

## EXPERIMENT NO. 1

NAME: MOHIT PATIL

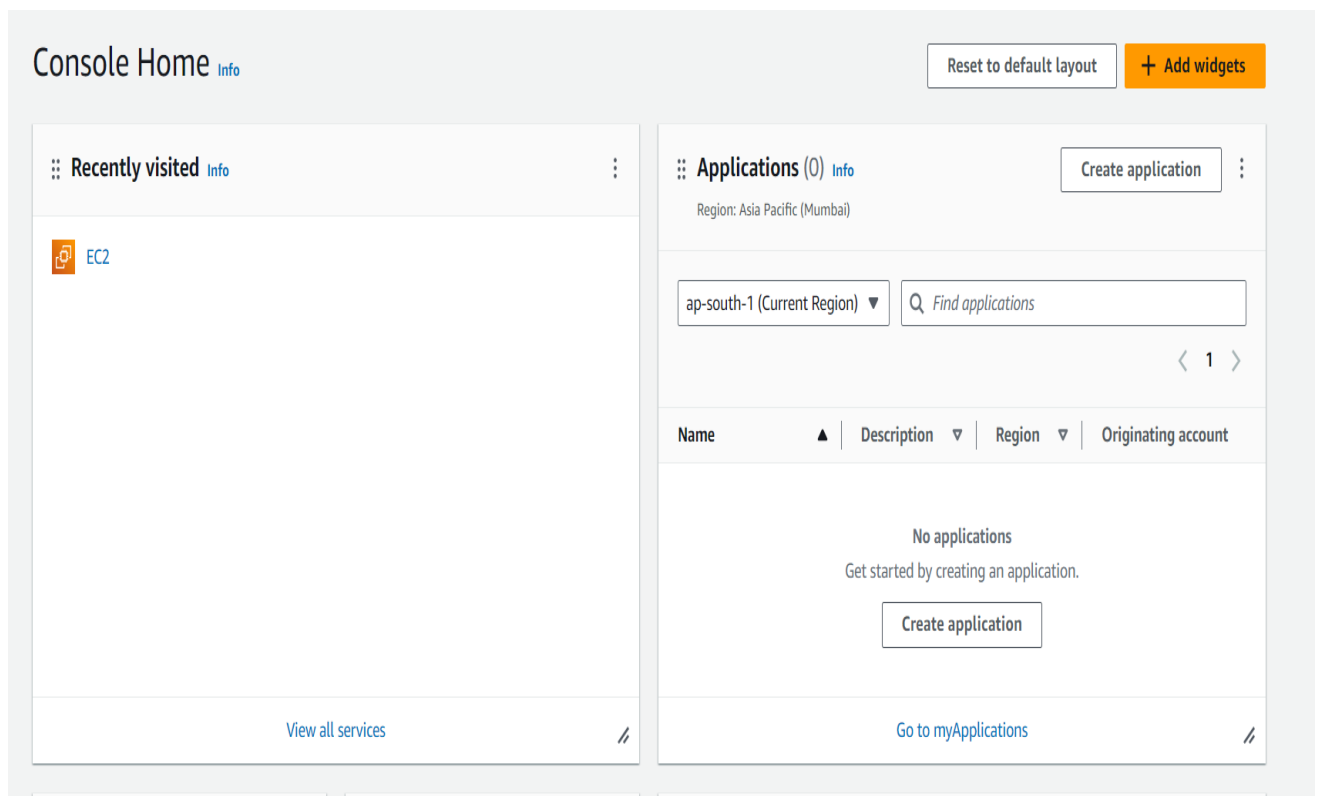
CLASS:D15A

ROLLNO.37

**Aim :** To understand the benefits of Cloud Infrastructure and Setup AWS Cloud9 IDE, Launch AWS Cloud9 IDE and Perform Collaboration Demonstration.

### EC2 Instance Creation and static site hosting

1. Login to your AWS account



## 2. Click on EC2 and then create an instance by clicking on instances

Resources

EC2 Global View

You are using the following Amazon EC2 resources in the Asia Pacific (Mumbai) Region:

Instances (running)	0	Auto Scaling Groups	0	Capacity Reservations	0
Dedicated Hosts	0	Elastic IPs	0	Instances	0
Key pairs	0	Load balancers	0	Placement groups	0
Security groups	1	Snapshots	0	Volumes	0

Launch instance

To get started, launch an Amazon EC2 instance, which is a virtual server in the cloud.

Launch instance

Migrate a server

Note: Your instances will launch in the Asia Pacific (Mumbai) Region

Service health

AWS Health Dashboard

Region

Asia Pacific (Mumbai)

Status

✔ This service is operating normally.

Account attributes

Default VPC

vpc-0b8f24d7c64f9775f

Settings

EC2 Free Tier

Info

Offers for all AWS Regions.

0 EC2 free tier offers in use

End of month forecast

⚠ 0 offers forecasted to exceed free tier limit.

Exceeds free tier

⚠ 0 offers exceeded and is now pay-as-you-go pricing.

View Global EC2 resources

View all AWS Free Tier offers

### 3. After an instance is created wait for it to come to Running state

The screenshot shows the AWS Management Console's EC2 Dashboard. On the left, the navigation menu includes 'EC2 Dashboard', 'EC2 Global View', 'Events', 'Instances', 'Instance Types', 'Launch Templates', 'Spot Requests', 'Savings Plans', 'Reserved Instances', 'Dedicated Hosts', 'Capacity', 'Reservations', 'Images', 'AMIs', 'AMI Catalog', and 'Elastic Block Store'. The main content area is titled 'Instances (1/1) Info'. It features a search bar, a 'Find Instance by attribute or tag (case-sensitive)' input, and a 'All states' dropdown. Below this is a table with columns: Name, Instance ID, Instance state, Instance type, Status check, Alarm status, Availability Zone, and Public IPv4 D. The table contains one entry: 'aws 1' with Instance ID 'i-0e6218a10f73b4de7', state 'Running', type 't2.micro', status 'Initializing', and availability zone 'ap-south-1b'. The 'Status check' column shows a green checkmark and the text 'Initializing'. The 'Alarm status' column has a link 'View alarms +'. The 'Public IPv4 D' column shows 'ec2-52-66-25'.

### 4. After doing that you will see this UI

```
aws
Services
Search
[Alt+S]
Mumbai
MohitPatil

Enable ESM Apps to receive additional future security updates.
See https://ubuntu.com/esm or run: sudo pro status

The list of available updates is more than a week old.
To check for new updates run: sudo apt update

The programs included with the Ubuntu system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.

Ubuntu comes with ABSOLUTELY NO WARRANTY, to the extent permitted by
applicable law.

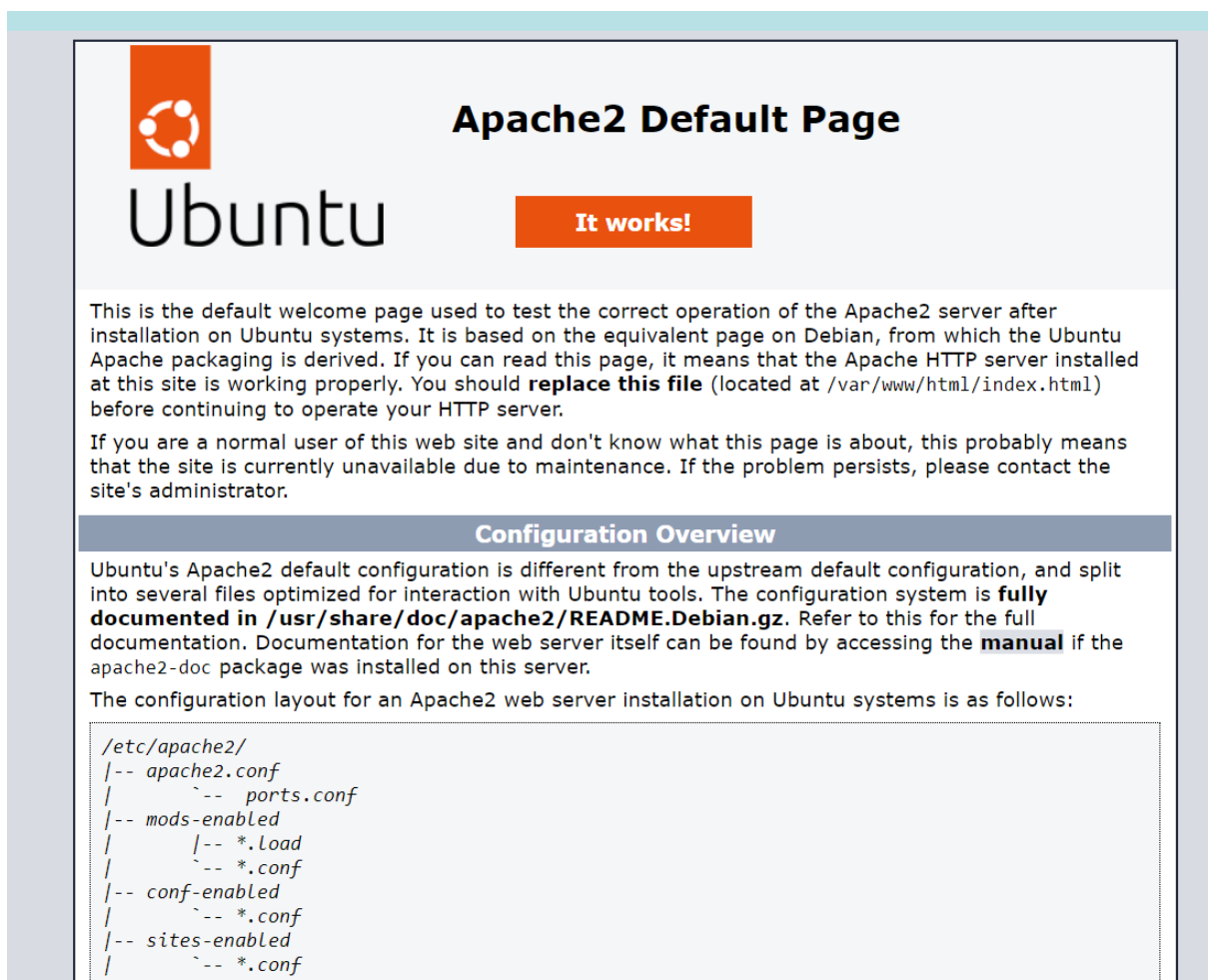
To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

ubuntu@ip-172-31-13-127:~$ sudo su
root@ip-172-31-13-127:/home/ubuntu# apt update
Hit:1 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble InRelease
Get:2 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-updates InRelease [126 kB]
Get:3 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-backports InRelease [126 kB]
Get:4 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble/universe amd64 Packages [15.0 MB]
Get:5 http://security.ubuntu.com/ubuntu noble-security InRelease [126 kB]
Get:6 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble/universe Translation-en [5982 kB]
Get:7 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble/universe amd64 Components [3871 kB]
Get:8 http://security.ubuntu.com/ubuntu noble-security/main amd64 Packages [296 kB]
Get:9 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble/universe amd64 c-n-f Metadata [301 kB]
Get:10 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble/multiverse amd64 Packages [269 kB]
Get:11 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble/multiverse Translation-en [118 kB]
Get:12 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble/multiverse amd64 Components [35.0 kB]
```

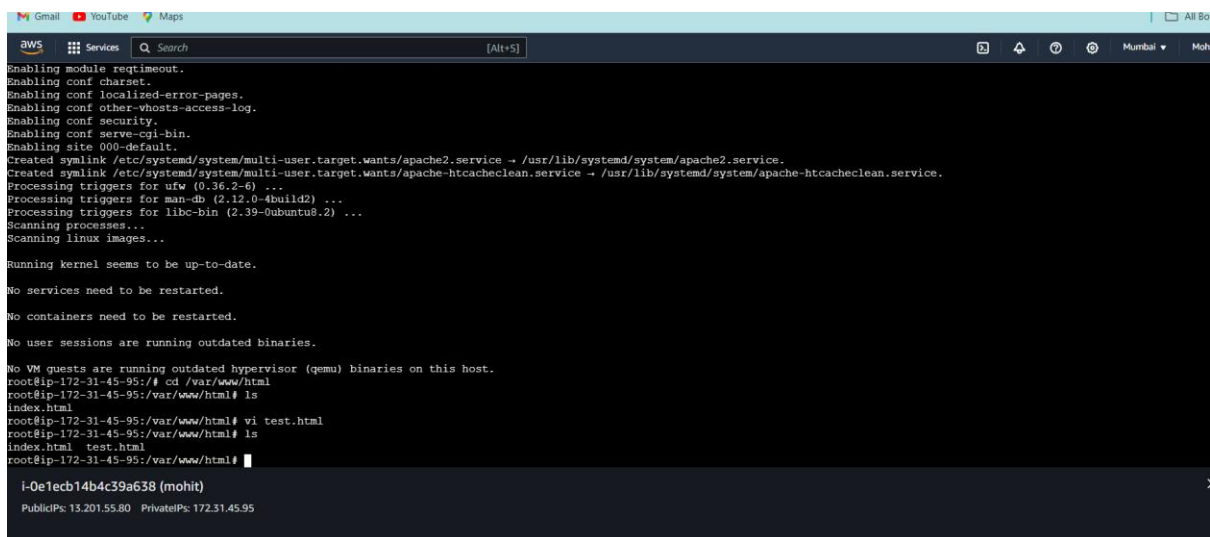
## 5. Follow these steps and then run these commands

```
aws Services Search [Alt+S] Mumbai MohitPatil
Hit:1 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble InRelease
Hit:2 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-updates InRelease
Hit:3 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-backports InRelease
Hit:4 http://security.ubuntu.com/ubuntu noble-security InRelease
Reading package lists... Done
root@ip-172-31-13-127:/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 55 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://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble/main amd64 libapr1t64 amd64 1.7.2-3.1build2 [107 kB]
Get:2 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble/main amd64 libaprutil1t64 amd64 1.6.3-1.1ubuntu7 [91.9 kB]
Get:3 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble/main amd64 libaprutil1-dbd-sqlite3 amd64 1.6.3-1.1ubuntu7 [11.2 kB]
Get:4 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble/main amd64 libaprutil1-ldap amd64 1.6.3-1.1ubuntu7 [9116 B]
Get:5 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble/main amd64 liblua5.4-0 amd64 5.4.6-3build2 [166 kB]
Get:6 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-updates/main amd64 apache2-bin amd64 2.4.58-1ubuntu8.4 [1329 kB]
Get:7 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-updates/main amd64 apache2-data all 2.4.58-1ubuntu8.4 [163 kB]
Get:8 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-updates/main amd64 apache2-utils amd64 2.4.58-1ubuntu8.4 [90.2 kB]
Get:9 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-updates/main amd64 ssl-cert all 1.1.2ubuntu1 [17.8 kB]
Get:10 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble/main amd64 apache2 amd64 2.4.58-1ubuntu8.4 [27.8 MB]
Fetched 2083 kB in 0s (27.8 MB/s)
Preconfiguring packages ...
Scanning processes...
root@ip-172-31-13-127:/home/ubuntu#
```

## 6. After that the ip-address which was given while running the instance, copy that and paste that on chrome, make sure that it is http and not https



## 7. Create a file using vi command and save it using : wq



```
Enabling module reqtimeout.
Enabling conf charset.
Enabling conf localized-error-pages.
Enabling conf other-vhosts-access-log.
Enabling conf security.
Enabling conf serve-cgi-bin.
Enabling site 000-default.
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.

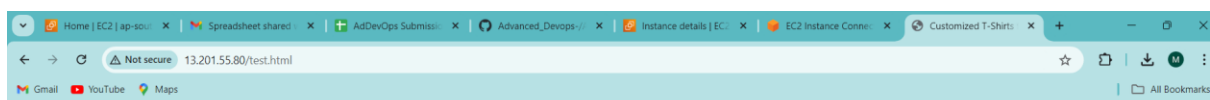
No services need to be restarted.

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-172-31-45-95:~# cd /var/www/html
root@ip-172-31-45-95:/var/www/html# ls
index.html
root@ip-172-31-45-95:/var/www/html# vi test.html
root@ip-172-31-45-95:/var/www/html# ls
index.html  test.html
root@ip-172-31-45-95:/var/www/html#
```

## 8. After saving that file go that page where ubuntu is listed and then on the link add “/your\_file\_name.html” and then whatever you saved on that file will be displayed



### Customized T-Shirts for All :)

Tagline on the Shirt:	<input type="text" value="Enter your tagline"/>
Color:	<input type="button" value="Select a color"/>
Size:	<input type="button" value="Select a size"/>
Quantity:	<input type="text" value="Enter quantity"/>
Delivery Date:	<input type="text" value="dd-mm-yyyy"/>
Delivery Details:	
Recipient's Name:	<input type="text" value="Enter recipient's name"/>
Address:	<input type="text" value="Enter delivery address"/>
Email:	<input type="text" value="Enter email address"/>
Phone Number:	<input type="text" value="Enter phone number"/>
Additional Comments:	
<div>Any additional comments or special instructions</div>	
Comments:	<div></div>
<input type="button" value="Submit Order"/>	

# Static Hosting using S3 bucket

## Step1: Create bucket

The screenshot shows the AWS Management Console interface for creating a new S3 bucket. The breadcrumb navigation at the top reads 'Amazon S3 > Buckets > Create bucket'. The main heading is 'Create bucket' with an 'Info' link. Below the heading, a note states: 'Buckets are containers for data stored in S3.' The 'General configuration' section contains the following fields and options:

- AWS Region:** Asia Pacific (Mumbai) ap-south-1
- Bucket name:** mohitbucket (with an 'Info' link)
- Validation:** A message states 'Bucket name must be unique within the global namespace and follow the bucket naming rules. See rules for bucket naming' with a link.
- Copy settings:** A section titled 'Copy settings from existing bucket - optional' with a note: 'Only the bucket settings in the following configuration are copied.' It includes a 'Choose bucket' button.
- Format:** s3://bucket/prefix

The screenshot shows the 'Edit static website hosting' page for the bucket 'mohitpatilbucket'. The breadcrumb navigation is 'Amazon S3 > Buckets > mohitpatilbucket > Edit static website hosting'. The main heading is 'Edit static website hosting' with an 'Info' link. The 'Static website hosting' section includes:

- A note: 'Use this bucket to host a website or redirect requests. Learn more' with a link.
- Static website hosting:** Radio buttons for 'Disable' and 'Enable' (selected).
- Hosting type:** Radio buttons for 'Host a static website' (selected) and 'Redirect requests for an object'. The 'Host a static website' option has a sub-note: 'Use the bucket endpoint as the web address. Learn more' with a link.
- Information box:** A blue box with an information icon stating: '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' with a link.
- Index document:** A section titled 'Index document' with a note: 'Specify the home or default page of the website.' Below it is a text input field containing 'index.html'.

## Step 2: Add resources

The screenshot shows the AWS Management Console interface. At the top, there's a navigation bar with the AWS logo, 'Services' link, a search bar, and a user profile 'MohitPatil'. Below this, a green banner indicates 'Upload succeeded' with a link to 'View details below.'. The main content area shows the 'Files and folders' tab for the bucket 's3://mohitpatilbucket'. It displays a summary: 'Files and folders (39 Total, 176.4 KB)'. Below this is a table with columns: Name, Folder, Type, Size, Status, and Error. The table lists 10 files, all with a 'Succeeded' status.

Name	Folder	Type	Size	Status	Error
<a href="#">bloggingblo...</a>	ip a3 bootstr...	image/webp	19.3 KB	Succeeded	-
<a href="#">download.jp...</a>	ip a3 bootstr...	image/jpeg	7.8 KB	Succeeded	-
<a href="#">images.jpeg</a>	ip a3 bootstr...	image/jpeg	5.9 KB	Succeeded	-
<a href="#">index.html</a>	ip a3 bootstr...	text/html	8.1 KB	Succeeded	-
<a href="#">style.css</a>	ip a3 bootstr...	text/css	395.0 B	Succeeded	-
<a href="#">yin-yang-yin...</a>	ip a3 bootstr...	image/jpeg	40.8 KB	Succeeded	-
<a href="#">COMMIT_ED...</a>	ip a3 bootstr...	-	13.0 B	Succeeded	-
<a href="#">config</a>	ip a3 bootstr...	-	307.0 B	Succeeded	-
<a href="#">description</a>	ip a3 bootstr...	-	73.0 B	Succeeded	-
<a href="#">HEAD</a>	ip a3 bootstr...	-	21.0 B	Succeeded	-

The screenshot shows the AWS Management Console interface for the 'mohitpatilbucket'. The top navigation bar is the same as the previous screenshot. Below the green banner, the breadcrumb 'Amazon S3 > Buckets > mohitpatilbucket' is visible. The main heading is 'mohitpatilbucket' with an 'Info' link. Below this are tabs for 'Objects', 'Properties', 'Permissions', 'Metrics', 'Management', and 'Access Points'. The 'Properties' tab is selected, showing a 'Bucket overview' section with three rows of information: AWS Region (Asia Pacific (Mumbai) ap-south-1), Amazon Resource Name (ARN) (arn:aws:s3:::mohitpatilbucket), and Creation date (August 21, 2024, 20:58:25 (UTC+05:30)). Below this is a 'Bucket Versioning' section with an 'Edit' button. It states 'Bucket Versioning Disabled' and 'Multi-factor authentication (MFA) delete Disabled'. At the bottom, there is a 'Tags (0)' section with an 'Edit' button.

Amazon S3 > Buckets > mohitpatilbucket

### mohitpatilbucket [Info](#)

[Objects](#) [Properties](#) [Permissions](#) [Metrics](#) [Management](#) [Access Points](#)

#### Bucket overview

AWS Region	Amazon Resource Name (ARN)	Creation date
Asia Pacific (Mumbai) ap-south-1	arn:aws:s3:::mohitpatilbucket	August 21, 2024, 20:58:25 (UTC+05:30)

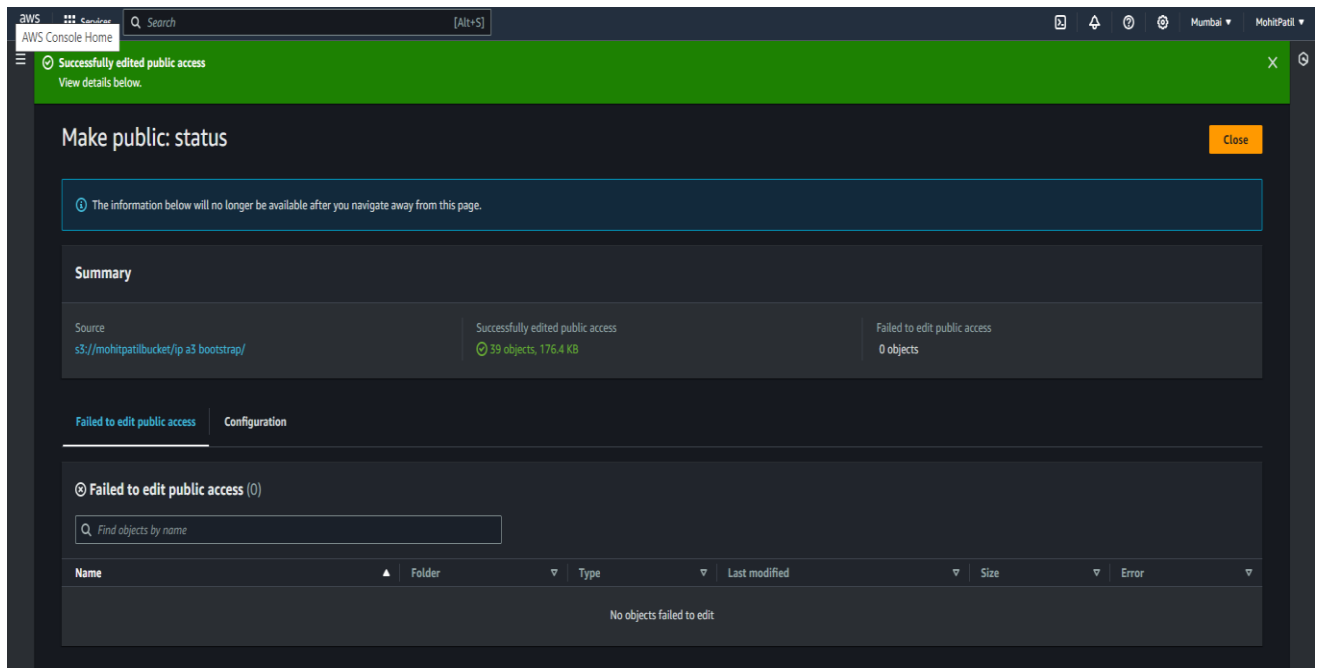
#### Bucket Versioning [Edit](#)

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  
Disabled

Multi-factor authentication (MFA) delete  
Disabled

Tags (0) [Edit](#)



### Step 3 : visit hosted website

Home | EC2 | ap-southeast-1 | Spreadsheet shared | AdDevOps Submission | Advanced\_DevOps | Instance details | EC2 | EC2 Instance Connection | Customized T-Shirts

Not secure 13.201.55.80/test.html

## Customized T-Shirts for All :)

Tagline on the Shirt:

Color:

Size:

Quantity:

Delivery Date:

Delivery Details:

Recipient's Name:

Address:

Email:

Phone Number:

Additional Comments:

Any additional comments or special instructions

Comments:

Submit Order



# EC2 Dynamic Site Hosting

## Step 1 : Open Console and clone the github repository

```
aws Services Search [Alt+S]

To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

ubuntu@ip-172-31-15-151:~$ psw
Command 'psw' not found, did you mean:
  command 'aws' from snap aws-cli (1.15.58)
  command 'rms' from deb rms (0.42-1.1)
  command 'pts' from deb openafs-client (1.8.10-2.1ubuntu3.1)
  command 'psw' from deb wise (2.4.1-23)
  command 'pps' from deb libpam-bin (5.0.1-4)
  command 'aws' from deb awscli (2.14.6-1)
  command 'pcs' from deb pcs (0.11.6-1ubuntu1)
  command 'pwd' from deb coreutils (9.4-2ubuntu2)
  command 'rpws' from deb ratpoison (1.4.9-1)
  command 'pws' from deb lvm2 (2.03.16-2ubuntu1)
  command 'pwn' from deb python3-pwntools (4.11.1-1)
  command 'ps' from deb procps (2:4.0.4-2ubuntu1)
See 'snap info <snapname>' for additional versions.
ubuntu@ip-172-31-15-151:~$ pwd
/home/ubuntu
ubuntu@ip-172-31-15-151:~$ git clone https://github.com/Mohitpatil344/zapier_html.git
Cloning into 'zapier_html'...
remote: Enumerating objects: 18, done.
remote: Counting objects: 100% (18/18), done.
remote: Compressing objects: 100% (16/16), done.
remote: Total 18 (delta 6), reused 12 (delta 2), pack-reused 0 (from 0)
Receiving objects: 100% (18/18), 31.36 MiB | 17.13 MiB/s, done.
Resolving deltas: 100% (6/6), done.
ubuntu@ip-172-31-15-151:~$ ls
zapier_html
ubuntu@ip-172-31-15-151:~$ cd ^C
ubuntu@ip-172-31-15-151:~$ cd zapier_html
ubuntu@ip-172-31-15-151:~/zapier_html$ ls
1699438656630.jpeg                                12.webp                                           mobile-application-development-guidelines-riseuplabs.webp
1722195792455bbk4ink-voicemaker.in-speech.mp3    index.html
'Screenshot 2024-07-29 005945.png'                'invideo-ai-1080 Zapier_ Your Ultimate Tech Partner! 2024-07-28.mp4'
ubuntu@ip-172-31-15-151:~/zapier_html$
```

i-0022d489c88af599c (mohit)  
PublicIPs: 3.111.57.218 PrivateIPs: 172.31.15.151

```
26 updates can be applied immediately.
22 of these updates are standard security updates.
To see these additional updates run: apt list --upgradable

Enable ESM Apps to receive additional future security updates.
See https://ubuntu.com/esm or run: sudo pro status

Last login: Wed Aug 21 17:55:18 2024 from 13.233.177.4
ubuntu@ip-172-31-15-151:~$ git clone https://github.com/PranavPol-01/dyanamic_site.git
fatal: destination path 'dyanamic_site' already exists and is not an empty directory.
ubuntu@ip-172-31-15-151:~$ cd dyanamic_site
ubuntu@ip-172-31-15-151:~/dyanamic_site$ npm install

added 93 packages, and audited 94 packages in 2s

16 packages are looking for funding
  run 'npm fund' for details

found 0 vulnerabilities
ubuntu@ip-172-31-15-151:~/dyanamic_site$ node index.js
Server is running on port 3000
```

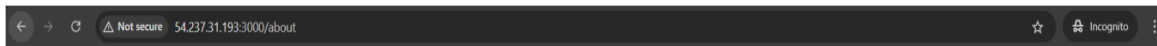
i-0022d489c88af599c (mohit)  
PublicIPs: 3.111.57.218 PrivateIPs: 172.31.15.151



## Step 2 : Install necessary Packages and run website on port 3000



Hey this is Dynamic Website.



Hey this is about page.

## Cloud 9 IDE Site Hosting

Developer Tools

# AWS Cloud9

## A cloud IDE for writing, running, and debugging code

AWS Cloud9 allows you to write, run, and debug your code with just a browser. With AWS Cloud9, you have immediate access to a rich code editor, integrated debugger, and built-in terminal with preconfigured AWS CLI. You can get started in minutes and no longer have to spend the time to install local applications or configure your development machine.

New AWS Cloud9 environment

Create environment

### Details

Name

Test123

Limit of 60 characters, alphanumeric, and unique per user.

Description - optional

Limit 200 characters.

Environment type [Info](#)

Determines what the Cloud9 IDE will run on.

☒ New EC2 instance

Cloud9 creates an EC2 instance in your account. The configuration of your EC2 instance cannot be changed by Cloud9 after creation.

☐ Existing compute

You have an existing instance or server that you'd like to use.

### New EC2 instance

Instance type [Info](#)

The memory and CPU of the EC2 instance that will be created for Cloud9 to run on.

☒ t2.micro (1 GiB RAM + 1 vCPU)

Free-tier eligible. Ideal for educational users and exploration.

☐ t3.small (2 GiB RAM + 2 vCPU)

Recommended for small web projects.

☐ m5.large (8 GiB RAM + 2 vCPU)

Recommended for production and most general-purpose development.

☐ Additional instance types

Explore additional instances to fit your need.

Platform [Info](#)

This will be installed on your EC2 instance. We recommend Amazon Linux 2023.

Amazon Linux 2023

Timeout

How long Cloud9 can be inactive (no user input) before auto-hibernating. This helps prevent unnecessary charges.

30 minutes

