**4.Create an S3 bucket and deploy the reactjs static application on it and provide with the public url for use.**

AMAZON S3

S3 stands for Simple storage service.

It is used to store the files and folder called objects in the buckets.

Amazon S3 is an object storage service that stores data as objects within buckets. An object is a file and any metadata that describes the file. A bucket is a container for objects.

Amazon S3 (Simple Storage Service) is a highly scalable and reliable cloud-based object storage service that allows users to store and retrieve any amount of data from anywhere on the web. It is a core service offered by Amazon Web Services (AWS) and is designed to provide 99.999999999% (11 nines) durability, high availability, and low-latency performance.

Some common use cases for S3 include:

Backup and Archiving: S3 can be used to store and manage backups of critical business data or archives of historical data.

Static Website Hosting: S3 can be used to host static websites, such as React.js applications, that do not require server-side processing.

Content Distribution: S3 can be used in conjunction with Amazon CloudFront to distribute content to users worldwide with low-latency performance.

**Process of reactjs application:**

**Step1:**

Go to AWS S3 service and click on create bucket

**Step 2:**

In the create bucket give the name of the bucket and it should be globally unique,select the region in which you want to create the bucket

**Step 3:**

In the object ownership,choose the recommended option that is ACLs diabled.

In Amazon S3, object ownership is determined by the AWS account that creates the object. By default, the AWS account that creates an object is the owner of that object, and has full control over it. This means that the owner can perform any operation on the object, including deleting it or changing its access permissions.

However, there are scenarios where you may want to transfer ownership of an object to another AWS account. For example, you may want to transfer ownership of an object when you sell it to another user or when you want to grant another AWS account full control over the object.

**Step 4:**

Unblock the public access settings for the bucket and check the acknowledgement box.

**Step 5:**

Enable the bucket versioning ,it will store the previous versions of file and after modification files also.

Bucket versioning is a feature of Amazon S3 that allows you to keep multiple versions of an object in the same bucket. When versioning is enabled, each time an object is updated, a new version of that object is created and stored in the bucket, while the previous version(s) are retained.

**Tags are optional.**

**Step 6:**

In the default encryption choose Amazon S3 managed keys(SSE-S3)

Enable the bucket key

Click on create bucket.

**Step 7:**

Now the bucket named **“reactjsapplicationbucket”** is successfully created**.**

**Step 8:**

**Now** go to the bucket “reactappbucketbhanu”.

Now upload all the files in the amazon react folder.

Once they are successfully uploaded.go to the next step.

**Step 9:**

Navigate to the bucket.

**Step 10:**

Go to the permissions tab.

Click edit button under block public settings.

To confirm the settings enter confirm.

**Step 11:**

Amazon S3 (Simple Storage Service) can be used to host static websites. A static website is a collection of web pages that do not require server-side processing or dynamic content, and can be served directly from a file system. Hosting a static website in S3 is a cost-effective and scalable solution, especially for websites with low traffic and simple content.

Go to properties tab.

Edit the static website hosting.

Click on enable and type of hosting is a static website.

Under index document give index.html and also under error document.

**Step 10:**

An Amazon S3 bucket policy is a JSON-based configuration that defines access permissions for an S3 bucket. The policy defines the actions that can be performed on the bucket and its contents, as well as the entities that are allowed to perform those actions. Bucket policies are used to grant or restrict access to the bucket and its contents.

Under permission tab ,go to bucket policy,and click on policy generator.

Select the s3bucket policy ,the give the principal as \* and give the arn of the bucket

Then generate the bucket policy and copy that policy.t

 Now the bucket is publicly accessible.

**Step 11:**

Go to the permissions tab and the go to the static website hosting.

There you can see the bucket website endpoint.

Copy the endpoint and paste it in browser,then you can see the static reactjs application .