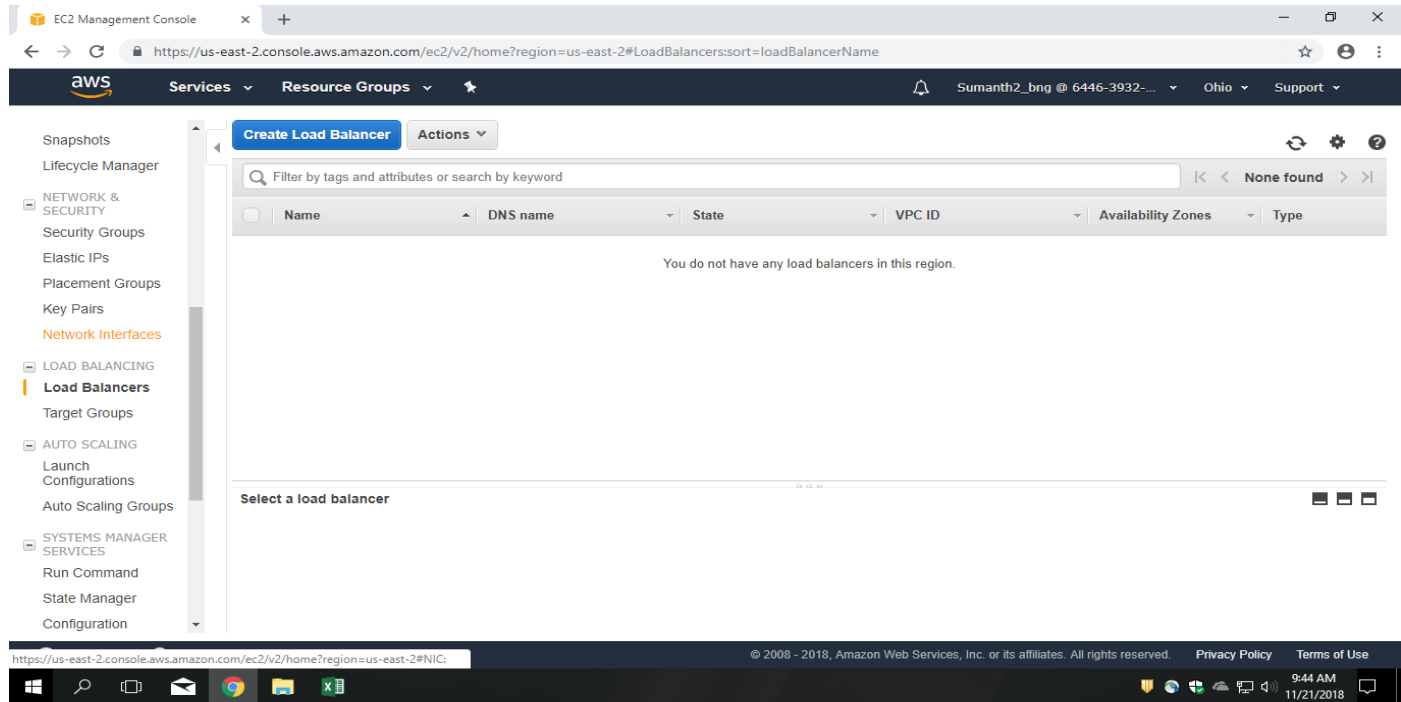
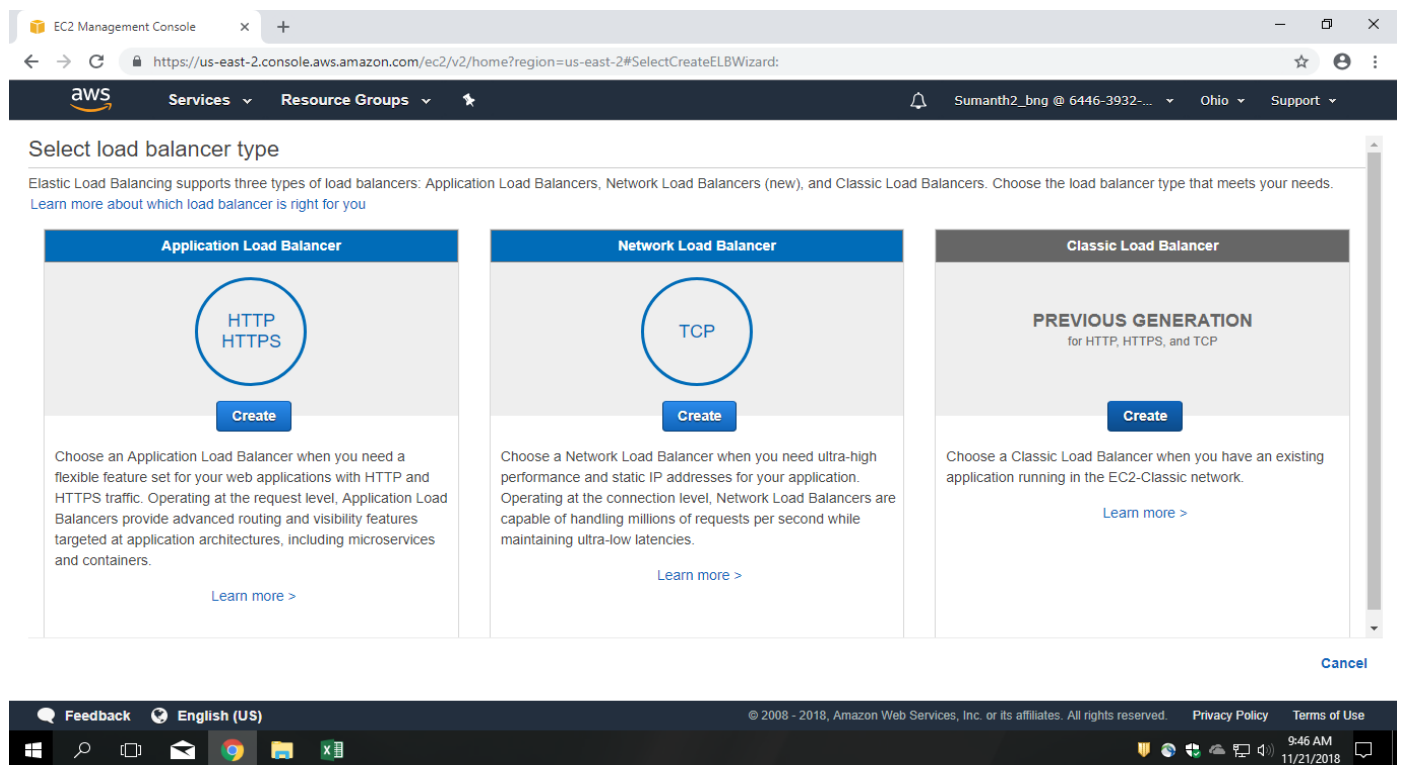


1. Creating Load Balancer



2. Choose Classic Load Balancer



3. A) Define Load Balancer

EC2 Management Console

https://us-east-2.console.aws.amazon.com/ec2/v2/home?region=us-east-2#CreateELBWizard:

aws Services Resource Groups

1. Define Load Balancer 2. Assign Security Groups 3. Configure Security Settings 4. Configure Health check 5. Add EC2 Instances 6. Add Tags 7. Review

Step 1: Define Load Balancer

Basic Configuration

This wizard will walk you through setting up a new load balancer. Begin by giving your new load balancer a unique name so that you can identify it from other load balancers you might create. You will also need to configure ports and protocols for your load balancer. Traffic from your clients can be routed from any load balancer port to any port on your EC2 instances. By default, we've configured your load balancer with a standard web server on port 80.

Load Balancer name:

Create LB Inside:

Create an internal load balancer: ☐ (what's this?)

Enable advanced VPC configuration: ☒

Listener Configuration:

Load Balancer Protocol	Load Balancer Port	Instance Protocol	Instance Port
HTTP	80	HTTP	8080

Add

Select Subnets

You will need to select a Subnet for each Availability Zone where you wish traffic to be routed by your load balancer. If you have instances in only one Availability Zone, please select at least two Subnets in

Cancel Next: Assign Security Groups

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9:49 AM 11/21/2018

B) Assigning Security Groups

EC2 Management Console

https://us-east-2.console.aws.amazon.com/ec2/v2/home?region=us-east-2#CreateELBWizard:

aws Services Resource Groups

1. Define Load Balancer 2. Assign Security Groups 3. Configure Security Settings 4. Configure Health check 5. Add EC2 Instances 6. Add Tags 7. Review

Step 1: Define Load Balancer

HTTP 80 HTTP 8080

Add

Select Subnets

You will need to select a Subnet for each Availability Zone where you wish traffic to be routed by your load balancer. If you have instances in only one Availability Zone, please select at least two Subnets in different Availability Zones to provide higher availability for your load balancer.

VPC vpc-e546788d (172.31.0.0/16)

Available subnets

Actions	Availability Zone	Subnet ID	Subnet CIDR	Name
	us-east-2a	subnet-bf1432d7	172.31.0.0/20	
	us-east-2b	subnet-594ed223	172.31.16.0/20	
	us-east-2c	subnet-b09354fc	172.31.32.0/20	

Cancel Next: Assign Security Groups

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9:51 AM 11/21/2018

- Create new Security Group
- Select all available subnets

C) Configure Security Settings

The screenshot shows the AWS Management Console interface for the 'Create ELB Wizard'. The breadcrumb trail indicates the current step is '3. Configure Security Settings'. A warning message is displayed: 'Improve your load balancer's security. Your load balancer is not using any secure listener. If your traffic to the load balancer needs to be secure, use either the HTTPS or the SSL protocol for your front-end connection. You can go back to the first step to add/configure secure listeners under Basic Configuration section. You can also continue with current settings.' Navigation buttons at the bottom right include 'Cancel', 'Previous', and 'Next: Configure Health check'. The footer shows the user 'Sumanth2_bng @ 6446-3932-...' and the date '11/21/2018'.

D) Configure Health Check

The screenshot shows the '4. Configure Health check' step of the AWS Management Console. The configuration fields are as follows:

Field	Value
Ping Protocol	HTTP
Ping Port	8080
Ping Path	/myapp/index.js

The 'Advanced Details' section contains the following configuration:

Field	Value
Response Timeout	2 seconds
Interval	30 seconds
Unhealthy threshold	2
Healthy threshold	2

Navigation buttons at the bottom right include 'Cancel', 'Previous', and 'Next: Add EC2 Instances'. The footer shows the user 'Sumanth2_bng @ 6446-3932-...' and the date '11/21/2018'.

E) Add created (Ref Creating Instance Document) EC2 instances

EC2 Management Console

https://us-east-2.console.aws.amazon.com/ec2/v2/home?region=us-east-2#CreateELBWizard:

Services Resource Groups

1. Define Load Balancer 2. Assign Security Groups 3. Configure Security Settings 4. Configure Health check 5. Add EC2 Instances 6. Add Tags 7. Review

Step 5: Add EC2 Instances

The table below lists all your running EC2 Instances. Check the boxes in the Select column to add those instances to this load balancer.

VPC vpc-e546788d (172.31.0.0/16)

<input type="checkbox"/>	Instance	Name	State	Security groups	Zone	Subnet ID	Subnet CIDR
<input type="checkbox"/>	i-049211ed96acfe7af	tomcat	running	tomcat-hari	us-east-2b	subnet-594ed223	172.31.16.0/20
<input type="checkbox"/>	i-0d63b4f770a664c48	tomcat	running	tomcat-hari	us-east-2b	subnet-594ed223	172.31.16.0/20

Availability Zone Distribution

2 instances in us-east-2b

☒ Enable Cross-Zone Load Balancing

☒ Enable Connection Draining 300 seconds

Cancel Previous Next: Add Tags

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10:00 AM 11/21/2018

F) Adding Tags (Optional)

EC2 Management Console

https://us-east-2.console.aws.amazon.com/ec2/v2/home?region=us-east-2#CreateELBWizard:

Services Resource Groups

1. Define Load Balancer 2. Assign Security Groups 3. Configure Security Settings 4. Configure Health check 5. Add EC2 Instances 6. Add Tags 7. Review

Step 6: Add Tags

Apply tags to your resources to help organize and identify them.

A tag consists of a case-sensitive key-value pair. For example, you could define a tag with key = Name and value = Webserver. [Learn more](#) about tagging your Amazon EC2 resources.

Key	Value
<input type="text"/>	<input type="text"/>

Create Tag

Cancel Previous Review and Create

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10:00 AM 11/21/2018

G) Review

The screenshot shows the AWS Management Console interface for the 'Create ELB Wizard'. The 'Step 7: Review' tab is active, showing a summary of the configuration:

- Configure Health check:** Ping Target: HTTP:8080/myapp/index.jsp, Timeout: 2 seconds, Interval: 30 seconds, Unhealthy threshold: 2, Healthy threshold: 2.
- Add EC2 Instances:** Cross-Zone Load Balancing: Enabled, Connection Draining: Enabled, 300 seconds, Instances: i-049211ed96acfe7af (tomcat), i-0d63b4f770a664c48 (tomcat).
- VPC Information:** VPC: vpc-e546788d, Subnets: subnet-bf1432d7, subnet-594ed223, subnet-b09354fc.
- Security groups:** Security groups: elb-sumanth-sg.

At the bottom right, there are buttons for 'Cancel', 'Previous', and 'Create'. The footer shows the AWS logo, 'English (US)', and copyright information.

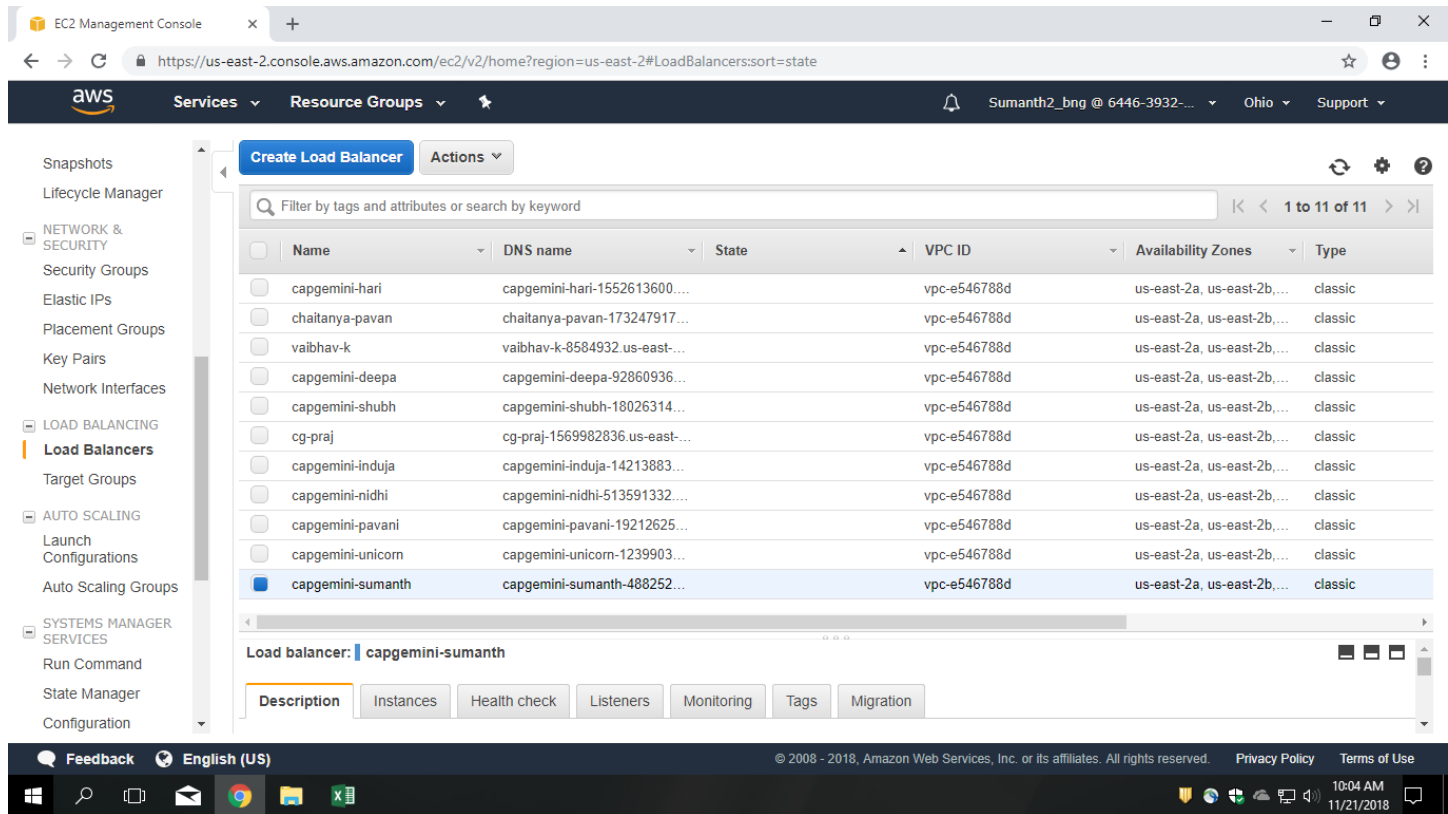
4. Load Balancer Creation Status

The screenshot shows the 'Load Balancer Creation Status' message in the AWS Management Console. The message is displayed in a green box with a checkmark icon, indicating a successful creation:

Successfully created load balancer
Load balancer **capgemini-sumanth** was successfully created.
Note: It may take a few minutes for your instances to become active in the new load balancer.

A 'Close' button is located at the bottom right of the message box. The footer of the console shows the AWS logo, 'English (US)', and copyright information.

5. Created Load Balancer



The screenshot shows the AWS Management Console interface for the 'Load Balancers' page. The left sidebar contains navigation links for various AWS services, including Snapshots, Lifecycle Manager, NETWORK & SECURITY, Security Groups, Elastic IPs, Placement Groups, Key Pairs, Network Interfaces, LOAD BALANCING, AUTO SCALING, and SYSTEMS MANAGER SERVICES. The 'Load Balancers' section is highlighted under the 'LOAD BALANCING' category.

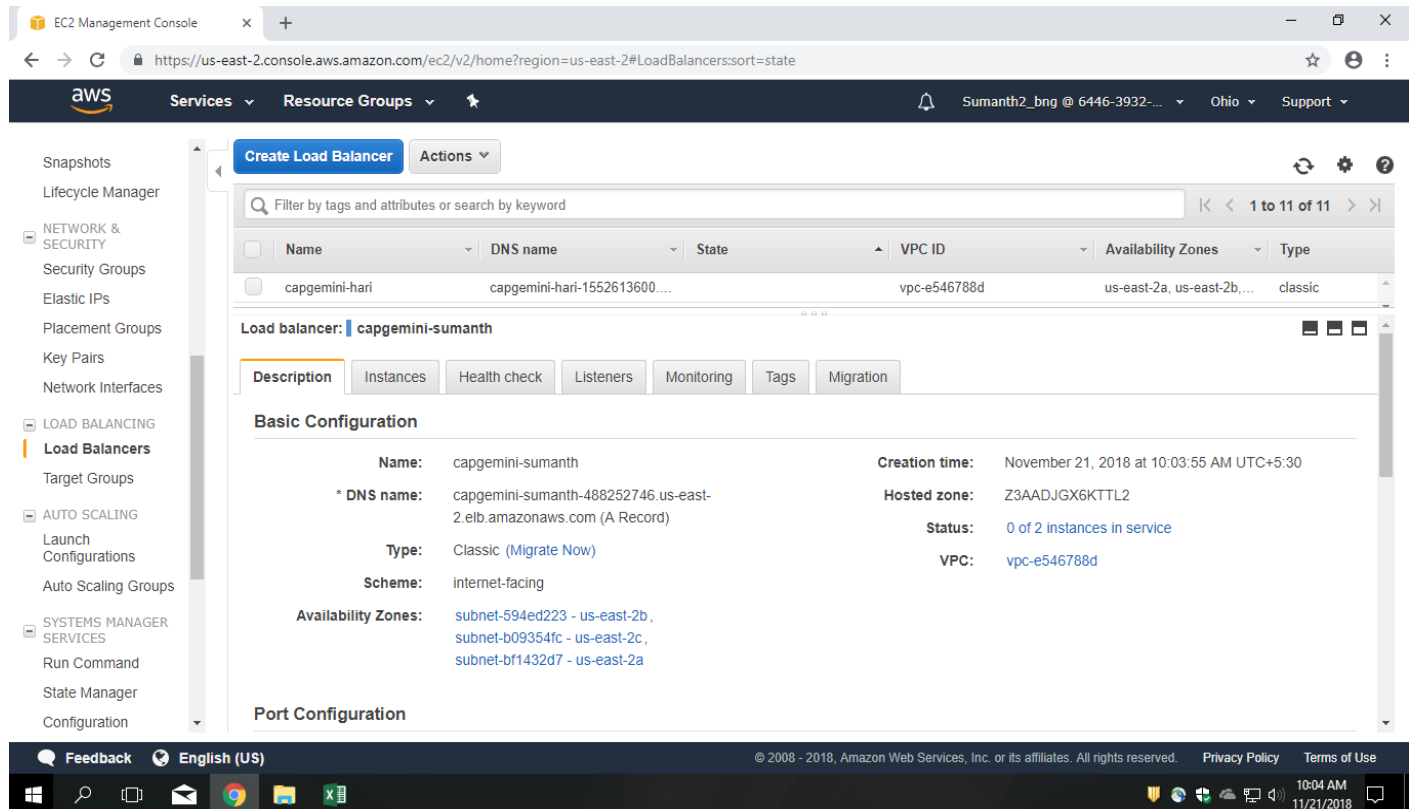
The main content area displays a table of load balancers. The table has columns: Name, DNS name, State, VPC ID, Availability Zones, and Type. The load balancer 'capgemini-sumanth' is selected, and its details are shown in the 'Description' tab.

Name	DNS name	State	VPC ID	Availability Zones	Type
capgemini-hari	capgemini-hari-1552613600...		vpc-e546788d	us-east-2a, us-east-2b,...	classic
chaitanya-pavan	chaitanya-pavan-173247917...		vpc-e546788d	us-east-2a, us-east-2b,...	classic
vaibhav-k	vaibhav-k-8584932.us-east-...		vpc-e546788d	us-east-2a, us-east-2b,...	classic
capgemini-deepa	capgemini-deepa-92860936...		vpc-e546788d	us-east-2a, us-east-2b,...	classic
capgemini-shubh	capgemini-shubh-18026314...		vpc-e546788d	us-east-2a, us-east-2b,...	classic
cg-praj	cg-praj-1569982836.us-east-...		vpc-e546788d	us-east-2a, us-east-2b,...	classic
capgemini-induja	capgemini-induja-14213883...		vpc-e546788d	us-east-2a, us-east-2b,...	classic
capgemini-nidhi	capgemini-nidhi-513591332...		vpc-e546788d	us-east-2a, us-east-2b,...	classic
capgemini-pavani	capgemini-pavani-19212625...		vpc-e546788d	us-east-2a, us-east-2b,...	classic
capgemini-unicorn	capgemini-unicorn-1239903...		vpc-e546788d	us-east-2a, us-east-2b,...	classic
capgemini-sumanth	capgemini-sumanth-488252...		vpc-e546788d	us-east-2a, us-east-2b,...	classic

The 'Load balancer: capgemini-sumanth' details are shown in the 'Description' tab. The details include:

- Name:** capgemini-sumanth
- * DNS name:** capgemini-sumanth-488252746.us-east-2.elb.amazonaws.com (A Record)
- Type:** Classic (Migrate Now)
- Scheme:** internet-facing
- Availability Zones:** subnet-594ed223 - us-east-2b, subnet-b09354fc - us-east-2c, subnet-bf1432d7 - us-east-2a
- Creation time:** November 21, 2018 at 10:03:55 AM UTC+5:30
- Hosted zone:** Z3AADJGX6KTTL2
- Status:** 0 of 2 instances in service
- VPC:** vpc-e546788d

6. Copy DNS Name



The screenshot shows the AWS Management Console interface for the 'Load Balancers' page. The left sidebar contains navigation links for various AWS services, including Snapshots, Lifecycle Manager, NETWORK & SECURITY, Security Groups, Elastic IPs, Placement Groups, Key Pairs, Network Interfaces, LOAD BALANCING, AUTO SCALING, and SYSTEMS MANAGER SERVICES. The 'Load Balancers' section is highlighted under the 'LOAD BALANCING' category.

The main content area displays a table of load balancers. The table has columns: Name, DNS name, State, VPC ID, Availability Zones, and Type. The load balancer 'capgemini-sumanth' is selected, and its details are shown in the 'Description' tab.

Name	DNS name	State	VPC ID	Availability Zones	Type
capgemini-hari	capgemini-hari-1552613600...		vpc-e546788d	us-east-2a, us-east-2b,...	classic

The 'Load balancer: capgemini-sumanth' details are shown in the 'Description' tab. The details include:

- Name:** capgemini-sumanth
- * DNS name:** capgemini-sumanth-488252746.us-east-2.elb.amazonaws.com (A Record)
- Type:** Classic (Migrate Now)
- Scheme:** internet-facing
- Availability Zones:** subnet-594ed223 - us-east-2b, subnet-b09354fc - us-east-2c, subnet-bf1432d7 - us-east-2a
- Creation time:** November 21, 2018 at 10:03:55 AM UTC+5:30
- Hosted zone:** Z3AADJGX6KTTL2
- Status:** 0 of 2 instances in service
- VPC:** vpc-e546788d

7. Output Windows

