

AWS- Elastic Load Balancer (ELB)

Siddesh Mandhare || 02/09/24

1) Create two instances in two availability zones ap-south-1

The screenshot displays the AWS Management Console for the ap-south-1 region. The left sidebar shows the navigation menu with 'Instances' selected. The main content area shows a list of EC2 instances. Below the list, the details for instance i-Od734f30ac0077be9 are expanded, showing its configuration.

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public
<input checked="" type="checkbox"/> node-ap-south-2b	i-Od734f30ac0077be9	Running	t2.micro	2/2 checks passed	View alarms +	ap-south-1b	ec2-13
<input type="checkbox"/> node-ap-south-2b	i-057d6f5ea1624f1d7	Running	t2.micro	Initializing	View alarms +	ap-south-1b	ec2-15
<input type="checkbox"/> node-ap-south-1a	i-0505eeb01dada16e5	Terminated	t2.micro	-	View alarms +	ap-south-1b	-

Instance details for i-Od734f30ac0077be9:

- Platform: Amazon Linux (Inferred)
- AMI ID: ami-02b49a24cfb95941c
- AMI name: al2023-ami-2023.5.20240819.0-kernel-6.1-x86_64
- Monitoring: disabled
- Termination protection: Disabled
- Stop protection: Disabled
- Launch time: [timestamp]
- AMI location: [location]

2) Create load balancer

The screenshot shows the 'Create Classic Load Balancer' wizard in the AWS Management Console. The 'Basic configuration' section is active, showing the load balancer name 'my-demo-loadbalancer' and the scheme 'Internet-facing'.

How Classic Load Balancers work

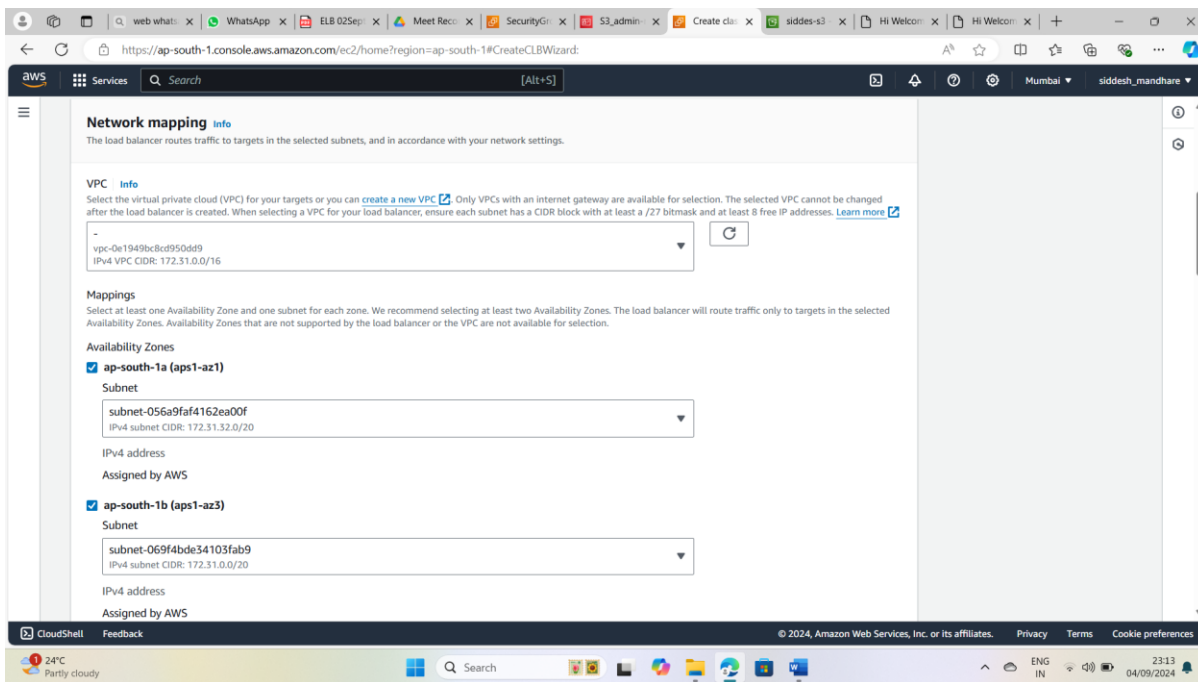
Basic configuration

Load balancer name: my-demo-loadbalancer

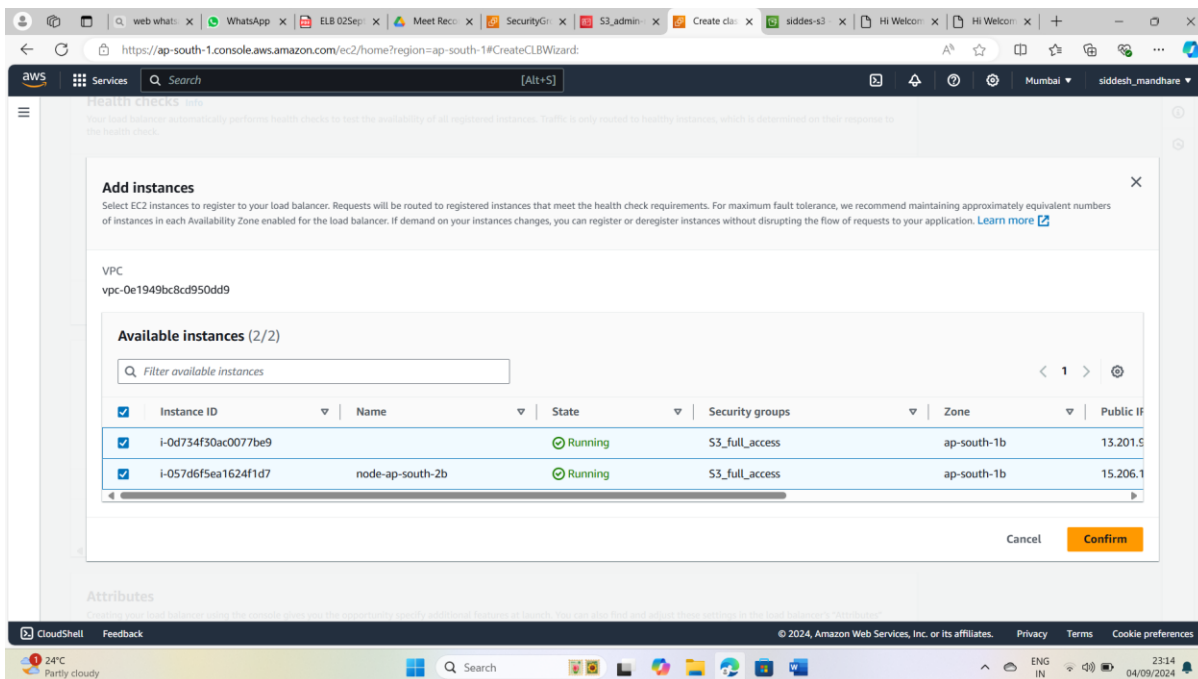
Scheme: Internet-facing

Network mapping

3) Map the network for the instances



4) Attached instances to the load balancers



5) Created Load Balancer

The screenshot shows the AWS Management Console for the 'my-demo-loadbalancer' Classic Load Balancer. The console displays the following details:

- Load balancer type:** Classic
- Status:** 2 of 2 instances in service
- VPC:** vpc-0e1949bc8cd950dd9
- Date created:** September 4, 2024, 23:08 (UTC+05:30)
- Scheme:** Internet-facing
- Hosted zone:** ZP97RAFLXTNZK
- Availability Zones:** subnet-056a9faf4162ea00f (ap-south-1a (aps1-az1)), subnet-069f4bde34103fab9 (ap-south-1b (aps1-az3))
- DNS name:** my-demo-loadbalancer-420781537.ap-south-1.elb.amazonaws.com (A Record)

A notification banner indicates: "This Classic Load Balancer can be migrated to a next generation load balancer. Migration wizard uses your load balancer's current configurations to create a new load balancer. [Learn more](#)"

Below the details, there is a section for "Distribution of targets by Availability Zone (AZ)" with a note: "For each enabled Availability Zone, you can view the number of registered instances and their current health states. Selecting any values here will apply the corresponding filter to the Target instances table."

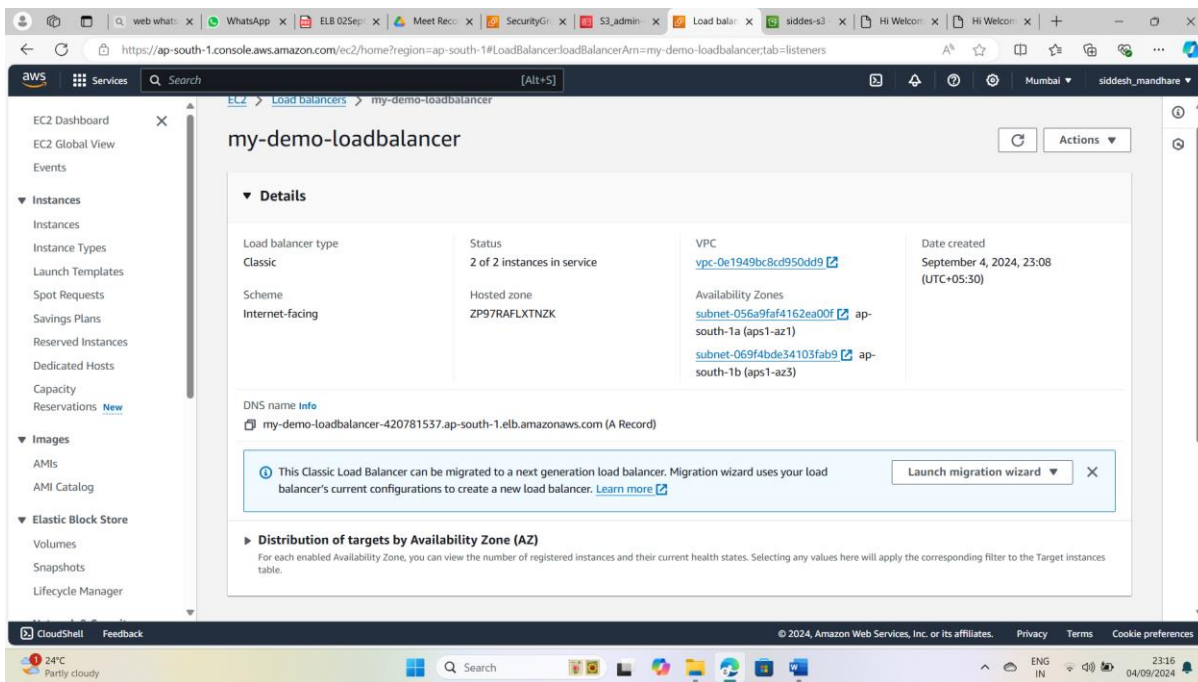
6) Health status is In-service

The screenshot shows the 'Target instances' tab for the 'my-demo-loadbalancer' Classic Load Balancer. The console displays the following information:

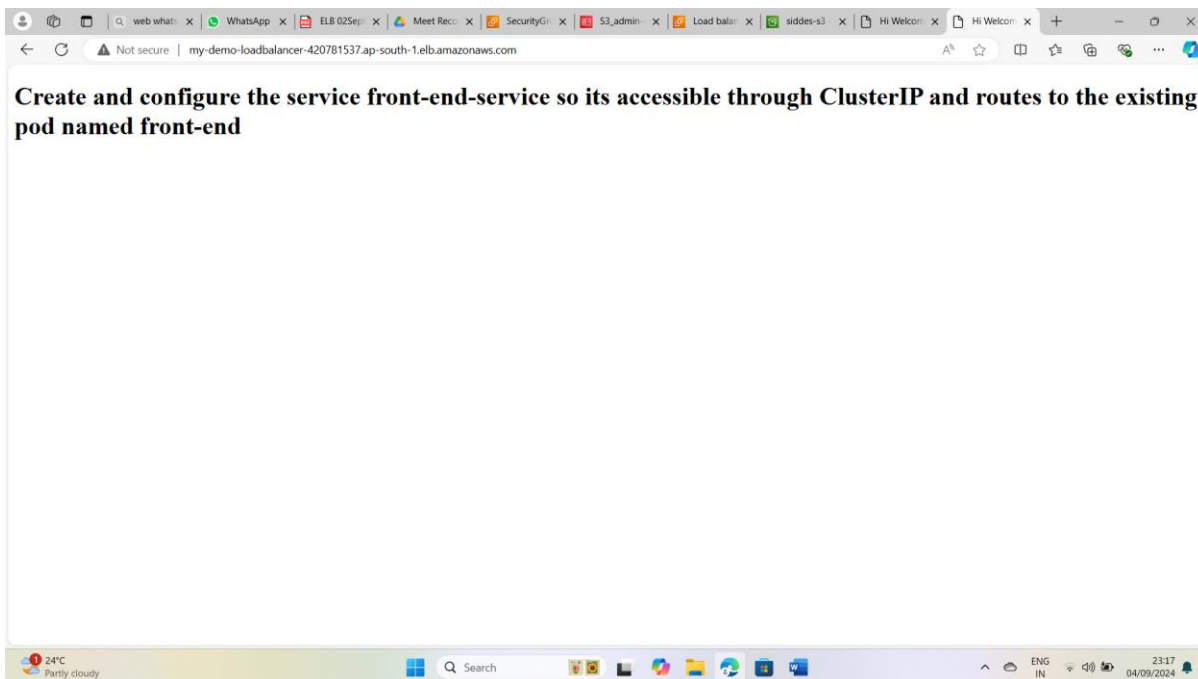
- Listeners:** Network mapping, Security, Health checks, **Target instances**, Monitoring, Attributes, Tags
- Target instances (2):** Connection draining: On (300 seconds), Deregister, Manage instances
- Instances currently registered to your load balancer are displayed. To deregister instances, select them, then choose Deregister. To register and deregister instances simultaneously, choose Manage instances.**
- Filter target instances:**
- Table of Target Instances:**

<input type="checkbox"/>	Instance ID	Name	Health status	Health status descri...	Security groups
<input type="checkbox"/>	i-0d734f30ac0077be9		In-service	Not applicable	S3_full_access
<input type="checkbox"/>	i-057d6f5ea1624f1d7	node-ap-south-2b	In-service	Not applicable	S3_full_access

7) Copy DNS name URL and paste it into chrome browser



8) Output of index.html file



9) If we stop one instance still web server is working

The screenshot shows the AWS Management Console for a Classic Load Balancer named 'my-demo-loadbalancer-420781537.ap-south-1.elb.amazonaws.com'. The 'Target instances' tab is selected, showing two instances:

Instance ID	Name	Health status	Health status description	Security groups
i-0d734f30ac0077be9		Out-of-service	Instance has failed at L...	S3_full_access
i-057d6f5ea1624f1d7	node-ap-south-2b	In-service	Not applicable	S3_full_access

A notification banner at the top states: 'This Classic Load Balancer can be migrated to a next generation load balancer. Migration wizard uses your load balancer's current configurations to create a new load balancer. [Learn more](#)'.

10) If we stop both instances then web server is not working and we get "Instance has failed at least the unhealthy threshold number of health checks consecutively." At health check

The first screenshot shows the 'Target instances' tab with both instances in an 'Out-of-service' state:

Instance ID	Name	Health status	Health status description
i-0d734f30ac0077be9		Out-of-service	Instance is in stopped state.
i-057d6f5ea1624f1d7	node-ap-s...	Out-of-service	Instance has failed at least the unhealthy threshold number of health checks consecutively.

The second screenshot shows the resulting HTTP 503 error page in Microsoft Edge:

This page isn't working right now

my-demo-loadbalancer-420781537.ap-south-1.elb.amazonaws.com can't currently handle this request.

HTTP ERROR 503

[Refresh](#)