 2023, 21:52:19 (UTC+03:00)	1.9 KB	Standard
<input type="checkbox"/>	textfile	-	August 30, 2023, 12:23:38 (UTC+03:00)	145.0 B	Standard

Below the table, there is a search bar with the text 'Find objects by prefix' and a 'Show versions' toggle. The top navigation bar includes tabs for Objects, Properties, Permissions, Metrics, Management, and Access Points. The bottom of the screen shows a Windows taskbar with various application icons and a system clock indicating 21:58 on 30/08/23.

Access html file via AWS link

The screenshot shows a web browser displaying a resume for Joshua Muriki. The URL in the address bar is 'joshbucketassignment.s3-website-us-east-1.amazonaws.com'. The resume content is as follows:

Joshua Muriki

DevOps Engineer

Contact Information

Email: murikij@gmail.com
Phone: +254 702 067 939
LinkedIn Profile: <https://www.linkedin.com/in/joshua-muriki/>

Education

Bachelor's Degree in Computer Science
Meru University of Science & Technology
Graduated: November 2018

Experience

Junior DevOps Engineer Intern
Azubi Africa
May 2023 - January 2024
Worked on AWS projects using Terraform, Docker, Kubernetes and deploying to AWS Cloud.

Skills

Linux Administrator
CI/CD using Ansible and Terraform
Version Control (Git)