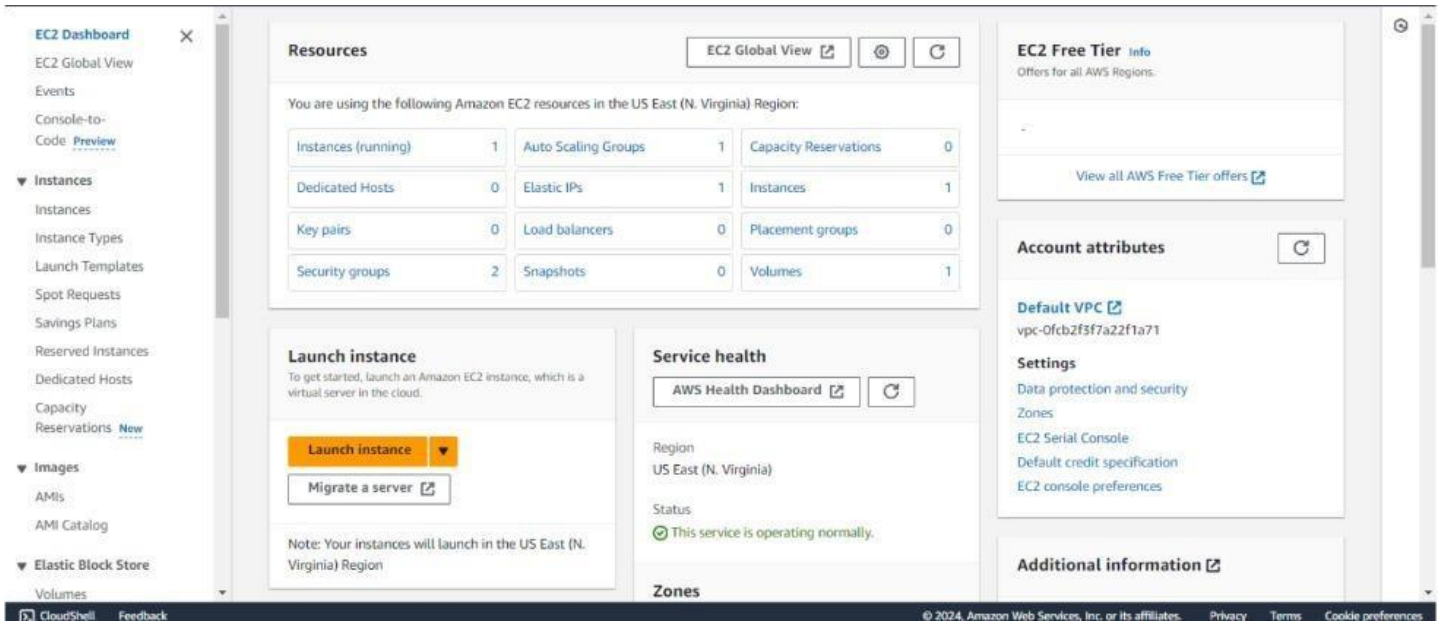
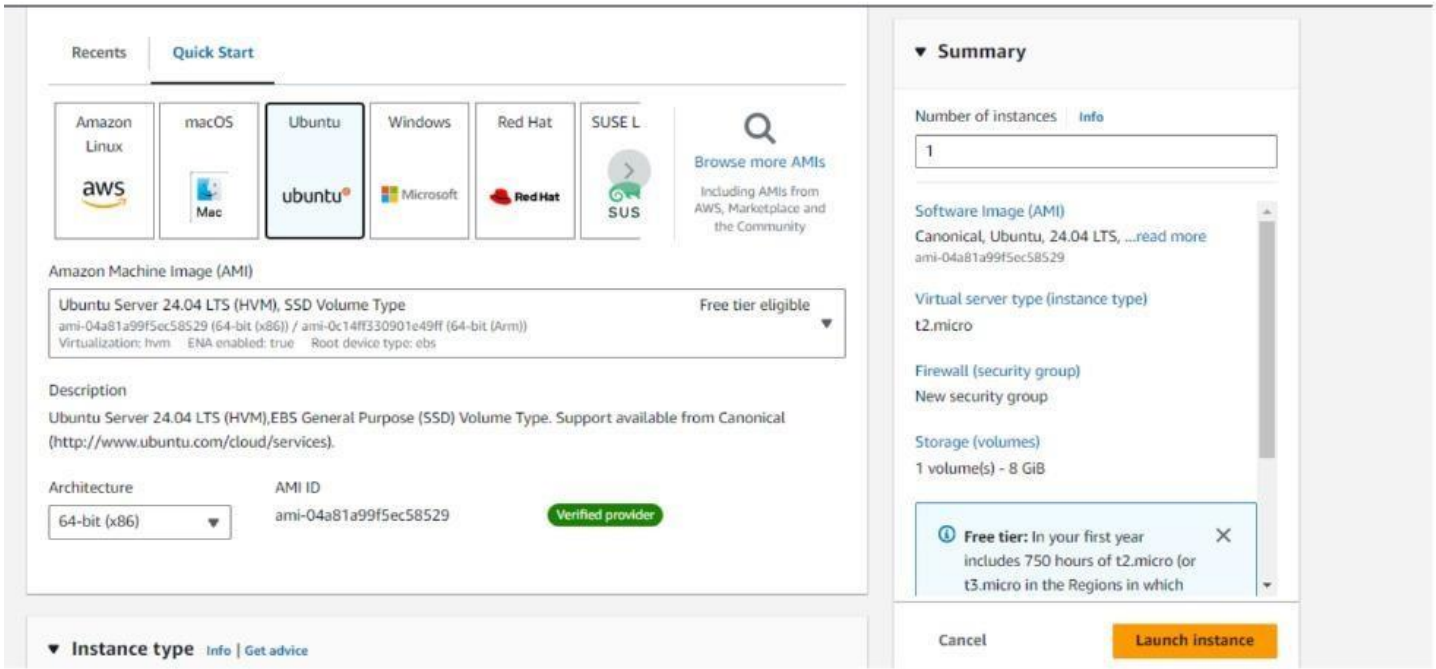
Experiment 1

Aim: To develop a website and host it on your local machine on a VM

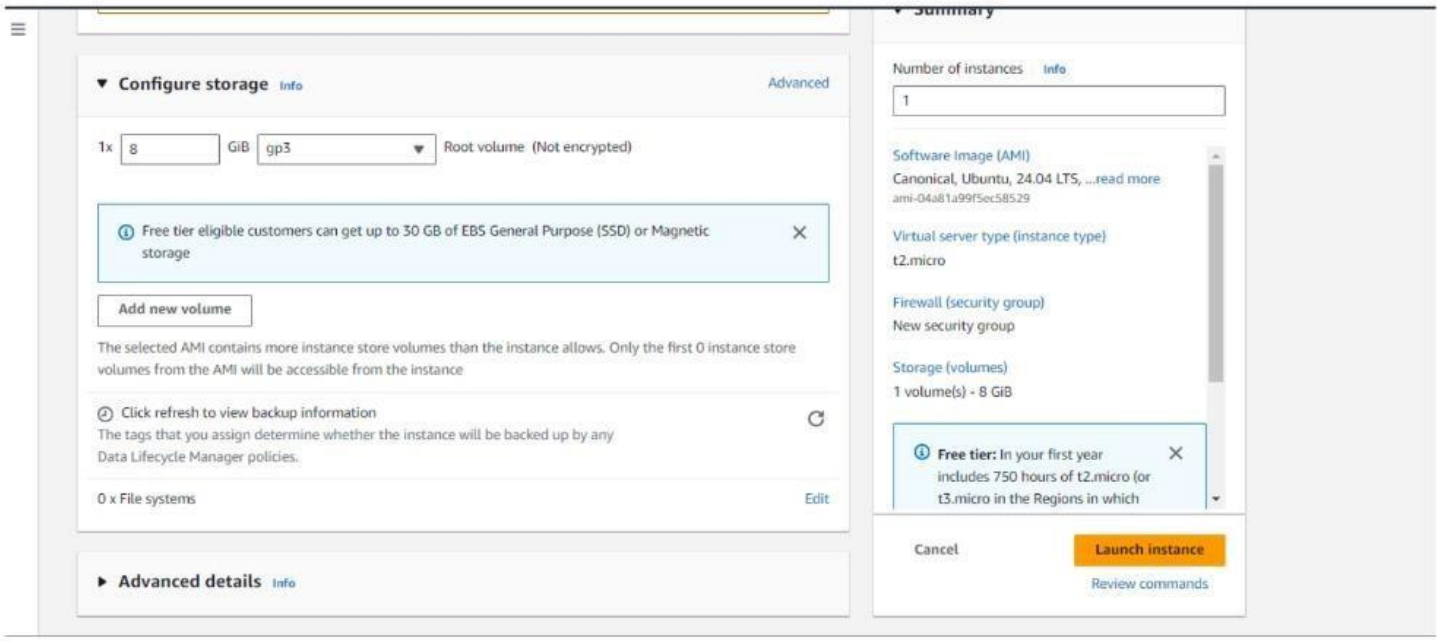
1. Open AWS Academy and select launch instance



2. And then select Ubuntu or Linux.



3. Set the configuration and then connect to the instance which you created.



4. Execute the following commands in the aws console.

<u>Commands :</u>

sudo su

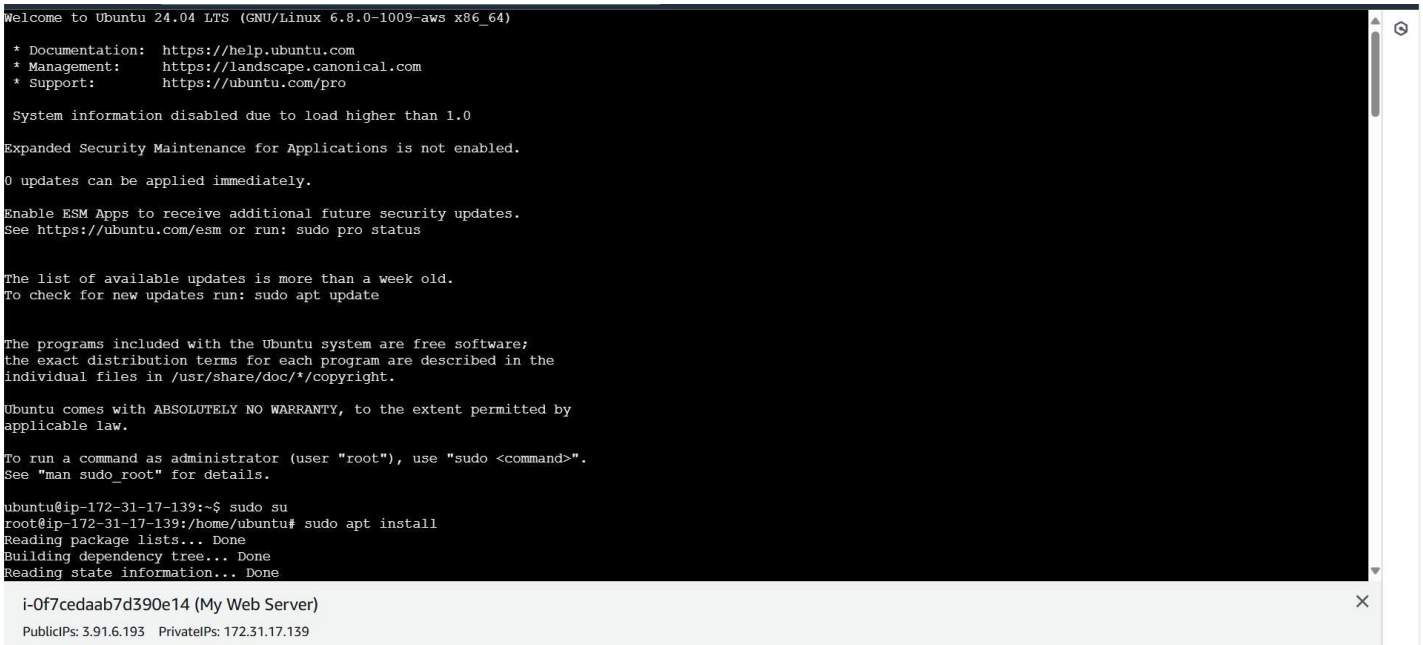
sudo apt install

sudo apt-get update

apt install apache2

systemctl status apache2

cd /var/www/html/



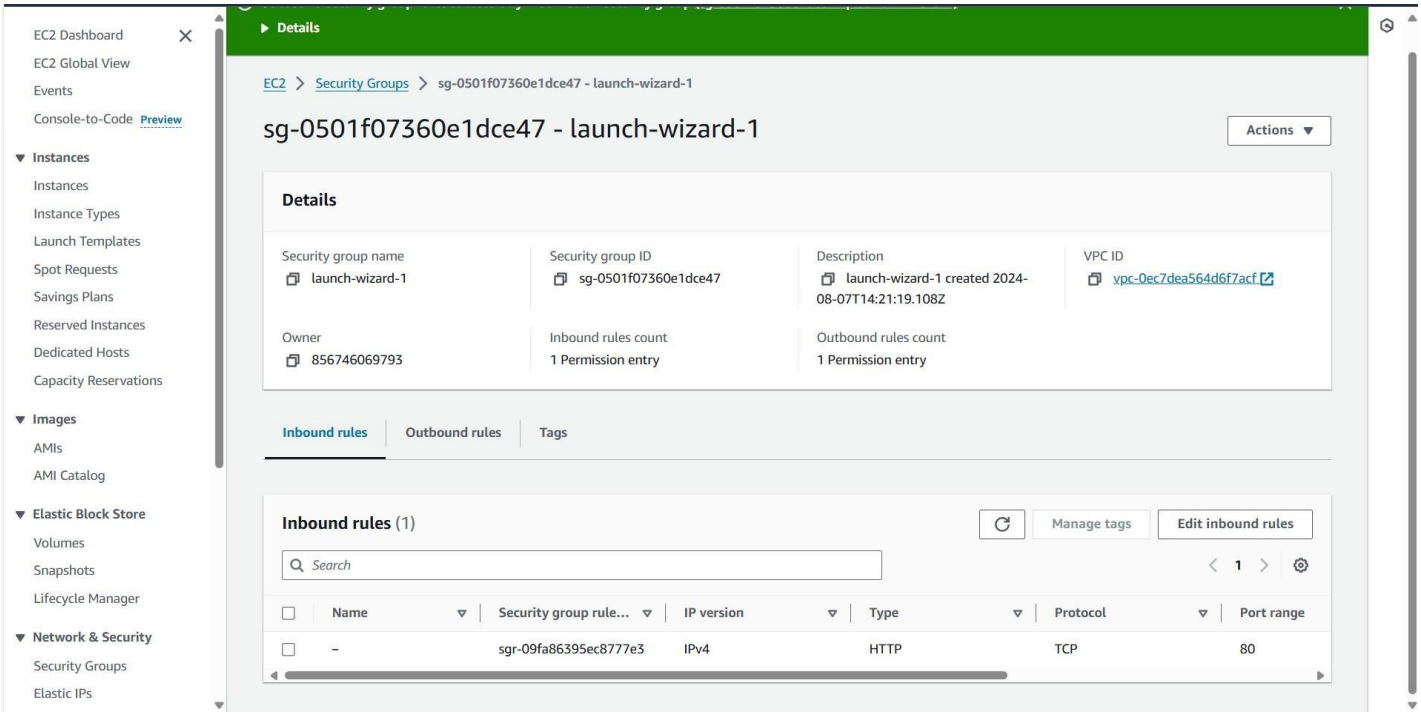
```
root@ip-172-31-17-139:/home/ubuntu# sudo apt-get update
Hit:1 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble InRelease
Get:2 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates InRelease [126 kB]
Get:3 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-backports InRelease [126 kB]
Get:4 http://security.ubuntu.com/ubuntu noble-security InRelease [126 kB]
Get:5 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble/universe amd64 Packages [15.0 MB]
Get:6 http://security.ubuntu.com/ubuntu noble-security/main amd64 Packages [265 kB]
Get:7 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble/universe Translation-en [5982 kB]
Get:8 http://security.ubuntu.com/ubuntu noble-security/main Translation-en [63.3 kB]
Get:9 http://security.ubuntu.com/ubuntu noble-security/main amd64 c-n-f Metadata [3668 B]
Get:10 http://security.ubuntu.com/ubuntu noble-security/universe amd64 Packages [247 kB]
Get:11 http://security.ubuntu.com/ubuntu noble-security/universe Translation-en [107 kB]
Get:12 http://security.ubuntu.com/ubuntu noble-security/universe amd64 Components [8632 B]
Get:13 http://security.ubuntu.com/ubuntu noble-security/universe amd64 c-n-f Metadata [9220 B]
Get:14 http://security.ubuntu.com/ubuntu noble-security/restricted amd64 Packages [208 kB]
Get:15 http://security.ubuntu.com/ubuntu noble-security/restricted Translation-en [40.7 kB]
Get:16 http://security.ubuntu.com/ubuntu noble-security/restricted amd64 c-n-f Metadata [420 B]
Get:17 http://security.ubuntu.com/ubuntu noble-security/multiverse amd64 Packages [10.6 kB]
Get:18 http://security.ubuntu.com/ubuntu noble-security/multiverse Translation-en [2808 B]
Get:19 http://security.ubuntu.com/ubuntu noble-security/multiverse amd64 Components [208 B]
Get:20 http://security.ubuntu.com/ubuntu noble-security/multiverse amd64 c-n-f Metadata [344 B]
Get:21 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble/universe amd64 Components [3871 kB]
Get:22 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble/universe amd64 c-n-f Metadata [301 kB]
Get:23 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble/multiverse amd64 Packages [269 kB]
Get:24 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble/multiverse Translation-en [118 kB]
Get:25 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble/multiverse amd64 Components [35.0 kB]
Get:26 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble/multiverse amd64 c-n-f Metadata [8328 B]
Get:27 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/main amd64 Packages [318 kB]
Get:28 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/main Translation-en [82.9 kB]
Get:29 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/main amd64 c-n-f Metadata [5676 B]
Get:30 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/universe amd64 Packages [319 kB]
Get:31 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/universe Translation-en [134 kB]
Get:32 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/universe amd64 Components [45.0 kB]
Get:33 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/universe amd64 c-n-f Metadata [12.6 kB]
Get:34 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/restricted amd64 Packages [208 kB]
```

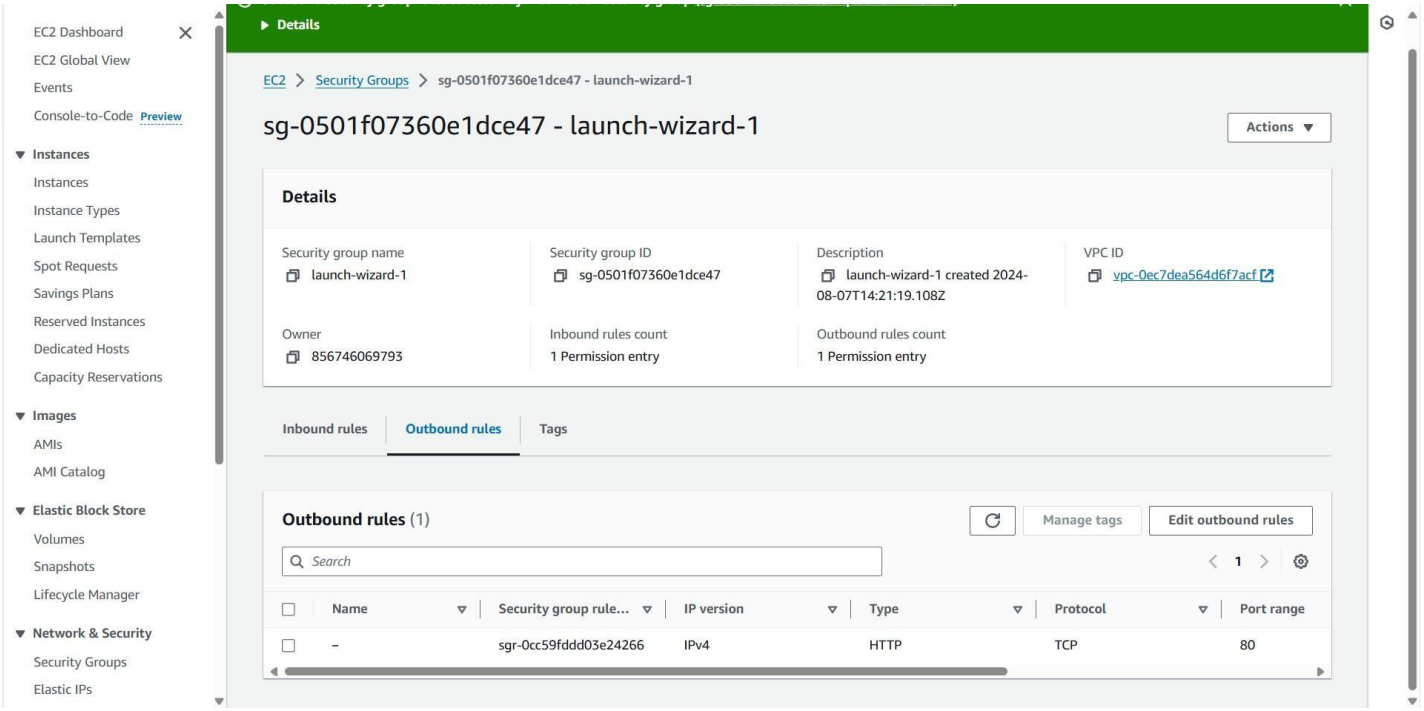
```
Get:34 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/restricted amd64 Packages [208 kB]
Get:35 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/restricted Translation-en [40.7 kB]
Get:36 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/restricted amd64 c-n-f Metadata [416 B]
Get:37 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/multiverse amd64 Packages [14.1 kB]
Get:38 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/multiverse Translation-en [3608 B]
Get:39 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/multiverse amd64 Components [212 B]
Get:40 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/multiverse amd64 c-n-f Metadata [532 B]
Get:41 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-backports/main amd64 Components [208 B]
Get:42 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-backports/main amd64 c-n-f Metadata [112 B]
Get:43 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-backports/universe amd64 Packages [10.3 kB]
Get:44 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-backports/universe Translation-en [10.5 kB]
Get:45 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-backports/universe amd64 Components [17.6 kB]
Get:46 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-backports/universe amd64 c-n-f Metadata [1016 B]
Get:47 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-backports/restricted amd64 Components [216 B]
Get:48 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-backports/restricted amd64 c-n-f Metadata [116 B]
Get:49 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-backports/multiverse amd64 Components [212 B]
Get:50 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-backports/multiverse amd64 c-n-f Metadata [116 B]
Fetched 28.2 MB in 6s (5073 kB/s)
Reading package lists... Done
root@ip-172-31-17-139:/home/ubuntu# apt install apache2
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
  apache2-bin apache2-data apache2-utils libapr1t64 libaprutil1-dbd-sqlite3 libaprutil1-ldap libaprutil1t64 liblua5.4-0 ssl-cert
Suggested packages:
  apache2-doc apache2-suexec-pristine | apache2-suexec-custom www-browser
The following NEW packages will be installed:
  apache2 apache2-bin apache2-data apache2-utils libapr1t64 libaprutil1-dbd-sqlite3 libaprutil1-ldap libaprutil1t64 liblua5.4-0 ssl-cert
0 upgraded, 10 newly installed, 0 to remove and 42 not upgraded.
Need to get 2083 kB of archives.
After this operation, 8094 kB of additional disk space will be used.
Do you want to continue? [Y/n] y
Get:1 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble/main amd64 libapr1t64 amd64 1.7.2-3.1build2 [107 kB]
Get:2 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble/main amd64 libaprutil1t64 amd64 1.6.3-1.1ubuntu7 [91.9 kB]
```

```
After this operation, 8094 kB of additional disk space will be used.
Do you want to continue? [Y/n] y
Get:1 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble/main amd64 libapr1t64 amd64 1.7.2-3.1build2 [107 kB]
Get:2 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble/main amd64 libaprutil1t64 amd64 1.6.3-1.1ubuntu7 [91.9 kB]
Get:3 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble/main amd64 libaprutil1-dbd-sqlite3 amd64 1.6.3-1.1ubuntu7 [11.2 kB]
Get:4 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble/main amd64 libaprutil1-ldap amd64 1.6.3-1.1ubuntu7 [9116 B]
Get:5 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble/main amd64 liblua5.4-0 amd64 5.4.6-3build2 [166 kB]
Get:6 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/main amd64 apache2-bin amd64 2.4.58-1ubuntu8.4 [1329 kB]
Get:7 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/main amd64 apache2-data all 2.4.58-1ubuntu8.4 [163 kB]
Get:8 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/main amd64 apache2-utils amd64 2.4.58-1ubuntu8.4 [97.1 kB]
Get:9 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/main amd64 apache2 amd64 2.4.58-1ubuntu8.4 [90.2 kB]
Get:10 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble/main amd64 ssl-cert all 1.1.2ubuntu1 [17.8 kB]
Fetched 2083 kB in 0s (25.8 MB/s)
Preconfiguring packages ...
Selecting previously unselected package libapr1t64:amd64.
(Reading database ... 67739 files and directories currently installed.)
Preparing to unpack .../0-libapr1t64_1.7.2-3.1build2_amd64.deb ...
Unpacking libapr1t64:amd64 (1.7.2-3.1build2) ...
Selecting previously unselected package libaprutil1t64:amd64.
Preparing to unpack .../1-libaprutil1t64_1.6.3-1.1ubuntu7_amd64.deb ...
Unpacking libaprutil1t64:amd64 (1.6.3-1.1ubuntu7) ...
Selecting previously unselected package libaprutil1-dbd-sqlite3:amd64.
Preparing to unpack .../2-libaprutil1-dbd-sqlite3_1.6.3-1.1ubuntu7_amd64.deb ...
Unpacking libaprutil1-dbd-sqlite3:amd64 (1.6.3-1.1ubuntu7) ...
Selecting previously unselected package libaprutil1-ldap:amd64.
Preparing to unpack .../3-libaprutil1-ldap_1.6.3-1.1ubuntu7_amd64.deb ...
Unpacking libaprutil1-ldap:amd64 (1.6.3-1.1ubuntu7) ...
Selecting previously unselected package liblua5.4-0:amd64.
Preparing to unpack .../4-liblua5.4-0_5.4.6-3build2_amd64.deb ...
Unpacking liblua5.4-0:amd64 (5.4.6-3build2) ...
Selecting previously unselected package apache2-bin.
Preparing to unpack .../5-apache2-bin_2.4.58-1ubuntu8.4_amd64.deb ...
Unpacking apache2-bin (2.4.58-1ubuntu8.4) ...
Selecting previously unselected package apache2-data.
Preparing to unpack .../6-apache2-data_2.4.58-1ubuntu8.4_all.deb ...
```

```
Created symlink /etc/systemd/system/multi-user.target.wants/apache2.service → /usr/lib/systemd/system/apache2.service.
Created symlink /etc/systemd/system/multi-user.target.wants/apache-htcacheclean.service → /usr/lib/systemd/system/apache-htcacheclean.service.
Processing triggers for ufw (0.36.2-6) ...
Processing triggers for man-db (2.12.0-4build2) ...
Processing triggers for libc-bin (2.39-0ubuntu8.2) ...
Scanning processes...
Scanning linux images...

Running kernel seems to be up-to-date.

No services need to be restarted.

No containers need to be restarted.

No user sessions are running outdated binaries.

No VM guests are running outdated hypervisor (qemu) binaries on this host.
root@ip-172-31-17-139:/home/ubuntu# systemctl status apache2
● apache2.service - The Apache HTTP Server
     Loaded: loaded (/usr/lib/systemd/system/apache2.service; enabled; preset: enabled)
     Active: active (running) since Wed 2024-08-07 14:32:03 UTC; 32s ago
       Docs: https://httpd.apache.org/docs/2.4/
   Main PID: 2487 (apache2)
      Tasks: 55 (limit: 1130)
     Memory: 5.4M (peak: 5.6M)
        CPU: 37ms
     CGroup: /system.slice/apache2.service
             ├─2487 /usr/sbin/apache2 -k start
             ├─2490 /usr/sbin/apache2 -k start
             └─2491 /usr/sbin/apache2 -k start

Aug 07 14:32:03 ip-172-31-17-139 systemd[1]: Starting apache2.service - The Apache HTTP Server...
Aug 07 14:32:03 ip-172-31-17-139 systemd[1]: Started apache2.service - The Apache HTTP Server.
root@ip-172-31-17-139:/home/ubuntu# cd /var/www/html/
root@ip-172-31-17-139:/var/www/html#
```

5. Edit the inbound and outbound rules.

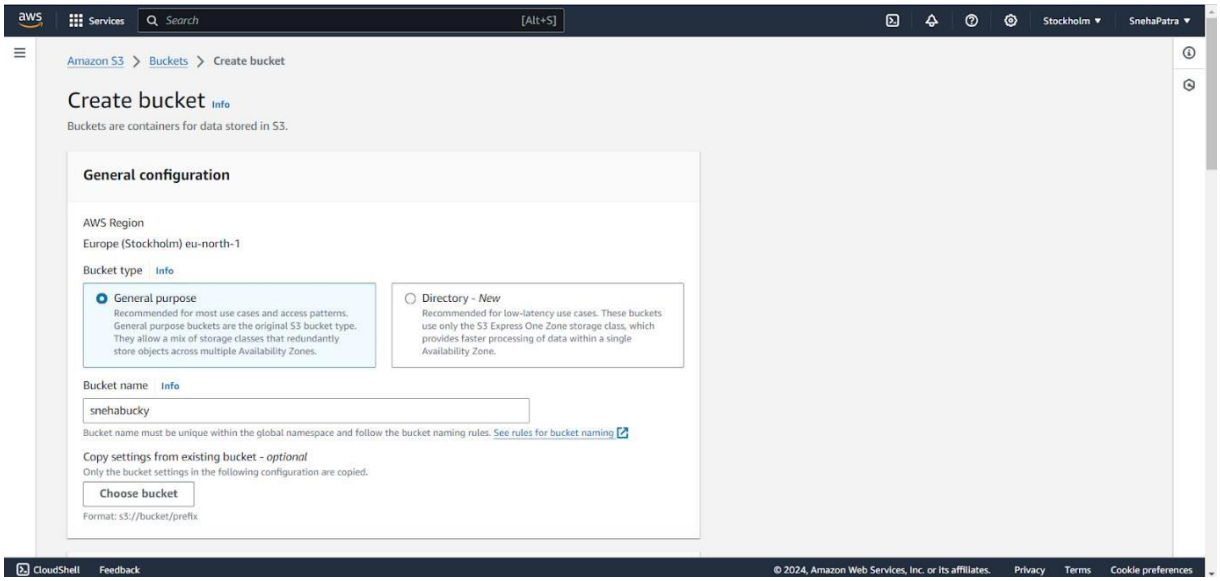


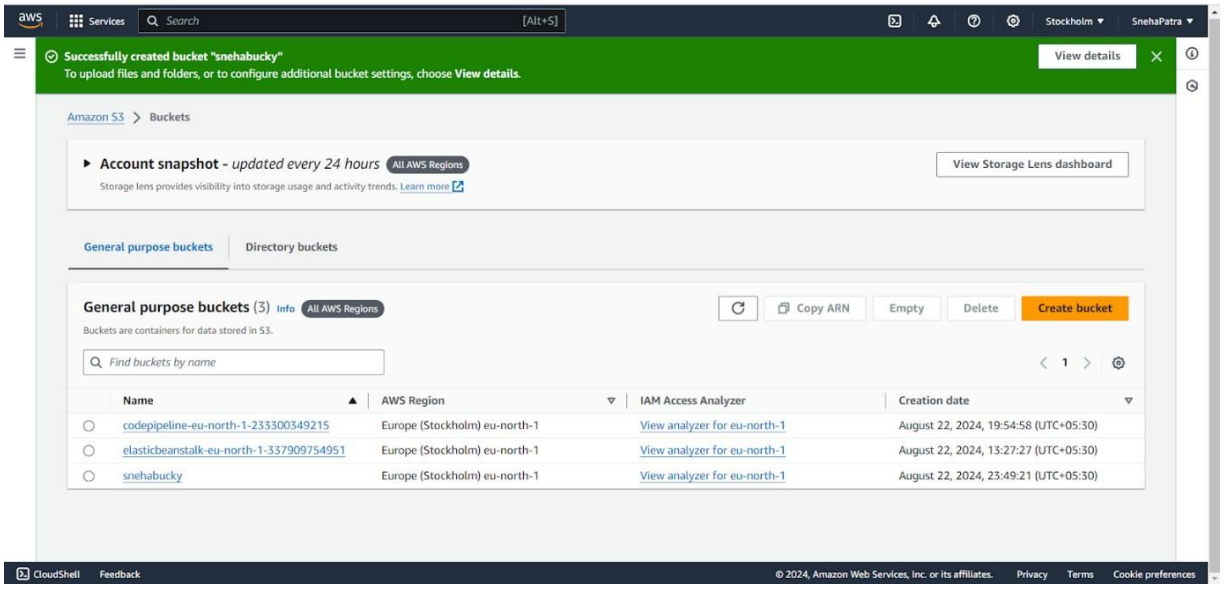


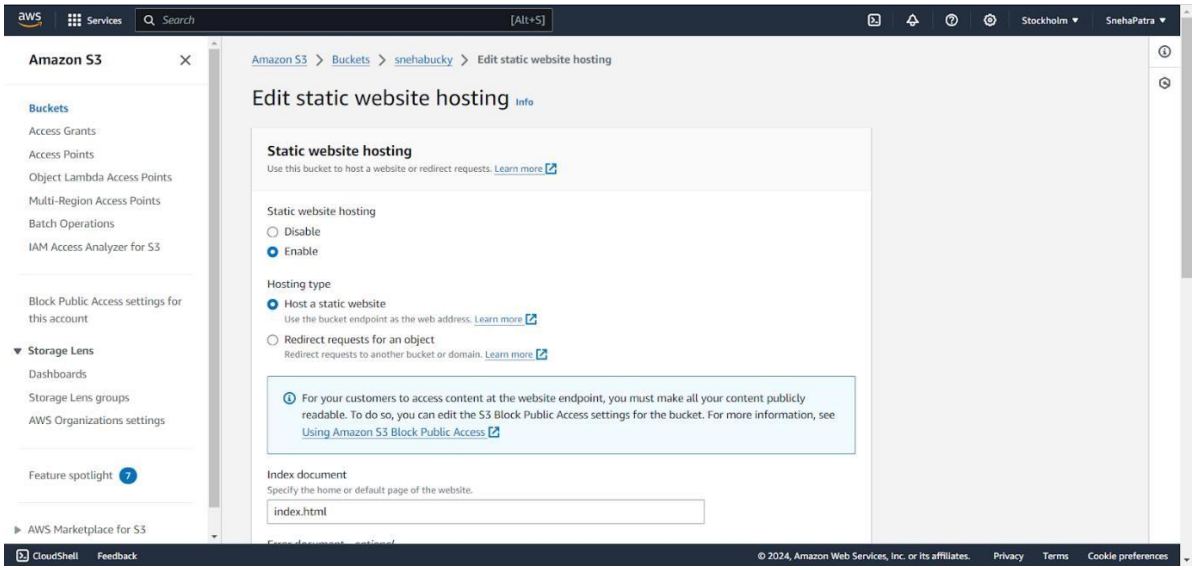
6. This is the hosted Static Website.

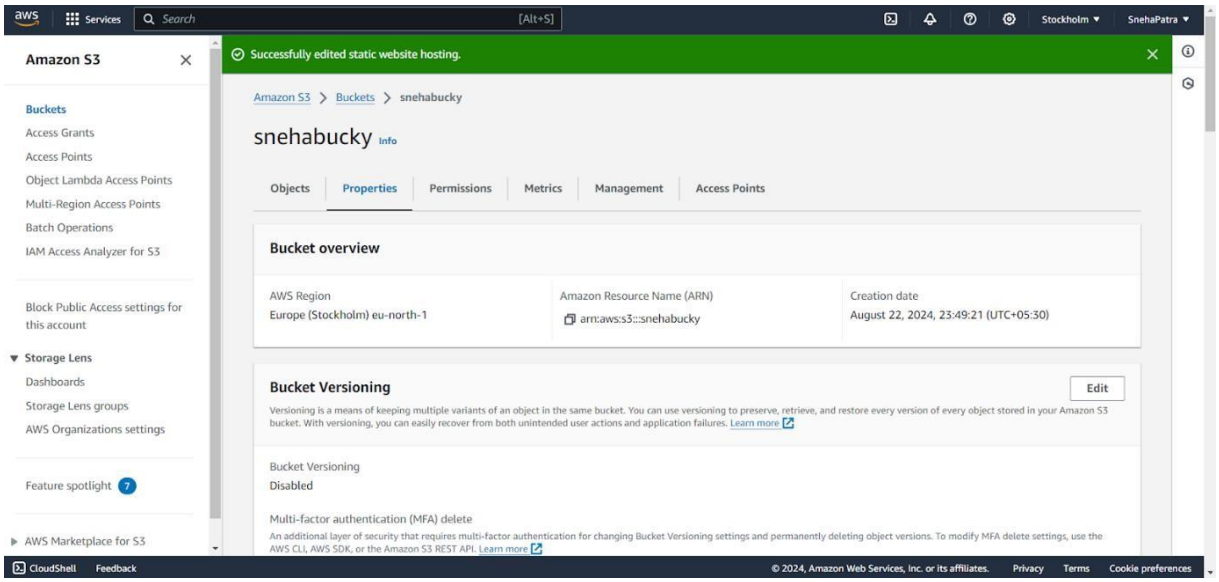
Using S3

1. Now visit S3 under the developer tools and create a Bucket and then Click on the Edit Static Website Hosting under the properties tab

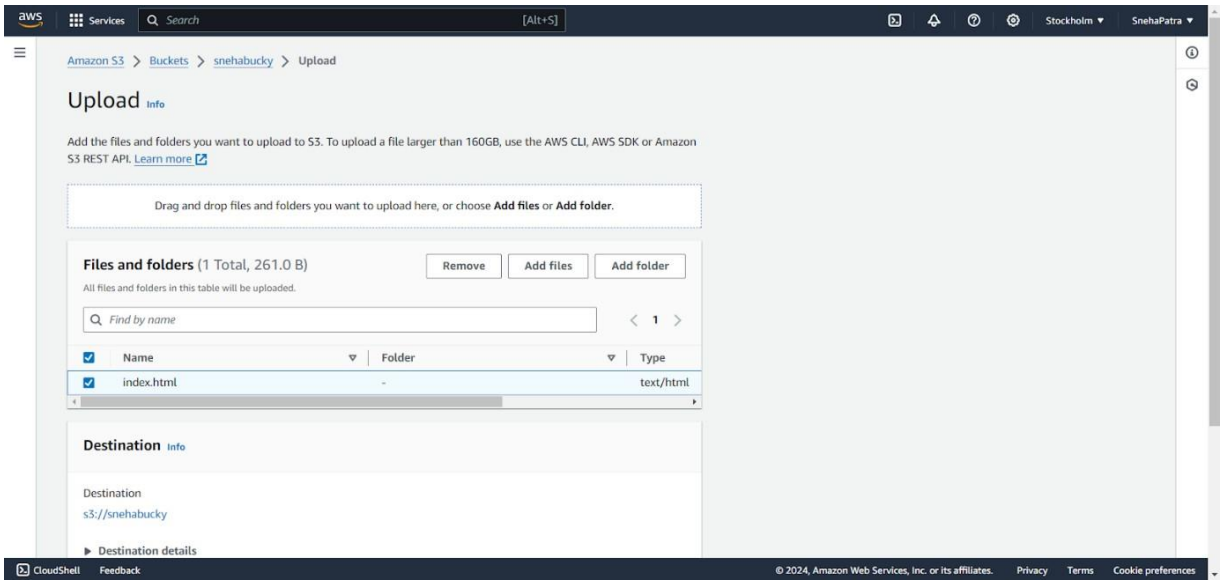

Services
Search
[Alt+S]
Stockholm
SnehaPatra
Amazon S3 > Buckets > Create bucket
Create bucket Info
Buckets are containers for data stored in S3.
General configuration
AWS Region
Europe (Stockholm) eu-north-1
Bucket type Info
General purpose
Recommended for most use cases and access patterns. General purpose buckets are the original S3 bucket type. They allow a mix of storage classes that redundantly store objects across multiple Availability Zones.
Directory - New
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
snehabucky
Bucket name must be unique within the global namespace and follow the bucket naming rules. See rules for bucket naming
Copy settings from existing bucket - optional
Only the bucket settings in the following configuration are copied.
Choose bucket
Format: s3://bucket/prefix
CloudShell
Feedback
© 2024, Amazon Web Services, Inc. or its affiliates.
Privacy
Terms
Cookie preferences

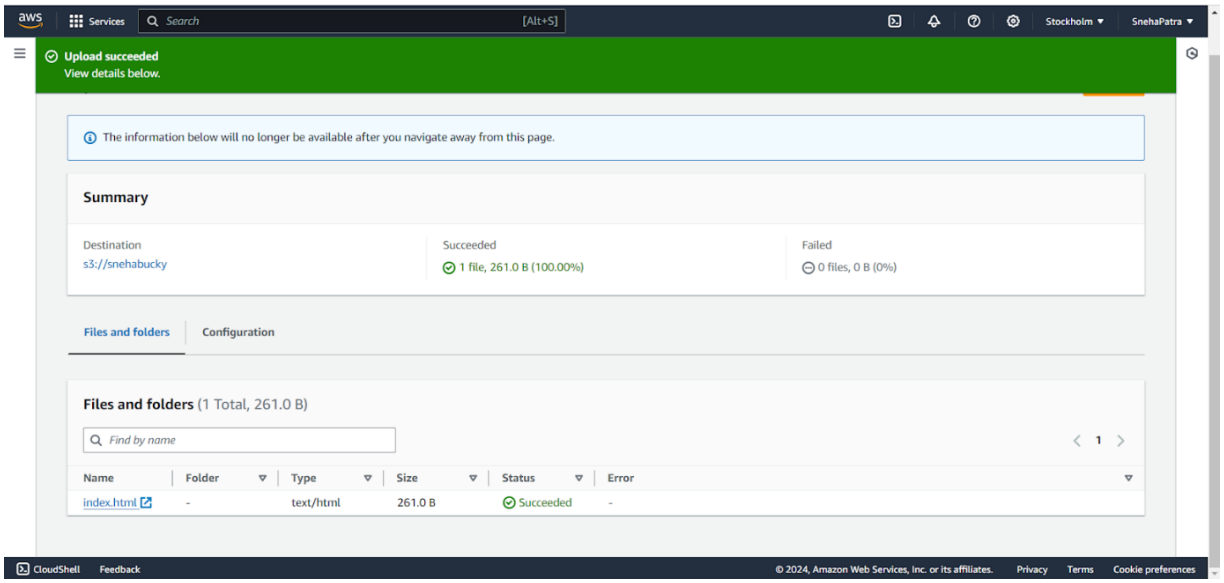

Services
Search
[Alt+S]
Stockholm
SnehaPatra
Successfully created bucket "snehabucky"
To upload files and folders, or to configure additional bucket settings, choose View details.
View details
Amazon S3 > Buckets
Account snapshot - updated every 24 hours
All AWS Regions
Storage lens provides visibility into storage usage and activity trends. Learn more
View Storage Lens dashboard
General purpose buckets
Directory buckets
General purpose buckets (3) Info
All AWS Regions
Buckets are containers for data stored in S3.
Copy ARN
Empty
Delete
Create bucket
Find buckets by name
Name
AWS Region
IAM Access Analyzer
Creation date
codepipeline-eu-north-1-233300349215
Europe (Stockholm) eu-north-1
View analyzer for eu-north-1
August 22, 2024, 19:54:58 (UTC+05:30)
elasticbeanstalk-eu-north-1-337909754951
Europe (Stockholm) eu-north-1
View analyzer for eu-north-1
August 22, 2024, 13:27:27 (UTC+05:30)
snehabucky
Europe (Stockholm) eu-north-1
View analyzer for eu-north-1
August 22, 2024, 23:49:21 (UTC+05:30)
CloudShell
Feedback
© 2024, Amazon Web Services, Inc. or its affiliates.
Privacy
Terms
Cookie preferences


Services
Search
[Alt+S]
Stockholm
SnehaPatra
Amazon S3
Buckets
Access Grants
Access Points
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
Storage Lens groups
AWS Organizations settings
Feature spotlight 7
AWS Marketplace for S3
Amazon S3 > Buckets > snehabucky > Edit static website hosting
Edit static website hosting Info
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
For your customers to access content at the website endpoint, you must make all your content publicly readable. To do so, you can edit the S3 Block Public Access settings for the bucket. For more information, see Using Amazon S3 Block Public Access
Index document
Specify the home or default page of the website.
index.html
CloudShell
Feedback
© 2024, Amazon Web Services, Inc. or its affiliates.
Privacy
Terms
Cookie preferences

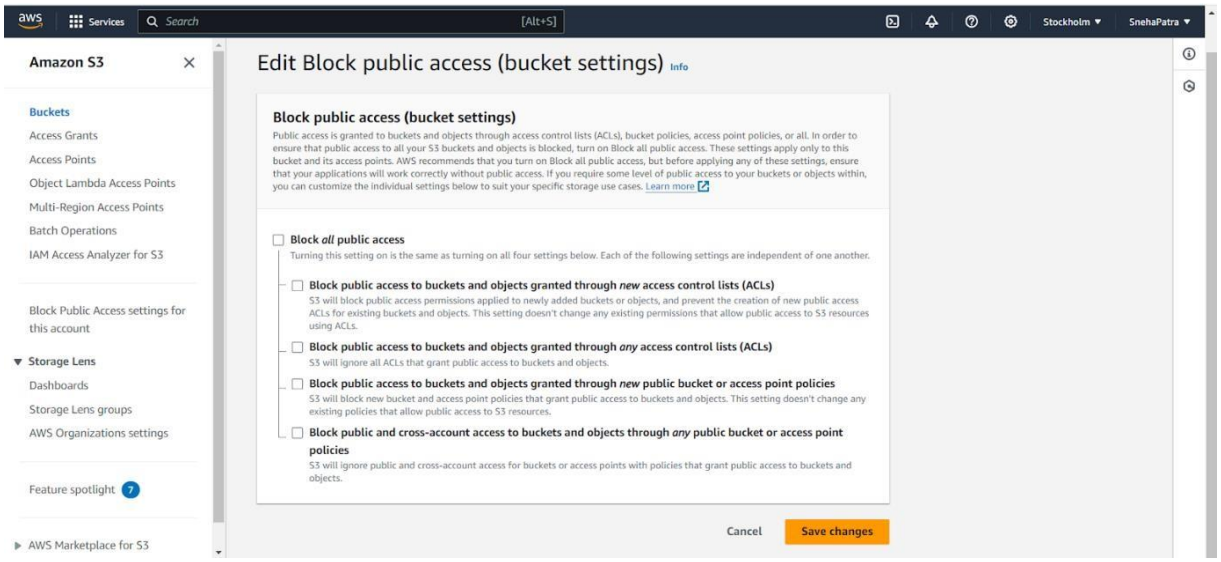


2. Upload your html file.

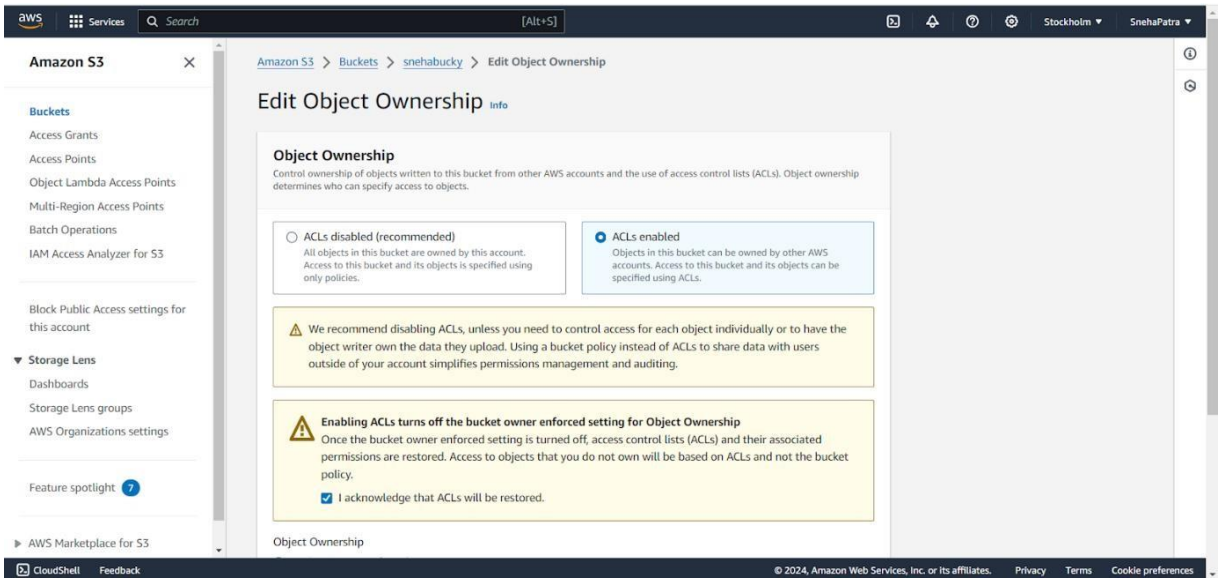




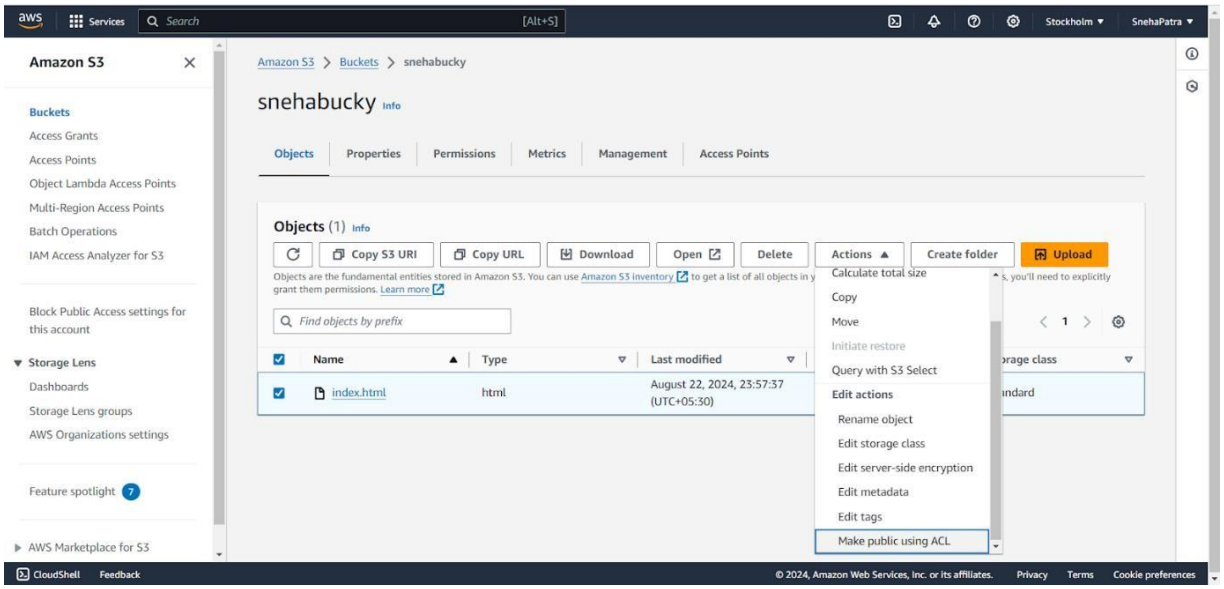
3. And then select on the Edit block public access under the Permissions tab.

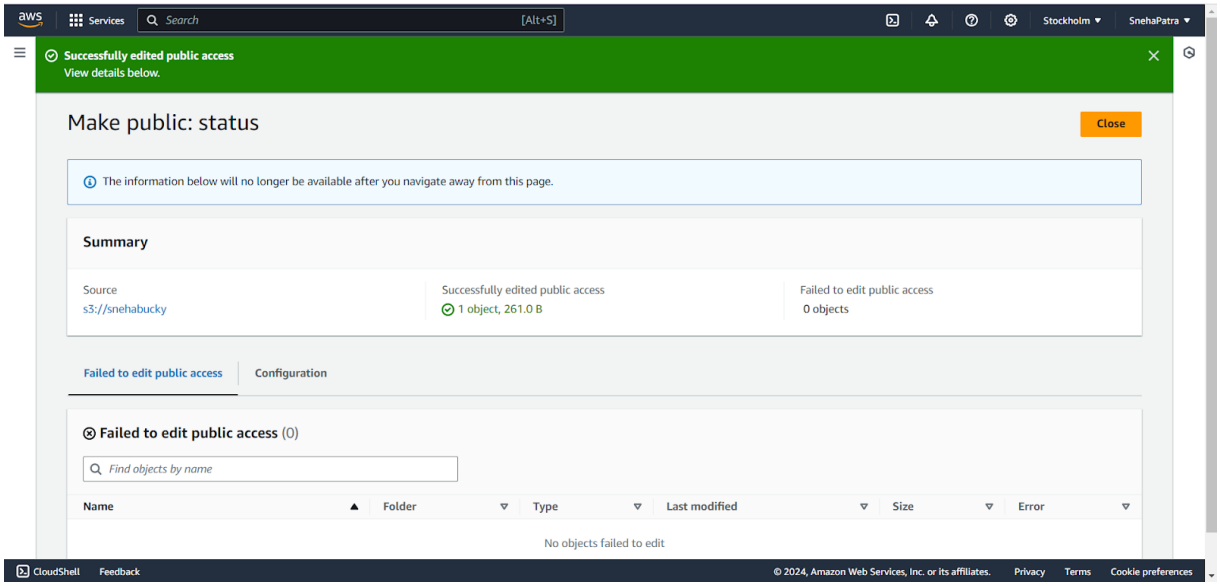


4. Select Object Ownership under Permission Tab

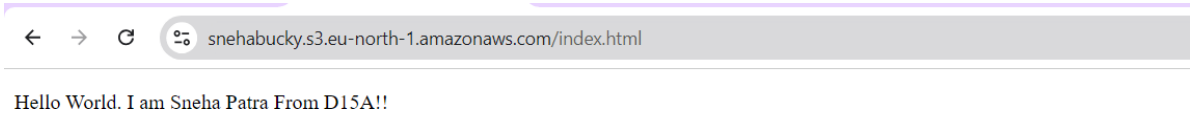


5. Select the file and click on Actions and select the option Make Public using ACL from the dropdown





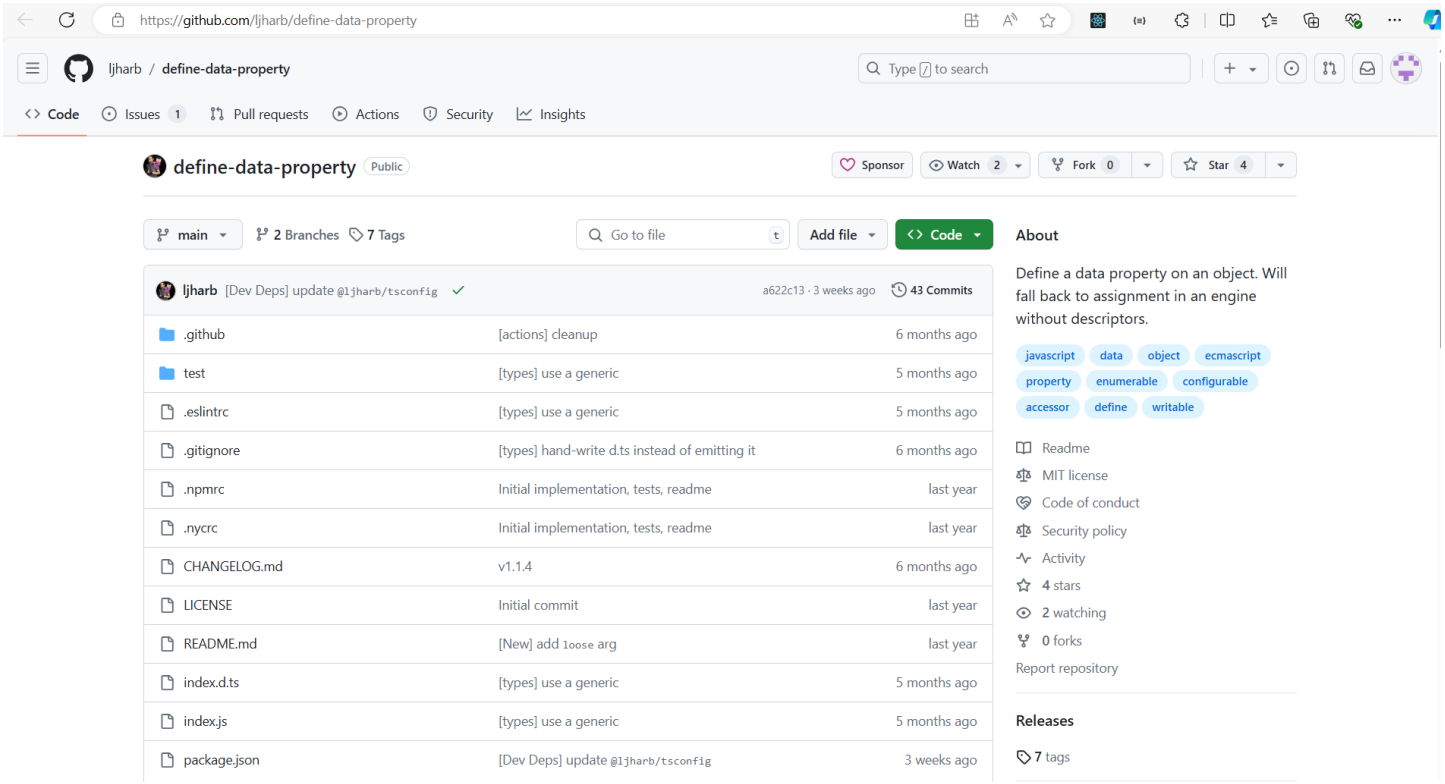
6. Now you can visit the domain and the website hosted.



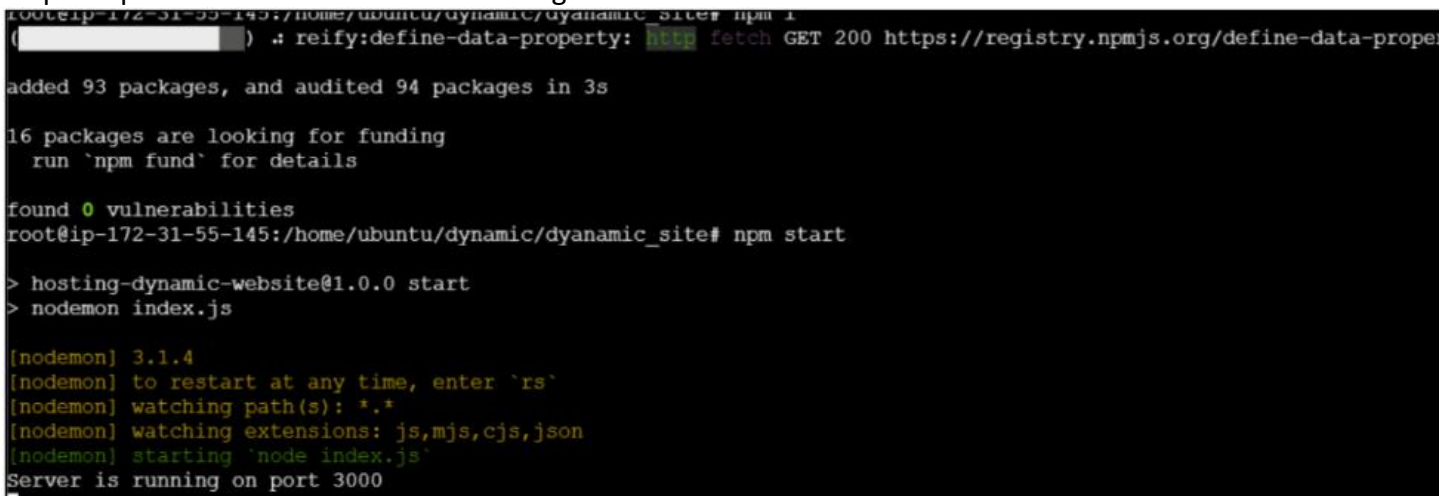
Hello World. I am Sneha Patra From D15A!!

Dynamic Hosting :

Step 1: Clone the following Github repository: https://github.com/ljharb/define-data-property



Step 2: Open Console and run the following command

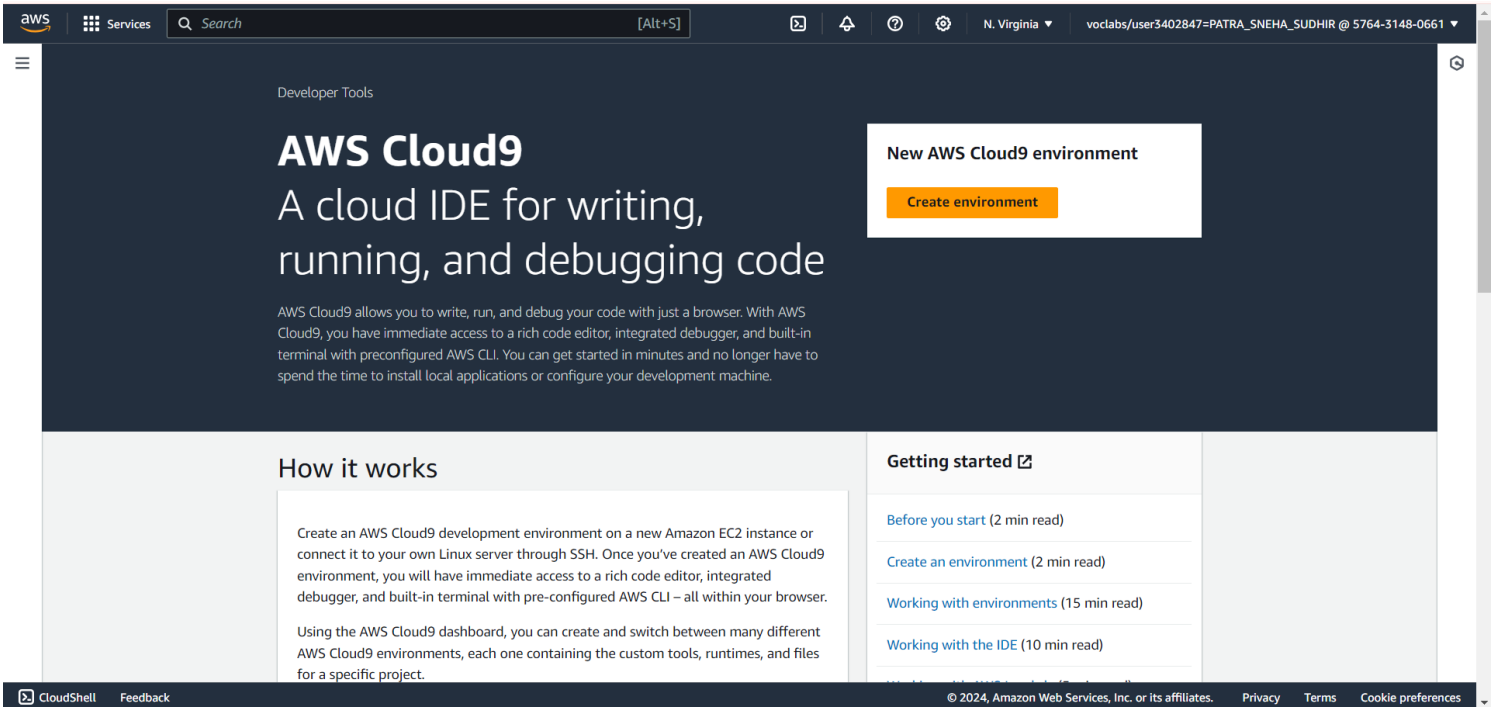


Step 3: Install necessary packages and run the website on port number 3000.

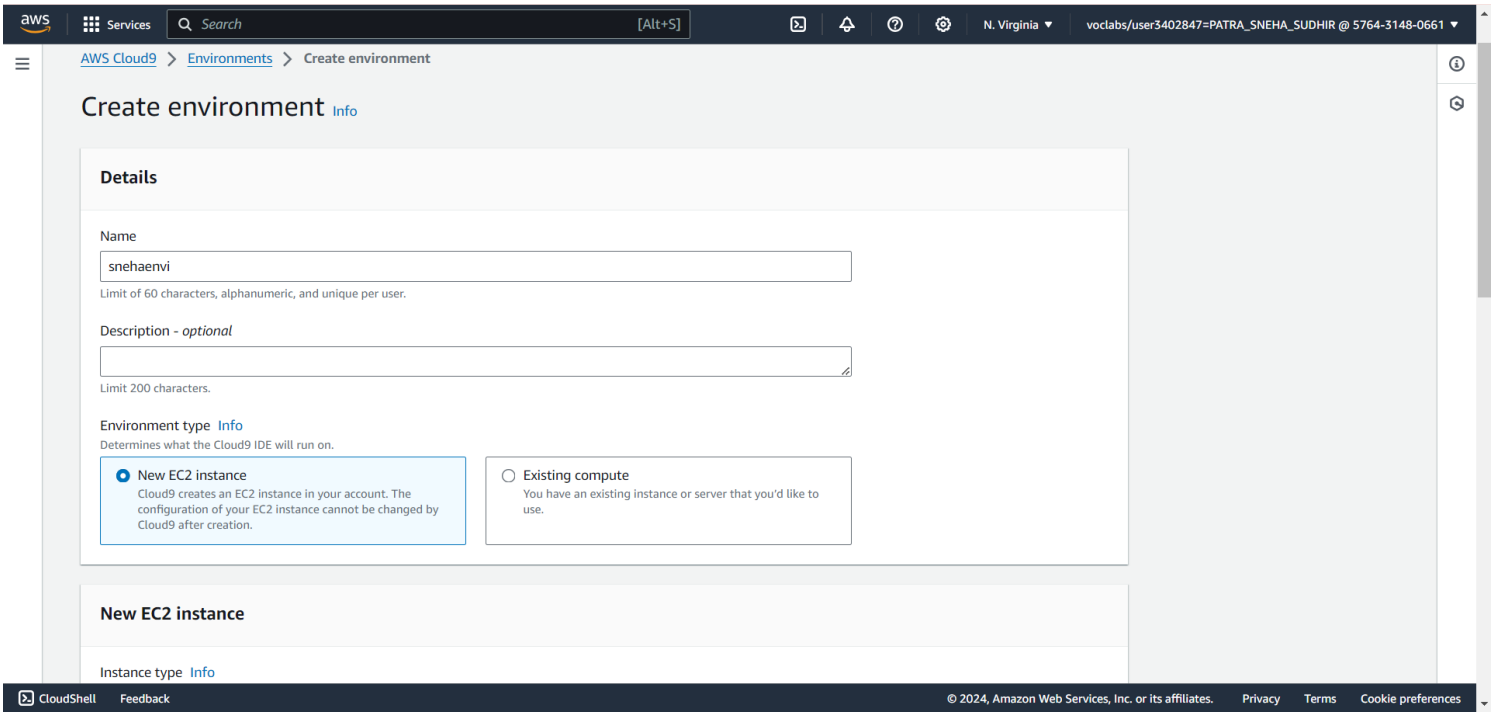
Hey this is about page.

IDE Hosting :

Step 1: Go to AWS Academy and open AWS Cloud9 from developer Tools and select create environment.



Step 2: Create a environment



30 minutes

Network settings Info

Connection

How your environment is accessed.

- (•) AWS Systems Manager (SSM)
  Accesses environment via SSM without opening inbound ports (no ingress).
- ( ) Secure Shell (SSH)
  Accesses environment directly via SSH, opens inbound ports.

▶ VPC settings Info

▶ Tags - *optional* Info

A tag is a label that you assign to an AWS resource. Each tag consists of a key and an optional value. You can use tags to search and filter your resources or track your AWS costs.

The following IAM resources will be created in your account

- **AWSServiceRoleForAWSCloud9** - AWS Cloud9 creates a service-linked role for you. This allows AWS Cloud9 to call other AWS services on your behalf. You can delete the role from the AWS IAM console once you no longer have any AWS Cloud9 environments. Learn more
- **AWSCloud9SSMAccessRole** and **AWSCloud9SSMInstanceProfile** - A service role and an instance profile are automatically created if Cloud9 accesses its EC2 instance through AWS Systems Manager. If your environments no longer require EC2 instances that block incoming traffic, you can delete these roles using the AWS IAM console. Learn more

Cancel Create