Name → Siddharth Sutar
PRN no → 22010517
Roll no → 323054
Subject → CC
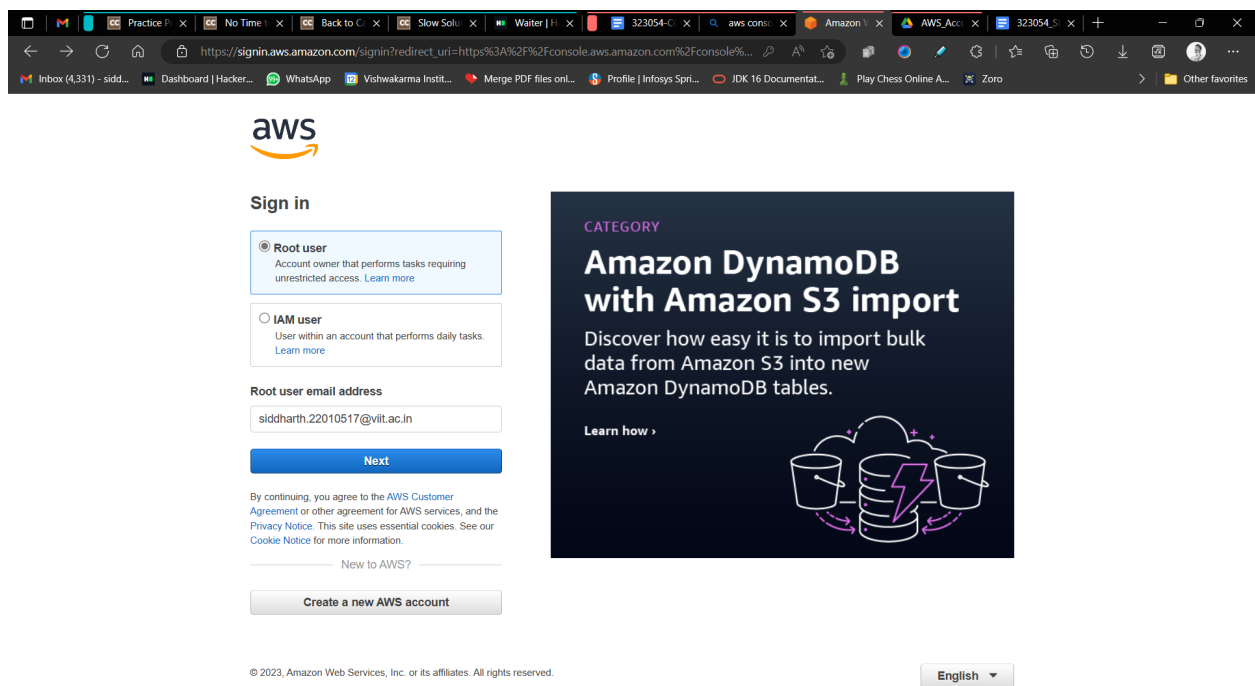Batch → C3

Assignment No 3

Deploy Web application on AWS Cloud (or any cloud)(PHP/Python/Node js any application)
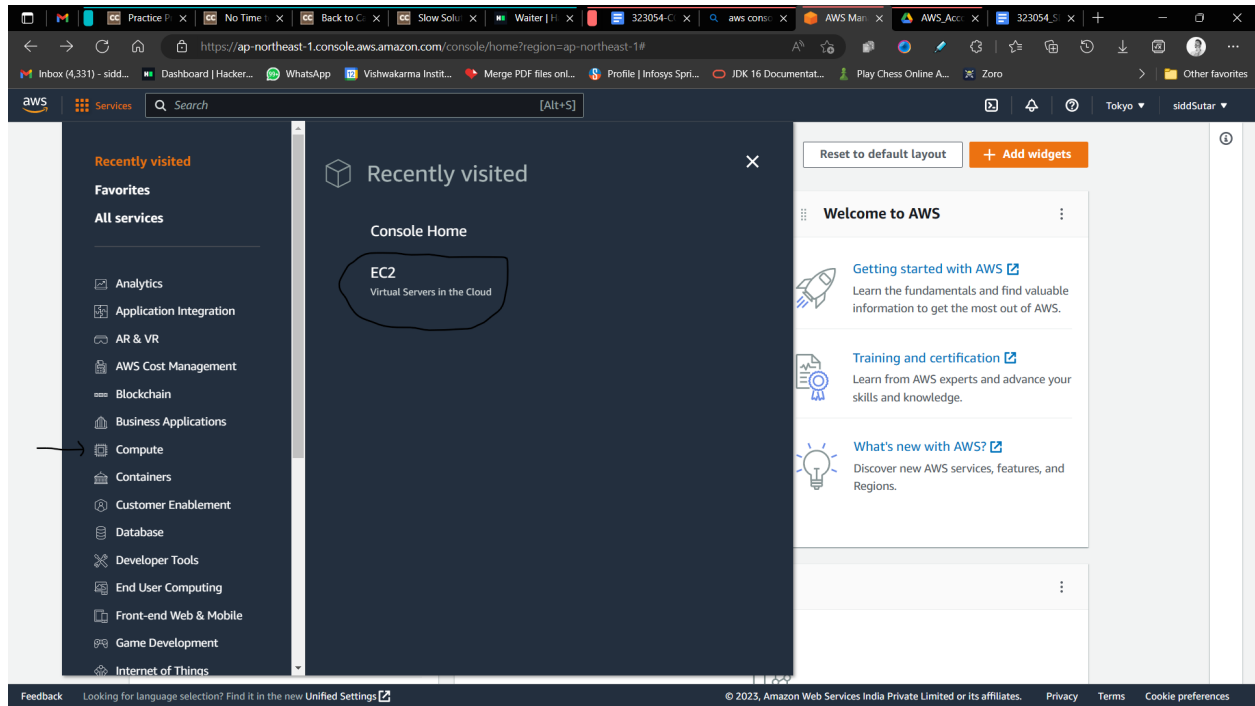
STEP 1

→ LOGIN TO AWS

STEP 2

→ Go to E2C Instance via compute or access it directly from from frequently used section

STEP 3

→ Configure the Instance

Name → Any name you like

OS → aws linux

Architecture → 64 bit

Create keys (Give any name to them and download it)

https://ap-northeast-1.console.aws.amazon.com/ec2/home?region=ap-northeast-1#LaunchInstances

Inbox (4,331) - sidd... | Dashboard | Hacker... | WhatsApp | Vishwakarma Instit... | Merge PDF files onl... | Profile | Infosys Spri... | JDK 16 Documentat... | Play Chess Online A... | Zoro | Other favorites

aws | Services | Search [Alt+S] | Tokyo | siddSutar

Amazon EC2 allows you to create virtual machines, or instances, that run on the AWS Cloud. Quickly get started by following the simple steps below.

Name and tags Info

Name

myServer

Add additional tags

▼ Application and OS Images (Amazon Machine Image) Info

An AMI is a template that contains the software configuration (operating system, application server, and applications) required to launch your instance. Search or Browse for AMIs if you don't see what you are looking for below

Search our full catalog including 1000s of application and OS images

Quick Start

Amazon Linux	macOS	Ubuntu	Windows	Red Hat	S

Browse more AMIs

Including AMIs from AWS, Marketplace and the Community

Amazon Machine Image (AMI)

Amazon Linux 2 AMI (HVM) - Kernel 5.10, SSD Volume Type — Free tier eligible
ami-06ee4e2261a4dc5c3 (64-bit (x86)) / ami-0dee43a4abd99c264 (64-bit (Arm))
Virtualization: hvm   ENA enabled: true   Root device type: ebs

Description

▼ Summary

Number of instances Info

1

Software Image (AMI)
Amazon Linux 2 Kernel 5.10 AMI...read more
ami-06ee4e2261a4dc5c3

Virtual server type (instance type)
t2.micro

Firewall (security group)
New security group

Storage (volumes)
1 volume(s) - 8 GiB

ⓘ **Free tier:** In your first year includes 750 hours of t2.micro (or t3.micro in the Regions in which t2.micro is unavailable) instance usage on free tier AMIs per month, 30 GiB of EBS storage, 2 million IOs, 1 GB of snapshots, and 100 GB of bandwidth to the internet.

Cancel | Launch instance

---

https://ap-northeast-1.console.aws.amazon.com/ec2/home?region=ap-northeast-1#LaunchInstances

Inbox (4,331) - sidd... | Dashboard | Hacker... | WhatsApp | Vishwakarma Instit... | Merge PDF files onl... | Profile | Infosys Spri... | JDK 16 Documentat... | Play Chess Online A... | Zoro | Other favorites

aws | Services | Search [Alt+S] | Tokyo | siddSutar

Virtualization: hvm   ENA enabled: true   Root device type: ebs

Description

Amazon Linux 2 Kernel 5.10 AMI 2.0.20230119.1 x86_64 HVM gp2

Architecture   **AMI ID**

64-bit (x86)   ami-06ee4e2261a4dc5c3   Verified provider

▼ Instance type Info

Instance type

t2.micro   Free tier eligible
Family: t2   1 vCPU   1 GiB Memory
On-Demand Windows pricing: 0.0198 USD per Hour
On-Demand SUSE pricing: 0.0152 USD per Hour
On-Demand RHEL pricing: 0.0752 USD per Hour
On-Demand Linux pricing: 0.0152 USD per Hour

Compare instance types

▼ Key pair (login) Info

You can use a key pair to securely connect to your instance. Ensure that you have access to the selected key pair before you launch the instance.

Key pair name - *required*

serverKeys   ⟳ Create new key pair

▼ Network settings Info   Edit

▼ Summary

Number of instances Info

1

Software Image (AMI)
Amazon Linux 2 Kernel 5.10 AMI...read more
ami-06ee4e2261a4dc5c3

Virtual server type (instance type)
t2.micro

Firewall (security group)
New security group

Storage (volumes)
1 volume(s) - 8 GiB

ⓘ **Free tier:** In your first year includes 750 hours of t2.micro (or t3.micro in the Regions in which t2.micro is unavailable) instance usage on free tier AMIs per month, 30 GiB of EBS storage, 2 million IOs, 1 GB of snapshots, and 100 GB of bandwidth to the internet.

Cancel | Launch instance

STEP 4

→ Launch the instance
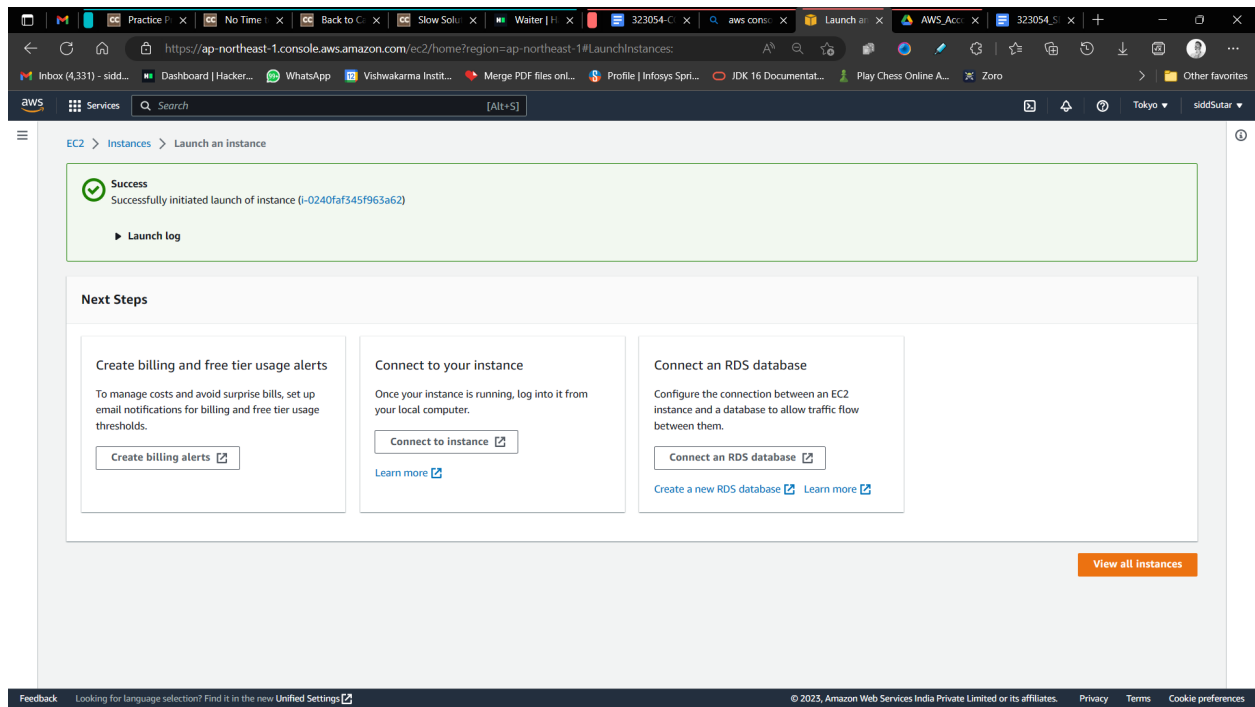
→ After clicking at right bottom launch instance button it show look like this
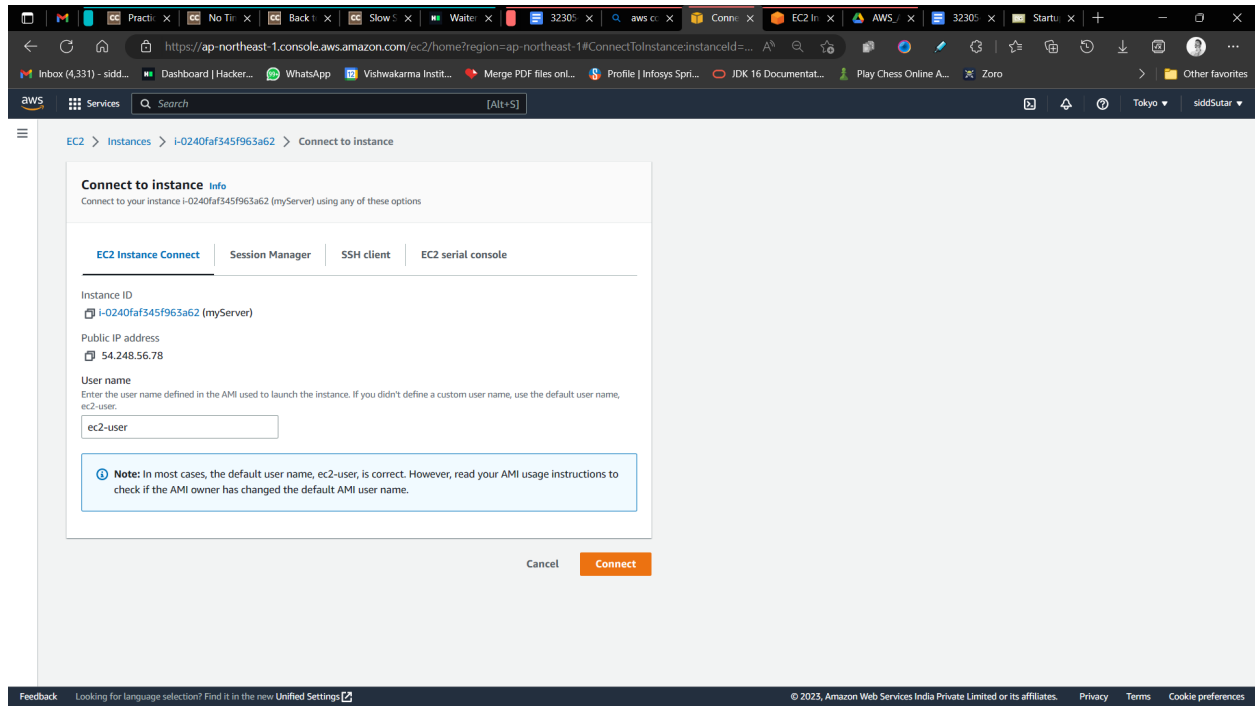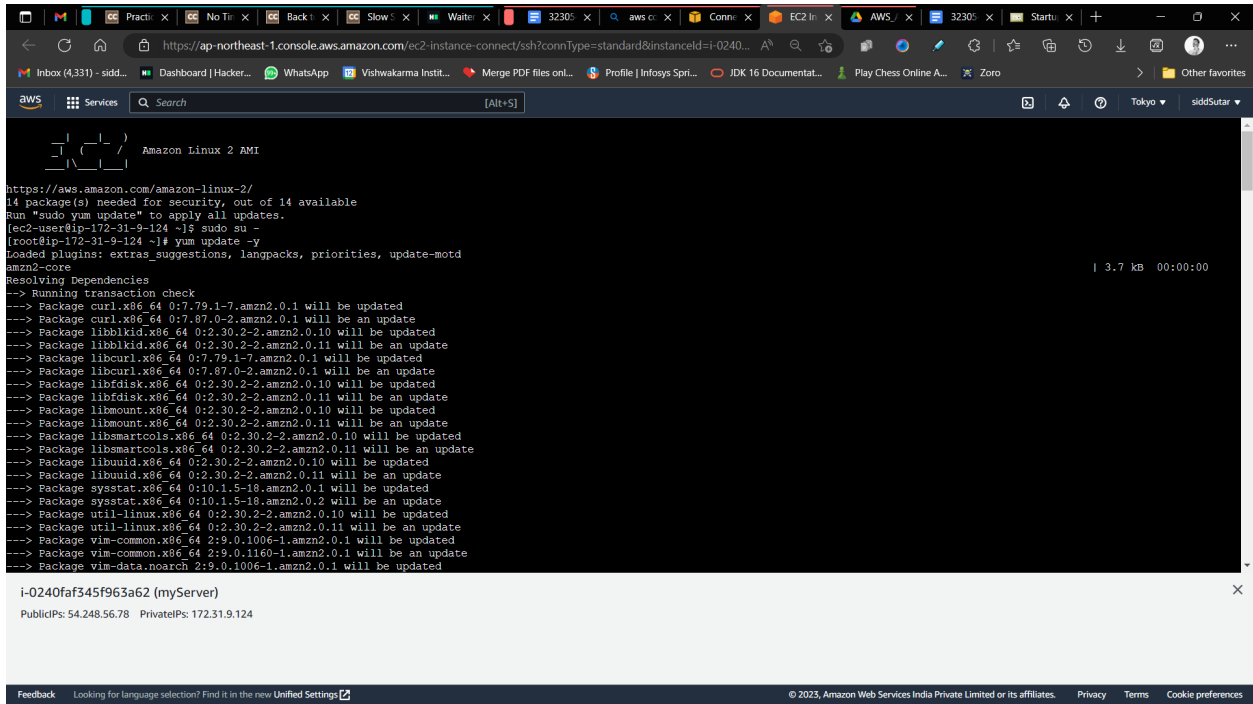

We will begin launching the instance after 2/2 status checks
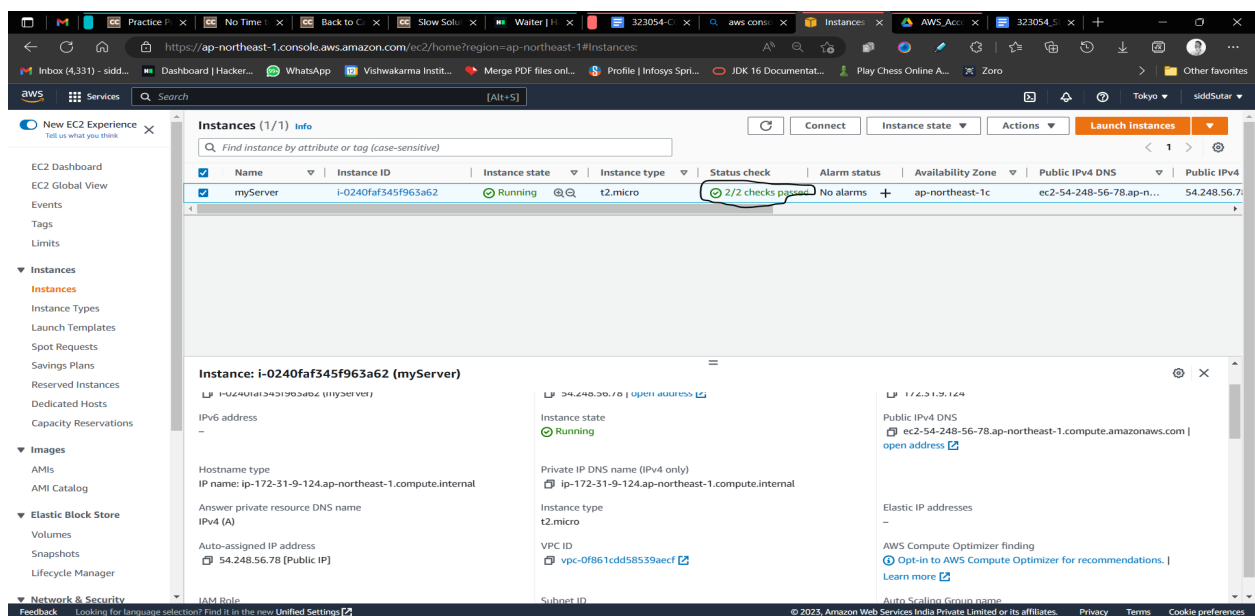
STEP 5

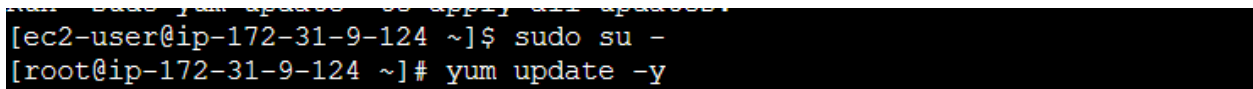→ Launch the instance (Connect to the instance)
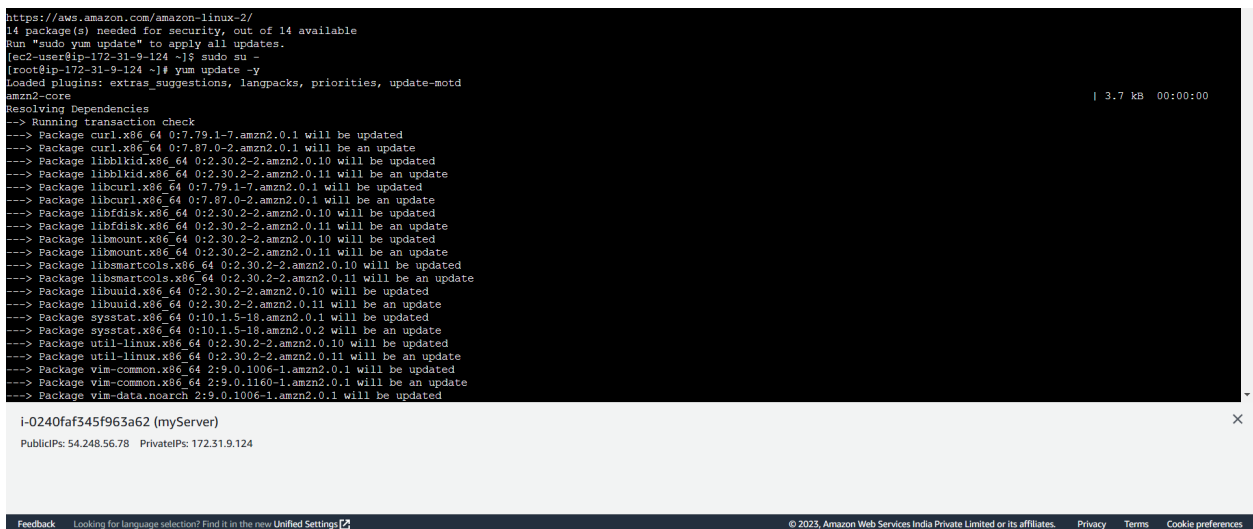

→ This terminal window shall open

→ Put this commands in order

a) sudo su -


```
[ec2-user@ip-172-31-9-124 ~]$ sudo su -
[root@ip-172-31-9-124 ~]# yum update -y
```

b) yum update -y

c) yum install -y httpd

```
[root@ip-172-31-9-124 ~]# yum install -y httpd
Loaded plugins: extras_suggestions, langpacks, priorities, update-motd
Resolving Dependencies
--> Running transaction check
---> Package httpd.x86_64 0:2.4.54-1.amzn2 will be installed
--> Processing Dependency: httpd-tools = 2.4.54-1.amzn2 for package: httpd-2.4.54-1.amzn2.x86_64
--> Processing Dependency: httpd-filesystem = 2.4.54-1.amzn2 for package: httpd-2.4.54-1.amzn2.x86_64
--> Processing Dependency: system-logos-httpd for package: httpd-2.4.54-1.amzn2.x86_64
--> Processing Dependency: mod_http2 for package: httpd-2.4.54-1.amzn2.x86_64
--> Processing Dependency: httpd-filesystem for package: httpd-2.4.54-1.amzn2.x86_64
--> Processing Dependency: /etc/mime.types for package: httpd-2.4.54-1.amzn2.x86_64
--> Processing Dependency: libaprutil-1.so.0()(64bit) for package: httpd-2.4.54-1.amzn2.x86_64
--> Processing Dependency: libapr-1.so.0()(64bit) for package: httpd-2.4.54-1.amzn2.x86_64
--> Running transaction check
---> Package apr.x86_64 0:1.7.0-9.amzn2 will be installed
---> Package apr-util.x86_64 0:1.6.1-5.amzn2.0.2 will be installed
--> Processing Dependency: apr-util-bdb(x86-64) = 1.6.1-5.amzn2.0.2 for package: apr-util-1.6.1-5.amzn2.0.2.x86_64
---> Package generic-logos-httpd.noarch 0:18.0.0-4.amzn2 will be installed
---> Package httpd-filesystem.noarch 0:2.4.54-1.amzn2 will be installed
---> Package httpd-tools.x86_64 0:2.4.54-1.amzn2 will be installed
---> Package mailcap.noarch 0:2.1.41-2.amzn2 will be installed
---> Package mod_http2.x86_64 0:1.15.19-1.amzn2.0.1 will be installed
--> Running transaction check
---> Package apr-util-bdb.x86_64 0:1.6.1-5.amzn2.0.2 will be installed
--> Finished Dependency Resolution

Dependencies Resolved

================================================================================
 Package              Arch              Version              Repository
================================================================================
Installing:
 httpd                x86_64            2.4.54-1.amzn2       amzn2-core
```

d) systemctl status httpd

```
[root@ip-172-31-9-124 ~]# systemctl status httpd
● httpd.service - The Apache HTTP Server
   Loaded: loaded (/usr/lib/systemd/system/httpd.service; disabled; vendor preset: disabled)
   Active: inactive (dead)
     Docs: man:httpd.service(8)
```

e) mkdir temp | cd temp

```
[root@ip-172-31-9-124 ~]# mkdir temp
[root@ip-172-31-9-124 ~]# cd temp
[root@ip-172-31-9-124 temp]# wget https://www.free-css.com/assets/files/free-css-templates/download/page288/startup.zip
```

f) wget
https://www.free-css.com/assets/files/free-css-templates/download/page288/startup.zip

   i) As I'm no web developer so I took a template from
      https://www.free-css.com/free-css-templates remember to place the download
      link in front of wget

```
[root@ip-172-31-9-124 temp]# wget https://www.free-css.com/assets/files/free-css-templates/download/page288/startup.zip
--2023-02-05 12:24:58--  https://www.free-css.com/assets/files/free-css-templates/download/page288/startup.zip
Resolving www.free-css.com (www.free-css.com)... 217.160.0.242, 2001:8d8:100f:f000::28f
Connecting to www.free-css.com (www.free-css.com)|217.160.0.242|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 684565 (669K) [application/zip]
Saving to: 'startup.zip'

100%[==================================================================================>

2023-02-05 12:25:00 (467 KB/s) - 'startup.zip' saved [684565/684565]
```

g) unzip startup.zip

```
[root@ip-172-31-9-124 temp]# unzip startup.zip
Archive:  startup.zip
  inflating: startup-website-template/about.html
  inflating: startup-website-template/blog.html
  inflating: startup-website-template/contact.html
   creating: startup-website-template/css/
  inflating: startup-website-template/css/bootstrap.min.css
  inflating: startup-website-template/css/style.css
  inflating: startup-website-template/detail.html
  inflating: startup-website-template/feature.html
   creating: startup-website-template/img/
  inflating: startup-website-template/img/about.jpg
  inflating: startup-website-template/img/blog-1.jpg
  inflating: startup-website-template/img/blog-2.jpg
  inflating: startup-website-template/img/blog-3.jpg
  inflating: startup-website-template/img/carousel-1.jpg
  inflating: startup-website-template/img/carousel-2.jpg
  inflating: startup-website-template/img/feature.jpg
  inflating: startup-website-template/img/team-1.jpg
  inflating: startup-website-template/img/team-2.jpg
  inflating: startup-website-template/img/team-3.jpg
  inflating: startup-website-template/img/testimonial-1.jpg
  inflating: startup-website-template/img/testimonial-2.jpg
  inflating: startup-website-template/img/testimonial-3.jpg
  inflating: startup-website-template/img/testimonial-4.jpg
  inflating: startup-website-template/img/user.jpg
  inflating: startup-website-template/img/vendor-1.jpg
  inflating: startup-website-template/img/vendor-2.jpg
  inflating: startup-website-template/img/vendor-3.jpg
  inflating: startup-website-template/img/vendor-4.jpg
```

h) cd startup-website-template/

```
[root@ip-172-31-9-124 temp]# cd startup-website-template/
[root@ip-172-31-9-124 startup-website-template]# ls-lrt
-bash: ls-lrt: command not found
[root@ip-172-31-9-124 startup-website-template]# ls -lrt
total 400
-rw-r--r-- 1 root root 89601 Jul 27  2021 startup-website-template.jpg
-rw-r--r-- 1 root root   538 Aug 11  2021 READ-ME.txt
drwxr-xr-x 8 root root    99 Aug 11  2021 lib
drwxr-xr-x 2 root root    21 Aug 11  2021 js
drwxr-xr-x 2 root root  4096 Aug 11  2021 img
```

i) mv * /var/www/html/

```
[root@ip-172-31-9-124 startup-website-template]# mv * /var/www/html/
```

j) cd /var/www/html/

```
[root@ip-172-31-9-124 startup-website-template]# cd /var/www/html/
[root@ip-172-31-9-124 html]# ls -lrt
total 400
-rw-r--r-- 1 root root 89601 Jul 27  2021 startup-website-template.jpg
-rw-r--r-- 1 root root   538 Aug 11  2021 READ-ME.txt
drwxr-xr-x 8 root root    99 Aug 11  2021 lib
drwxr-xr-x 2 root root    21 Aug 11  2021 js
drwxr-xr-x 2 root root  4096 Aug 11  2021 img
drwxr-xr-x 2 root root    48 Aug 11  2021 css
-rw-r--r-- 1 root root  1456 Aug 16  2021 LICENSE.txt
-rw-r--r-- 1 root root 22799 Oct 19  2021 about.html
-rw-r--r-- 1 root root 38423 Oct 19  2021 blog.html
-rw-r--r-- 1 root root 20237 Oct 19  2021 contact.html
-rw-r--r-- 1 root root 30401 Oct 19  2021 detail.html
-rw-r--r-- 1 root root 19294 Oct 19  2021 testimonial.html
```

k) ls -lrt

```
[root@ip-172-31-9-124 html]# ls -lrt
total 400
-rw-r--r-- 1 root root 89601 Jul 27  2021 startup-website-template.jpg
-rw-r--r-- 1 root root   538 Aug 11  2021 READ-ME.txt
drwxr-xr-x 8 root root    99 Aug 11  2021 lib
drwxr-xr-x 2 root root    21 Aug 11  2021 js
drwxr-xr-x 2 root root  4096 Aug 11  2021 img
drwxr-xr-x 2 root root    48 Aug 11  2021 css
-rw-r--r-- 1 root root  1456 Aug 16  2021 LICENSE.txt
-rw-r--r-- 1 root root 22799 Oct 19  2021 about.html
-rw-r--r-- 1 root root 38423 Oct 19  2021 blog.html
-rw-r--r-- 1 root root 20237 Oct 19  2021 contact.html
-rw-r--r-- 1 root root 30401 Oct 19  2021 detail.html
-rw-r--r-- 1 root root 19294 Oct 19  2021 testimonial.html
-rw-r--r-- 1 root root 19029 Oct 19  2021 feature.html
-rw-r--r-- 1 root root 52988 Oct 19  2021 index.html
-rw-r--r-- 1 root root 24975 Oct 19  2021 price.html
-rw-r--r-- 1 root root 19602 Oct 19  2021 quote.html
-rw-r--r-- 1 root root 24329 Oct 19  2021 service.html
-rw-r--r-- 1 root root 20123 Oct 19  2021 team.html
```

l) systemctl enable httpd | systemctl start httpd

```
[root@ip-172-31-9-124 html]# systemctl enable httpd
Created symlink from /etc/systemd/system/multi-user.target.wants/httpd.service to /usr/lib/systemd/system/httpd.service.
[root@ip-172-31-9-124 html]# system start httpd
-bash: system: command not found
[root@ip-172-31-9-124 html]# sysytemctl start httpd
-bash: sysytemctl: command not found
[root@ip-172-31-9-124 html]# sytemctl start httpd
-bash: sytemctl: command not found
[root@ip-172-31-9-124 html]# systemctl start httpd
```

m) systemctl status httpd

```
[root@ip-172-31-9-124 html]# systemctl status httpd
● httpd.service - The Apache HTTP Server
   Loaded: loaded (/usr/lib/systemd/system/httpd.service; enabled; vendor preset: disabled)
   Active: active (running) since Sun 2023-02-05 12:37:24 UTC; 22s ago
     Docs: man:httpd.service(8)
 Main PID: 4034 (httpd)
   Status: "Total requests: 0; Idle/Busy workers 100/0;Requests/sec: 0; Bytes served/sec:   0 B/sec"
   CGroup: /system.slice/httpd.service
           ├─4034 /usr/sbin/httpd -DFOREGROUND
           ├─4035 /usr/sbin/httpd -DFOREGROUND
           ├─4036 /usr/sbin/httpd -DFOREGROUND
           ├─4037 /usr/sbin/httpd -DFOREGROUND
           ├─4038 /usr/sbin/httpd -DFOREGROUND
           └─4039 /usr/sbin/httpd -DFOREGROUND

Feb 05 12:37:24 ip-172-31-9-124.ap-northeast-1.compute.internal systemd[1]: Starting The Apache HTTP Server...
Feb 05 12:37:24 ip-172-31-9-124.ap-northeast-1.compute.internal systemd[1]: Started The Apache HTTP Server.
```
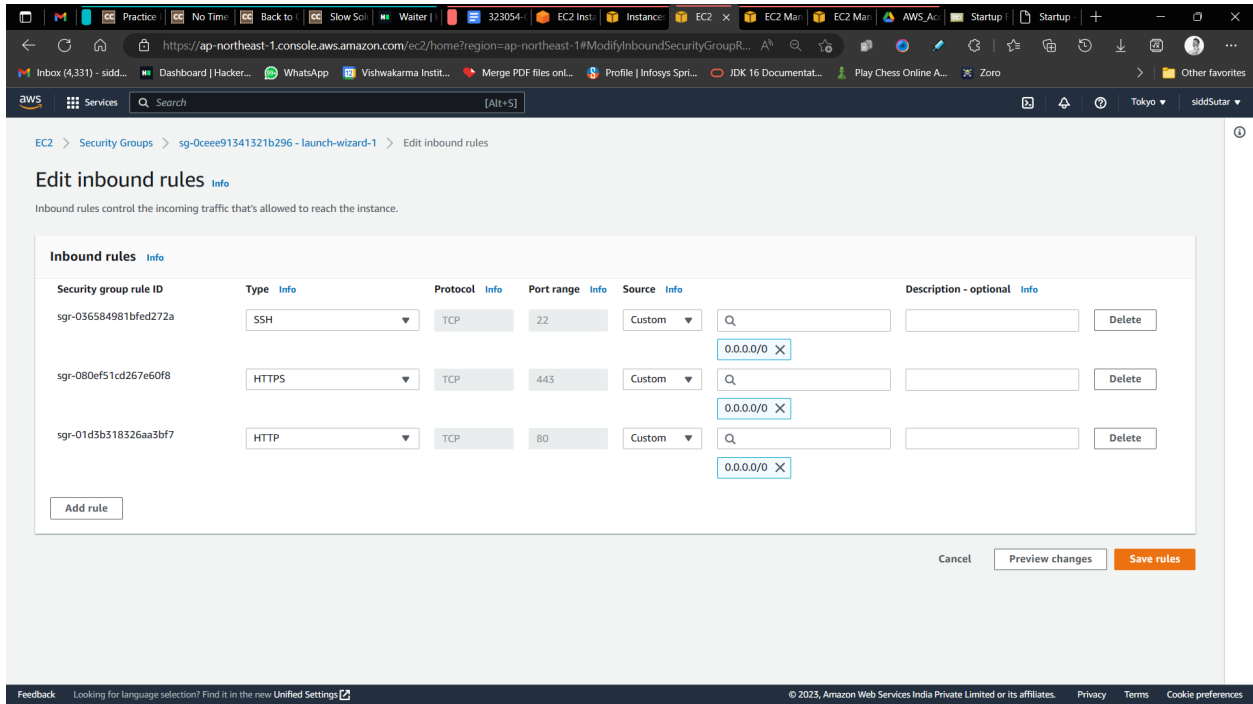
STEP 6

→ Change the inbound rules from security by simply clicking on launch wizard first

→ Click on edit inbound rules

→ Add HTTP and HTTPS like the configuration given below

STEP 7

→ Copy and paste the public IP to the browser to see the web template hosted

STEP 8

→ Stop the instance & terminate it