

Module 9 - Challenge Lab: Creating a Scalable and Highly Available Environment for the Café

The image consists of three vertically stacked screenshots of the AWS Management Console interface.

Screenshot 1: Create NAT gateway

This screenshot shows the "Create NAT gateway" wizard. The "NAT gateway settings" step is active. The "Name - optional" field contains "my-nat-gateway-01". The "Subnet" dropdown is set to "subnet-0a3a5ef5710a0cca1 (Public Subnet 2)". The "Connectivity type" section has "Public" selected. The "Elastic IP allocation ID" field is empty. A note at the bottom says "Assign an Elastic IP address to the NAT gateway." The "Allocate Elastic IP" button is visible.

Screenshot 2: Route tables (1/8)

This screenshot shows the "Route tables" page. It lists eight route tables:

Name	Route table ID	Explicit subnet associations	Main	VPC
-	rtb-0bf104737b936390a	-	-	vpc-0d9603ba10a7
Private Route Table 1	rtb-084815ed4fca94140	subnet-044158d689473...	-	vpc-0d9603ba10a7
Public Route Table 1	rtb-0353d8083716aaebb	subnet-084bf1cfcb46c3...	-	vpc-0d9603ba10a7
Public Route Table 2	rtb-02442872ca7775116	subnet-0a3a5ef5710a0cc...	-	vpc-0d9603ba10a7
Private Route Table 3	rtb-0f60dc8bf3f220aa3	subnet-0f791ea377095...	-	vpc-0d9603ba10a7
Private Route Table 2	rtb-0129f42fd02574fd	subnet-0b8cc0bdff534...	-	vpc-0d9603ba10a7
Private Route Table 4	rtb-0431ecc3b6a82279c	subnet-08c9b9bad21d9...	-	vpc-0d9603ba10a7
-	rtb-0813500eaf11c2e06	-	-	vpc-023b6ab9f9e5...

Screenshot 3: Route tables (1/8) - Details

This screenshot shows the details for the "Private Route Table 2" route table. The table ID is "rtb-0129f42fd02574fd". It has one association: "subnet-0b8cc0bdff534..." with "Main" status. The VPC is "vpc-0d9603ba10a7".

Screenshot of the AWS VPC Management Console showing the 'Edit routes' page for a specific route table.

The 'Edit routes' table shows the following data:

Destination	Target	Status	Propagated
10.0.0.0/16	local	Active	No
0.0.0.0/0	nat-09a1e410d847abea5	-	No

Buttons at the bottom include 'Add route', 'Cancel', 'Preview', and 'Save changes'.

Screenshot of the AWS VPC Management Console showing the 'Route table details' page for the same route table.

The summary section displays:

- Route Table ID: rtb-0129f42f0d02574fd
- Main: No
- Owner ID: 816139795324
- Explicit subnet associations: subnet-0b8cc0bdf53f4465 / Private Subnet 2
- Edge associations: -

The 'Routes' tab shows the following routes:

Destination	Target	Status	Propagated
0.0.0.0/0	nat-09a1e410d847abea5	Active	No
10.0.0.0/16	local	Active	No

Screenshot of the AWS Management Console showing the "Launch an instance" wizard.

The "Name and tags" section shows a single instance named "Bastion Host".

The "Application and OS Images (Amazon Machine Image)" section shows a search bar and tabs for "Recents", "My AMIs", and "Quick Start". A tooltip for the "Free tier" is displayed, stating: "Free tier: In your first year includes 750 hours of t2.micro (or t3.micro in the Regions in which t2.micro is unavailable) instance usage on free tier AMIs per month, 30 GB of EBS storage, 2 million I/Os, 1 GB of snapshots, and 100 GB of bandwidth to the internet."

The "Instance type" section shows "t2.micro" selected, with details: "Family: t2", "1 vCPU", "1 GiB Memory", "On-Demand Linux pricing: 0.0116 USD per Hour", and "On-Demand Windows pricing: 0.0162 USD per Hour".

The "Key pair (login)" section shows "vokey" selected as the key pair name.

The "Network settings" section shows "VPC - required" set to "vpc-0d9603ba10a7fc9b9 (Lab VPC)", "Subnet info" set to "subnet-0b8cc0bfff53f4465", and "Private Subnet 2" selected.

The "Summary" section shows "Number of instances" set to 1, "Software Image (AMI)" set to "Amazon Linux 2 Kernel 5.10 AMI...", "Virtual server type (instance type)" set to "t2.micro", "Firewall (security group)" set to "New security group", and "Storage (volumes)" set to "1 volume(s) - 8 GB".

A tooltip for the "Free tier" is also present here, stating: "Free tier: In your first year includes 750 hours of t2.micro (or t3.micro in the Regions in which t2.micro is unavailable) instance usage on free tier AMIs per month, 30 GB of EBS storage, 2 million I/Os, 1 GB of snapshots, and 100 GB of bandwidth to the internet."

The "Launch instance" button is visible at the bottom right of the summary panel.

Screenshot of the AWS Management Console showing the EC2 Instances launch process and the resulting instance list.

The top section shows the "Launch an instance" progress bar at 69% completion:

Launch initiation
69%

The bottom section shows the "Instances (1) Info" table with one entry:

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IPv4 D
Bastion Host	i-0736aca29be11285e	Pending	t2.micro	/	C	us-east-1a	ec2-54-156-1

A modal window titled "Select an instance" is open, listing the single instance entry:

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IPv4 D
Bastion Host	i-0736aca29be11285e	Pending	t2.micro	/	C	us-east-1a	ec2-54-156-1

The screenshot shows the AWS Management Console with the URL <https://us-east-1.console.aws.amazon.com/ec2/home?region=us-east-1#LaunchTemplates>. The left sidebar is collapsed, showing the 'Compute' section. The main content area features a large heading 'EC2 launch templates' and sub-headings 'Streamline, simplify and standardize instance launches'. Below this, a text block explains the purpose of launch templates and their benefits. A call-to-action button 'Create launch template' is visible. To the right, there's a 'New launch template' section and a 'Documentation' section with links to 'Documentation' and 'API reference'.

The screenshot shows the 'Create launch template' wizard in progress. The title bar says 'Create launch template | Instances | EC2 Management'. The left sidebar shows the 'EC2 > Launch templates > Create launch template' path. The main form is titled 'Launch template name and description'. It contains fields for 'Launch template name - required' (set to 'MyTemplate') and 'Template version description' (set to 'A prod webserver for MyApp'). There's also an 'Auto Scaling guidance' section with a checkbox 'Provide guidance to help me set up a template that I can use with EC2 Auto Scaling'. A tooltip for the 'Free tier' is displayed, stating: 'Free tier: In your first year includes 750 hours of t2.micro (or t3.micro) in the Regions in which t2.micro is unavailable) instance usage on free tier AMIs per month, 30 GiB of EBS storage, and 1000 requests per second on Amazon CloudWatch Metrics.' At the bottom are 'Cancel' and 'Create launch template' buttons. The right sidebar shows a task list for 'Module 9 Challenge Lab' and a 'Task 4: Create a basic launch template' step.

Screenshot of the AWS Management Console showing the 'Create launch template' wizard. Step 1: Select AMI. The 'Owned by me' tab is selected. A search bar at the top says 'Search our full catalog including 1000s of application and OS images'. Below it are three filter buttons: 'Don't include in launch template', 'Owned by me' (selected), and 'Shared with me'. A sidebar on the right shows 'Task 4: Create a key pair' with steps: 1. Create a key pair, 2. RSA, 3. ED25519, 4. .pem, 5. .ppk. A note says 'Free tier: In your first year includes 750 hours of t2.micro (or t3.micro in the Regions where t2.micro is unavailable) instance usage on free tier AMIs per month, 30 GiB of EBS storage, and 1000 requests per second for CloudWatch Metrics and CloudWatch Logs.' A 'Create launch template' button is at the bottom.

Screenshot of the AWS Management Console showing the 'Create launch template' wizard. Step 2: Set instance type. The 't2.micro' instance type is selected. Other options shown are 'Family: t2 - 1 vCPU - 1 GB Memory' and 'On-Demand Linux pricing: 0.0116 USD per Hour'. Below this, there's a section for 'Key pair (login)'. A note says 'Key pairs allow you to connect to your instance securely. Enter the name of the key pair below. When prompted, store the private key in a secure and accessible location on your computer. You will need it later to connect to your instance.' A 'Key pair name' input field contains 'nwenwe'. A note below says 'The name can include up to 255 ASCII characters. It can't include leading or trailing spaces.' Under 'Key pair type', 'RSA' is selected. Other options are 'ED25519' and '.pem'. Under 'Private key file format', '.ppk' is selected. A note says 'For use with PuTTY'. A 'Create key pair' button is at the bottom. The right sidebar remains the same as the previous step.

The screenshot shows the AWS Cloud9 IDE interface with multiple tabs open. The main tab displays the 'Create launch template' wizard for a new EC2 instance.

Key pair name: nwenwe

Network settings:

- Subnet Info:** Don't include in launch template
- Firewall (security groups) Info:** Select existing security group (c65590a127156413095963t1w816139795324-CafeSG-GN5ZJ0615CQY)
- Security groups info:** sg-089a455cea575f217

Software Image (AMI): Cafe WebServer Image ami-0773f557bf6521099

Virtual server type (instance type): t2.micro

Firewall (security group): c65590a127156413095963t1w816139795324-CafeSG-GN5ZJ0615CQY

Storage (volumes): 1 volume(s) - 8 GB

Free tier: In your first year includes 750

Create launch template button

Resource tags:

Key Info	Value Info	Resource types Info
Name	webserver	Select resource type... Instances

Add tag

49 remaining (Up to 50 tags maximum)

Summary:

- Software Image (AMI): Cafe WebServer Image ami-0773f557bf6521099
- Virtual server type (instance type): t2.micro
- Firewall (security group): c65590a127156413095963t1w816139795324-CafeSG-GN5ZJ0615CQY
- Storage (volumes): 1 volume(s) - 8 GB

Create launch template button

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Task St Cr

- 11. Create a key pair
- 12. Create a launch template
 - 13. VPC
 - 14. Subnets
 - 15. Security groups
 - 16. Instances
 - 17. Data
 - 18. Mat
 - 19. Instances
 - 20. Mat

Screenshot of the AWS Management Console showing the creation of a launch template for a web server instance.

Top Browser Tab: Create launch template | Instances | EC2 Manager

Left Sidebar:

- Services
- Search
- Add tag
- 49 remaining (Up to 50 tags maximum)

Advanced details (Info):

- Purchasing option: Request Spot Instances (unchecked)
- IAM instance profile: CafeRole (arn:aws:iam::816139795324:instance-profile/CafeRole)
- Hostname type: Don't include in launch template
- DNS Hostname: Enable resource-based IPv4 (A record) DNS requests (unchecked), Enable resource-based IPv6 (AAAA record) DNS requests (unchecked)
- Instance auto-recovery: Info

Summary:

- Software Image (AMI): Cafe WebServer Image (ami-0775f557bf6521099)
- Virtual server type (instance type): t2.micro
- Firewall (security group): c65590a1271564130959631w816139795324-CafeSG-GN5ZJ0615CQY
- Storage (volumes): 1 volume(s) - 8 GB

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Second Browser Tab: us-east-1.console.aws.amazon.com/ec2/home?region=us-east-1#LaunchTemplateDetails:launchTemplateId=lt-086fc47001bb83407

Left Sidebar (Second Tab):

- 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
- Waiting for us-east-1.prod.pr.analytics.console.aws.a2z.com...

Launch Template Details:

MyTemplate (lt-086fc47001bb83407)

Actions Delete template

Launch template ID	Launch template name	Default version	Owner
lt-086fc47001bb83407	MyTemplate	1	arn:aws:sts::816139795324:assumed-role/voclabs/user2211147=Nwe_Nwe_Htay_Win

Details Versions Template tags

Launch template version details:

Version	Description	Date created	Created by
1 (Default)	-	2022-11-12T10:22:14.000Z	arn:aws:sts::816139795324:assumed-role/voclabs/user2211147=Nwe_Nwe_Htay_Win

Bottom Status Bar: 90°F Mostly sunny ENG US 11/12/2022

The screenshot shows three sequential steps in the AWS Cloud9 IDE for creating an Auto Scaling group:

Step 1: Initial EC2 Auto Scaling Page

The first screenshot displays the "Amazon EC2 Auto Scaling" landing page. It features a large heading "Amazon EC2 Auto Scaling helps maintain the availability of your applications". Below the heading, a sub-section titled "How it works" includes a diagram showing a central application icon connected to multiple EC2 instance icons. To the right, a "Pricing" section states that Auto Scaling features have no additional fees beyond the service fees for Amazon EC2, CloudWatch (for scaling policies), and CloudWatch Metrics. A prominent orange button at the top right says "Create Auto Scaling group". The left sidebar lists various AWS services under "Services", including Volumes, Snapshots, Lifecycle Manager, Network & Security, Load Balancing, and Auto Scaling.

Step 2: Step 2 - Choose instance launch options

The second screenshot shows the "Step 2 - Choose instance launch options" page of the wizard. On the left, a vertical sidebar lists optional steps: Step 3 (optional) Configure advanced options, Step 4 (optional) Configure group size and scaling policies, Step 5 (optional) Add notifications, Step 6 (optional) Add tags, and Step 7 Review. The main form is titled "Name" and contains a field for "Auto Scaling group name" with the value "MY-ASG". Below the field is a note: "Must be unique to this account in the current Region and no more than 255 characters." At the bottom of the form, there are sections for "Launch template" (set to "MyTemplate") and "Version" (set to "Default (1)").

Step 3: Step 3 - Configure advanced options

The third screenshot shows the "Step 3 - Configure advanced options" page of the wizard. This step is currently collapsed in the sidebar. The main content area is mostly blank, indicating that no advanced options are being configured at this stage.

The screenshot shows the AWS Auto Scaling group creation wizard at Step 2: Choose instance launch options. The current step is Step 4 (optional): Configure group size and scaling policies. The user has selected the 'vpc-0d9603ba10a7fc9b9 (Lab VPC)' and specified two subnets: 'us-east-1a | subnet-044158d6894738b9b (Private Subnet 1)' and 'us-east-1b | subnet-0b8cc0bdf5f3f4465 (Private Subnet 2)'. The 'Create a VPC' and 'Create a subnet' buttons are also visible.

Network Info

For most applications, you can use multiple Availability Zones and let EC2 Auto Scaling balance your instances across the zones. The default VPC and default subnets are suitable for getting started quickly.

VPC

Choose the VPC that defines the virtual network for your Auto Scaling group.

vpc-0d9603ba10a7fc9b9 (Lab VPC)

Create a VPC

Availability Zones and subnets

Define which Availability Zones and subnets your Auto Scaling group can use in the chosen VPC.

Select Availability Zones and subnets

us-east-1a | subnet-044158d6894738b9b (Private Subnet 1)
10.0.2.0/24

us-east-1b | subnet-0b8cc0bdf5f3f4465 (Private Subnet 2)
10.0.3.0/24

Create a subnet

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The screenshot shows the AWS Auto Scaling group creation wizard at Step 4: Configure group size and scaling policies. The user has set the Desired capacity to 2, Minimum capacity to 2, and Maximum capacity to 4. The 'Group size - optional' section is highlighted.

Configure group size and scaling policies Info

Set the desired, minimum, and maximum capacity of your Auto Scaling group. You can optionally add a scaling policy to dynamically scale the number of instances in the group.

Group size - optional Info

Specify the size of the Auto Scaling group by changing the desired capacity. You can also specify minimum and maximum capacity limits. Your desired capacity must be within the limit range.

Desired capacity

Minimum capacity

Maximum capacity

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Scaling policies - optional

Choose whether to use a scaling policy to dynamically resize your Auto Scaling group to meet changes in demand. [Info](#)

Target tracking scaling policy
Choose a desired outcome and leave it to the scaling policy to add and remove capacity as needed to achieve that outcome.

None

Scaling policy name: Target Tracking Policy

Metric type: Average CPU utilization

Target value: 25

Instances need: 60 seconds warm up before including in metric

Disable scale in to create only a scale-out policy

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Type here to search

Step 5: Add notifications

Notifications

No notifications

Step 6: Add tags

Tags (0)

Key	Value	Tag new instances
No tags		

Create Auto Scaling group

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Type here to search

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Screenshot of the AWS Management Console showing the Auto Scaling groups and Instances sections.

Auto Scaling groups (1) Info

Name	Launch template/configuration	Instances	Status	Desired capacity	Min	Max	Availability zone
MY-ASG	MyTemplate Version Default	0	Updating capacity...	2	2	6	us-east-...

Instances (4) Info

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IPv4 D
CafeWebAppS...	i-036245083bad7a2fb	Running	t2.micro	2/2 checks passed	User: arn:aws:...	us-east-1a	ec2-44-211-8
webserver	i-03c4c61345acbd0d5	Running	t2.micro	Initializing	User: arn:aws:...	us-east-1a	-
Bastion Host	i-0736aca29be11285e	Running	t2.micro	2/2 checks passed	User: arn:aws:...	us-east-1a	ec2-54-156-1
webserver	i-09e5c5bb2ecfcb3fe	Running	t2.micro	Initializing	User: arn:aws:...	us-east-1b	-

Found two webserver

Instances (1/4) Info

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IPv4 D
CafeWebApp5...	i-036245083bad7a2fb	Running	t2.micro	2/2 checks passed	User: arn:aws:us-east-1a	ec2-44-211-8	-
webserver	i-03c4c61345acbd0d5	Running	t2.micro	Initializing	User: arn:aws:us-east-1a	-	-
Bastion Host	i-0736aca29be11285e	Running	t2.micro	2/2 checks passed	User: arn:aws:us-east-1a	ec2-54-156-1	-
webserver	i-09e5c5bb2ecfcf3fe	Running	t2.micro	Initializing	User: arn:aws:us-east-1b	-	-

Instance: i-03c4c61345acbd0d5 (webserver)

Key	Value
aws:ec2lau...	lt-086fc47001bb83407
Name	webserver
aws:autosc...	MY-ASG
aws:ec2lau...	1

With my created tag

Instances (1/4) Info

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IPv4 D
CafeWebApp5...	i-036245083bad7a2fb	Running	t2.micro	2/2 checks passed	User: arn:aws:us-east-1a	ec2-44-211-8	-
webserver	i-03c4c61345acbd0d5	Running	t2.micro	Initializing	User: arn:aws:us-east-1a	-	-
Bastion Host	i-0736aca29be11285e	Running	t2.micro	2/2 checks passed	User: arn:aws:us-east-1a	ec2-54-156-1	-
webserver	i-09e5c5bb2ecfcf3fe	Running	t2.micro	Initializing	User: arn:aws:us-east-1b	-	-

Instance: i-09e5c5bb2ecfcf3fe (webserver)

Key	Value
aws:ec2lau...	lt-086fc47001bb83407
Name	webserver
aws:autosc...	MY-ASG
aws:ec2lau...	1

Screenshot of the AWS Management Console showing the creation of a Load Balancer.

The browser tabs are:

- Module 9 Challenge Lab - Cr...
- VPC Management Console
- VPC Management Console
- EC2 Management Console
- Instances | EC2 Management

The main window shows the AWS Services menu with the following categories expanded:

- Elastic Block Store
- Network & Security
- Load Balancing
- Auto Scaling

The "Load Balancers" section is selected, showing the "Create Load Balancer" button and a message: "You do not have any load balancers in this region." A search bar at the top says "Filter by tags and attributes or search by keyword".

The status bar at the bottom indicates: © 2022, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences. The system tray shows: 90°F Mostly sunny, ENG US 11/12/2022.

The second screenshot shows the "CreateALBWizard" step for creating a Load Balancer. The "VPC" tab is selected, showing the "Lab VPC" dropdown set to "vpc-0d9603b0a10a7fc9b9" and "IPv4: 10.0.0.0/16".

The "Mappings" section shows two Availability Zones (us-east-1a and us-east-1b) with their respective subnets and IPv4 settings. Subnet "subnet-084bf1fcfcb46c3913" is assigned to "Public Subnet 1" and subnet "subnet-0a3a3ef5710a0cca1" is assigned to "Public Subnet 2".

The status bar at the bottom indicates: © 2022, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences. The system tray shows: 90°F Mostly sunny, ENG US 11/12/2022.

VPC Management Console | VPC Management Console | Load balancers | EC2 Management Console | Module 9 Challenge Lab - C

us-east-1.console.aws.amazon.com/ec2/home?region=us-east-1#SecurityGroup;groupId=sg-057cb8eed482d035

oracle class JLP_Kyat Beginning your dat... AWS Academy Clou... aws educate aws rampup shebuild schedule VGW SharePoint Teamup AWS Solutions Arch...

N. Virginia vclabs/user2211147=Nwe_Nwe_Htay_Win @ 8161-3979-5324

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

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Module 9 Challenge Lab - C

Security group (sg-057cb8eed482d035) | My SG was created successfully

Details

sg-057cb8eed482d035 - My SG

Actions

Details

Security group name	sg-057cb8eed482d035	Description	VPC ID
Owner	816139795324	Inbound rules count	vpc-0d9603ba10a7fc9b9
		Outbound rules count	1 Permission entry

Inbound rules Outbound rules Tags

You can now check network connectivity with Reachability Analyzer

Run Reachability Analyzer

Type here to search

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Module 9 Challenge Lab - C

Load balancers | EC2 Management Console

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

oracle class JLP_Kyat Beginning your dat... AWS Academy Clou... aws educate aws rampup shebuild schedule VGW SharePoint Teamup AWS Solutions Arch...

N. Virginia vclabs/user2211147=Nwe_Nwe_Htay_Win @ 8161-3979-5324

aws Services Search [Alt+S]

us-east-1c

us-east-1d

Security groups Info

A security group is a set of firewall rules that control the traffic to your load balancer.

Security groups

Select up to 5 security groups

Create new security group

My SG sg-057cb8eed482d035 X

VPC: vpc-0d9603ba10a7fc9b9

Listeners and routing Info

A listener is a process that checks for connection requests using the port and protocol you configure. The rules that you define for a listener determine how the load balancer routes requests to its registered targets.

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Screenshot of the AWS Management Console showing the creation of a target group and configuration of an Application Load Balancer (ALB).

Create Target Group

Step 1: Specify group details

Step 2: Register targets

Available instances (4)

Instance ID	Name	State	Security groups	Zone	Subnet ID
i-036245083bad7a2fb	CafeWebAppServer	running	c65590a127156413095963t1w81613 9795324-CafeSG-GNSZJ0615CQY	us-east-1a	subnet-044158d6894738b9b
i-03c4c61345acbd0d5	webserver	running	c65590a127156413095963t1w81613 9795324-CafeSG-GNSZJ0615CQY	us-east-1a	subnet-044158d6894738b9b
i-0736aca29be11285e	Bastion Host	running	launch-wizard-1	us-east-1a	subnet-084bf1fcfb46c3913
i-09e5c5bb2ecfcf3fe	webserver	running	c65590a127156413095963t1w81613 9795324-CafeSG-GNSZJ0615CQY	us-east-1b	subnet-0b8cc0bdff53f4465

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Listeners and routing

Protocol: HTTP | **Port:** 80 | **Default action:** Info

Forward to: Select a target group | Create target

Listener tags - optional:

Add listener tag: You can add up to 50 more tags.

Add listener:

Add-on services - optional:

Screenshot of the AWS Management Console showing the EC2 Load Balancer configuration for a new application load balancer named "LBalancer".

EC2 Load Balancer Details:

Name	DNS name	State	VPC ID	Availability Zones	Type	Create time
LBalancer	LBalancer-1039509912.us-east-1.elb.amazonaws.com	Provisioning	vpc-0d9603ba10a7fc9b9	us-east-1a, us-east-1b	application	Noven

Basic Configuration:

- Name: LBalancer
- ARN: arn:aws:elasticloadbalancing:us-east-1:816139795324:loadbalancer/app/LBalancer/e6dd6ff1ee183665
- DNS name: LBalancer-1839509912.us-east-1.elb.amazonaws.com (A Record)
- State: Provisioning
- Type: application
- Scheme: internet-facing

Auto Scaling Group Details:

The Auto Scaling group "MY-ASG" is shown with the following details:

- Desired capacity: 2
- Auto Scaling group name: MY-ASG

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VPC Management Console | VPC Management Console | Edit Auto Scaling group | EC2 | Target groups | EC2 Manager | Module 9 Challenge Lab - C | + | - | X

us-east-1.console.aws.amazon.com/ec2/home?region=us-east-1#EditAutoScalingGroup:id=MY-ASG

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Network Interfaces

Load Balancing

Load Balancers

Target Groups New

Auto Scaling

Launch Configurations

Auto Scaling Groups

t2.micro

Load balancing - optional

Load balancers

Application, Network or Gateway Load Balancer target groups
Only instance target groups that belong to the same VPC as your Auto Scaling group are available for selection.

Select target groups

MYTG | HTTP Application Load Balancer: LBalancer

Classic Load Balancers

Create and attach new load balancers

Add a new load balancer

Health checks - optional

Health check type: Info

EC2 Auto Scaling automatically replaces instances that fail health checks. If you enabled load balancing, you can enable ELB health checks in addition to the EC2 health checks that are always enabled.

Edit an Auto Scaling group

You can update your Auto Scaling group's settings at any time. Most changes take effect immediately. However, changes to a launch template or launch configuration only affect instances going forward, and are not applied to instances that are already running.

Note:

You can change the following instance attributes by specifying them as part of the launch template or launch configuration: AMI, block devices, key pair, instance type, security groups, user data, monitoring, IAM instance profile, placement tenancy, kernel, ramdisk, and whether the instance has a public IP address.

If you select a new launch template or launch configuration, confirm that this

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Add created load balancer

The screenshot shows the AWS Management Console interface for creating a Load Balancer. The left sidebar navigation includes services like VPC Management Console, EC2 Management Console, Target groups | EC2 Manager, and Module 9 Challenge Lab. The main content area displays the 'Create Load Balancer' wizard. The 'Basic Configuration' section shows the load balancer has been created with the name 'LBalancer', ARN 'arn:aws:elasticloadbalancing:us-east-1:816139795324:loadbalancer/app/LBalancer/e6dd6ff1ee183665', and a DNS name 'LBalancer-1839509912.us-east-1.elb.amazonaws.com'. The 'Listeners' tab is selected, showing a single listener rule with a port of 80. The 'Monitoring' tab indicates CloudWatch Metrics is enabled. The 'Integrated services' tab shows CloudWatch Metrics and CloudWatch Logs are associated with the load balancer. The 'Tags' tab is empty.

Load balancer: LBalancer

Description **Listeners** **Monitoring** **Integrated services** **Tags**

Basic Configuration

Name	LBalancer
ARN	arn:aws:elasticloadbalancing:us-east-1:816139795324:loadbalancer/app/LBalancer/e6dd6ff1ee183665
DNS name	LBalancer-1839509912.us-east-1.elb.amazonaws.com (A Record)
State	Active
Type	application
Scheme	internet-facing

Hello From Your Web Application Server!