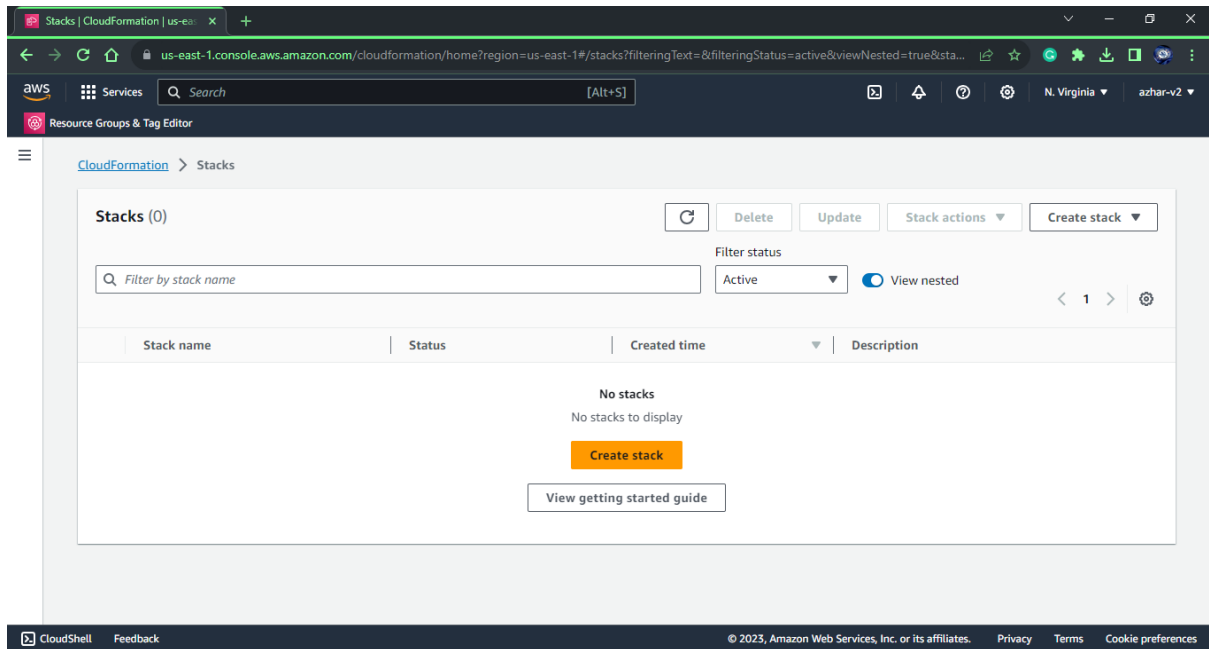


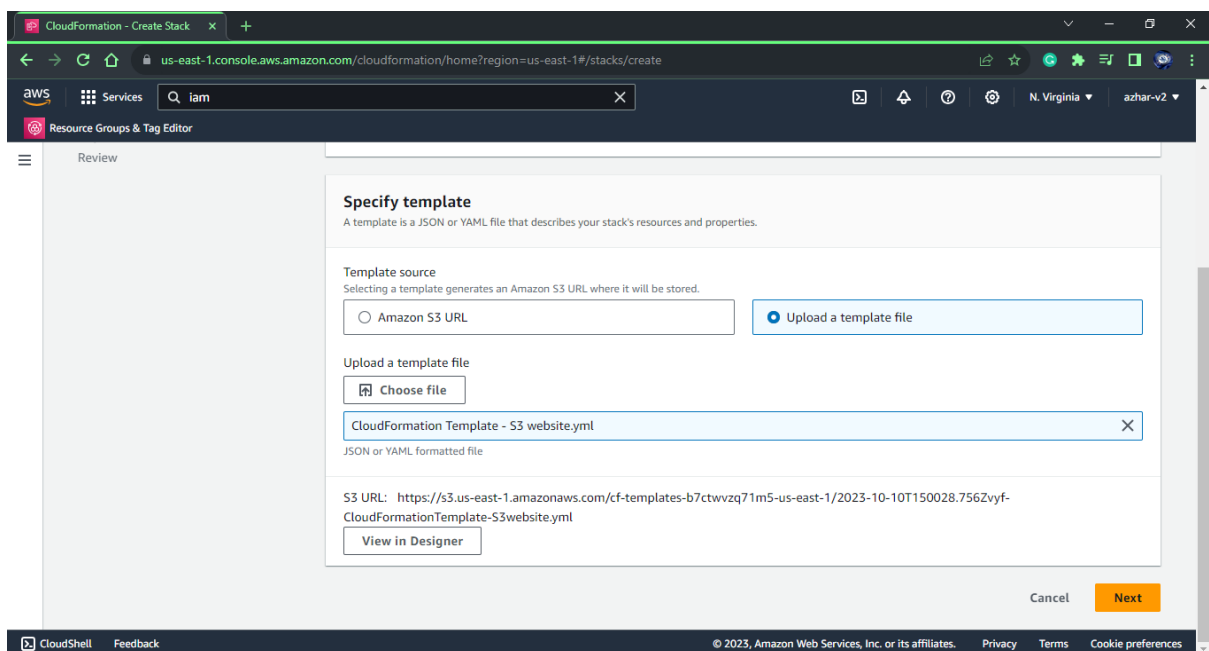
Nebula Technical Challenge

- Created index.html file for the webpage using HTML, CSS, and JavaScript
- CloudFormation template has been created using YAML, will be used to create a CloudFormation stack

Creating stack:



- YAML file will be uploaded and used as a template



- Parameters within the template allow you to name the bucket during stack creation

CloudFormation - Create Stack

us-east-1.console.aws.amazon.com/cloudformation/home?region=us-east-1#/stacks/create

aws Services iam

Resource Groups & Tag Editor

Step 1
[Create stack](#)

Step 2
Specify stack details

Step 3
[Configure stack options](#)

Step 4
[Review CF-S3-website](#)

Specify stack details

Stack name

Stack name

CF-S3-website

Stack name can include letters (A-Z and a-z), numbers (0-9), and dashes (-).

Parameters

Parameters are defined in your template and allow you to input custom values when you create or update a stack.

BucketName

Please provide the bucket name

s3-website-azr

Cancel Previous **Next**

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- Stack has been created

CloudFormation - Stack CF-S3-website

us-east-1.console.aws.amazon.com/cloudformation/home?region=us-east-1#/stacks/events?stackId=arn%3Aaws%3Acloudformation%3Aus-east-1%3A...

aws Services Search [Alt+S]

Resource Groups & Tag Editor

CloudFormation > Stacks > CF-S3-website

Stacks (1)

Filter by stack name

Filter status: Active View nested

Stacks

CF-S3-website

2023-10-11 09:58:09 UTC+0100

CREATE_COMPLETE

CF-S3-website

Delete Update Stack actions Create stack

Stack info **Events** Resources Outputs Parameters

Events (8)

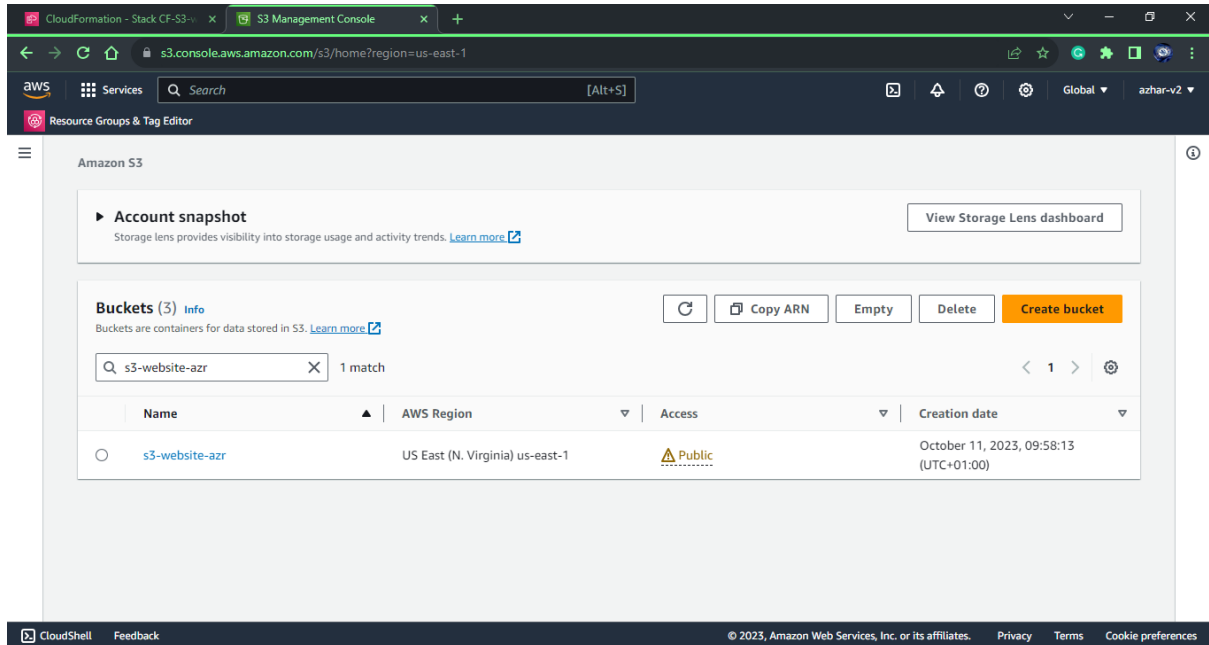
Search events

Timestamp	Logical ID	Status
2023-10-11 09:58:36 UTC+0100	CF-S3-website	CREATE_COMPLETE
2023-10-11 09:58:35 UTC+0100	S3BucketPolicy	CREATE_COMPLETE
2023-10-11 09:58:34	S3BucketPolicy	CREATE_IN_PROGRES

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S3 Bucket:

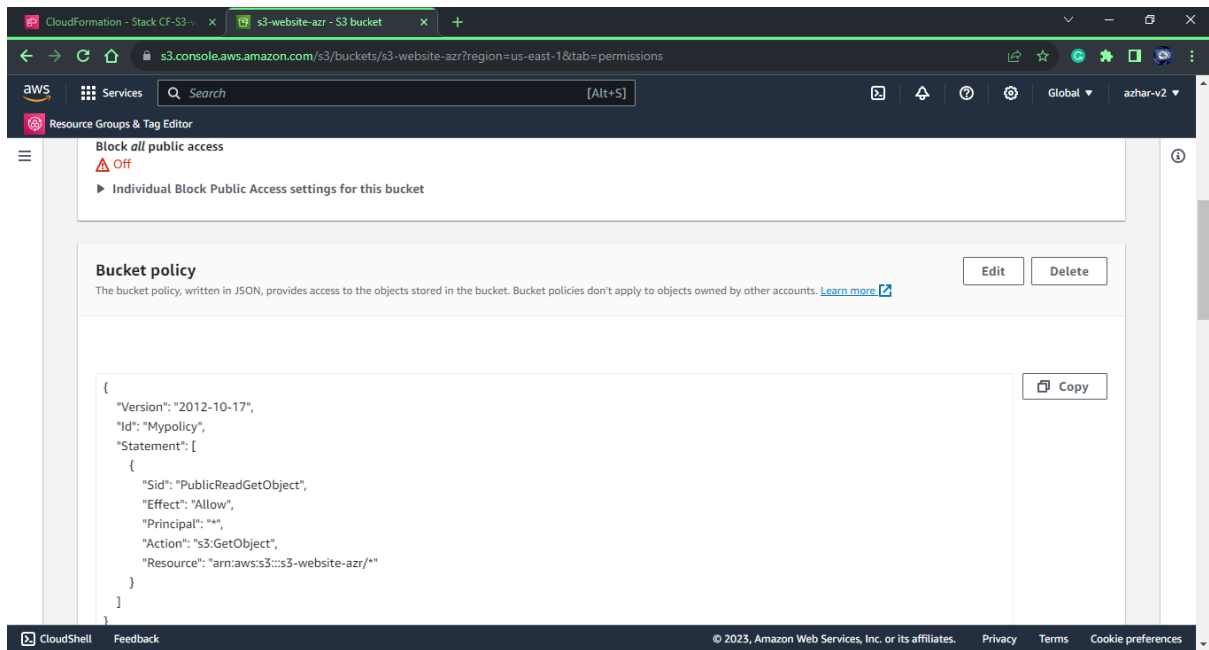
- S3 bucket is created
- Public access has been enabled from the YAML template by disabling 'block public access' settings and then by adding a 'GetObject' bucket policy.



```
PublicAccessBlockConfiguration:
  BlockPublicAcls: false
  BlockPublicPolicy: false
  IgnorePublicAcls: false
  RestrictPublicBuckets: false
```

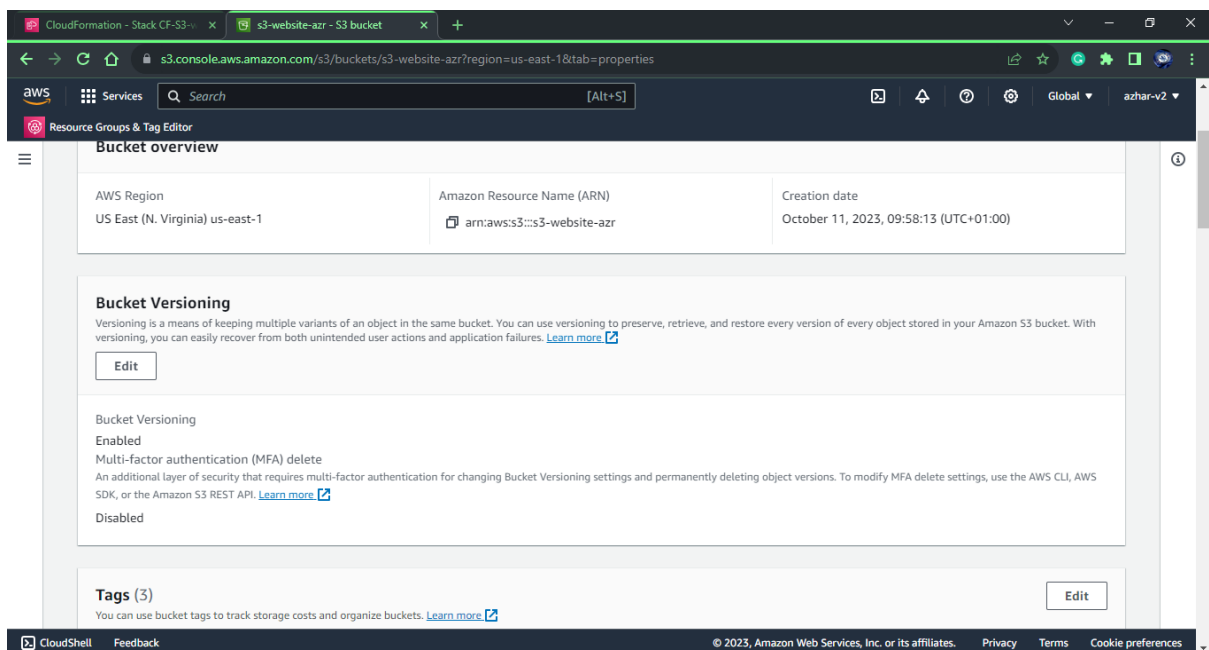
```
S3BucketPolicy:
  Type: 'AWS::S3::BucketPolicy'
  Properties:
    Bucket: !Ref S3Bucket
    PolicyDocument:
      Id: Mypolicy
      Version: '2012-10-17'
      Statement:
        - Sid: PublicReadGetObject
          Action: 's3:GetObject'
          Effect: Allow
          Principal: '*'
          Resource: !Sub 'arn:aws:s3:::${S3Bucket}/*'
```

- Configurations made in the YAML template have reflected to the S3 bucket upon creation

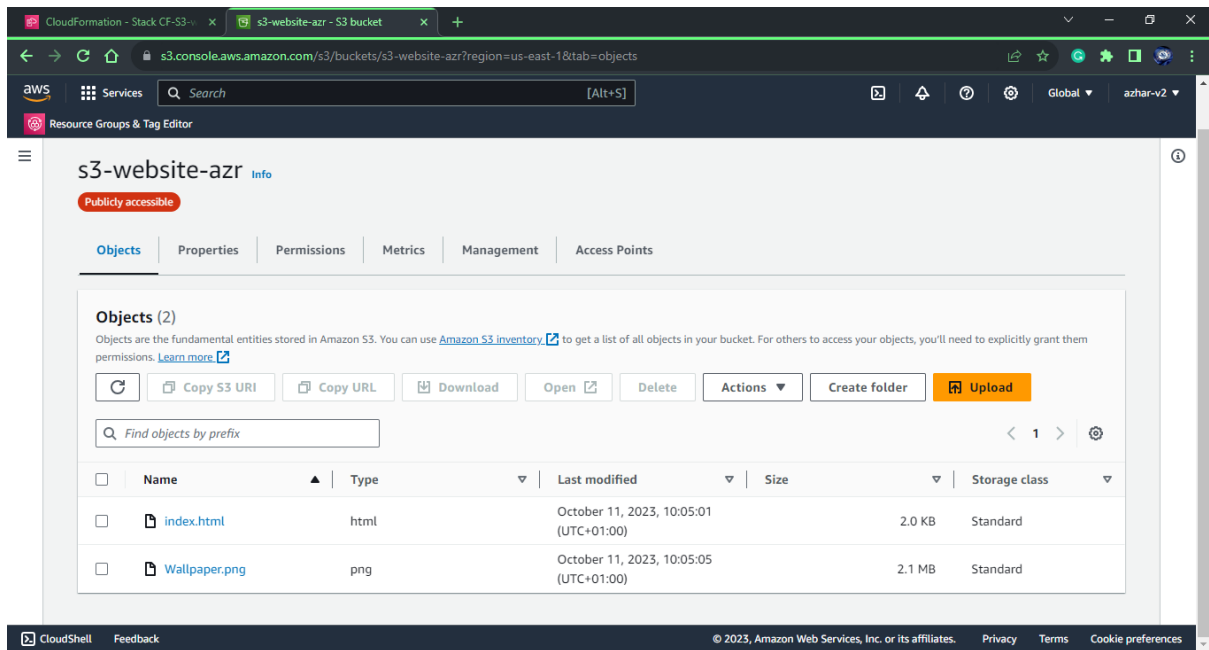


- Versioning has also been enabled

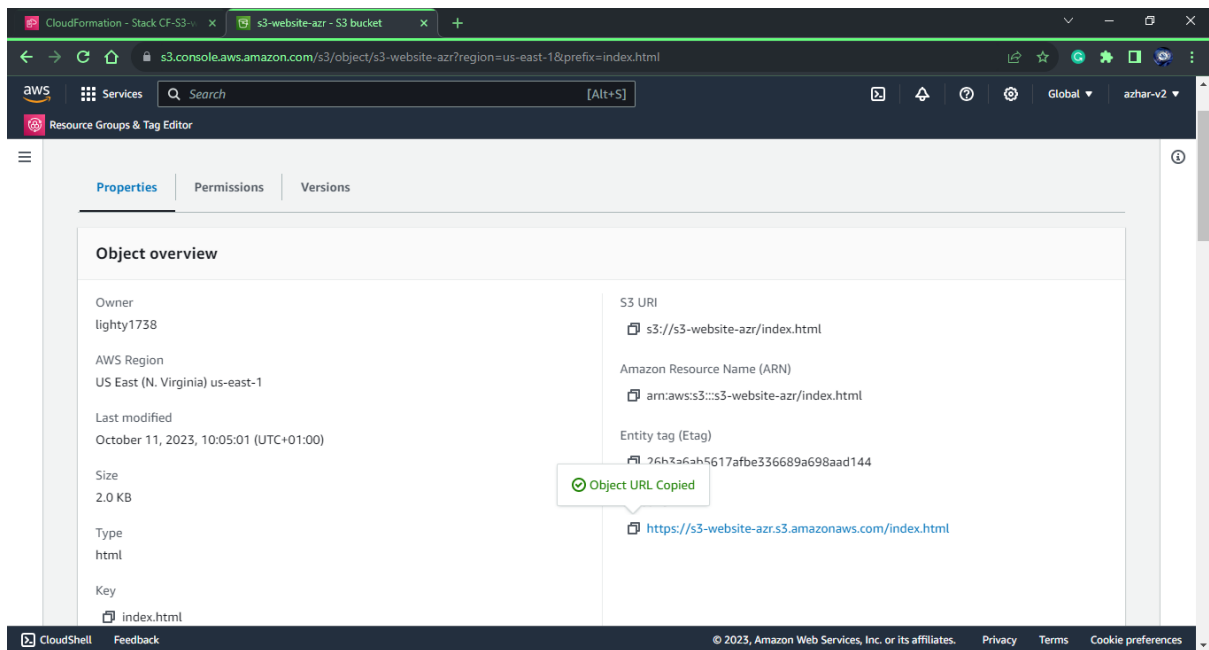
VersioningConfiguration:
Status: Enabled

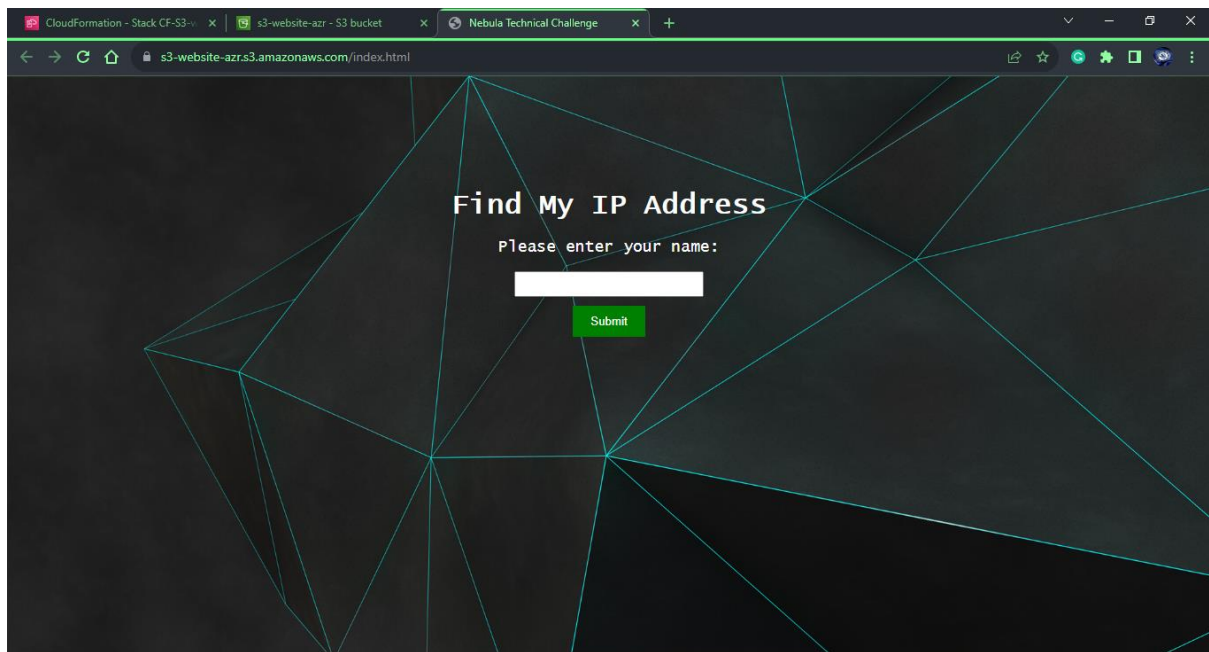


- Necessary files for the webpage have been uploaded into the created S3 bucket

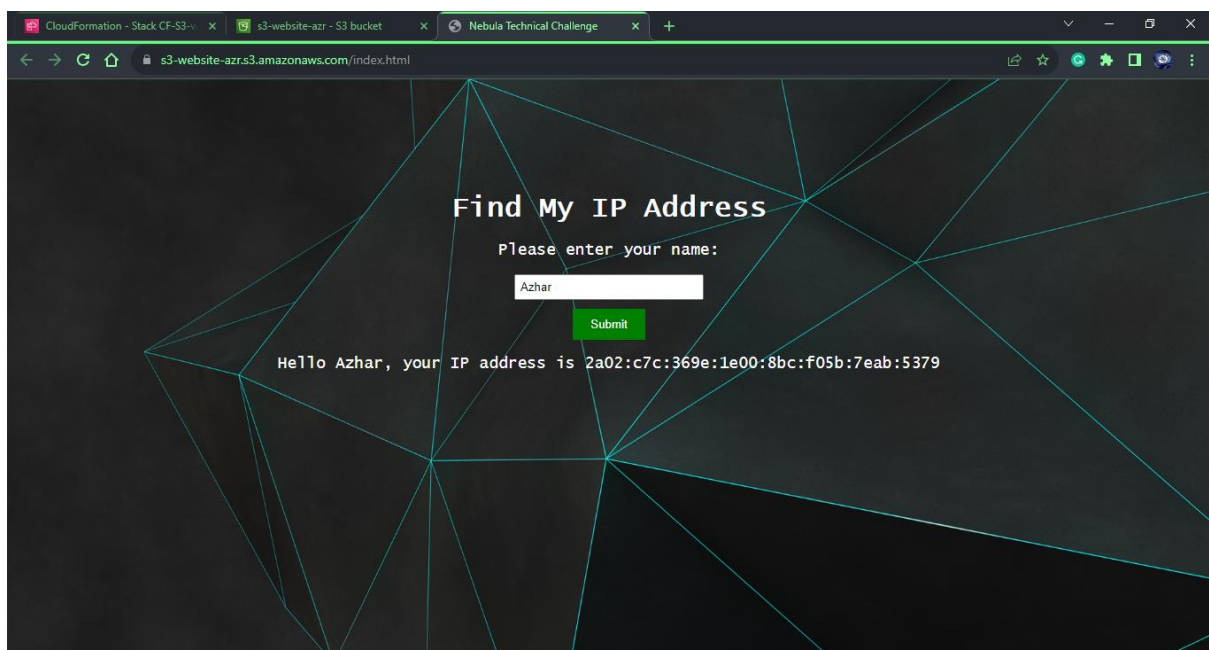


- Entering the object URL of the HTML file opens the webpage





- Entering in a name and clicking submit will provide the desired output



Enabling CloudFront:

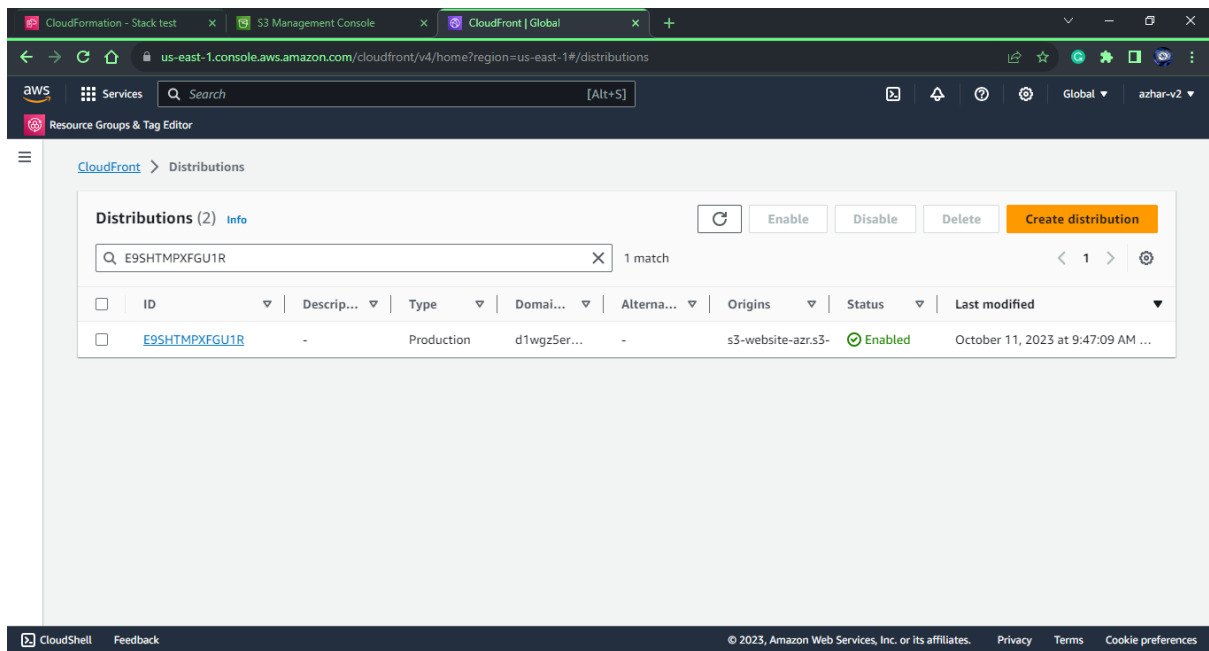
- Can use CloudFront as an additional step to provide better performance for the website

The screenshot shows the AWS CloudFront console in the 'Create distribution' step, specifically the 'Origin' tab. The browser address bar shows the URL: `us-east-1.console.aws.amazon.com/cloudfront/v4/home?region=us-east-1#/distributions/create`. The page title is 'Create distribution'. The 'Origin' section includes an 'Origin domain' field with the value `s3-website-azr.s3-website-us-east-1.amazonaws.com`. Below this, the 'Protocol' section has three radio buttons: 'HTTP only' (selected), 'HTTPS only', and 'Match viewer'. The 'HTTP port' field is set to `80`. The 'HTTPS port' field is currently empty. The footer of the console shows 'CloudShell', 'Feedback', and copyright information for Amazon Web Services, Inc.

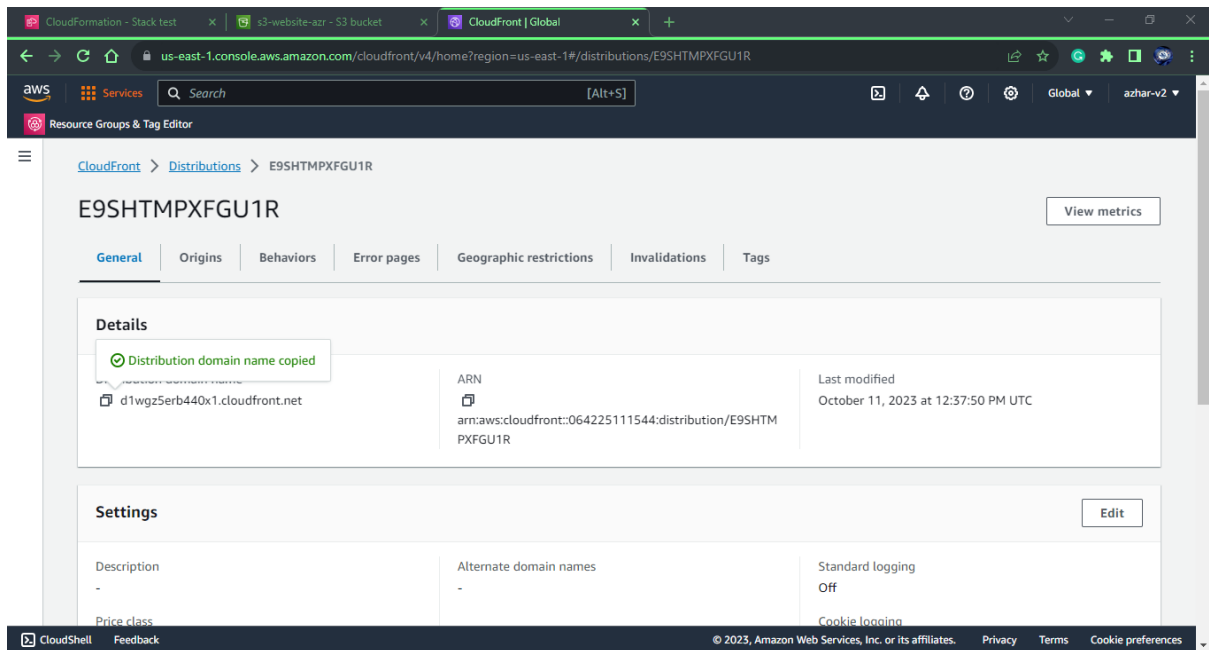
- Redirect HTTP to HTTPS" to ensure secure connections

The screenshot shows the AWS CloudFront console in the 'Create distribution' step, specifically the 'Viewer' tab. The browser address bar shows the URL: `us-east-1.console.aws.amazon.com/cloudfront/v4/home?region=us-east-1#/distributions/create`. The page title is 'Create distribution'. The 'Viewer' section includes a 'Viewer protocol policy' with three radio buttons: 'HTTP and HTTPS', 'Redirect HTTP to HTTPS' (selected), and 'HTTPS only'. The 'Allowed HTTP methods' section has three radio buttons: 'GET, HEAD' (selected), 'GET, HEAD, OPTIONS', and 'GET, HEAD, OPTIONS, PUT, POST, PATCH, DELETE'. The 'Restrict viewer access' section has two radio buttons: 'No' (selected) and 'Yes'. The footer of the console shows 'CloudShell', 'Feedback', and copyright information for Amazon Web Services, Inc.

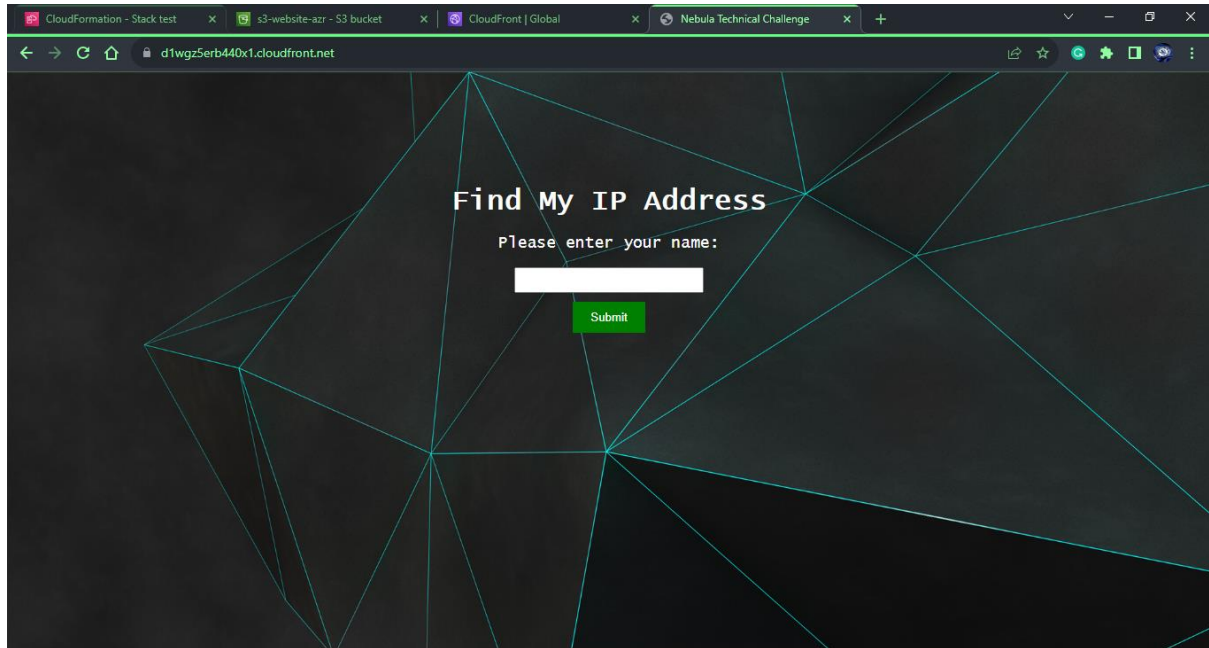
- CloudFront distribution has been deployed, will provide reduced latency by delivering content from edge locations



- Using the distributed domain name with CloudFront will allow the user to access the S3 content



- Webpage served through CloudFront



- The output is as expected

