

## Project 3

**Step1:**Create two linux instances,Use the first free linux AMI

**Step2:**Launch both instances using Mobaxterm

**Step3:**Host html login webpage on both servers (Refer video for steps) NOTE:Make change in the label of the second sever html configuration

HTML code for login page:

```
<form action="action_page.php" method="post">

<div class="imgcontainer">

 </div>

  <div class="container">

<label for="uname"><b>Username</b></label>

<input type="text" placeholder="Enter Username" name="uname" required>

<label for="psw"><b>Password</b></label>

<input type="password" placeholder="Enter Password" name="psw" required>

<button type="submit">Login</button>

<label>

<input type="checkbox" checked="checked" name="remember"> Remember me
</label>

</div>

  <div class="container" style="background-color:#f1f1f1">

<button type="button" class="cancelbtn">Cancel</button>

<span class="psw">Forgot <a href="#">password?</a></span> </div> </form>
```

**Step4:** Check is application is deployed on both servers by copy pasting the public ip of the servers into the browser.

**Step5:** Create a application Load balancer with the above two instances as targets

**Step6:** Check the functioning of ELB

## Step 1:

### Instance 1 (Linux 1)

The screenshot shows the AWS Management Console with the EC2 Instances page. The left sidebar contains navigation options like EC2 Dashboard, Events, Tags, Limits, Instances, Images, and Elastic Block Store. The main content area displays a table of instances. Below the table, the details for 'linux 1' are expanded.

Name	Instance ID	Instance Type	Availability Zone	Instance State	Status Checks	Alarm Status	Public DNS (IPv4)	IPv4 Public IP	IPv6
linux 1	i-019ff5c3203c406f0	t2.micro	us-east-2b	running	2/2 checks ...	None	ec2-18-219-189-210.us...	18.219.189.210	-
linux 2	i-04e6e66695dc6beea	t2.micro	us-east-2b	running	2/2 checks ...	None	ec2-18-191-5-213.us-e...	18.191.5.213	-

Instance: i-019ff5c3203c406f0 (linux 1) Public DNS: ec2-18-219-189-210.us-east-2.compute.amazonaws.com

Description Status Checks Monitoring Tags

Instance ID i-019ff5c3203c406f0 Public DNS (IPv4) ec2-18-219-189-210.us-east-2.compute.amazonaws.com

Instance state running IPv4 Public IP 18.219.189.210

Instance type t2.micro IPv6 IPs -

### Instance 2(Linux 2)

The screenshot shows the AWS Management Console with the EC2 Instances page. The left sidebar contains navigation options like EC2 Dashboard, Events, Tags, Limits, Instances, Images, and Elastic Block Store. The main content area displays a table of instances. Below the table, the details for 'linux 2' are expanded.

Name	Instance ID	Instance Type	Availability Zone	Instance State	Status Checks	Alarm Status	Public DNS (IPv4)	IPv4 Public IP	IPv6
linux 1	i-019ff5c3203c406f0	t2.micro	us-east-2b	running	2/2 checks ...	None	ec2-18-219-189-210.us...	18.219.189.210	-
linux 2	i-04e6e66695dc6beea	t2.micro	us-east-2b	running	2/2 checks ...	None	ec2-18-191-5-213.us-e...	18.191.5.213	-

Instance: i-04e6e66695dc6beea (linux 2) Public DNS: ec2-18-191-5-213.us-east-2.compute.amazonaws.com

Description Status Checks Monitoring Tags

Instance ID i-04e6e66695dc6beea Public DNS (IPv4) ec2-18-191-5-213.us-east-2.compute.amazonaws.com

Instance state running IPv4 Public IP 18.191.5.213

Instance type t2.micro IPv6 IPs -

Finding Opt-in to AWS Compute Optimizer for recommendations. Elastic IPs

## Step 2:

```

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-172-31-30-238 ec2-user]# cd /var/www/html
[root@ip-172-31-30-238 html]# pwd
/var/www/html
[root@ip-172-31-30-238 html]# vi index.html
[root@ip-172-31-30-238 html]# service httpd start
Redirecting to /bin/systemctl start httpd.service
[root@ip-172-31-30-238 html]#

```

```

MobaXterm 20.3
(SSH client, X-server and networking tools)

SSH session to ec2-user@10.191.5.213
SSH compression: ✓
SSH-browser: ✓
X11-forwarding: ✗ (disabled or not supported by server)
DISPLAY: 192.168.43.214:0.0
For more info, ctrl+click on help or visit our website

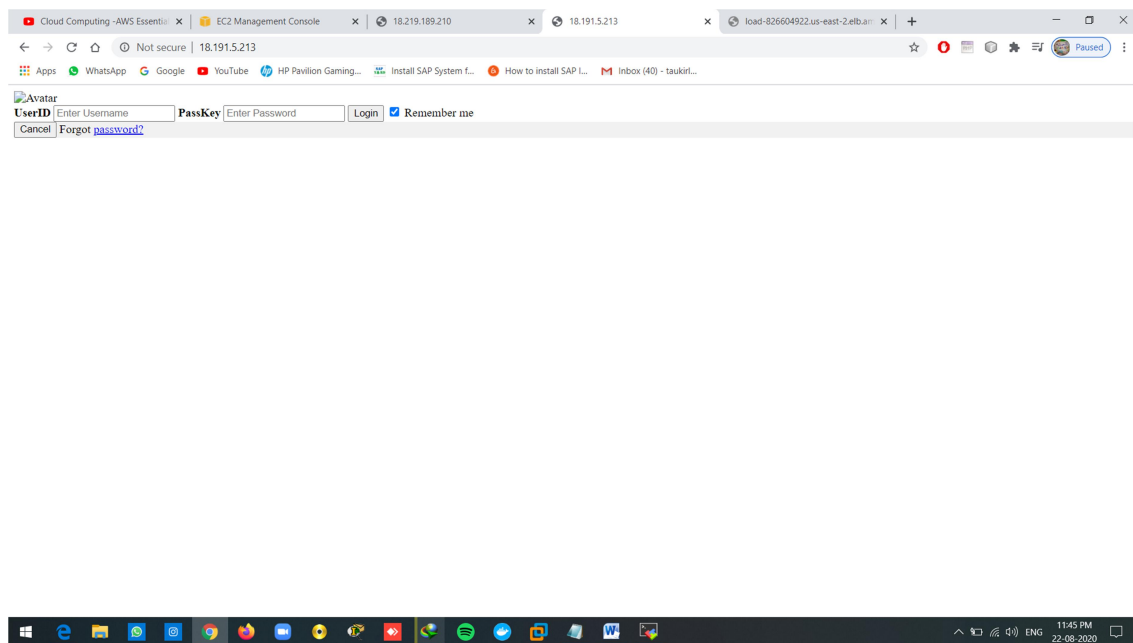
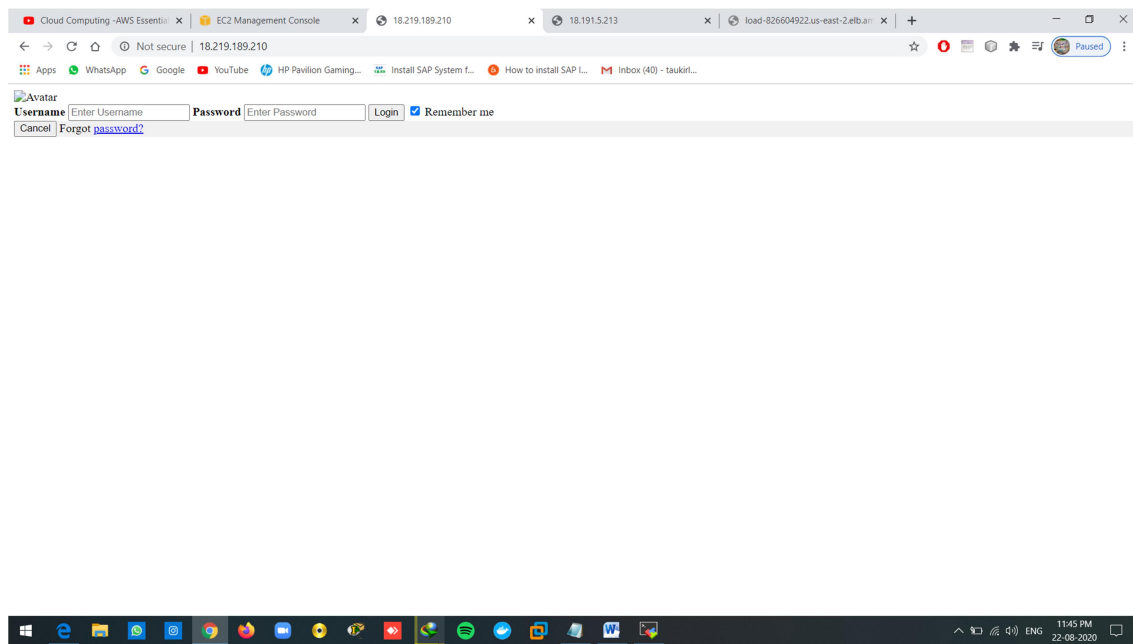
Last login: Sat Aug 22 17:23:49 2020 from 106.66.19.178

Amazon Linux 2 AMI

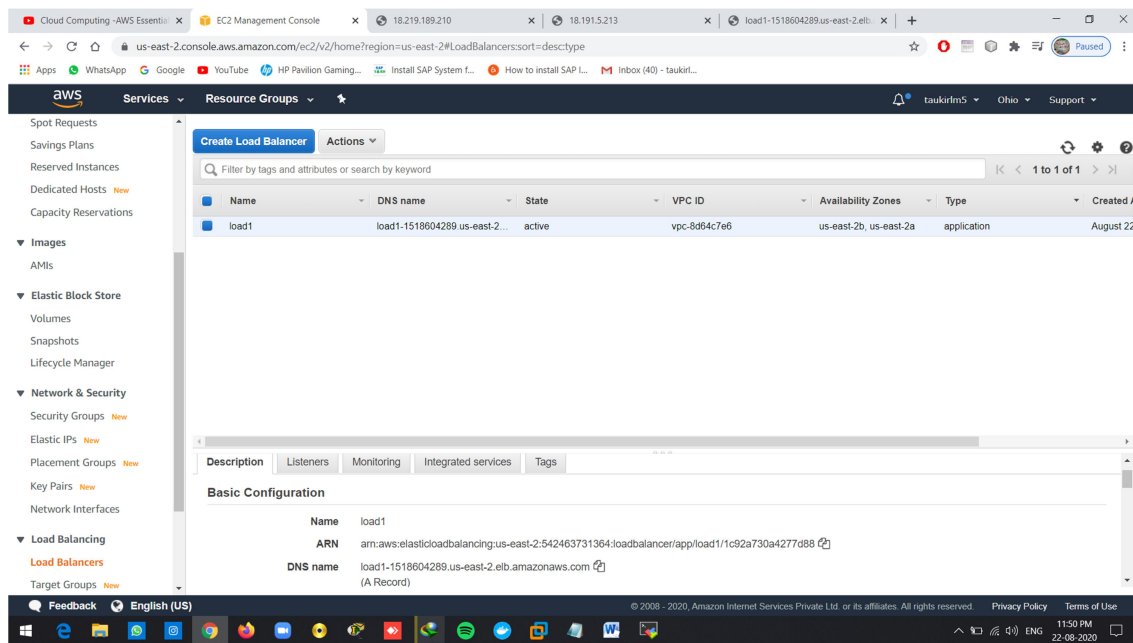
https://aws.amazon.com/amazon-linux-2/
4 package(s) needed for security, out of 8 available
Run "sudo yum update" to apply all updates.
[ec2-user@ip-172-31-25-189 ~]$ sudo su
[root@ip-172-31-25-189 ec2-user]# yum install httpd
Loaded plugins: extras_suggestions, langpacks, priorities, update-motd
amzn2-core
Package httpd-2.4.43-1.amzn2.x86_64 already installed and latest version
Nothing to do
[root@ip-172-31-25-189 ec2-user]# cd /var/www/html
[root@ip-172-31-25-189 html]# vi index.html
[root@ip-172-31-25-189 html]# service httpd start
Redirecting to /bin/systemctl start httpd.service
[root@ip-172-31-25-189 html]#

```

### Step 3 & 4:



## Step 5:



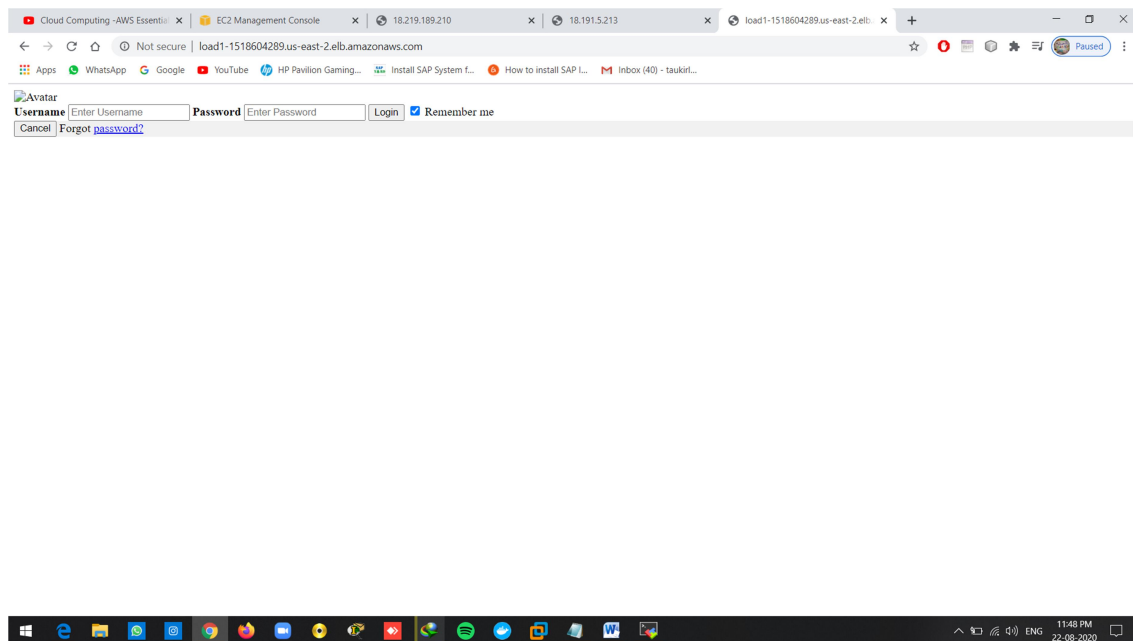
The screenshot shows the AWS Management Console interface. The left sidebar contains the navigation menu with categories like Spot Requests, Savings Plans, Reserved Instances, Dedicated Hosts, Capacity Reservations, Images, AMIs, Elastic Block Store, Volumes, Snapshots, Lifecycle Manager, Network & Security, Security Groups, Elastic IPs, Placement Groups, Key Pairs, Network Interfaces, Load Balancing, Load Balancers, and Target Groups. The main content area shows the 'Load Balancers' page with a table listing the load balancers. The table has columns for Name, DNS name, State, VPC ID, Availability Zones, Type, and Created. One load balancer named 'load1' is listed with DNS name 'load1-1518604289.us-east-2.elb.amazonaws.com', State 'active', VPC ID 'vpc-8d64c7e6', Availability Zones 'us-east-2b, us-east-2a', Type 'application', and Created 'August 22'.

Name	DNS name	State	VPC ID	Availability Zones	Type	Created
load1	load1-1518604289.us-east-2...	active	vpc-8d64c7e6	us-east-2b, us-east-2a	application	August 22

Below the table, the 'Basic Configuration' tab is selected, showing details for 'load1'.

Name	Value
Name	load1
ARN	arn:aws:elasticloadbalancing:us-east-2:542463731364:loadbalancer/app/load1/1c92a730a4277d88
DNS name	load1-1518604289.us-east-2.elb.amazonaws.com (A Record)

## Step 6:

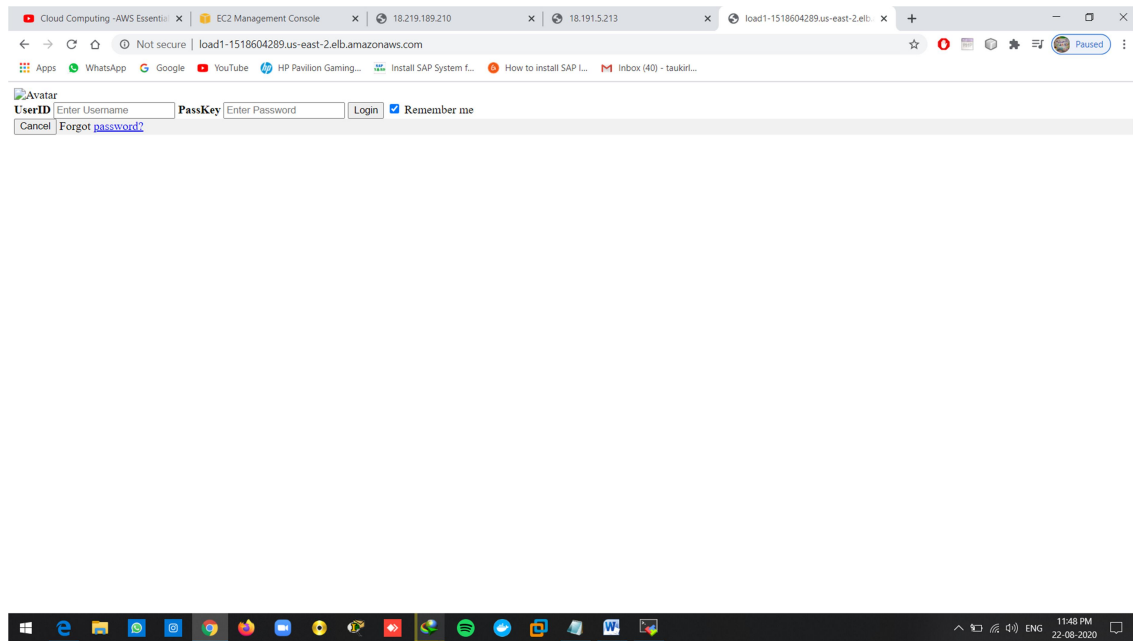


The screenshot shows the AWS Management Console interface. The left sidebar contains the navigation menu with categories like Spot Requests, Savings Plans, Reserved Instances, Dedicated Hosts, Capacity Reservations, Images, AMIs, Elastic Block Store, Volumes, Snapshots, Lifecycle Manager, Network & Security, Security Groups, Elastic IPs, Placement Groups, Key Pairs, Network Interfaces, Load Balancing, Load Balancers, and Target Groups. The main content area shows the 'Load Balancers' page with a table listing the load balancers. The table has columns for Name, DNS name, State, VPC ID, Availability Zones, Type, and Created. One load balancer named 'load1' is listed with DNS name 'load1-1518604289.us-east-2.elb.amazonaws.com', State 'active', VPC ID 'vpc-8d64c7e6', Availability Zones 'us-east-2b, us-east-2a', Type 'application', and Created 'August 22'.

Name	DNS name	State	VPC ID	Availability Zones	Type	Created
load1	load1-1518604289.us-east-2...	active	vpc-8d64c7e6	us-east-2b, us-east-2a	application	August 22

Below the table, the 'Basic Configuration' tab is selected, showing details for 'load1'.

Name	Value
Name	load1
ARN	arn:aws:elasticloadbalancing:us-east-2:542463731364:loadbalancer/app/load1/1c92a730a4277d88
DNS name	load1-1518604289.us-east-2.elb.amazonaws.com (A Record)



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