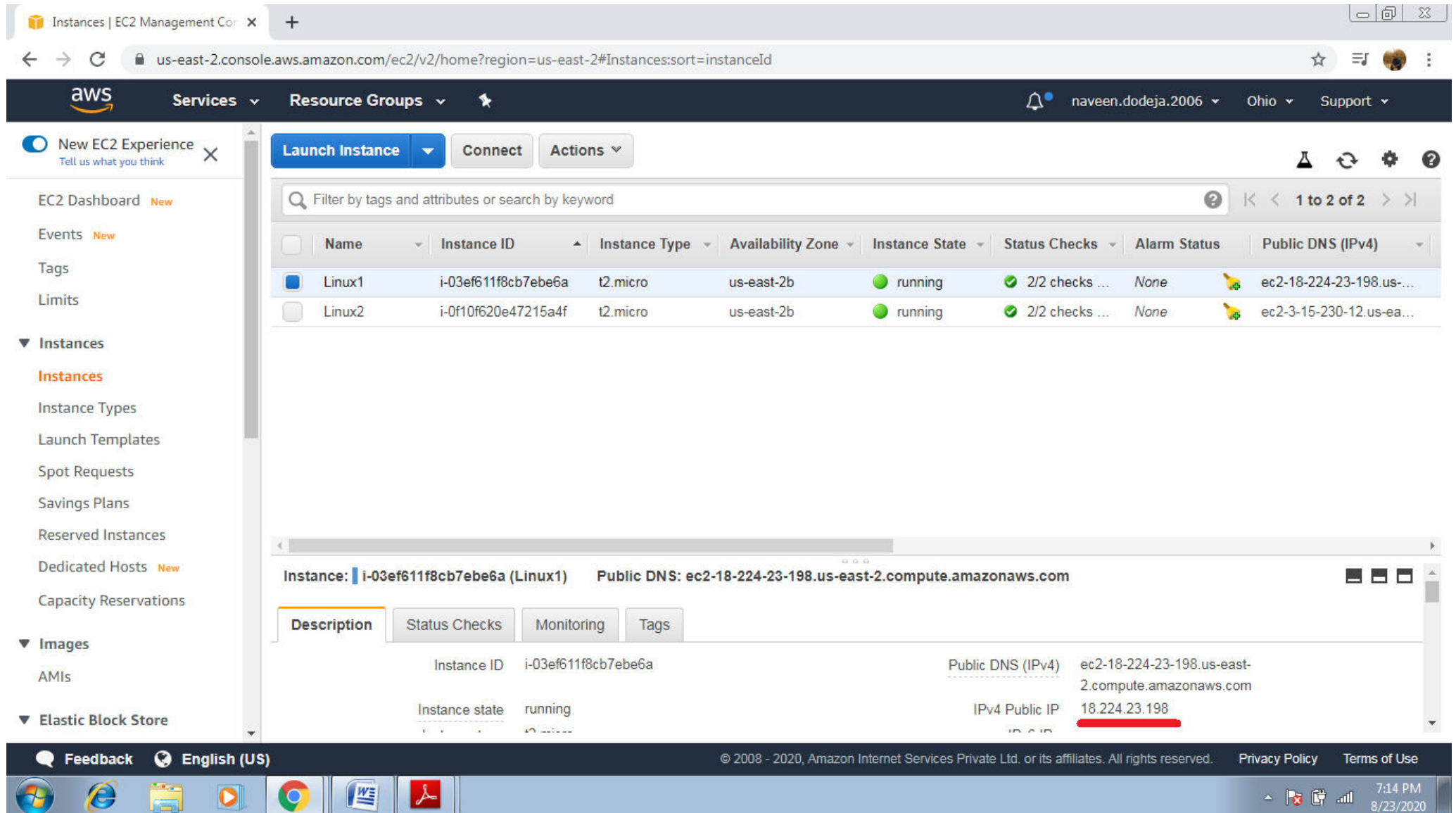


## PROJECT 3

Step1 - Create two Linux instances, Use the first free Linux AMI

First Linux Instance: -



The screenshot displays the AWS Management Console interface for the us-east-2 region. The left sidebar shows the navigation menu with options like EC2 Dashboard, Events, Tags, Limits, Instances, Images, and Elastic Block Store. The main content area shows a list of EC2 instances. Two instances are listed: Linux1 and Linux2, both running on t2.micro instances in the us-east-2b availability zone. The instance Linux1 has the ID i-03ef611f8cb7ebe6a and a public DNS of ec2-18-224-23-198.us-east-2.compute.amazonaws.com. The instance Linux2 has the ID i-0f10f620e47215a4f and a public DNS of ec2-3-15-230-12.us-east-2.compute.amazonaws.com. Below the list, the details for instance Linux1 are shown, including its description, status checks, monitoring, and tags. The instance is running and has a public IP of 18.224.23.198.

Instances | EC2 Management Console

us-east-2.console.aws.amazon.com/ec2/v2/home?region=us-east-2#Instances:sort=instanceId

aws Services Resource Groups

New EC2 Experience Tell us what you think

Launch Instance Connect Actions

Filter by tags and attributes or search by keyword

Name	Instance ID	Instance Type	Availability Zone	Instance State	Status Checks	Alarm Status	Public DNS (IPv4)
Linux1	i-03ef611f8cb7ebe6a	t2.micro	us-east-2b	running	2/2 checks ...	None	ec2-18-224-23-198.us-east-2.compute.amazonaws.com
Linux2	i-0f10f620e47215a4f	t2.micro	us-east-2b	running	2/2 checks ...	None	ec2-3-15-230-12.us-east-2.compute.amazonaws.com

Instance: i-03ef611f8cb7ebe6a (Linux1) Public DNS: ec2-18-224-23-198.us-east-2.compute.amazonaws.com

Description Status Checks Monitoring Tags

Instance ID i-03ef611f8cb7ebe6a Public DNS (IPv4) ec2-18-224-23-198.us-east-2.compute.amazonaws.com

Instance state running IPv4 Public IP 18.224.23.198

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## Second Linux Instance: -

The screenshot displays the AWS Management Console for the 'us-east-2' region. The left sidebar shows the navigation menu with options like EC2 Dashboard, Events, Tags, Limits, and a list of Instance types (Linux1, Linux2, etc.). The main content area shows a table of EC2 instances. Two instances are listed: 'Linux1' and 'Linux2'. The 'Linux2' instance is selected, and its details are shown in the bottom panel. The details panel includes tabs for Description, Status Checks, Monitoring, and Tags. The 'Description' tab is active, showing the Instance ID, Name, Type, Availability Zone, State, Status Checks, Alarm Status, and Public DNS (IPv4).

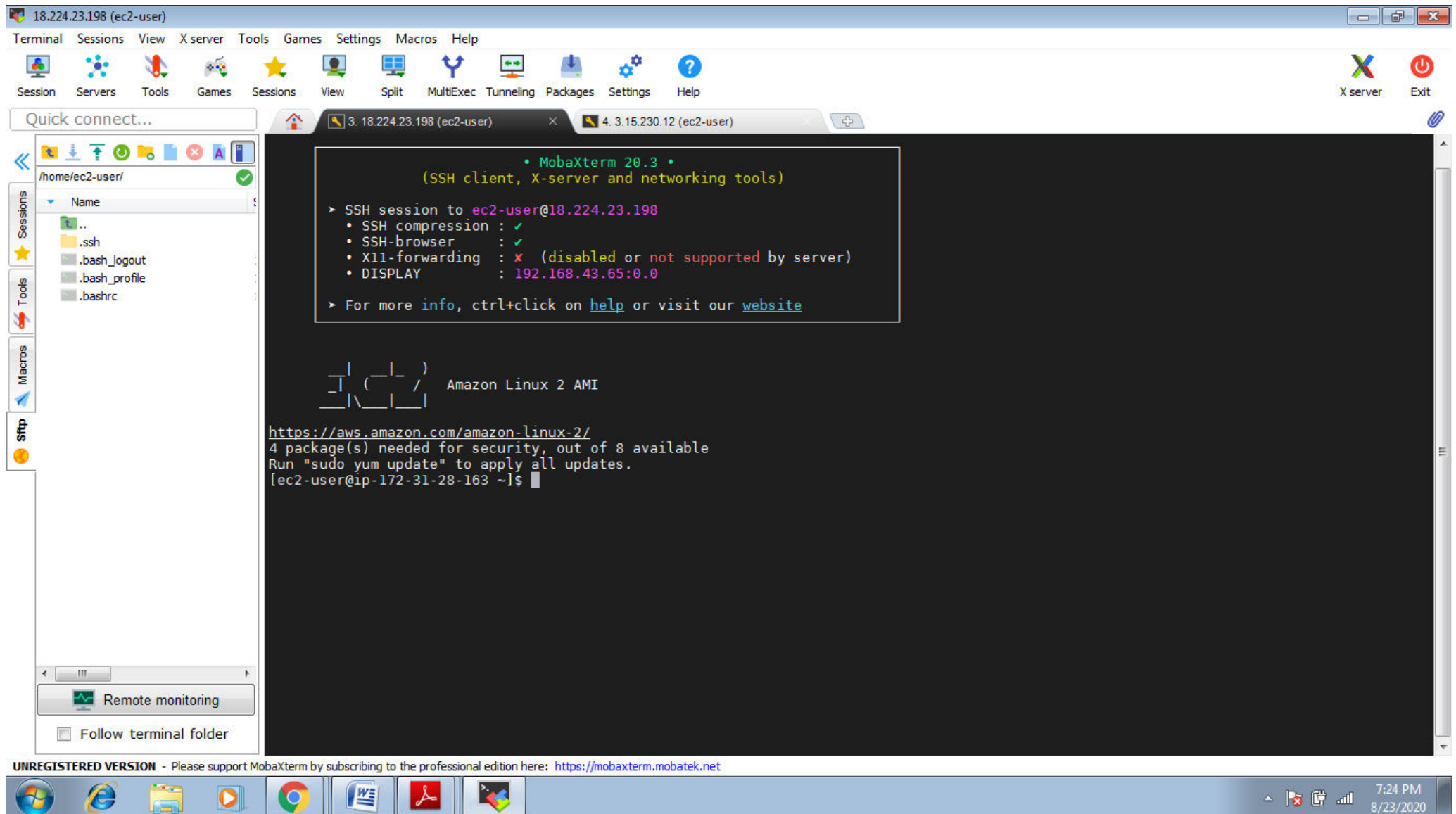
Name	Instance ID	Instance Type	Availability Zone	Instance State	Status Checks	Alarm Status	Public DNS (IPv4)
Linux1	i-03ef611f8cb7ebe6a	t2.micro	us-east-2b	running	2/2 checks ...	None	ec2-18-224-23-198.us-...
Linux2	i-0f10f620e47215a4f	t2.micro	us-east-2b	running	2/2 checks ...	None	ec2-3-15-230-12.us-ea...

**Instance: i-0f10f620e47215a4f (Linux2) Public DNS: ec2-3-15-230-12.us-east-2.compute.amazonaws.com**

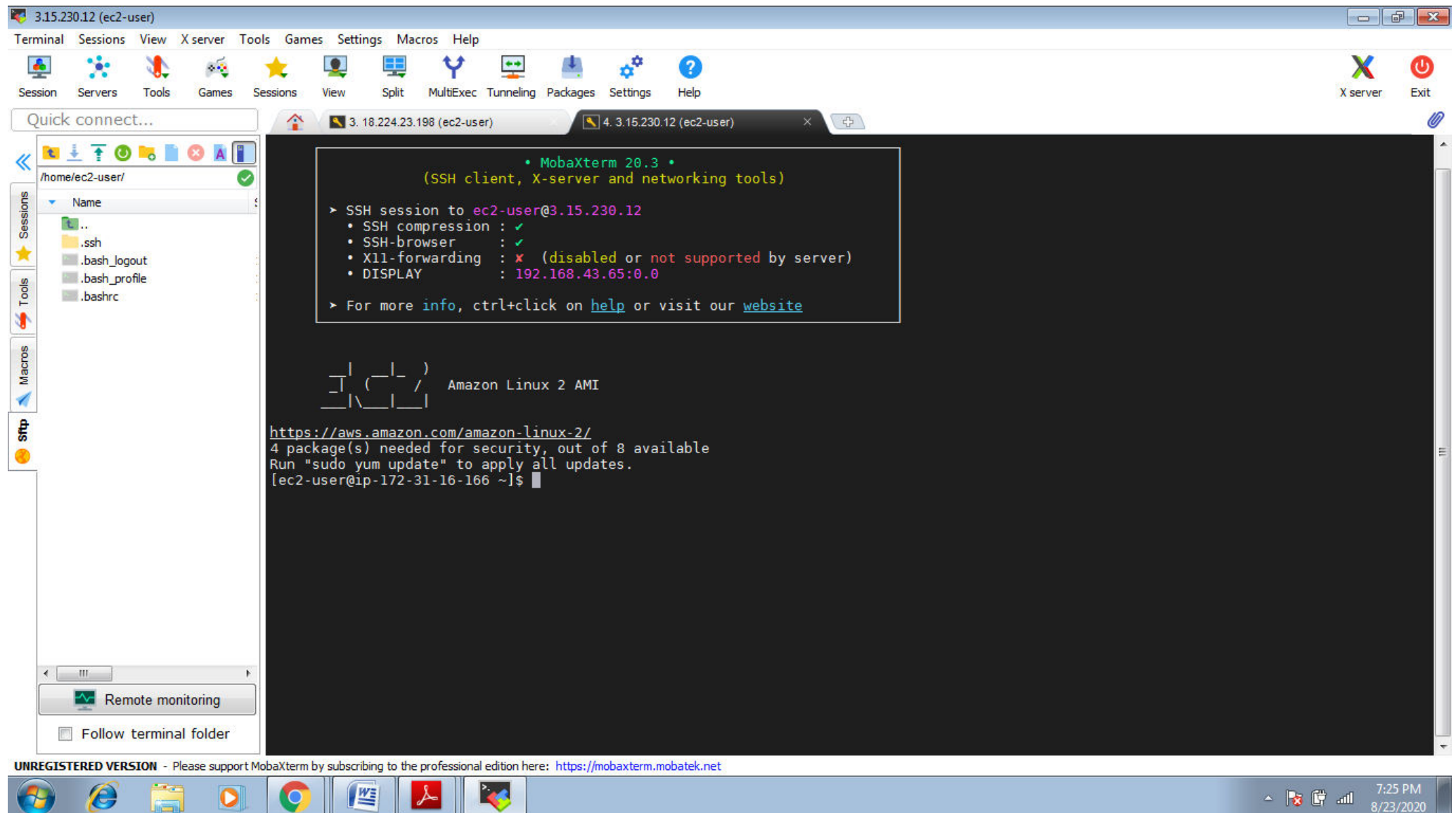
Property	Value
Instance ID	i-0f10f620e47215a4f
Public DNS (IPv4)	ec2-3-15-230-12.us-east-2.compute.amazonaws.com
Instance state	running
IPv4 Public IP	3.15.230.12

## Step2 - Launch both instances using MobaXterm

First Instance: -



Second Instance: -





## Step 4 - Host html login webpage on both servers

First Linux Server: -

The screenshot shows a MobaXterm terminal window with the title bar '18.224.23.198 (ec2-user)'. The terminal displays the output of a transaction test and the installation of httpd. The left sidebar shows a file explorer for '/home/ec2-user/' with files like .ssh, .bash\_logout, .bash\_profile, and .bashrc. The bottom status bar indicates 'UNREGISTERED VERSION' and provides a link to the professional edition.

```
Running transaction test
Transaction test succeeded
Running transaction
Installing : apr-1.6.3-5.amzn2.0.2.x86_64 1/9
Installing : apr-util-bdb-1.6.1-5.amzn2.0.2.x86_64 2/9
Installing : apr-util-1.6.1-5.amzn2.0.2.x86_64 3/9
Installing : httpd-tools-2.4.43-1.amzn2.x86_64 4/9
Installing : generic-logos-httpd-18.0.0-4.amzn2.noarch 5/9
Installing : mailcap-2.1.41-2.amzn2.noarch 6/9
Installing : httpd-filesystem-2.4.43-1.amzn2.noarch 7/9
Installing : mod_http2-1.15.3-2.amzn2.x86_64 8/9
Installing : httpd-2.4.43-1.amzn2.x86_64 9/9
Verifying : apr-util-1.6.1-5.amzn2.0.2.x86_64 1/9
Verifying : apr-util-bdb-1.6.1-5.amzn2.0.2.x86_64 2/9
Verifying : httpd-2.4.43-1.amzn2.x86_64 3/9
Verifying : mod_http2-1.15.3-2.amzn2.x86_64 4/9
Verifying : httpd-filesystem-2.4.43-1.amzn2.noarch 5/9
Verifying : apr-1.6.3-5.amzn2.0.2.x86_64 6/9
Verifying : mailcap-2.1.41-2.amzn2.noarch 7/9
Verifying : generic-logos-httpd-18.0.0-4.amzn2.noarch 8/9
Verifying : httpd-tools-2.4.43-1.amzn2.x86_64 9/9

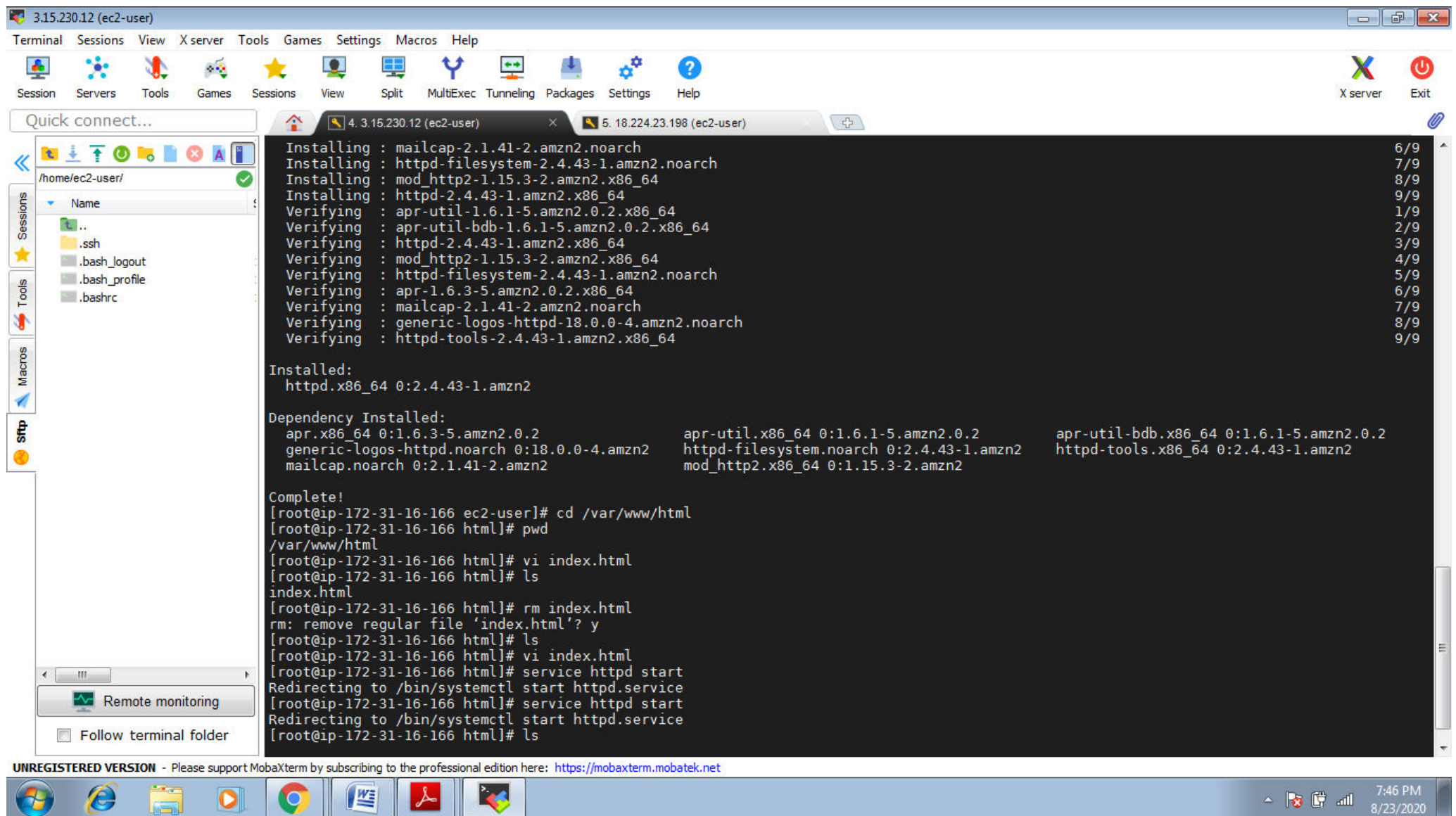
Installed:
httpd.x86_64 0:2.4.43-1.amzn2

Dependency Installed:
apr.x86_64 0:1.6.3-5.amzn2.0.2 apr-util.x86_64 0:1.6.1-5.amzn2.0.2 apr-util-bdb.x86_64 0:1.6.1-5.amzn2.0.2
generic-logos-httpd.noarch 0:18.0.0-4.amzn2 httpd-filesystem.noarch 0:2.4.43-1.amzn2 httpd-tools.x86_64 0:2.4.43-1.amzn2
mailcap.noarch 0:2.1.41-2.amzn2 mod_http2.x86_64 0:1.15.3-2.amzn2

Complete!
[root@ip-172-31-28-163 ec2-user]# cd /var/www/html
[root@ip-172-31-28-163 html]# pwd
/var/www/html
[root@ip-172-31-28-163 html]# vi index.html
[root@ip-172-31-28-163 html]# service httpd start
Redirecting to /bin/systemctl start httpd.service
[root@ip-172-31-28-163 html]#
```

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## Second Linux Server: -



3.15.230.12 (ec2-user)

Terminal Sessions View X server Tools Games Settings Macros Help

Session Servers Tools Games Sessions View Split MultiExec Tunneling Packages Settings Help

Quick connect...

4. 3.15.230.12 (ec2-user) 5. 18.224.23.198 (ec2-user)

Installing : mailcap-2.1.41-2.amzn2.noarch 6/9  
Installing : httpd-filesystem-2.4.43-1.amzn2.noarch 7/9  
Installing : mod\_http2-1.15.3-2.amzn2.x86\_64 8/9  
Installing : httpd-2.4.43-1.amzn2.x86\_64 9/9  
Verifying : apr-util-1.6.1-5.amzn2.0.2.x86\_64 1/9  
Verifying : apr-util-bdb-1.6.1-5.amzn2.0.2.x86\_64 2/9  
Verifying : httpd-2.4.43-1.amzn2.x86\_64 3/9  
Verifying : mod\_http2-1.15.3-2.amzn2.x86\_64 4/9  
Verifying : httpd-filesystem-2.4.43-1.amzn2.noarch 5/9  
Verifying : apr-1.6.3-5.amzn2.0.2.x86\_64 6/9  
Verifying : mailcap-2.1.41-2.amzn2.noarch 7/9  
Verifying : generic-logos-httpd-18.0.0-4.amzn2.noarch 8/9  
Verifying : httpd-tools-2.4.43-1.amzn2.x86\_64 9/9

Installed:  
httpd.x86\_64 0:2.4.43-1.amzn2

Dependency Installed:  
apr.x86\_64 0:1.6.3-5.amzn2.0.2 apr-util.x86\_64 0:1.6.1-5.amzn2.0.2 apr-util-bdb.x86\_64 0:1.6.1-5.amzn2.0.2  
generic-logos-httpd.noarch 0:18.0.0-4.amzn2 httpd-filesystem.noarch 0:2.4.43-1.amzn2 httpd-tools.x86\_64 0:2.4.43-1.amzn2  
mailcap.noarch 0:2.1.41-2.amzn2 mod\_http2.x86\_64 0:1.15.3-2.amzn2

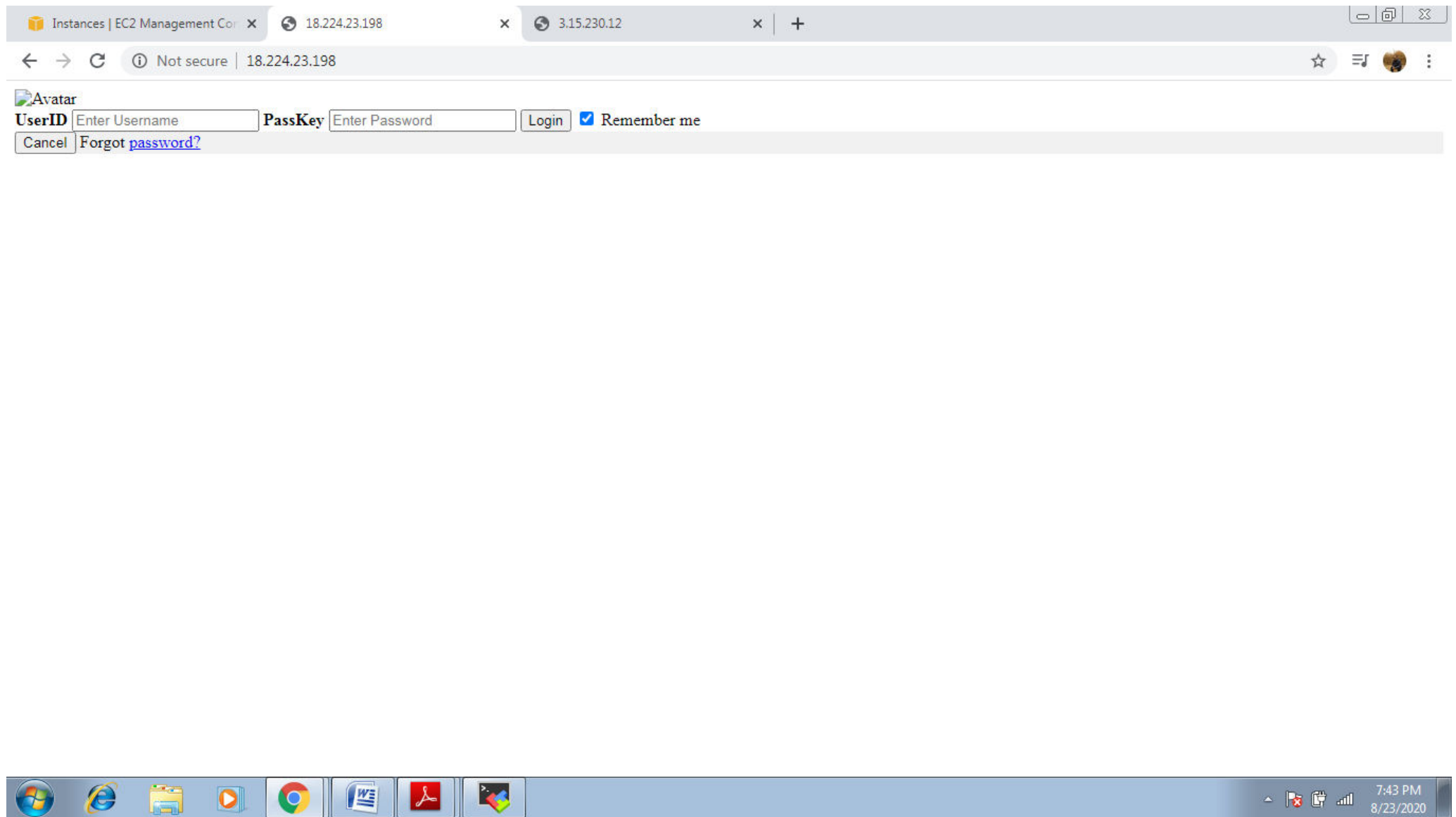
Complete!  
[root@ip-172-31-16-166 ec2-user]# cd /var/www/html  
[root@ip-172-31-16-166 html]# pwd  
/var/www/html  
[root@ip-172-31-16-166 html]# vi index.html  
[root@ip-172-31-16-166 html]# ls  
index.html  
[root@ip-172-31-16-166 html]# rm index.html  
rm: remove regular file 'index.html'? y  
[root@ip-172-31-16-166 html]# ls  
[root@ip-172-31-16-166 html]# vi index.html  
[root@ip-172-31-16-166 html]# service httpd start  
Redirecting to /bin/systemctl start httpd.service  
[root@ip-172-31-16-166 html]# service httpd start  
Redirecting to /bin/systemctl start httpd.service  
[root@ip-172-31-16-166 html]# ls

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Step5 - Check is application is deployed on both servers by copy pasting the public ip of the servers into the browser.

First Server: -



Second Server: -

Instances | EC2 Management Console | 18.224.23.198 | 3.15.230.12

← → ↻ ⓘ Not secure | 3.15.230.12

Avatar

Username  Password   ☒ Remember me





## Step6 - Create a application Load balancer with the above two instances as targets

The screenshot shows the AWS Management Console interface. The left sidebar contains the navigation menu with categories like AMIs, Elastic Block Store, Network & Security, Load Balancing, and Auto Scaling. The 'Load Balancing' section is expanded, showing 'Load Balancers' and 'Target Groups'. The main content area displays a table of load balancers. Below the table, the details for the selected load balancer 'LetsupgradeNaveen' are shown.

Name	DNS name	State	VPC ID	Availability Zones	Type
LetsupgradeNaveen	LetsupgradeNaveen-928254...	active	vpc-126ac979	us-east-2b, us-east-2a	application

Name	LetsupgradeNaveen
ARN	arn:aws:elasticloadbalancing:us-east-2:832497299028:loadbalancer/app/LetsupgradeNaveen/c540cd38e3d17953
DNS name	<u>LetsupgradeNaveen-928254595.us-east-2.elb.amazonaws.com</u> (A Record)
State	active

## Step7 - Check the functioning of ELB

