Creation of S3 Bucket
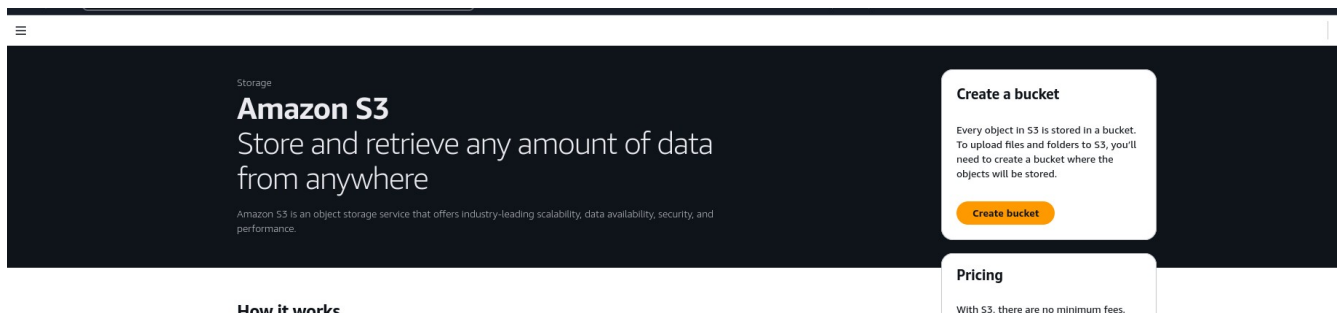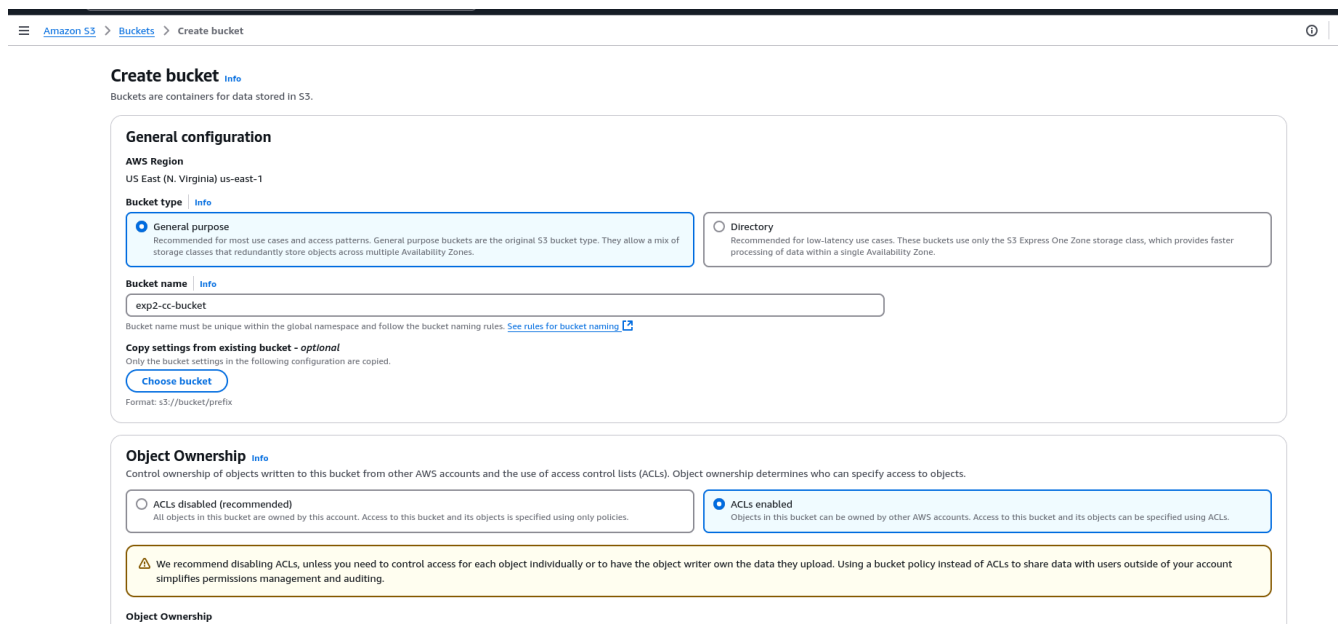
Create the S3 bucket and upload the object into it

i) Change the bucket level permissions
ii) Change the object level permissions
iii) Make the bucket publicly accessible

Note:- Upload the document with i) URL of object ii) Screenshots of each and every step

Block Public Access settings for this bucket

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 this bucket and its 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 this bucket or objects within, you can customize the individual settings below to suit your specific storage use cases. Learn more 🗗

☐ **Block *all* public access**
Turning this setting on is the same as turning on all four settings below. Each of the following settings are independent of one another.

   ☐ **Block public access to buckets and objects granted through *new* access control lists (ACLs)**
   S3 will block public access permissions applied to newly added buckets or objects, and prevent the creation of new public access ACLs for existing buckets and objects. This setting doesn't change any existing permissions that allow public access to S3 resources using ACLs.

   ☐ **Block public access to buckets and objects granted through *any* access control lists (ACLs)**
   S3 will ignore all ACLs that grant public access to buckets and objects.

   ☐ **Block public access to buckets and objects granted through *new* public bucket or access point policies**
   S3 will block new bucket and access point policies that grant public access to buckets and objects. This setting doesn't change any existing policies that allow public access to S3 resources.

   ☐ **Block public and cross-account access to buckets and objects through *any* public bucket or access point policies**
   S3 will ignore public and cross-account access for buckets or access points with policies that grant public access to buckets and objects.

⚠ **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.

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
○ Disable
● Enable

Tags - *optional* (0)

Tags - *optional* (0)

You can use bucket tags to track storage costs and organize buckets. Learn more 🗗

No tags associated with this bucket.

[Add tag]

Default encryption Info

Server-side encryption is automatically applied to new objects stored in this bucket.

Encryption type | Info
● Server-side encryption with Amazon S3 managed keys (SSE-S3)
○ Server-side encryption with AWS Key Management Service keys (SSE-KMS)
○ Dual-layer server-side encryption with AWS Key Management Service keys (DSSE-KMS)
Secure your objects with two separate layers of encryption. For details on pricing, see **DSSE-KMS pricing** on the **Storage** tab of the Amazon S3 pricing page. 🗗

Bucket Key
Using an S3 Bucket Key for SSE-KMS reduces encryption costs by lowering calls to AWS KMS. S3 Bucket Keys aren't supported for DSSE-KMS. Learn more 🗗
○ Disable
● Enable

▶ **Advanced settings**

ⓘ After creating the bucket, you can upload files and folders to the bucket, and configure additional bucket settings.

Cancel   [Create bucket]

✓ **Successfully created bucket "exp2-cc-bucket"**
To upload files and folders, or to configure additional bucket settings, choose **View details**.

View details ✕

▶ **Account snapshot** - *updated every 24 hours* [All AWS Regions]

View Storage Lens dashboard

Storage lens provides visibility into storage usage and activity trends. Metrics don't include directory buckets. Learn more 🗗

General purpose buckets | Directory buckets

General purpose buckets (1) Info [All AWS Regions]

Copy ARN | Empty | Delete | **Create bucket**

Buckets are containers for data stored in S3.

🔍 Find buckets by name

< 1 > ⚙

Name ▲	AWS Region ▽	IAM Access Analyzer	Creation date ▽
○ exp2-cc-bucket	US East (N. Virginia) us-east-1	View analyzer for us-east-1	February 17, 2025, 10:07:27 (UTC+05:30)

Click on upload

exp2-cc-bucket Info

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

Objects (0)

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

◯ Show versions

< 1 > ⚙

☐ Name ▽	Type ▽	Last modified ▽	Size ▽	Storage class ▽

No objects
You don't have any objects in this bucket.

⬆ Upload

Click on Add files

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.

🔍 Find by name   ‹ 1 ›

☐	Name ▽	Folder ▽	Type ▽	Size ▽

No files or folders

You have not chosen any files or folders to upload.

Destination Info

Destination

s3://exp2-cc-bucket ⧉

▶ **Destination details**
Bucket settings that impact new objects stored in the specified destination.

▶ **Permissions**
Grant public access and access to other AWS accounts.

▶ **Properties**
Specify storage class, encryption settings, tags, and more.

Cancel   **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 (1 total, 250.0 B)   Remove   Add files   Add folder

All files and folders in this table will be uploaded.

🔍 Find by name   ‹ 1 ›

☐	Name ▽	Folder ▽	Type ▽	Size ▽
☐	index.html	-	text/html	250.0 B

Destination Info

Destination

s3://exp2-cc-bucket ⧉

▶ **Destination details**
Bucket settings that impact new objects stored in the specified destination.

▶ **Permissions**
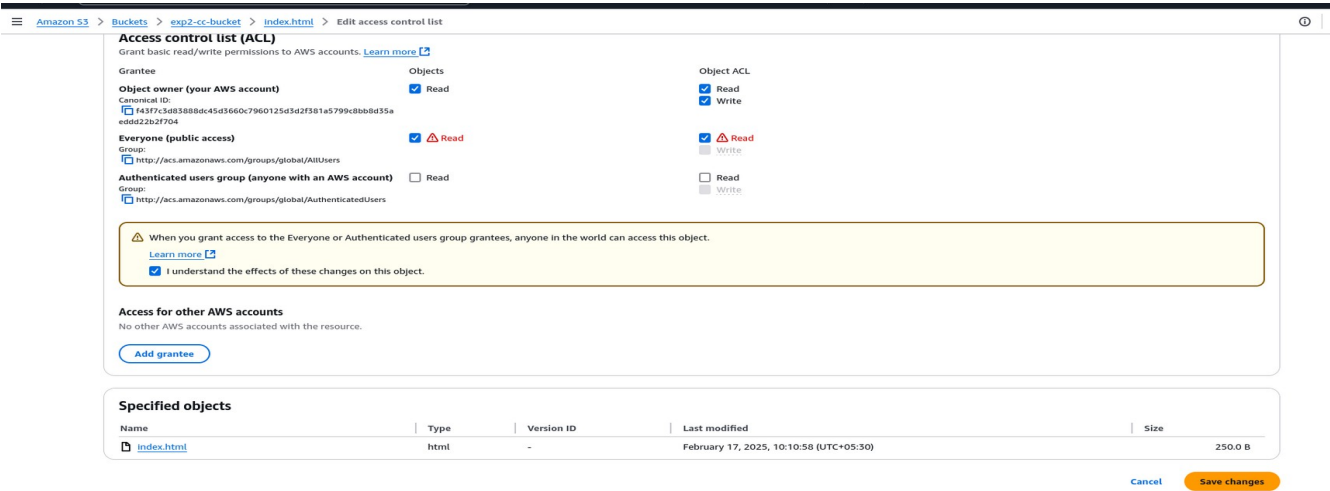Grant public access and access to other AWS accounts.

▶ **Properties**
Specify storage class, encryption settings, tags, and more.

Cancel   **Upload**

Set proper permissions to manage access

HTML File Output:- https://exp2-cc-bucket.s3.us-east-1.amazonaws.com/index.html

aws | Search [Alt+S]

United States (N. Virginia) ▼   voclabs/user3723836=viishhnu2005@gmail.com @ 0123-34

Amazon S3 > Buckets > exp2-cc-bucket > kmit.jpg > Edit access control list

Edit access control list Info

Access control list (ACL)

Grant basic read/write permissions to AWS accounts. Learn more ↗

Grantee	Objects	Object ACL
Object owner (your AWS account) Canonical ID: ⧉ f43f7c3d83888dc45d3660c7960125d3d2f381a5799c8bb8d35a eddd22b2f704	☑ Read	☑ Read ☑ Write
Everyone (public access) Group: ⧉ http://acs.amazonaws.com/groups/global/AllUsers	☑ ⚠ Read	☐ Read ☐ Write
Authenticated users group (anyone with an AWS account) Group: ⧉ http://acs.amazonaws.com/groups/global/AuthenticatedUsers	☐ Read	☐ Read ☐ Write

⚠ When you grant access to the Everyone or Authenticated users group grantees, anyone in the world can access this object.

Learn more ↗

☑ I understand the effects of these changes on this object.
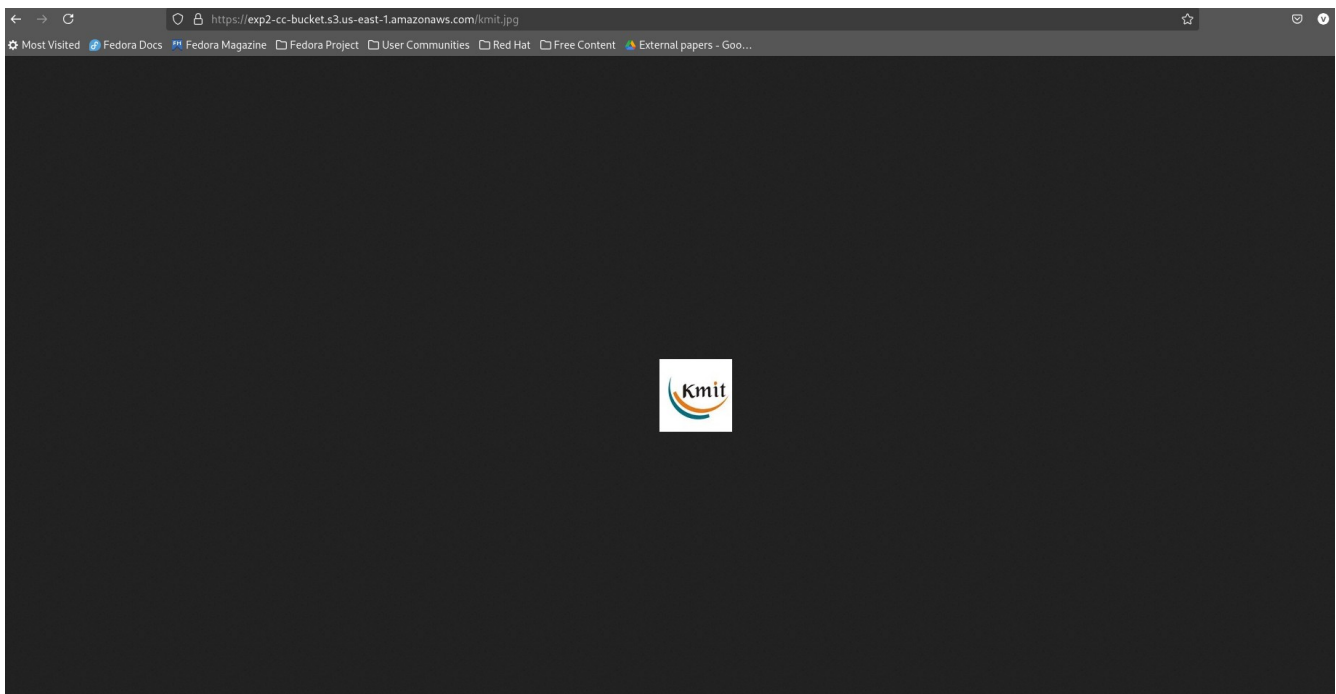
Access for other AWS accounts

No other AWS accounts associated with the resource.

[Add grantee]

Specified objects

Name	Type	Version ID	Last modified	Size
🗎 kmit.jpg	jpg	-	February 17, 2025, 10:32:26 (UTC+05:30)	3.3 KB

Image:- https://exp2-cc-bucket.s3.us-east-1.amazonaws.com/kmit.jpg

PDF File:- https://exp2-cc-bucket.s3.us-east-1.amazonaws.com/3-2+syllabus.pdf

Kmit KESHAV MEMORIAL INSTITUTE OF TECHNOLOGY
(AN AUTONOMOUS INSTITUTE)
Accredited by NBA & NAAC, Approved by AICTE, Affiliated to JNTUH, Hyderabad

B. Tech. in COMPUTER SCIENCE AND ENGINEERING

III Year II Semester Syllabus (RKR21)
COMPETITIVE PROGRAMMING (21CS601PC)

L	T	P	C
3	0	0	3

Pre-requisites/ Co-requisites:

1. PP102ES – Programming for Problem Solving Course.
2. R21CS303PC – Data Structures through C++ Course.

Course Objectives: The course will help to

1. Understand the sliding window and two pointer approach problems.
2. Understand bit manipulation operations
3. Recognize the various forms of trees and their interconnected components.
4. Understand graph applications and topological sort
5. Recognize disjoint set union and its applications.

Course Outcomes: The student will be able to

1. Outline and solve different array applications.
2. Implement bit manipulation for compression, encryption, optimization
3. Illustrate different types of trees and tries applications.