

Capstone Project Screenshot

The screenshot shows the AWS Management Console interface for EC2 instances. The main content area displays a table of instances:

| Name | Instance ID | Instance state | Instance type | Status check | Alarm status | Availability Zone | Public IPv4 DNS | Public IPv4 ... |
|---------------------|---------------------|----------------|---------------|-------------------|--------------|-------------------|--------------------------|-----------------|
| kubernetes_master | i-0a11774fe18423206 | Running | t3.medium | 2/2 checks passed | No alarms | us-east-1d | ec2-35-170-196-53.co... | 35.170.196.53 |
| kubernetes_worker-1 | i-060b146ae36ad0c9 | Running | t3.medium | 2/2 checks passed | No alarms | us-east-1d | ec2-44-200-19-80.com... | 44.200.19.80 |
| kubernetes_worker-0 | i-02d20a7fce763f73 | Running | t3.medium | 2/2 checks passed | No alarms | us-east-1d | ec2-35-174-241-124.co... | 35.174.241.124 |

The left sidebar contains the following navigation options:

- Launch Templates
- Spot Requests
- Savings Plans
- Reserved Instances
- Dedicated Hosts
- Scheduled Instances
- Capacity Reservations
- Images
 - AMIs
 - AMI Catalog
- Elastic Block Store
 - Volumes
 - Snapshots
 - Lifecycle Manager
- Network & Security
 - Security Groups
 - Elastic IPs
 - Placement Groups
 - Key Pairs
 - Network Interfaces
- Load Balancing
 - Load Balancers
 - Target Groups
- Auto Scaling
 - Launch Configurations
 - Auto Scaling Groups

The screenshot shows the AWS Management Console interface for Route Tables. The main content area displays a table of route tables:

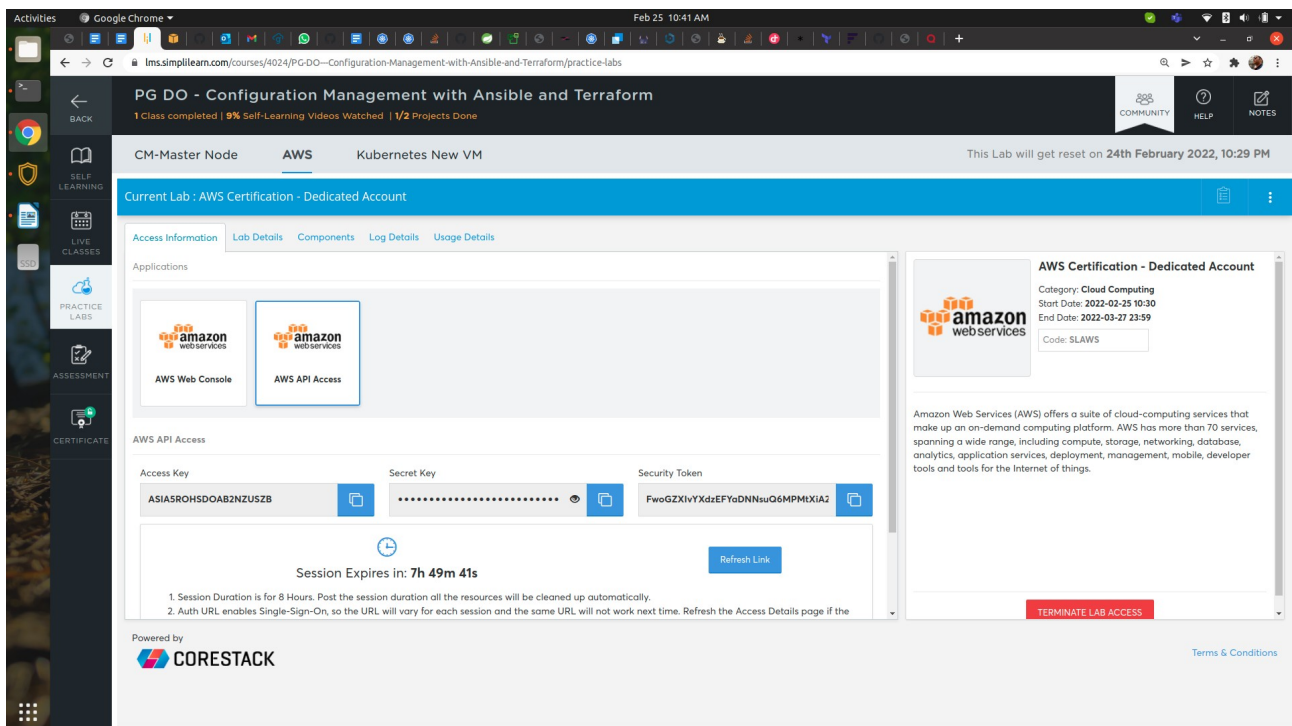
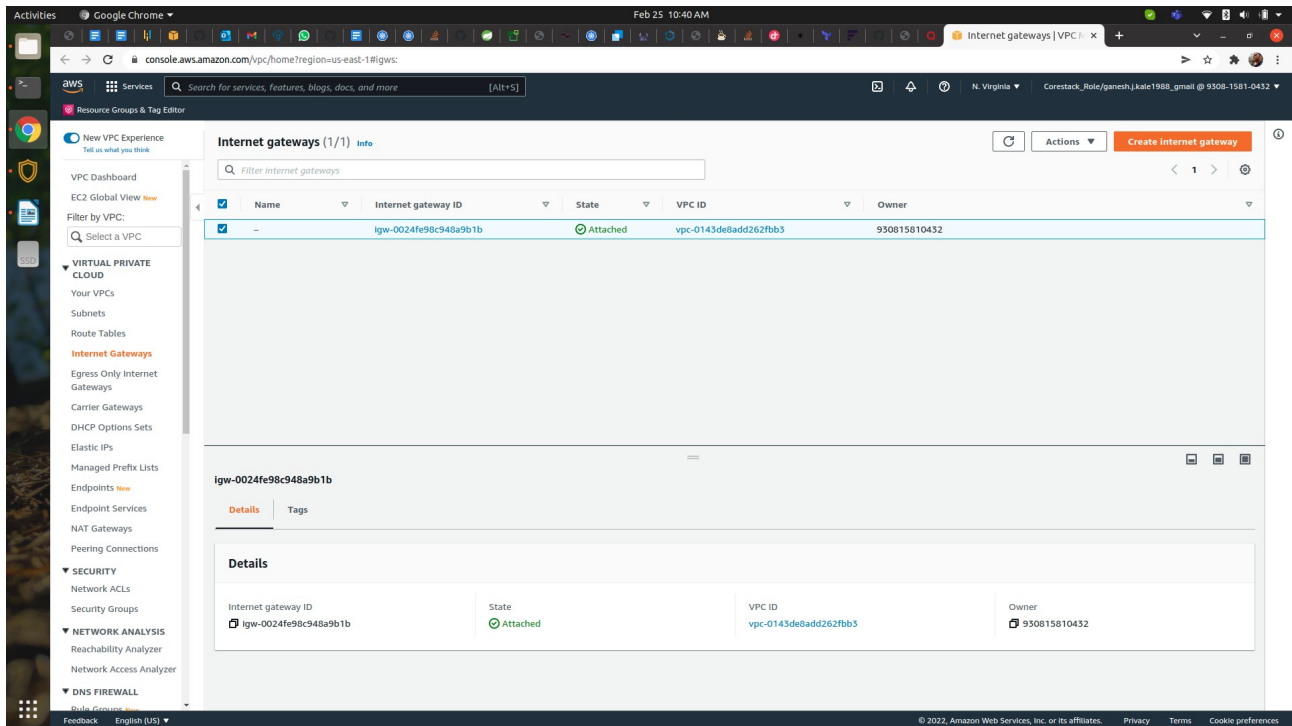
| Name | Route table ID | Explicit subnet associ... | Edge associations | Main | VPC | Owner ID |
|------|-----------------------|---------------------------|-------------------|------|----------------------|--------------|
| - | rtb-06bd07877ce678f66 | - | - | Yes | vpc-0143de8add262fb3 | 930815810432 |

The 'Routes' tab is active, showing a table of routes:

| Destination | Target | Status | Propagated |
|---------------|-----------------------|--------|------------|
| 172.31.0.0/16 | local | Active | No |
| 0.0.0.0/0 | igw-0024fe98c948a9b1b | Active | No |

The left sidebar contains the following navigation options:

- New VPC Experience
- VPC Dashboard
- EC2 Global View
- Filter by VPC:
 - Select a VPC
- VIRTUAL PRIVATE CLOUD
 - Your VPCs
 - Subnets
 - Route Tables
 - Internet Gateways
 - Egress Only Internet Gateways
 - Carrier Gateways
 - DHCP Options Sets
 - Elastic IPs
 - Managed Prefix Lists
 - Endpoints
 - Endpoint Services
 - NAT Gateways
 - Peering Connections
- SECURITY
 - Network ACLs
 - Security Groups
- NETWORK ANALYSIS
 - Reachability Analyzer
 - Network Access Analyzer
- DNS FIREWALL
 - Dns Guard



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console.aws.amazon.com/ec2/v2/home?region=us-east-1#TargetGroups

Search for services, features, blogs, docs, and more [Alt+S]

N. Virginia Corestack_Role/ganesh.j.kale1988_gmail @ 9308-1581-0432

Resource Groups & Tag Editor

New EC2 Experience Tell us what you think

EC2 Dashboard
EC2 Global View
Events
Tags
Limits

Instances
Instances **New**
Instance Types
Launch Templates
Spot Requests
Savings Plans
Reserved Instances **New**
Dedicated Hosts
Scheduled Instances
Capacity Reservations

Images
AMIs **New**
AMI Catalog

Elastic Block Store
Volumes **New**
Snapshots **New**
Lifecycle Manager **New**

Network & Security
Security Groups
Elastic IPs

Successfully created target group: httpALB

EC2 > Target groups

Target groups (2) Info

Search or filter target groups

| | Name | ARN | Port | Protocol | Target type | Load balancer | VPC ID |
|--------------------------|------------|---|-------|----------|-------------|-----------------|-----------------------|
| <input type="checkbox"/> | httpALB | arn:aws:elasticloadbalancing:us-east-1:930815810432:targetgroup/httpALB/b3bc608064115394 | 30007 | HTTP | Instance | None associated | vpc-0143de8add262fbb3 |
| <input type="checkbox"/> | kanbanhttp | arn:aws:elasticloadbalancing:us-east-1:930815810432:targetgroup/kanbanhttp/b3bc608064115394 | 30007 | HTTP | Instance | None associated | vpc-03593c082c3c76dc6 |

Select a target group above.

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console.aws.amazon.com/ec2/home?region=us-east-1#TargetGroup/targetGroupArn=arn:aws:elasticloadbalancing:us-east-1:930815810432:targetgroup/httpALB/b3bc608064115394

Search for services, features, blogs, docs, and more [Alt+S]

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Network & Security
Security Groups
Elastic IPs

EC2 > Target groups > httpALB

httpALB

arn:aws:elasticloadbalancing:us-east-1:930815810432:targetgroup/httpALB/b3bc608064115394

Actions

Details

| | | | |
|-------------------------|--------------------------------|---------------------------|------------------------------|
| Target type Instance | Protocol : Port HTTP: 30007 | Protocol version HTTP1 | VPC vpc-0143de8add262fbb3 |
| IP address type IPv4 | Load balancer myalb | | |

| Total targets | Healthy | Unhealthy | Unused | Initial | Draining |
|---------------|---------|-----------|--------|---------|----------|
| 3 | 0 | 0 | 0 | 3 | 0 |

Targets Monitoring Health checks Attributes Tags

Registered targets (3)

Filter resources by property or value

| | Instance ID | Name | Port | Zone | Health status | Health status details |
|--------------------------|----------------------|---------------------|-------|------------|---------------|------------------------------------|
| <input type="checkbox"/> | i-02d20a7fcee763f73 | kubernetes_worker-0 | 30007 | us-east-1d | Initial | Target registration is in progress |
| <input type="checkbox"/> | i-060b146ae36adff0c9 | kubernetes_worker-1 | 30007 | us-east-1d | Initial | Target registration is in progress |
| <input type="checkbox"/> | i-0a11774fe18423206 | kubernetes_master | 30007 | us-east-1d | Initial | Target registration is in progress |

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console.aws.amazon.com/ec2/home?region=us-east-1#TargetGroup.targetGroupArn=arn:aws:elasticloadbalancing:us-east-1:930815810432:targetgroup/httpALB/b3bc608064115394

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New EC2 Experience

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Network & Security
Security Groups
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EC2 > Target groups > httpALB

httpALB

arn:aws:elasticloadbalancing:us-east-1:930815810432:targetgroup/httpALB/b3bc608064115394

Actions

Details

| | | | |
|-------------------------|--|---------------------------|--|
| Target type Instance | Protocol : Port HTTP: 30007 | Protocol version HTTP1 | VPC vpc-0143de8add262fbb3 |
| IP address type IPv4 | Load balancer myalb | | |

| | | | | | |
|---------------|---------|-----------|--------|---------|----------|
| Total targets | Healthy | Unhealthy | Unused | Initial | Draining |
| 3 | 3 | 0 | 0 | 0 | 0 |

Targets Monitoring Health checks Attributes Tags

Registered targets (3)

Filter resources by property or value

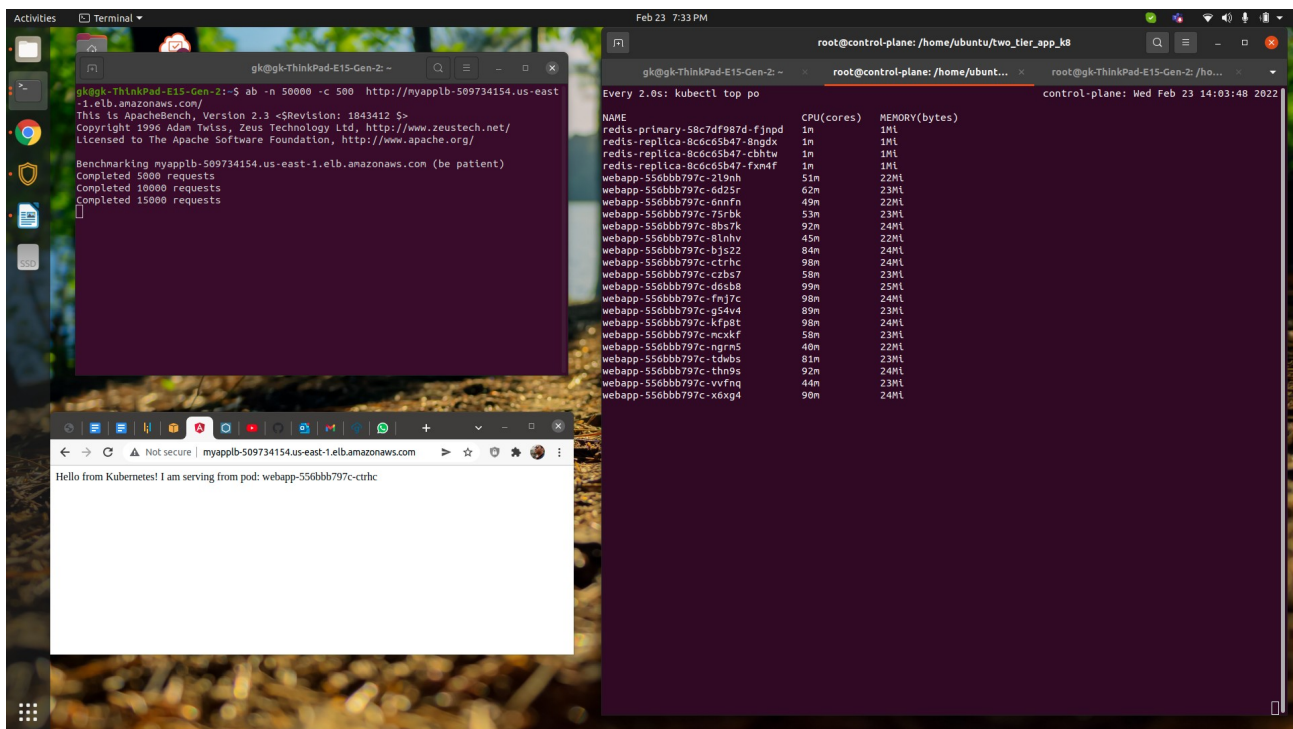
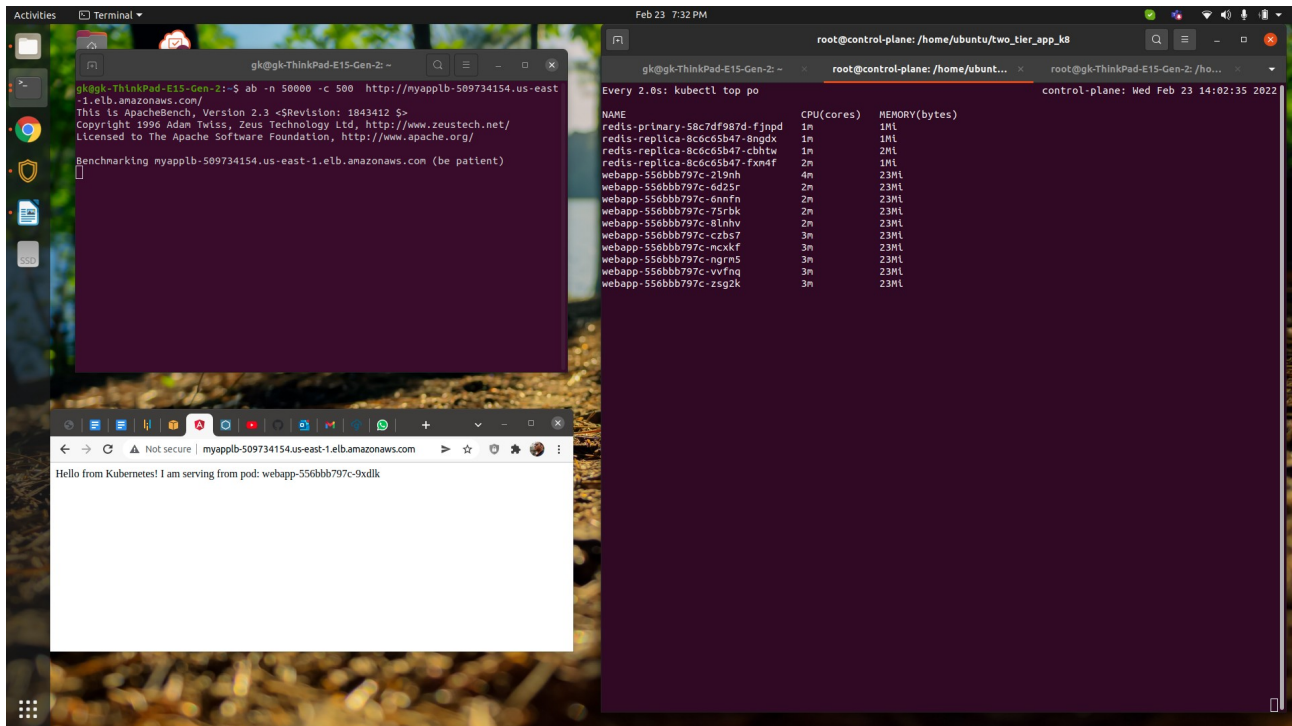
| | Instance ID | Name | Port | Zone | Health status | Health status details |
|--------------------------|-------------------------------------|---------------------|-------|------------|---------------|-----------------------|
| <input type="checkbox"/> | I-02d20a7fce6763f73 | kubernetes_worker-0 | 30007 | us-east-1d | healthy | |
| <input type="checkbox"/> | I-060b146ae36adf0c9 | kubernetes_worker-1 | 30007 | us-east-1d | healthy | |
| <input type="checkbox"/> | I-0a11774fe18423206 | kubernetes_master | 30007 | us-east-1d | healthy | |

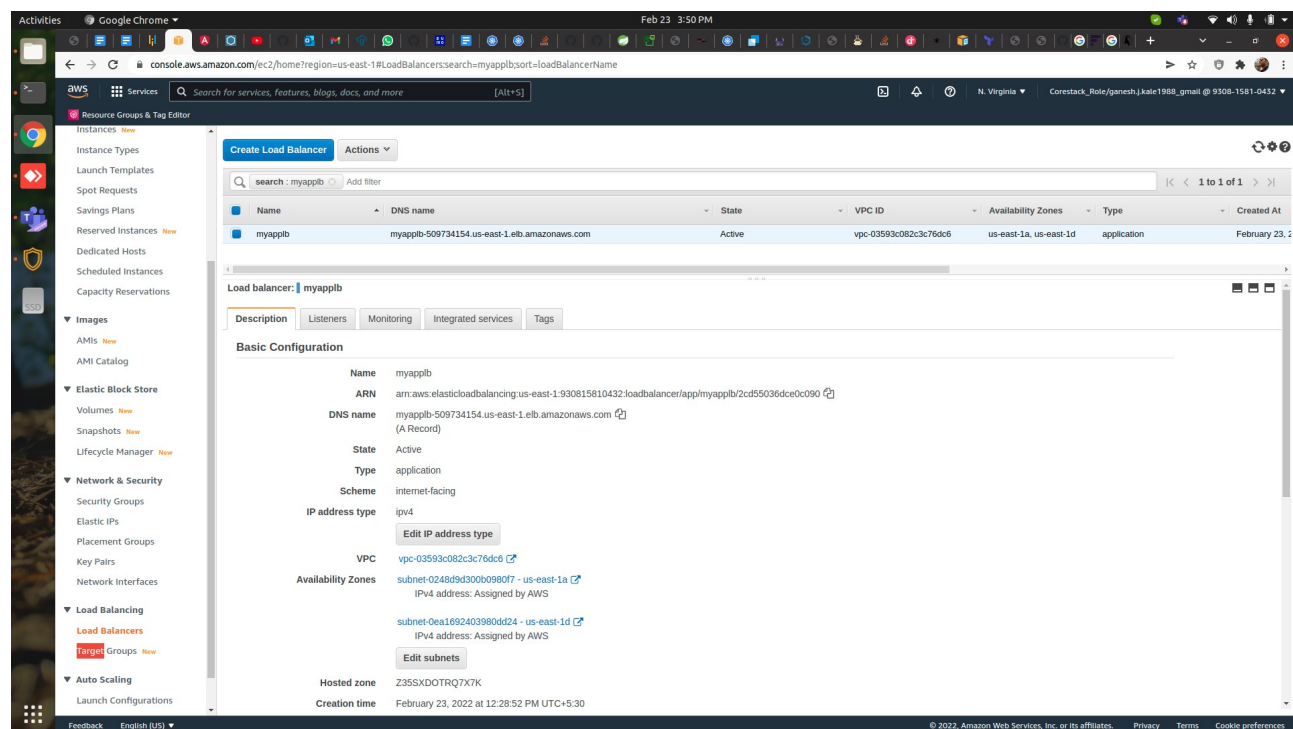
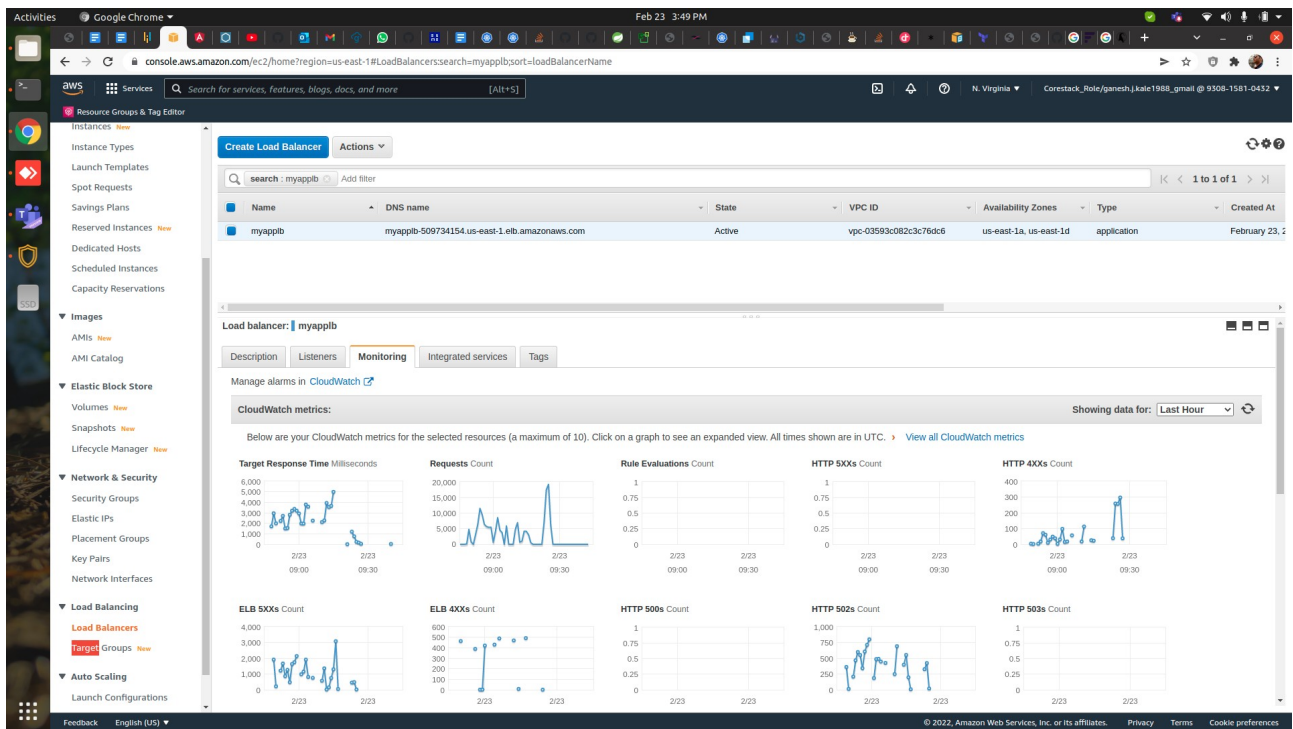
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Not secure | myalb-1047253744.us-east-1.elb.amazonaws.com

Hello from Kubernetes! I am serving from pod: webapp-556bbb797c-bjlm





Activities Google Chrome Feb 23 3:50 PM

console.aws.amazon.com/ec2/home?region=us-east-1#LoadBalancers:search=myapplitb:sort=loadBalancerName

Search for services, features, blogs, docs, and more [Alt+S]

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Resource Groups & Tag Editor

Instances **Load Balancers**

Create Load Balancer Actions

search : myapplitb Add filter

| Name | DNS name | State | VPC ID | Availability Zones | Type | Created At |
|-----------|---|--------|-----------------------|------------------------|-------------|-------------------|
| myapplitb | myapplitb-509734154.us-east-1.elb.amazonaws.com | Active | vpc-03593c082c3c76dc6 | us-east-1a, us-east-1d | application | February 23, 2022 |

Creation time February 23, 2022 at 12:28:52 PM UTC+5:30

Security

Security groups

- sg-0614b43263024a18b, default
 - default VPC security group
- sg-0f24b90476d329951, Terraform_ingress
 - Managed by Terraform

Edit security groups

Attributes

| Attribute | Value |
|--------------------------------|------------|
| Deletion protection | Disabled |
| Idle timeout | 60 seconds |
| HTTP/2 | Enabled |
| Desync mitigation mode | Defensive |
| Drop invalid header fields | Disabled |
| Access logs | Disabled |
| WAF fail open | Disabled |
| TLS version and cipher headers | Disabled |
| Client port preservation | Disabled |

Edit attributes

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Activities Google Chrome Feb 23 3:50 PM

console.aws.amazon.com/ec2/home?region=us-east-1#LoadBalancers:search=myapplitb:sort=loadBalancerName

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Resource Groups & Tag Editor

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search : myapplitb Add filter

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|-----------|---|--------|-----------------------|------------------------|-------------|-------------------|
| myapplitb | myapplitb-509734154.us-east-1.elb.amazonaws.com | Active | vpc-03593c082c3c76dc6 | us-east-1a, us-east-1d | application | February 23, 2022 |

Load balancer: myapplitb

Description Listeners Monitoring Integrated services Tags

Listeners listen for connection requests using their protocol and port. You can add, remove, or update listeners and listener rules.

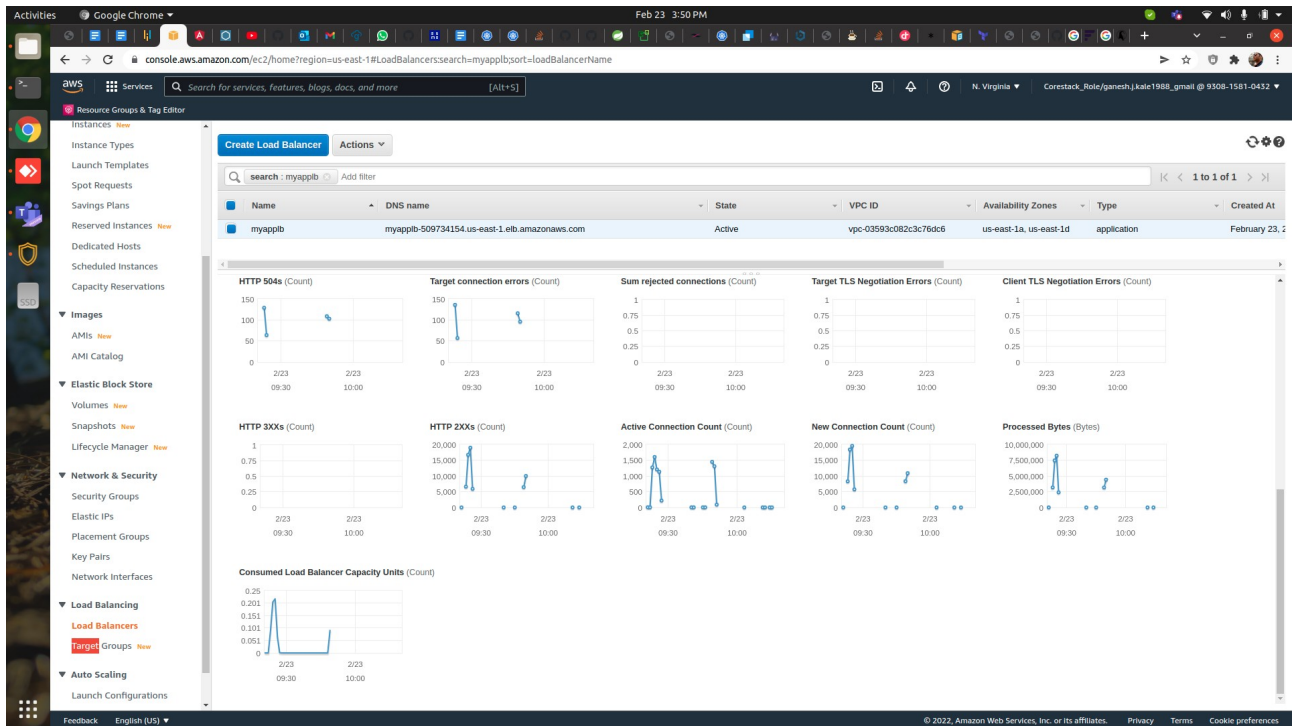
To view and edit listener attributes, select the listener and choose Edit.

Add listener Edit Delete

| Listener ID | Security policy | SSL Certificate | Rules |
|--|-----------------|-----------------|--|
| arn:aws:elasticloadbalancing:us-east-1:9366dee7b5363e53:listener/app/myapplitb/509734154/arn:aws:elasticloadbalancing:us-east-1:9366dee7b5363e53:listener/app/myapplitb/509734154/arn:aws:elasticloadbalancing:us-east-1:9366dee7b5363e53:listener/app/myapplitb/509734154 | N/A | N/A | Default: forwarding to kanbanhttp View/edit rules |

Feedback English (US)

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Activities Terminal Feb 23 4:27 PM

root@control-plane: /home/ubuntu/two_tier_app_k8/user_role

```
gk@gk-ThinkPad-E15-Gen-2: ~  
root@control-plane: /home/ubuntu/two_tier_app_k8/user_role# kubectl get po,deploy,nodes,svc,hpa  
NAME                                READY    STATUS    RESTARTS   AGE  
pod/redis-primary-88c7df987d-2stnl 1/1      Running   0           5h2m  
pod/redis-replica-8c6c65b47-gx44x 1/1      Running   0           5h2m  
pod/redis-replica-8c6c65b47-f9qh7 1/1      Running   0           5h2m  
pod/redis-replica-8c6c65b47-svvhp 1/1      Running   0           5h2m  
pod/webapp-556bbb797c-6x98z       1/1      Running   0           5h2m  
pod/webapp-556bbb797c-9jwhk       1/1      Running   0           5h2m  
pod/webapp-556bbb797c-lbmwt       1/1      Running   0           5h2m  
pod/webapp-556bbb797c-bfkgd       1/1      Running   0           5h2m  
pod/webapp-556bbb797c-bsjln       1/1      Running   0           5h2m  
pod/webapp-556bbb797c-dcrpc       1/1      Running   0           5h2m  
pod/webapp-556bbb797c-h2td9       1/1      Running   0           5h2m  
pod/webapp-556bbb797c-r74c5       1/1      Running   0           5h2m  
pod/webapp-556bbb797c-r9w5        1/1      Running   0           5h2m  
pod/webapp-556bbb797c-vq0lq       1/1      Running   0           5h2m  
  
NAME                                READY    UP-TO-DATE    AVAILABLE    AGE  
deployment.apps/redis-primary       1/1      1              1            5h2m  
deployment.apps/redis-replica       3/3      3              3            5h2m  
deployment.apps/webapp               10/10    10             10           5h2m  
  
NAME                                STATUS    ROLES    AGE    VERSION  
node/control-plane                  Ready    <none>   5h40m  v1.23.4  
node/worker1                        Ready    <none>   5h35m  v1.23.4  
node/worker2                        Ready    <none>   5h33m  v1.23.4  
  
NAME                                TYPE          CLUSTER-IP    EXTERNAL-IP    PORT(S)    AGE  
service/kubernetes                  ClusterIP     10.96.0.1     <none>          443/TCP    5h40m  
service/redis-primary               ClusterIP     10.107.111.199 <none>         6379/TCP    5h2m  
service/redis-replica               ClusterIP     10.110.31.237  <none>         6379/TCP    5h2m  
service/webapp                       NodePort      10.105.185.152 <none>         80:30007/TCP 5h2m  
  
NAME                                REFERENCE    TARGETS    MINPODS    MAXPODS    REPLICAS    AGE  
horizontalpodautoscaler.autoscaling/redis-replica Deployment/redis-replica 1k/20%      3          5           3            5h2m  
horizontalpodautoscaler.autoscaling/webapp      Deployment/webapp        3k/30%     10         20          10           5h2m  
root@control-plane: /home/ubuntu/two_tier_app_k8/user_role#
```