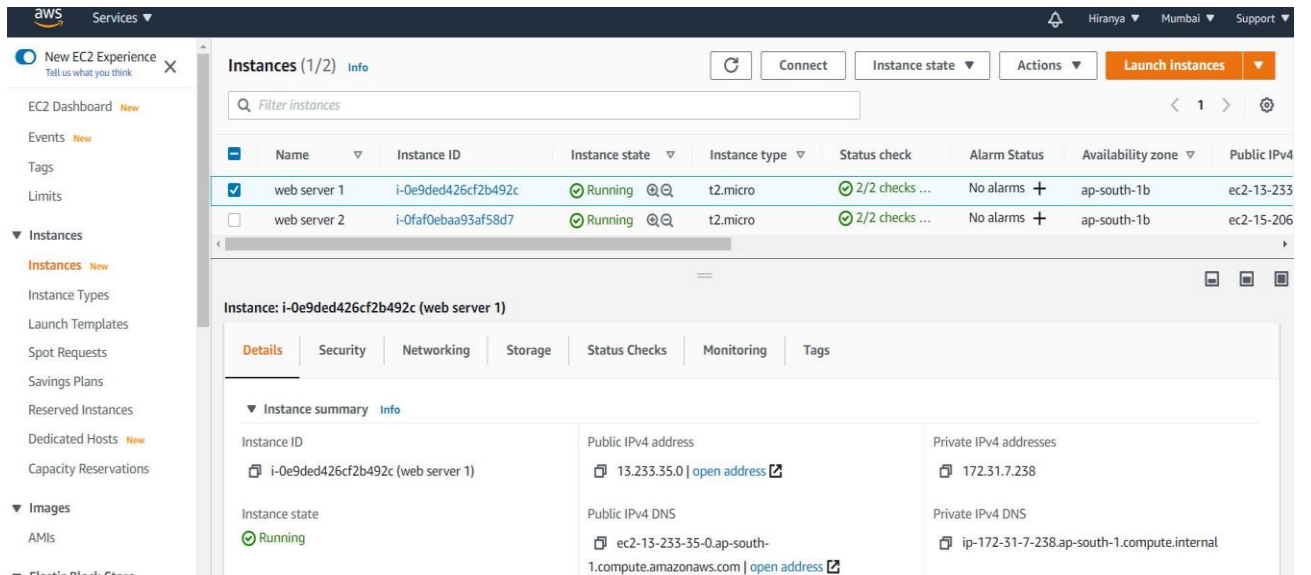


PROJECT 10: WORKING WITH ELB (Elastic Load Balancers)

TASK 1: Creating two Linux Instances 'web server 1' & 'web server 2'

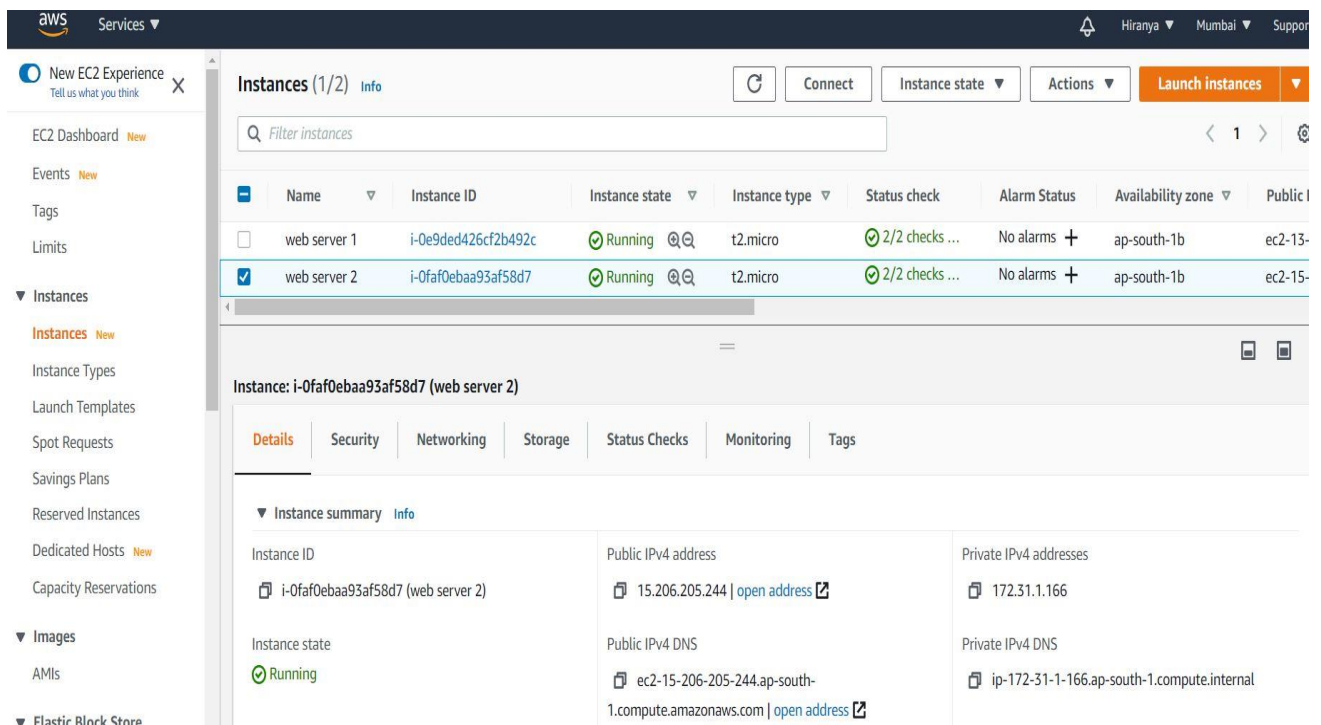


The screenshot displays the AWS Management Console's 'Instances' page. Two EC2 instances are listed: 'web server 1' (ID: i-0e9ded426cf2b492c) and 'web server 2' (ID: i-0faf0ebaa93af58d7). Both are running t2.micro instances in the ap-south-1b availability zone. The details for 'web server 1' are expanded, showing its Instance ID, state (Running), type (t2.micro), and various addresses (Public IPv4, Private IPv4, Public IPv4 DNS, Private IPv4 DNS).

Name	Instance ID	Instance state	Instance type	Status check	Alarm Status	Availability zone	Public IPv4
web server 1	i-0e9ded426cf2b492c	Running	t2.micro	2/2 checks ...	No alarms +	ap-south-1b	ec2-13-233
web server 2	i-0faf0ebaa93af58d7	Running	t2.micro	2/2 checks ...	No alarms +	ap-south-1b	ec2-15-206

Instance: i-0e9ded426cf2b492c (web server 1)

Details	Security	Networking	Storage	Status Checks	Monitoring	Tags
Instance summary Info						
Instance ID	Public IPv4 address		Private IPv4 addresses			
i-0e9ded426cf2b492c (web server 1)	13.233.35.0 open address		172.31.7.238			
Instance state	Public IPv4 DNS		Private IPv4 DNS			
Running	ec2-13-233-35-0.ap-south-1.compute.amazonaws.com open address		ip-172-31-7-238.ap-south-1.compute.internal			



The screenshot displays the AWS Management Console's 'Instances' page. Two EC2 instances are listed: 'web server 1' (ID: i-0e9ded426cf2b492c) and 'web server 2' (ID: i-0faf0ebaa93af58d7). Both are running t2.micro instances in the ap-south-1b availability zone. The details for 'web server 2' are expanded, showing its Instance ID, state (Running), type (t2.micro), and various addresses (Public IPv4, Private IPv4, Public IPv4 DNS, Private IPv4 DNS).

Name	Instance ID	Instance state	Instance type	Status check	Alarm Status	Availability zone	Public IPv4
web server 1	i-0e9ded426cf2b492c	Running	t2.micro	2/2 checks ...	No alarms +	ap-south-1b	ec2-13-
web server 2	i-0faf0ebaa93af58d7	Running	t2.micro	2/2 checks ...	No alarms +	ap-south-1b	ec2-15-

Instance: i-0faf0ebaa93af58d7 (web server 2)

Details	Security	Networking	Storage	Status Checks	Monitoring	Tags
Instance summary Info						
Instance ID	Public IPv4 address		Private IPv4 addresses			
i-0faf0ebaa93af58d7 (web server 2)	15.206.205.244 open address		172.31.1.166			
Instance state	Public IPv4 DNS		Private IPv4 DNS			
Running	ec2-15-206-205-244.ap-south-1.compute.amazonaws.com open address		ip-172-31-1-166.ap-south-1.compute.internal			

TASK 2: Launching both instances and host html login web page on both servers

```
[root@ip-172-31-7-238 html]# more index.html
ction="action_page.php" method="post">
<div class="imgcontainer">

</div>

<div class="container">
<label for="uname"><b>UserID</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>

[root@ip-172-31-7-238 html]# service httpd start
Redirecting to /bin/systemctl start httpd.service
[root@ip-172-31-7-238 html]#
```

i-0e9ded426cf2b492c (web server 1)

Public IPs: 13.233.35.0 Private IPs: 172.31.7.238

```
[root@ip-172-31-1-166 html]# more index.html
ction="action_page.php" method="post">
<div class="imgcontainer">

</div>

<div class="container">
<label for="uname"><b>UserID</b></label>
<input type="text" placeholder="Enter Username" name="uname" required>

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

[root@ip-172-31-1-166 html]# service httpd start
Redirecting to /bin/systemctl start httpd.service
[root@ip-172-31-1-166 html]#
[root@ip-172-31-1-166 html]#
```

i-0faf0ebaa93af58d7 (web server 2)

Public IPs: 15.206.205.244 Private IPs: 172.31.1.166

TASK 3: Web Application is running by using Public IP address of both servers

15.206.205.244

ction="action_page.php" method="post">

Avatar

UserID Passkey Login ☒ Remember me

Cancel [Forgot password?](#)

13.233.35.0

ction="action_page.php" method="post">

Avatar

UserID Password Login ☒ Remember me

Cancel [Forgot password?](#)

TASK 4: Creating an Application Load Balancer and showing target groups 'Healthy'

The screenshot displays the AWS Management Console interface for configuring an Application Load Balancer (demoELB) and its target group.

Load balancer: demoELB

Description | Listeners | Monitoring | Integrated services | Tags

Basic Configuration

Property	Value
Name	demoELB
ARN	arn:aws:elasticloadbalancing:ap-south-1:477487505631:loadbalancer/app/demoELB/1ddea3cdd4c6885c
DNS name	demoELB-649258852.ap-south-1.elb.amazonaws.com (A Record)
State	active
Type	application
Scheme	Internet-facing

Basic configuration

Target type	Protocol : Port	VPC	Load balancer
instance	HTTP : 80	vpc-9e5544f6	WEBelb
	Protocol version: HTTP1		

Group details | **Targets** | Monitoring | Tags

Registered targets (2)

Filter resources by property or value

Instance ID	Name	Port	Zone	Status	Status details
i-0faf0ebaa93af58d7	web server 2	80	ap-south-1b	healthy	
i-0e9ded426cf2b492c	web server 1	80	ap-south-1b	healthy	

TASK 5: Running the web Application by using DNS of the ELB

Firefox

webelb-1529974086.ap-south-1.elb.amazonaws.com

ction="action_page.php" method="post">

Avatar

UserID Password Login ☒ Remember me

Cancel Forgot [password?](#)

Firefox

webelb-1529974086.ap-south-1.elb.amazonaws.com

ction="action_page.php" method="post">

Avatar

UserID Passkey Login ☒ Remember me

Cancel Forgot [password?](#)