

## TASK – 18

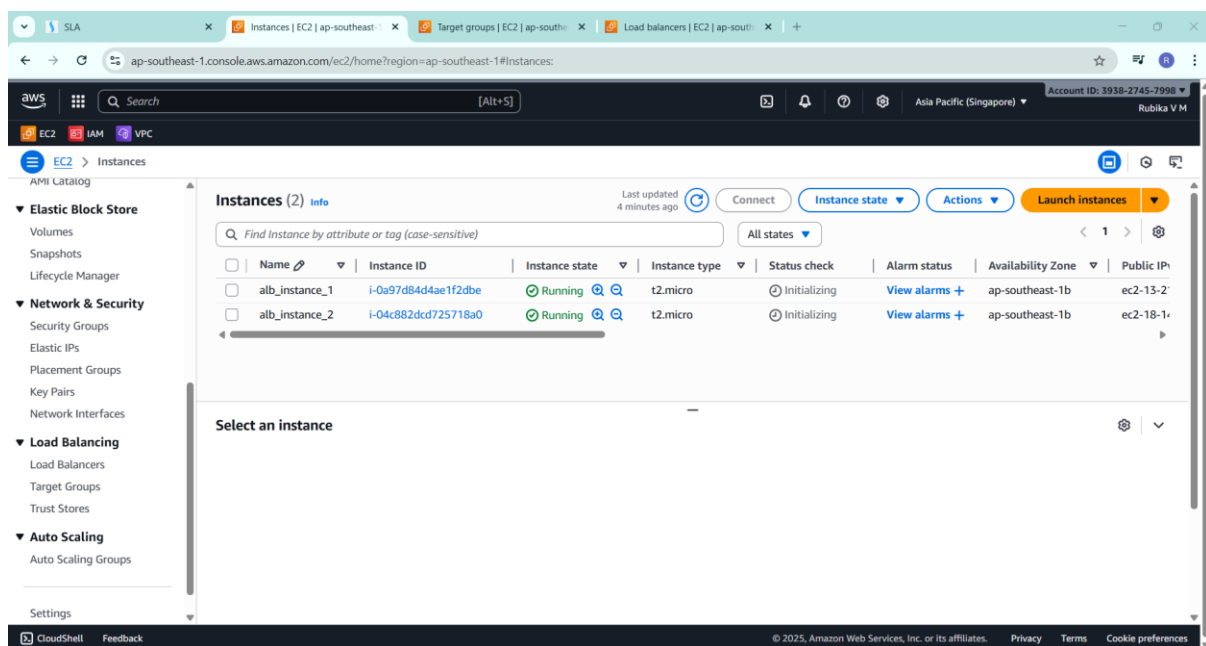
### Elastic load balancer

Elastic Load Balancing (ELB) in AWS is a service that automatically distributes incoming application traffic across multiple targets, such as EC2 instances, containers, and IP addresses, within one or more Availability Zones. It enhances application availability and fault tolerance by ensuring that no single target is overwhelmed with traffic and by routing requests only to healthy targets.

### Application load balancer

An AWS Application Load Balancer (ALB) is a fully managed service that distributes HTTP/HTTPS traffic across multiple targets like Amazon EC2 instances, containers, and IP addresses. It operates at the application layer (Layer 7) of the OSI model.

### Creation of instance



## Creation of Target group

The screenshot shows the AWS Management Console for the 'ap-southeast-1' region. The left sidebar contains navigation links for EC2, IAM, and VPC. The main content area is titled 'Target groups (1/2)' and includes a search bar and a 'Create target group' button. A table lists two target groups: 'home-target' and 'login-tg'. The 'login-tg' target group is selected, and its details are shown below. The details include the ARN, target type (Instance), protocol (HTTP), port (80), and VPC ID (vpc-00aa32b792ae81dee).

Name	ARN	Port	Protocol	Target type	Load balancer	VPC ID
home-target	arn:aws:elasticloadbalancing:ap-southeast-1:393827457998:targetgroup/home-target/806fcfabd3d8a009	80	HTTP	Instance	None associated	vpc-00aa32b792ae81dee
login-tg	arn:aws:elasticloadbalancing:ap-southeast-1:393827457998:targetgroup/login-tg/806fcfabd3d8a009	80	HTTP	Instance	None associated	vpc-00aa32b792ae81dee

**Target group: login-tg**

**Details**

ARN: arn:aws:elasticloadbalancing:ap-southeast-1:393827457998:targetgroup/login-tg/806fcfabd3d8a009

Target type: Instance

Protocol: Port: HTTP: 80

Protocol version: HTTP1

VPC: vpc-00aa32b792ae81dee

IP address type: Load balancer

## Creation of load balancer

The screenshot shows the AWS Management Console for the 'ap-southeast-1' region. The left sidebar contains navigation links for EC2, IAM, and VPC. The main content area is titled 'Load balancers (1/1)' and includes a search bar and a 'Create load balancer' button. A table lists one load balancer: 'alb-lb'. The 'alb-lb' load balancer is selected, and its details are shown below. The details include the ARN, state (Active), type (application), scheme (Internet-facing), IP address type (IPv4), VPC ID (vpc-00aa32b792ae81dee), and availability zones (3 Availability Zones). A tooltip indicates that the DNS name 'alb-lb-1994475857.ap-southeast-1.elb.amazonaws.com (A Record)' has been copied.

Name	State	Type	Scheme	IP address type	VPC ID	Availability Zones
alb-lb	Active	application	Internet-facing	IPv4	vpc-00aa32b792ae81dee	3 Availability Zones

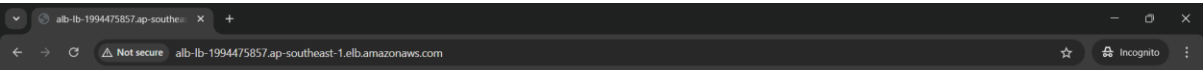
**Load balancer: alb-lb**

Load balancer ARN: arn:aws:elasticloadbalancing:ap-southeast-1:393827457998:loadbalancer/app/alb-lb/7b0968dc74af80c3

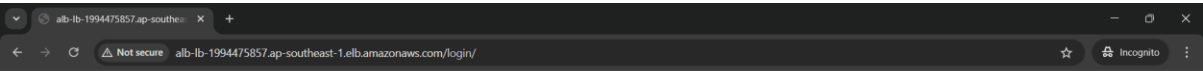
subnets: subnet-09cd94db8c5f77451 (ap-southeast-1c (apse1-az3)), subnet-03776fe5f5968f808 (ap-southeast-1a (apse1-az1))

DNS name copied: alb-lb-1994475857.ap-southeast-1.elb.amazonaws.com (A Record)

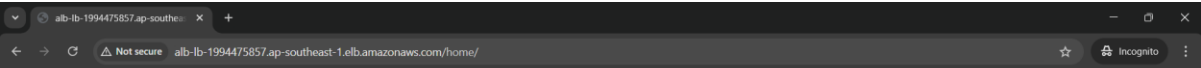
# Outcome



It works!



this is my login page



this is my home page