

TASK – 18

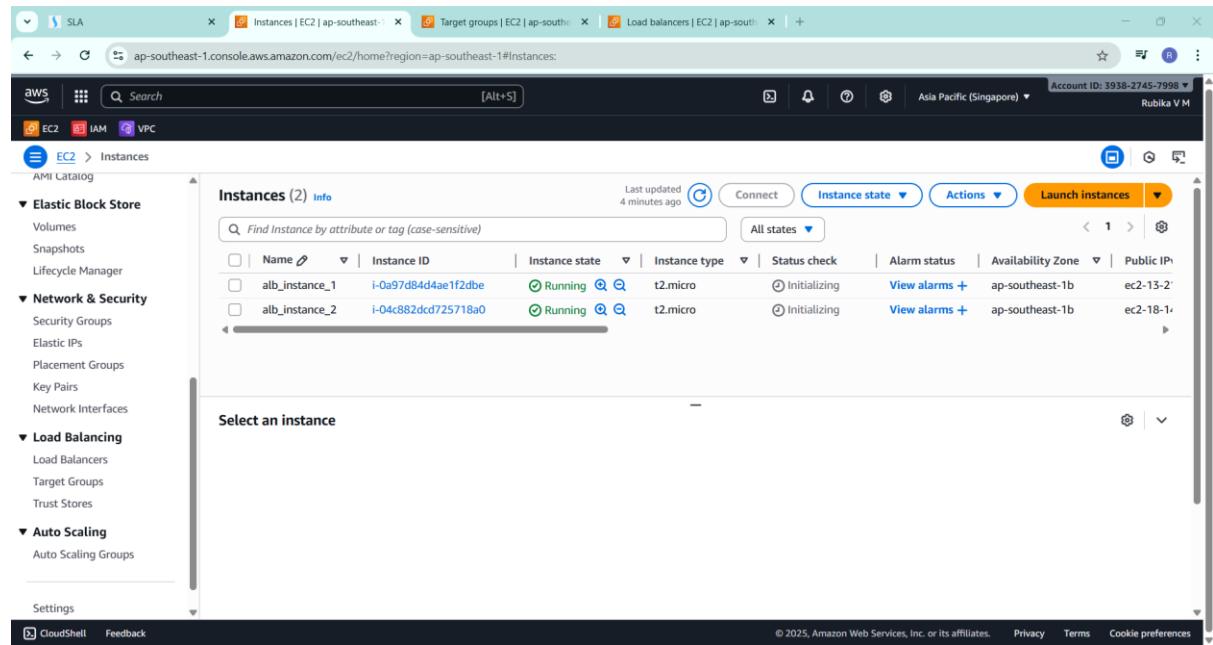
Elastic load balancer

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



The screenshot shows the AWS EC2 Instances page. The left sidebar navigation includes links for SLA, Instances, Target groups, and Load balancers. The main content area displays a table titled "Instances (2) Info" with the following data:

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IP
alb_instance_1	i-0a97d84d4ae1f2dbe	Running	t2.micro	Initializing	View alarms	ap-southeast-1b	ec2-13-1-
alb_instance_2	i-04c882cd725718a0	Running	t2.micro	Initializing	View alarms	ap-southeast-1b	ec2-18-1-

Below the table, there is a section titled "Select an instance" which is currently empty.

Creation of Target group

The screenshot shows the AWS Cloud Console interface for creating a Target group. The URL is ap-southeast-1.console.aws.amazon.com/ec2/home?region=ap-southeast-1#TargetGroups. The left sidebar shows navigation for EC2, Target groups, and other services like Auto Scaling and Load Balancing. The main pane displays a table of existing target groups, including 'home-target' and 'login-tg'. The 'Actions' dropdown for 'login-tg' has an option to 'Create target group'. Below the table, the 'Target group: login-tg' details page is shown, with tabs for Details, Targets, Monitoring, Health checks, Attributes, and Tags. The 'Details' tab shows the ARN, Protocol (HTTP), and VPC information (VPC ID: vpc-00aa32b792ae81dee). A tooltip 'DNS name copied' is visible near the ARN.

Creation of load balancer

The screenshot shows the AWS Cloud Console interface for creating a Load balancer. The URL is ap-southeast-1.console.aws.amazon.com/ec2/home?region=ap-southeast-1#LoadBalancers. The left sidebar shows navigation for EC2, Instances, Images, and Elastic Block Store. The main pane displays a table of existing load balancers, including 'alb-lb'. The 'Actions' dropdown for 'alb-lb' has an option to 'Create load balancer'. Below the table, the 'Load balancer: alb-lb' details page is shown, with tabs for General, Application, and Network. The 'General' tab shows the ARN, State (Active), Type (application), Scheme (Internet-facing), and IP address type (IPv4). A tooltip 'DNS name copied' is visible near the ARN. The ARN is listed as `arn:aws:elasticloadbalancing:ap-southeast-1:393827457998:loadbalancer/app/alb-lb/7b0968dc74af80c3`.

Outcome



It works!



this is my login page



this is my home page