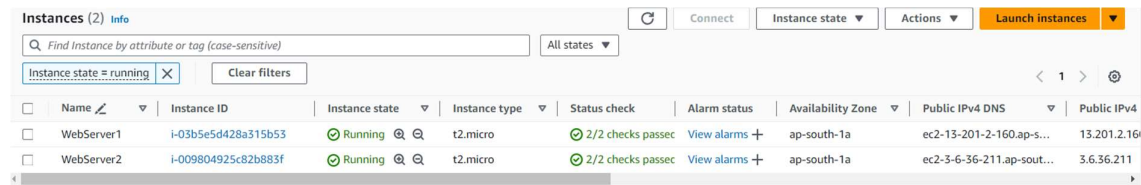


Task 1 1.Create 2 Linux Servers and configure Web Servers
on each VM. Create a unique webpage for each VM
other than the default index file.

Make Two EC2 instacne in Mumbai region ap-south-1

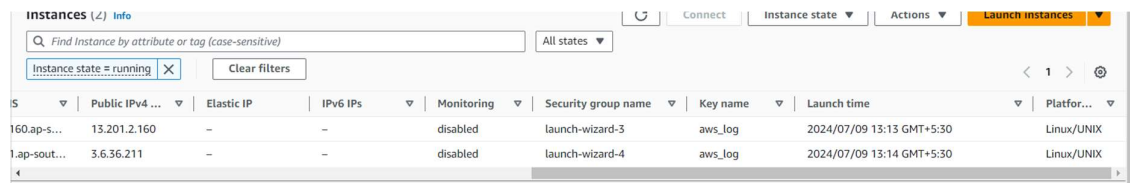


Instances (2) Info

Find Instance by attribute or tag (case-sensitive)

Instance state: running

	Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IPv4 DNS	Public IPv4
<input type="checkbox"/>	WebServer1	i-03b5e5d428a315b53	Running	t2.micro	2/2 checks passed	View alarms +	ap-south-1a	ec2-13-201-2-160.ap-s...	13.201.2.160
<input type="checkbox"/>	WebServer2	i-009804925c82b883f	Running	t2.micro	2/2 checks passed	View alarms +	ap-south-1a	ec2-3-6-36-211.ap-sout...	3.6.36.211



Instances (4) Info

Find Instance by attribute or tag (case-sensitive)

Instance state: running

	Public IPv4 ...	Elastic IP	IPv6 IPs	Monitoring	Security group name	Key name	Launch time	Platfor...
160.ap-s...	13.201.2.160	-	-	disabled	launch-wizard-3	aws_log	2024/07/09 13:13 GMT+5:30	Linux/UNIX
1.ap-sout...	3.6.36.211	-	-	disabled	launch-wizard-4	aws_log	2024/07/09 13:14 GMT+5:30	Linux/UNIX

Login to 1 using ssh and public ip address with key

```
PS C:\Users\hp\OneDrive\Desktop\Project1> ssh -i aws_log.pem ubuntu@3.6.36.211
The authenticity of host '3.6.36.211 (3.6.36.211)' can't be established.
ED25519 key fingerprint is SHA256:ZaNy4XFJroY0c34YKxFrhgm2I6iwqqJjzwQg/1TOUk.
This key is not known by any other names
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added '3.6.36.211' (ED25519) to the list of known hosts.
Welcome to Ubuntu 24.04 LTS (GNU/Linux 6.8.0-1009-aws x86_64)

 * Documentation:  https://help.ubuntu.com
 * Management:    https://landscape.canonical.com
 * Support:       https://ubuntu.com/pro

System information as of Tue Jul  9 07:51:21 UTC 2024

System load:  0.0          Processes:      103
Usage of /:   22.7% of 6.71GB Users logged in: 0
Memory usage: 19%         IPv4 address for enX0: 172.31.39.204
Swap usage:   0%

Expanded Security Maintenance for Applications is not enabled.

0 updates can be applied immediately.

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.
```

```

ubuntu@ip-172-31-39-204:~$ sudo apt update -y
Warning: The unit file, source configuration file or drop-ins of apt-news.service changed on disk. Run 'systemctl daemon-reload' to reload units.
Warning: The unit file, source configuration file or drop-ins of esm-cache.service changed on disk. Run 'systemctl daemon-reload' to reload units.
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://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble/universe amd64 c-n-f Metadata [301 kB]
Get:9 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble/multiverse amd64 Packages [269 kB]
Get:10 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble/multiverse Translation-en [118 kB]
Get:11 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble/multiverse amd64 Components [35.0 kB]
Get:12 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble/multiverse amd64 c-n-f Metadata [8328 B]
Get:13 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-updates/main amd64 Packages [226 kB]
Get:14 http://security.ubuntu.com/ubuntu noble-security/main amd64 Packages [199 kB]
Get:15 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-updates/main Translation-en [61.2 kB]
Get:16 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-updates/main amd64 c-n-f Metadata [3884 B]
Get:17 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-updates/universe amd64 Packages [118 kB]
Get:18 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-updates/universe Translation-en [43.8 kB]
Get:19 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-updates/universe amd64 Components [45.0 kB]
Get:20 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-updates/universe amd64 c-n-f Metadata [4908 B]
Get:21 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-updates/restricted amd64 Packages [145 kB]
Get:22 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-updates/restricted Translation-en [27.8 kB]
Get:23 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-updates/restricted amd64 c-n-f Metadata [416 B]
Get:24 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-updates/multiverse amd64 Packages [14.1 kB]
Get:25 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-updates/multiverse Translation-en [3608 B]

```

```

Last login: Tue Jul 9 07:51:22 2024 from 49.43.180.102
ubuntu@ip-172-31-39-204:~$ sudo apt update -y
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
Building dependency tree... Done
Reading state information... Done
3 packages can be upgraded. Run 'apt list --upgradable' to see them.
ubuntu@ip-172-31-39-204:~$ sudo apt install apache2 -y
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
apache2 is already the newest version (2.4.58-1ubuntu8.2).
0 upgraded, 0 newly installed, 0 to remove and 3 not upgraded.
ubuntu@ip-172-31-39-204:~$ sudo systemctl start apache2
ubuntu@ip-172-31-39-204:~$ sudo systemctl enable apache2
Synchronizing state of apache2.service with SysV service script with /usr/lib/systemd/systemd-sysv-install.
Executing: /usr/lib/systemd/systemd-sysv-install enable apache2
ubuntu@ip-172-31-39-204:~$ vim index.html
ubuntu@ip-172-31-39-204:~$ ubuntu@ip-172-31-39-204:~$ ^C
ubuntu@ip-172-31-39-204:~$ ^C
ubuntu@ip-172-31-39-204:~$ ls
index.html
ubuntu@ip-172-31-39-204:~$ sudo mv ~/index.html /var/www/html/index.html
ubuntu@ip-172-31-39-204:~$ sudo chown www-data:www-data /var/www/html/index.html
ubuntu@ip-172-31-39-204:~$ sudo chmod 644 /var/www/html/index.html
ubuntu@ip-172-31-39-204:~$ sudo systemctl restart apache2
ubuntu@ip-172-31-39-204:~$ |

```

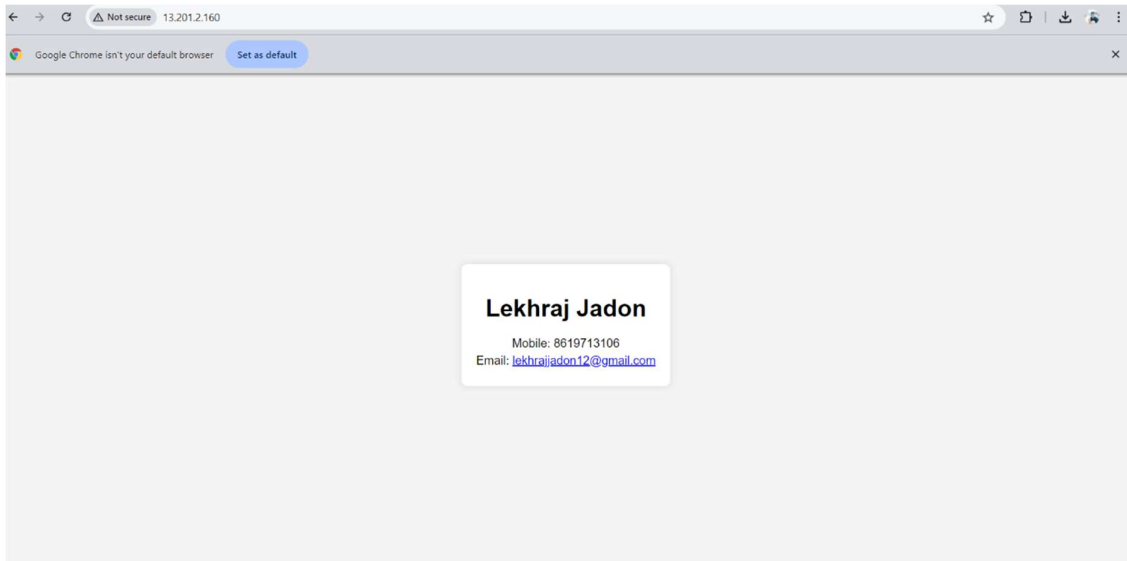
Same for login in EC2 instanc

```
ubuntu@ip-172-31-41-42: ~  
X ubuntu@ip-172-31-39-204: ~  
+  
v  
Apache2 package with Ubuntu. However, check <a  
href="https://bugs.launchpad.net/ubuntu/+source/apache2"  
rel="nofollow">existing bug reports</a> before reporting a new bu  
</p>  
<p>  
Please report bugs specific to modules (such as PHP and others)  
to their respective packages, not to the web server itself.  
</p>  
</div>  
</div>  
<div class="validator">  
</div>  
</body>  
</html>  
ubuntu@ip-172-31-41-42:~$ sudo nano /etc/apache2/sites-available/000-default.conf  
ubuntu@ip-172-31-41-42:~$ y  
command not found  
ubuntu@ip-172-31-41-42:~$ sudo systemctl restart apache2  
ubuntu@ip-172-31-41-42:~$ sudo rm /var/www/html/index.html  
ubuntu@ip-172-31-41-42:~$ ls  
index.html  
ubuntu@ip-172-31-41-42:~$ ls  
index.html  
ubuntu@ip-172-31-41-42:~$ sudo mv ~/index.html /var/www/html/index.html  
ubuntu@ip-172-31-41-42:~$ sudo chown www-data:www-data /var/www/html/index.html  
ubuntu@ip-172-31-41-42:~$ sudo chmod 644 /var/www/html/index.html  
ubuntu@ip-172-31-41-42:~$ sudo systemctl restart apache2  
ubuntu@ip-172-31-41-42:~$ |
```

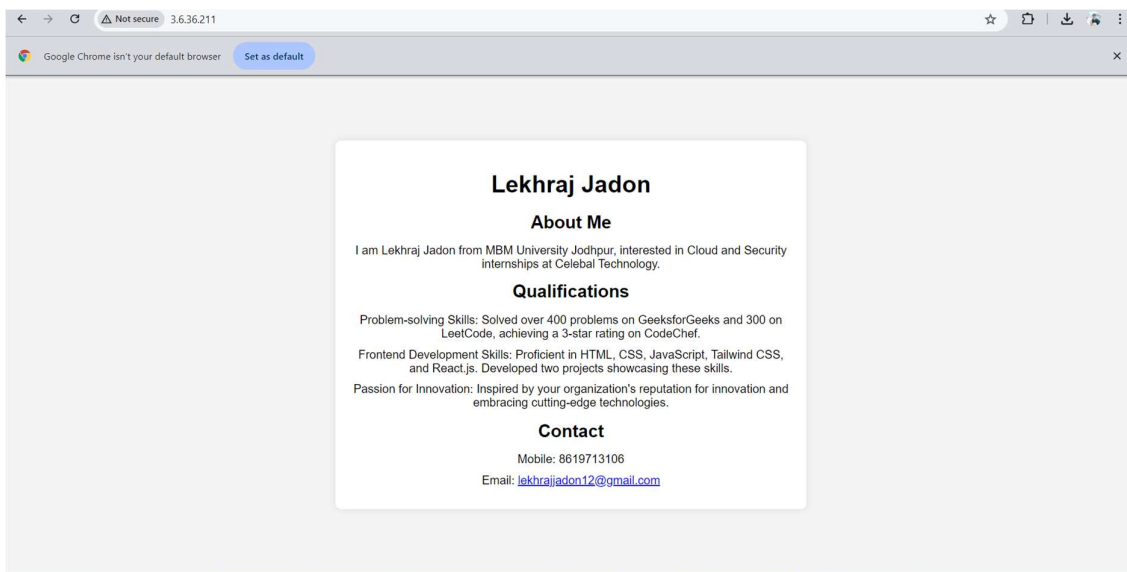
```
ubuntu@ip-172-31-41-42: ~  
X ubuntu@ip-172-31-39-204: ~  
+  
v  
Last login: Tue Jul 9 07:51:22 2024 from 49.43.180.102  
ubuntu@ip-172-31-39-204:~$ sudo apt update -y  
Hit:1 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble InRelease  
Hit:2 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu 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  
Building dependency tree... Done  
Reading state information... Done  
8 packages can be upgraded. Run 'apt list --upgradable' to see them.  
ubuntu@ip-172-31-39-204:~$ sudo apt install apache2 -y  
Reading package lists... Done  
Building dependency tree... Done  
Reading state information... Done  
apache2 is already the newest version (2.4.58-1ubuntu8.2).  
0 upgraded, 0 newly installed, 0 to remove and 3 not upgraded.  
ubuntu@ip-172-31-39-204:~$ sudo systemctl start apache2  
ubuntu@ip-172-31-39-204:~$ sudo systemctl enable apache2  
Synchronizing state of apache2.service with SysV service script with /usr/lib/systemd/systemd-sysv-install  
Executing: /usr/lib/systemd/systemd-sysv-install enable apache2  
ubuntu@ip-172-31-39-204:~$ vim index.html  
ubuntu@ip-172-31-39-204:~$ ^C  
ubuntu@ip-172-31-39-204:~$ ^C  
ubuntu@ip-172-31-39-204:~$ ls  
index.html  
ubuntu@ip-172-31-39-204:~$ sudo mv ~/index.html /var/www/html/index.html  
ubuntu@ip-172-31-39-204:~$ sudo chown www-data:www-data /var/www/html/index.html  
ubuntu@ip-172-31-39-204:~$ sudo chmod 644 /var/www/html/index.html  
ubuntu@ip-172-31-39-204:~$ sudo systemctl restart apache2  
ubuntu@ip-172-31-39-204:~$ |
```

Show web side by using localhost <http://public> ip address

For both so I created the enable the Inbound rule in security group http on port 80



Second web server



Details

Security group name

launch-wizard-3

Security group ID

sg-05c6f41ec666a8559

Description

launch-wizard-3 created 2024-07-09T07:39:18.950Z

VPC ID

vpc-0394153c479137d6e

Owner

533267115318

Inbound rules count

3 Permission entries

Outbound rules count

1 Permission entry

Inbound rules

Outbound rules

Tags

Inbound rules (3)

Manage tags

Edit inbound rules

Search

< 1 >

	Security group rule...	IP version	Type	Protocol	Port range	Source
	sgr-040cf21280329bf67	IPv4	HTTP	TCP	80	0.0.0.0/0
	sgr-06d39eaa7b5572d...	IPv4	HTTPS	TCP	443	0.0.0.0/0
	sgr-00ed7d1d9511bdc...	IPv4	SSH	TCP	22	0.0.0.0/0

Taks 2 make VDP In the different region

Create a Windows VM in a different region and

assess the same webpage from this VM. Region verginia

AWS

Services

Search

[Alt+S]

IAM

EC2

N. Virginia

lekhrj jadon

EC2 Dashboard

EC2 Global View

Events

Console-to-Code

Preview

Instances

Instances

Instance Types

Launch Templates

Spot Requests

Savings Plans

Reserved Instances

Dedicated Hosts

Capacity Reservations

Images

AMIs

AMI Catalog

Instances (1) Info

Connect

Instance state

Actions

Launch instances

Find Instance by attribute or tag (case-sensitive)

All states

Instance ID = i-04d10874cc3f1867e

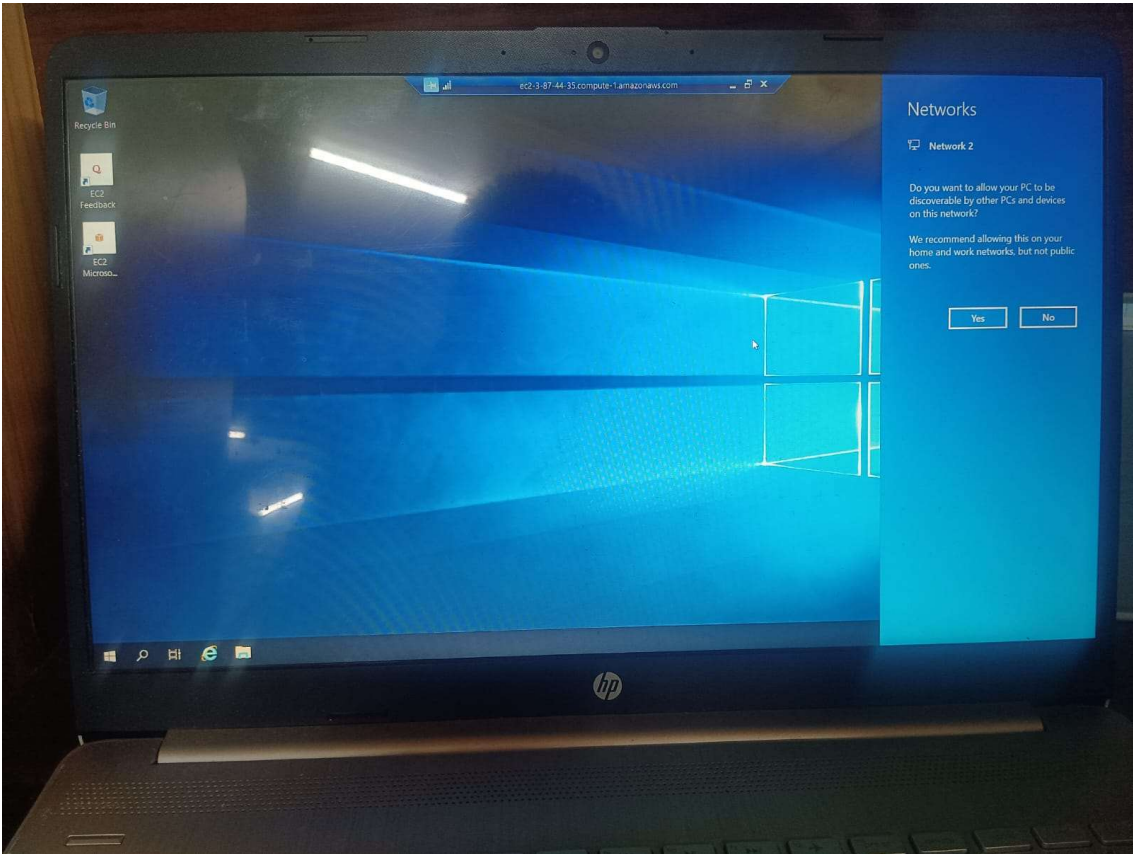
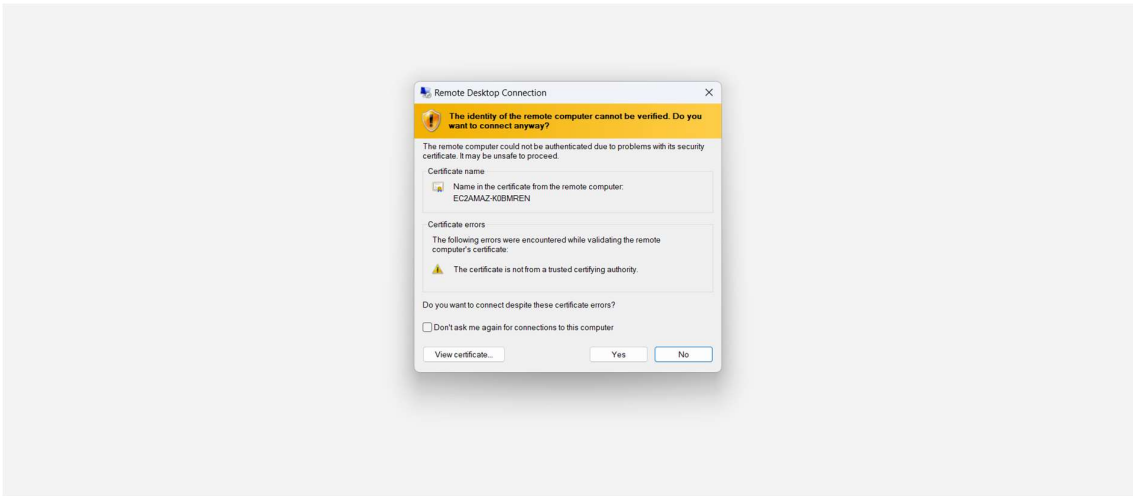
Clear filters

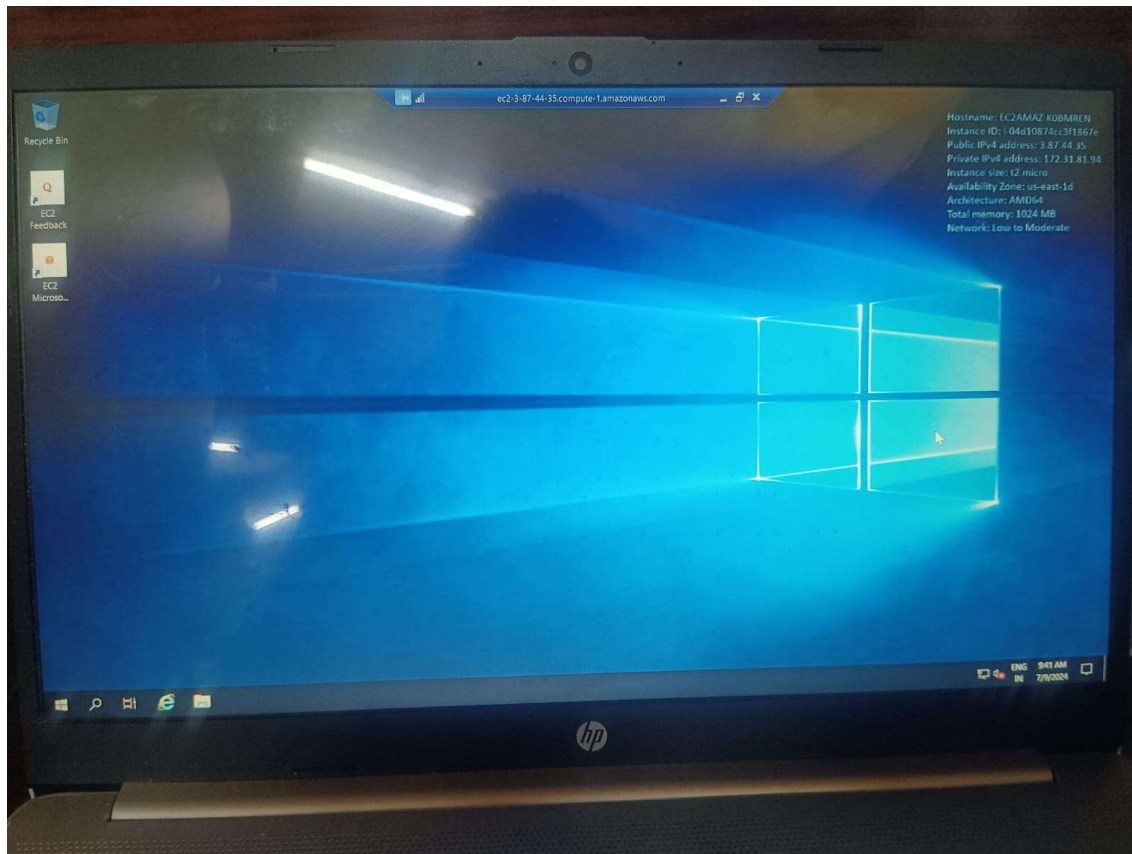
< 1 >

	Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IPv4 DN
	windowvm	i-04d10874cc3f1867e	Running	t2.micro	2/2 checks passed	View alarms	us-east-1d	ec2-3-87-44-3

Select an instance

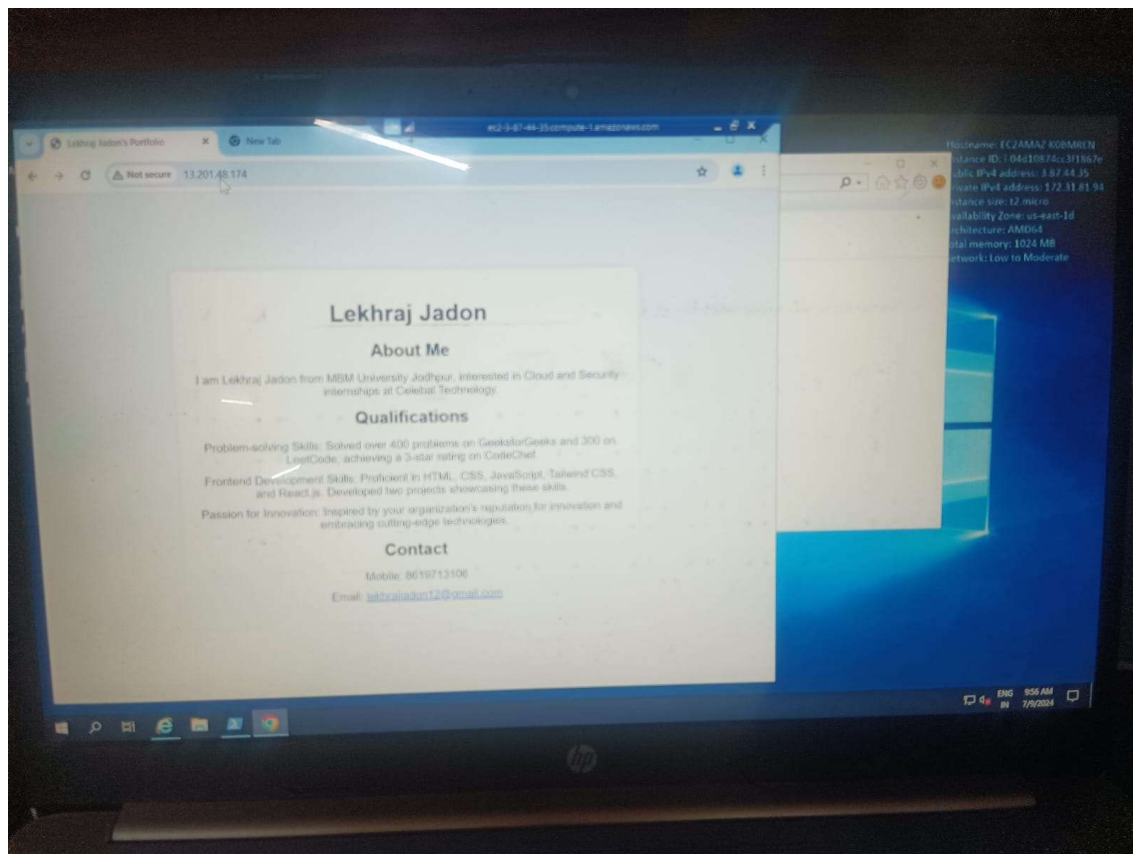
Login to new virtual desktop



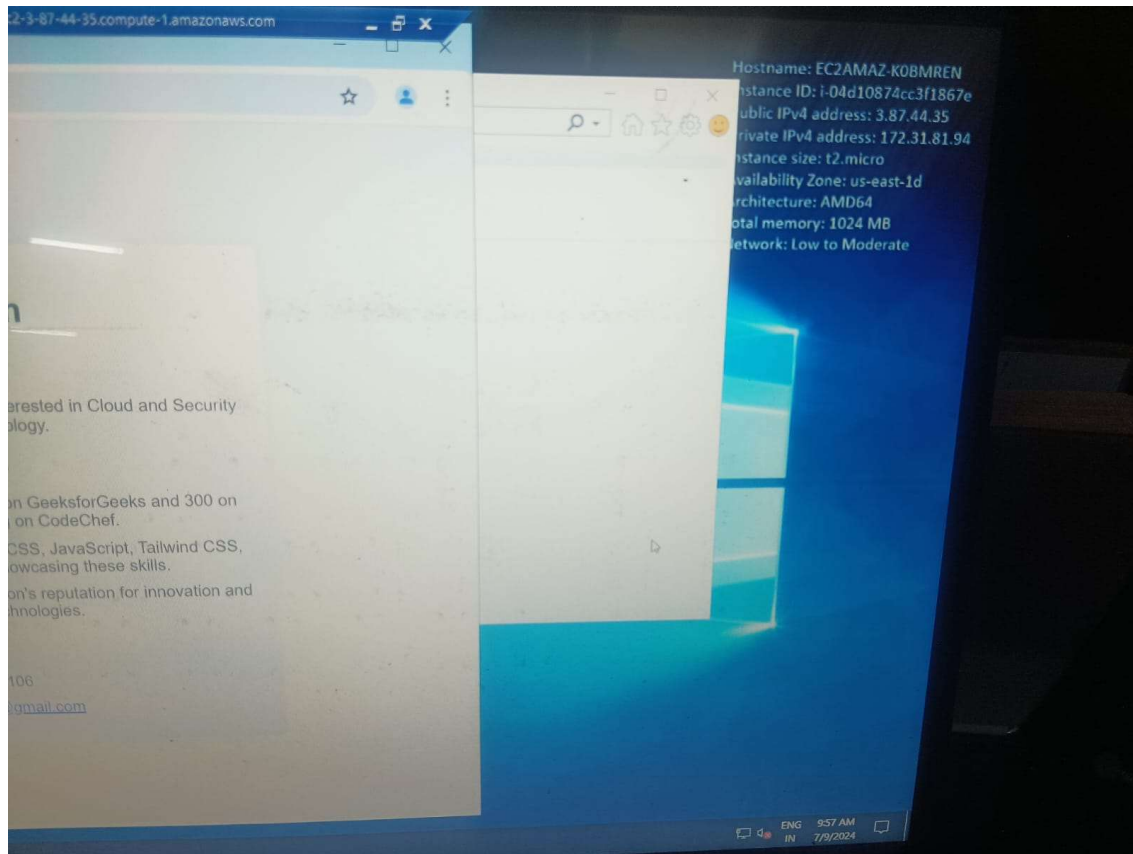


Download chrome in the dektop and

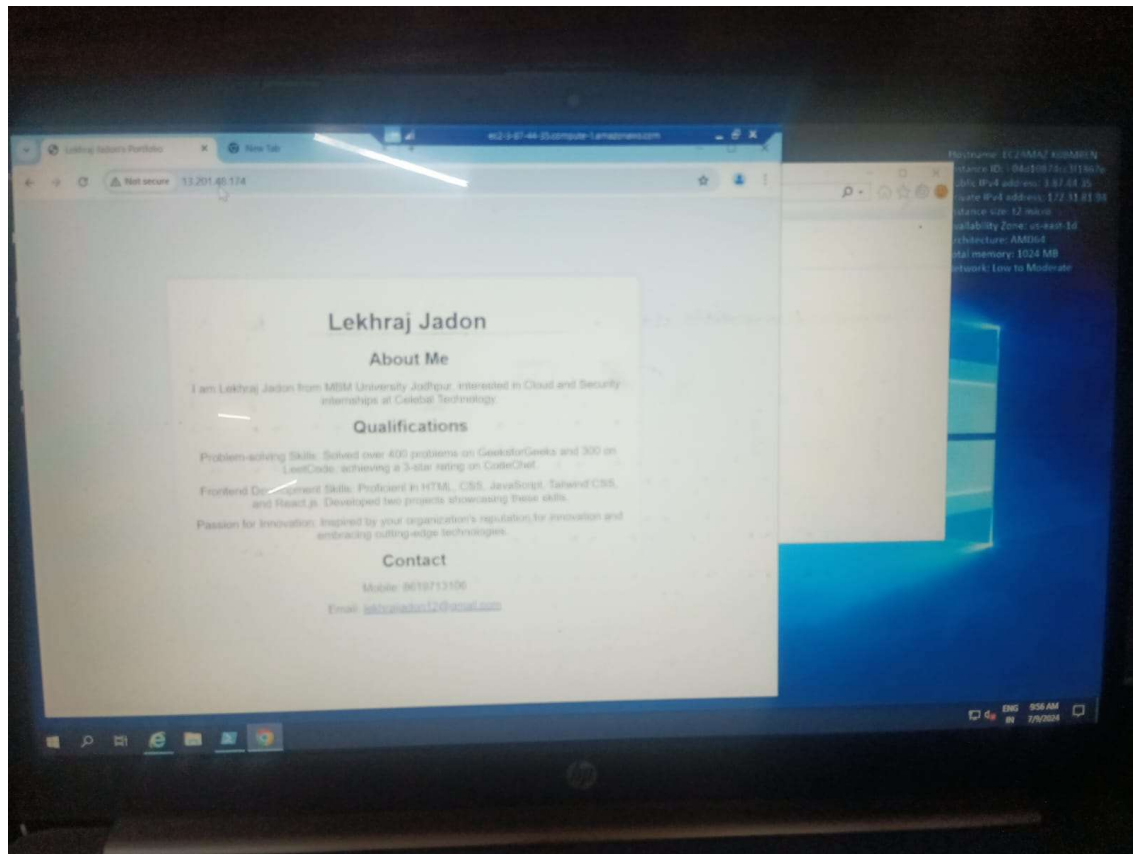
Navigate to localhost <http://public> ip addres of the
appliaciton

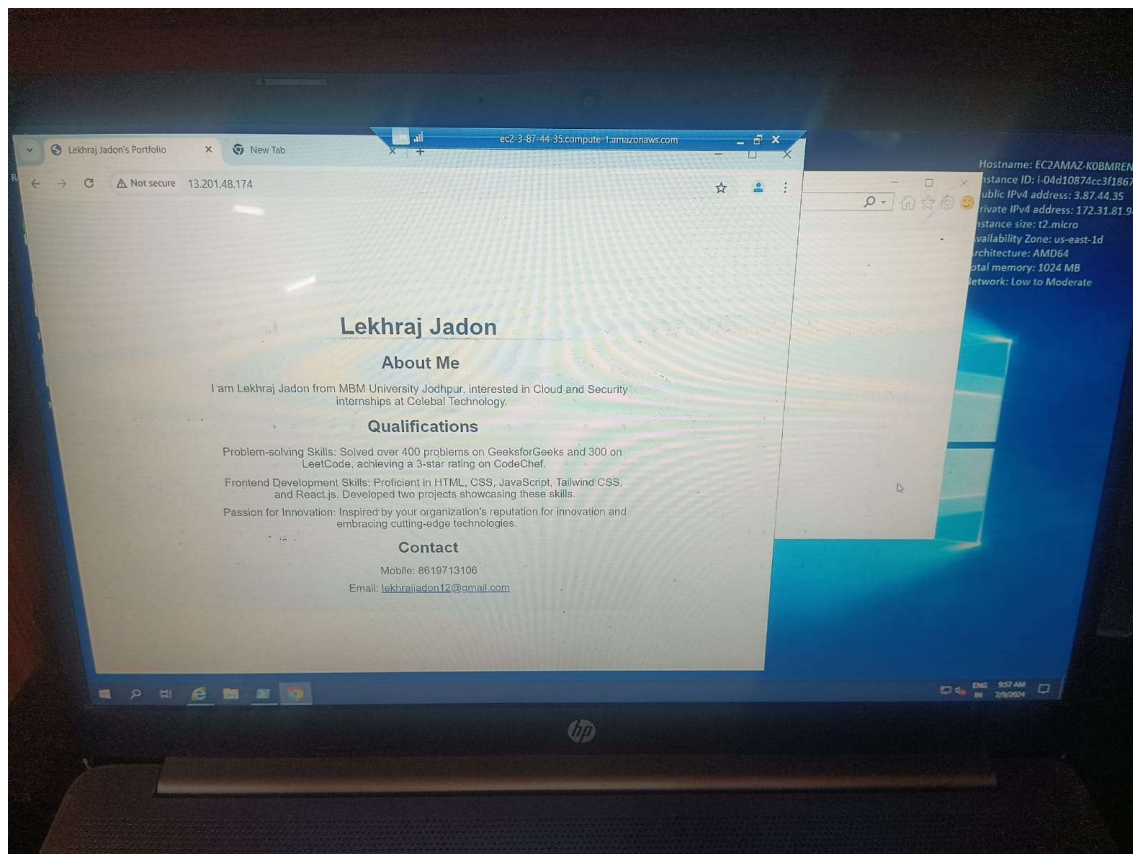


Easily acces my web



server





Third task

3.Create a Script to Auto on and Auto Off the Virtual Machine.

I create a role and a lambda function for event driven On and off the virtual machine

Your schedule testevent is being created.

Amazon EventBridge > Schedules > testevent

testevent

Disable Edit Delete

Schedule detail

Schedule name testevent	Status Enabled	Schedule start time -	Flexible time window 10 minutes
Description -	Schedule ARN arn:aws:scheduler:ap-south-1:533267115318:schedule/default/testevent	Schedule end time -	Created date Jul 09, 2024, 15:46:52 (UTC+05:30)
Schedule group name default	Action after completion DELETE	Execution time zone Asia/Calcutta	Last modified date Jul 09, 2024, 15:46:52 (UTC+05:30)

Schedule

One time schedule Info

Your schedule is set for Wed, Jul 10, 2024, 09:00:00 (UTC+05:30)

AutoStartStopEC2

Layers (0)

+ Add trigger + Add destination

Last modified
9 minutes ago

Function ARN
arn:aws:lambda:ap-south-1:533267115318:function:AutoStartStopEC2

Function URL Info

Code Test Monitor Configuration Aliases Versions

Code source Info

Upload from

File Edit Find View Go Tools Window Test Deploy

Go to Anything (Ctrl-P)

Environment

AutoStartStopEC2

lambda_function.py

lambda_function

Environment Var

```
1 import boto3
2
3 ec2 = boto3.client('ec2', region_name='ap-south-1') # Replace 'your-region' with your EC2 instance's region
4
5 def lambda_handler(event, context):
6     instance_id = 'i-0b1e60428a31b65'
7     action = event['action']
8
9     if action == 'start':
10         ec2.start_instances(InstanceIds=[instance_id])
11         print(f'Starting instance {instance_id}')
12     elif action == 'stop':
13         ec2.stop_instances(InstanceIds=[instance_id])
14         print(f'Stopping instance {instance_id}')
15     else:
16         print(f'Unknown action: {action}')
17
```

```
import boto3
```

```
ec2 = boto3.client('ec2', region_name=ap-south-1) # Replace  
'your-region' with your EC2 instance's region
```

```
def lambda_handler(event, context):
```

```
    instance_id = i-03b5e5d428a315b53
```

```
    action = event['action']
```

```
    if action == 'start':
```

```
        ec2.start_instances(InstanceIds=[instance_id])
```

```
        print(f'Starting instance {instance_id}')
```

```
    elif action == 'stop':
```

```
        ec2.stop_instances(InstanceIds=[instance_id])
```

```
        print(f'Stopping instance {instance_id}')
```

```
    else:
```

```
        print(f'Unknown action: {action}')
```