

# AWS EC2 Load Balancer

## Load Balancer

@taewanme

# EC2 인스턴스 생성

## AWS Console

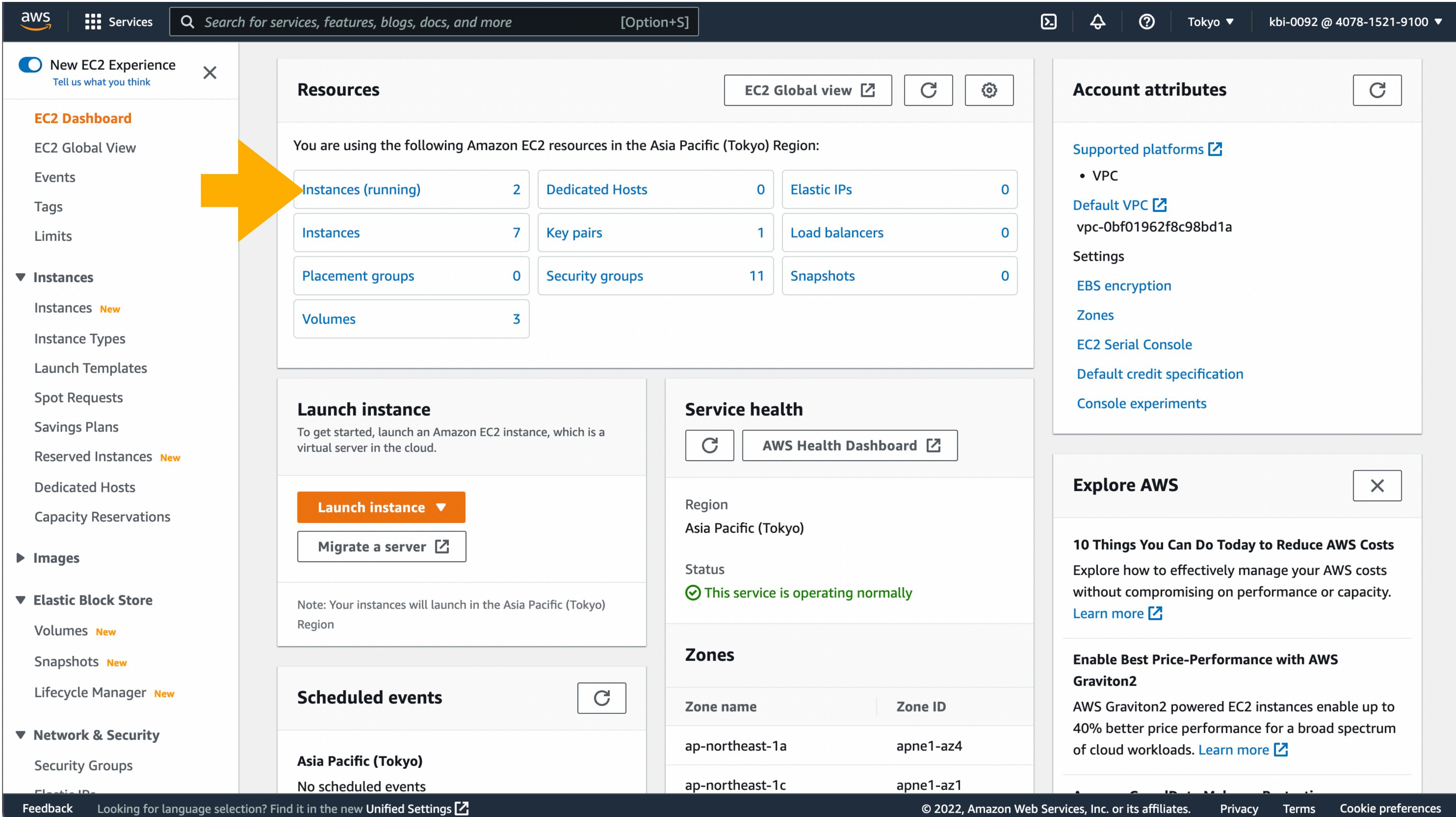
The screenshot shows the AWS Console Home page. At the top, there's a navigation bar with the AWS logo, a search bar, and user information (Tokyo, kbi-0092 @ 4078-1521-9100). Below the navigation bar, the main content area has four main sections:

- Recently visited**: A list of recently used services: EC2 (highlighted with a large yellow arrow), VPC, Lambda, IAM, S3, and CloudShell. There's a "View all services" link at the bottom.
- Welcome to AWS**: Three cards: "Getting started with AWS" (with a rocket icon), "Training and certification" (with a diploma icon), and "What's new with AWS?" (with a lightbulb icon).
- AWS Health**: Displays a heart icon and the message "No health data".
- Cost and usage**: Displays a chart icon and the message "No cost and usage".

At the bottom of the page, there are links for Feedback, Unified Settings, Copyright (© 2022, Amazon Web Services, Inc. or its affiliates.), Privacy, Terms, and Cookie preferences.

# EC2 인스턴스 생성

## EC2 Console



The screenshot shows the AWS EC2 Console interface. On the left, there's a navigation sidebar with various service links like EC2 Dashboard, Instances, Images, Elastic Block Store, Network & Security, and more. A large yellow arrow points from the top-left towards the 'Launch instance' button in the main content area. The main content area displays the 'Resources' section, which lists the following Amazon EC2 resources in the Asia Pacific (Tokyo) Region:

Category	Count
Instances (running)	2
Dedicated Hosts	0
Elastic IPs	0
Instances	7
Key pairs	1
Load balancers	0
Placement groups	0
Security groups	11
Snapshots	0
Volumes	3

Below the resource summary, there are sections for 'Launch instance', 'Service health', and 'Scheduled events'. The 'Service health' section indicates that the service is operating normally. The 'Scheduled events' section shows 'No scheduled events'.

**Account attributes**

- Supported platforms: VPC
- Default VPC: [vpc-0bf01962f8c98bd1a](#)
- Settings: EBS encryption, Zones, EC2 Serial Console, Default credit specification, Console experiments

**Explore AWS**

- 10 Things You Can Do Today to Reduce AWS Costs
- Enable Best Price-Performance with AWS Graviton2

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# EC2 인스턴스 생성

## EC2 Console

The screenshot shows the AWS EC2 Instances page. On the left, there's a navigation sidebar with sections like EC2 Dashboard, EC2 Global View, Events, Tags, Limits, Instances (selected), Images, Elastic Block Store, and Network & Security. The main content area displays a table of existing instances:

<input type="checkbox"/>	Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IPv4
<input type="checkbox"/>	My Second EC2	i-0405eac4b6dbe701e	Running	t2.medium	2/2 checks passed	No alarms	+ ap-northeast-1d	-
<input type="checkbox"/>	My First EC2	i-05251994f246247fe	Running	t2.medium	2/2 checks passed	No alarms	+ ap-northeast-1a	ec2-18-183

At the top right of the main area, there are buttons for 'Launch instances' (highlighted with a yellow arrow) and 'Connect'. Below the table, there's a 'Select an instance' section with a dropdown menu and a close button.

At the bottom of the page, there are links for Feedback, Unified Settings, Copyright notice (© 2022, Amazon Web Services, Inc. or its affiliates.), Privacy, Terms, and Cookie preferences.

# EC2 인스턴스 생성

## EC2 Console

The screenshot shows the 'Launch an instance' wizard in the AWS EC2 console. The process is divided into several steps:

- Name and tags**: A yellow arrow labeled '1' points to the 'Name' field where 'demo-vm' is entered.
- Summary**: A yellow arrow labeled '2' points to the 'Number of instances' dropdown set to '2'. This step also includes a note about using EC2 Auto Scaling for multiple instances.
- Launch instance**: A yellow arrow labeled '3' points to the orange 'Launch instance' button at the bottom right of the summary panel.

**Left Panel (Application and OS Images):**

- Search bar: 'Search our full catalog including 1000s of application and OS images'
- Recent Images:
  - Amazon Linux
  - macOS
  - Ubuntu
  - Windows
  - Red Hat
- Quick Start tab
- Browse more AMIs button

**Top Bar:**

- aws logo
- Services menu
- Search bar: 'Search for services, features, blogs, docs, and more' [Option+S]
- User info: Tokyo | kbi-0092 @ 4078-1521-9100

**Bottom Bar:**

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# EC2 인스턴스 생성

## EC2 Console

The screenshot shows the AWS EC2 console interface. On the left, the 'Application and OS Images (Amazon Machine Image)' section is displayed. It features a search bar, a 'Recent' tab, and a 'Quick Start' tab. Under 'Recent', there is a card for 'Amazon Linux' with a large orange arrow labeled '1' pointing to it. Below this card, another card for 'Amazon Linux 2 AMI (HVM) - Kernel 5.10, SSD Volume Type' is shown, with a large orange arrow labeled '2' pointing to its title. The right side of the screen shows the 'Summary' section where the number of instances is set to 2. A callout box provides information about the free tier. At the bottom right, a large orange arrow labeled '3' points downwards, indicating the next step.

**Application and OS Images (Amazon Machine Image)** [Info](#)

An AMI is a template that contains the software configuration (operating system, application server, and applications) required to launch your instance. Search or Browse for AMIs if you don't see what you are looking for below

Search our full catalog including 1000s of application and OS images

Recents Quick Start

Amazon Linux [aws](#)

macOS Ubuntu Windows Red Hat S

Amazon Machine Image (AMI)

Amazon Linux 2 AMI (HVM) - Kernel 5.10, SSD Volume Type

Free tier eligible

ami-078296f82eb463377 (64-bit (x86)) / ami-0e36df1d8a8733986 (64-bit (Arm))

Virtualization: hvm ENA enabled: true Root device type: ebs

Description

Amazon Linux 2 Kernel 5.10 AMI 2.0.20220912.1 x86\_64 HVM gp2

Architecture

64-bit (x86)

AMI ID

ami-078296f82eb463377

Verified provider

**Summary**

Number of instances [Info](#)

2

When launching more than 1 instance, consider [EC2 Auto Scaling](#).

Software Image (AMI)

Amazon Linux 2 Kernel 5.10 AMI...[read more](#)

ami-078296f82eb463377

Virtual server type (instance type)

t2.micro

Firewall (security group)

New security group

Storage (volumes)

1 volume(s) - 8 GiB

**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, 2 million I/Os, 1 GB of snapshots, and

[Launch instance](#)

3

# EC2 인스턴스 생성

## EC2 Console

The screenshot shows the AWS EC2 Instance Creation Wizard. The process is divided into several steps:

- Step 1: Instance type** - Selecting the **t2.micro** instance type. An orange arrow labeled "1" points to this step.
- Step 2: Key pair (login)** - Specifying the key pair name as **kbi-0092**. An orange arrow labeled "2" points to this step.
- Step 3: Network settings** - Choosing the VPC as **vpc-0fe8c6e35561155f6 (kbi-0092-main-vpc)**. An orange arrow labeled "3" points to this step.
- Step 4: Subnet** - Selecting the subnet as **subnet-022c3e01730133414**. An orange arrow labeled "4" points to this step.
- Step 5: Auto-assign public IP** - Enabling auto-assign public IP. An orange arrow labeled "5" points to this step.
- Step 6: Launch instance** - The final step where the user can launch the instance. An orange arrow labeled "6" points to this step.

**Summary (Right Panel):**

- Number of instances:** 2
- Software Image (AMI):** Amazon Linux 2 Kernel 5.10 AMI...read more  
ami-078296f82eb463377
- Virtual server type (instance type):** t2.micro
- Firewall (security group):** New security group
- Storage (volumes):** 1 volume(s) - 8 GiB
- 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, 2 million IOs, 1 GB of snapshots, and 100 GB of bandwidth to the internet.

**Buttons at the bottom:**

- Cancel
- Launch instance

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# EC2 인스턴스 생성

## EC2 Console

The screenshot shows the AWS EC2 console interface for creating a new instance. The process is guided by six numbered arrows:

1. Create security group: A radio button is selected for "Create security group".
2. Security group name - required: The input field contains "webserver security group".
3. Description - required: The input field contains "Security Group for WebServer".
4. Add security group rule: A button labeled "Add security group rule" is highlighted.
- Summary: A summary panel on the right lists:
  - Number of instances: 2
  - Software Image (AMI): Amazon Linux 2 Kernel 5.10 AMI... (read more)
  - Virtual server type (instance type): t2.micro
  - Firewall (security group): New security group
  - Storage (volumes): 1 volume(s) - 8 GiBA tooltip for the free tier is displayed.
- Launch instance: A large orange button at the bottom right.

At the bottom of the page, there are links for Feedback, Unified Settings, Copyright notice, Privacy, Terms, and Cookie preferences.

# EC2 인스턴스 생성

## EC2 Console

The screenshot shows the AWS EC2 console interface for launching a new instance. The process is divided into three main steps, each highlighted with a yellow arrow:

- Step 1: Configure Security Group Rule**
  - Type:** HTTP (selected)
  - Protocol:** TCP
  - Port range:** 80
  - Source type:** Anywhere
  - Description:** e.g. SSH for admin desktop
- Step 2: Configure Storage**
  - Root volume:** 1x 8 GiB gp2
  - Note:** Free tier eligible customers can get up to 30 GB of EBS General Purpose (SSD) or Magnetic storage.
- Step 3: Summary and Launch**
  - Number of instances:** 2
  - Software Image (AMI):** Amazon Linux 2 Kernel 5.10 AMI... (read more)
  - Virtual server type (instance type):** t2.micro
  - Firewall (security group):** New security group
  - Storage (volumes):** 1 volume(s) - 8 GiB
  - Free tier information:** 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, 2 million IOs, 1 GB of snapshots, and 100 GB of bandwidth to the internet.
  - Buttons:** Cancel, Launch instance (highlighted with a yellow arrow)

# EC2 인스턴스 생성

## EC2 Console

The screenshot shows the AWS EC2 Console interface. At the top, there is a navigation bar with the AWS logo, a search bar, and account information for Tokyo (kbi-0092 @ 4078-1521-9100). A blue banner at the top provides a note about the new launch experience, with a link to opt out.

The main content area shows a success message: "Successfully initiated launch of instances (i-0e95b24bcde2c2577, i-0e3dbd4eae1c40639)". Below this, there is a "Launch log" link.

A "Next Steps" section contains the following items:

- Get notified of estimated charges**: Create billing alerts to get an email notification when estimated charges on your AWS bill exceed an amount you define (for example, if you exceed the free usage tier).
- How to connect to your instance**: Your instance is launching and it might be a few minutes until it is in the running state, when it will be ready for you to use. Click View Instances to monitor your instance's status. Once your instance is in the 'running' state, you can connect to it from the Instances screen. Find out how to connect to your instance.
- [View more resources to get you started](#)

At the bottom right, there is a large orange button with a yellow arrow pointing right, labeled "View all instances".

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# EC2 인스턴스 생성

## EC2 Console

The screenshot shows the AWS EC2 Instances page with the following details:

**Instances (4) Info**

**Filters:** running

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IPv4
My Second EC2	i-0405eac4b6dbe701e	Running	t2.medium	2/2 checks passed	No alarms	ap-northeast-1d	-
My First EC2	i-05251994f246247fe	Running	t2.medium	2/2 checks passed	No alarms	ap-northeast-1a	ec2-18-183-
demo-vm	i-0e3dbd4eae1c40639	Running	t2.micro	Initializing	No alarms	ap-northeast-1a	ec2-13-231-
demo-vm	i-0e95b24bcde2c2577	Running	t2.micro	Initializing	No alarms	ap-northeast-1a	ec2-18-183-

**Select an instance**

**Left sidebar:**

- New EC2 Experience (radio button selected)
- EC2 Dashboard
- EC2 Global View
- Events
- Tags
- Limits
- Instances
  - Instances (New)
  - Instance Types
  - Launch Templates
  - Spot Requests
  - Savings Plans
  - Reserved Instances (New)
  - Dedicated Hosts
  - Capacity Reservations
- Images
- Elastic Block Store
  - Volumes (New)
  - Snapshots (New)
  - Lifecycle Manager (New)
- Network & Security
  - Security Groups
  - Elastic IPs

**Bottom navigation:**

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# EC2 인스턴스 생성

## EC2 인스턴스 이름 변경

The screenshot shows the AWS EC2 Instances page with the following details:

- Instances (1/4) Info**: A table listing four instances. The first instance, "My Second EC2", has its name changed to "demo-vm-01".
- Actions**: Buttons for Copy, Connect, Instance state, Actions, and Launch instances.
- Search Bar**: Find instance by attribute or tag (case-sensitive).
- Filters**: Running and Clear filters.
- Instance Details**: Shows instance i-0e3dbd4eae1c40639 (demo-vm). The "Edit Name" dialog is open, showing the current name "demo-vm" and the new name "demo-vm-01". A yellow arrow labeled "1" points to the input field, and another yellow arrow labeled "2" points to the "Save" button.
- Instance Summary**: Details for the instance:
  - Instance ID: i-0e3dbd4eae1c40639 (demo-vm)
  - Public IPv4 address: 13.231.207.111
  - Private IPv4 address: 10.0.7.196
  - Public IPv4 DNS: ec2-13-231-207-111.ap-northeast-1.compute.amazonaws.com
  - Private IP DNS name (IPv4 only): ip-10-0-7-196.ap-northeast-1.compute.internal
  - Instance type: t2.micro

Left sidebar navigation:

- 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
  - Capacity Reservations
- Images
- Elastic Block Store
  - Volumes (New)
  - Snapshots (New)
  - Lifecycle Manager (New)
- Network & Security
  - Security Groups
  - Elastic IPs

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# EC2 인스턴스 생성

## EC2 인스턴스 이름 변경

The screenshot shows the AWS EC2 Instances page with the following details:

- Instances (1/4) Info**: Shows 1 running instance.
- Filter**: Set to **running**.
- Table Headers**: Name, Instance ID, Instance state, Instance type, Status check, Alarm status, Availability Zone, Public IP.
- Instances List**:
  - My Second EC2 (i-0405eac4b6dbe701e), Running, t2.medium, 2/2 checks passed, No alarms, ap-northeast-1d, -
  - My First EC2 (i-05251994f246247fe), Running, t2.medium, 2/2 checks passed, No alarms, ap-northeast-1a, ec2-18-
  - demo-vm-01 (i-0e3dbd4eae1c40639), Running, t2.micro, Initializing, No alarms, ap-northeast-1a, ec2-13-
  - demo-vm-02** (i-0e95b24bcde2c2577), Running, t2.micro, Initializing, No alarms, ap-northeast-1a, ec2-18-
- Modal Dialog**: **Edit Name** for the selected instance. The input field contains "demo-vm-02".
- Buttons**: **Cancel** and **Save**. A yellow arrow labeled "1" points to the input field, and another yellow arrow labeled "2" points to the **Save** button.
- Instance Details**:
  - Instance: i-0e95b24bcde2c2577 (demo-vm)**
  - Details** tab selected.
  - Instance summary**:
    - Instance ID: i-0e95b24bcde2c2577 (demo-vm)
    - Public IPv4 address: 18.183.212.221
    - Private IPv4 address: 10.0.12.103
    - Instance state: Running
    - Public IPv4 DNS: ec2-18-183-212-221.ap-northeast-1.compute.amazonaws.com
    - Private IP DNS name (IPv4 only): ip-10-0-12-103.ap-northeast-1.compute.internal
    - Instance type: t2.micro

Left sidebar navigation:

- New EC2 Experience (checkbox)
- EC2 Dashboard
- EC2 Global View
- Events
- Tags
- Limits
- Instances** (selected)
- Instances New
- Instance Types
- Launch Templates
- Spot Requests
- Savings Plans
- Reserved Instances New
- Dedicated Hosts
- Capacity Reservations
- Images
- Elastic Block Store
- Volumes New
- Snapshots New
- Lifecycle Manager New
- Network & Security
- Security Groups
- Elastic IPs

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# EC2 인스턴스 생성

## demo-vm-01 터미널 접근

The screenshot shows the AWS EC2 Instances page. On the left, there's a sidebar with various navigation options like EC2 Dashboard, Events, Tags, Limits, and Instances. The Instances section is expanded, showing two instances: 'My Second EC2' and 'My First EC2'. Below them is 'demo-vm-01', which is selected and highlighted with a blue border. A yellow arrow points to the 'Actions' dropdown menu for this instance. The menu is open, showing options: Launch instances, Launch instance from template, Migrate a server, Connect, Stop instance, Start instance, Reboot instance, Hibernate instance, and Terminate instance. The 'Connect' option is the second item in the list. The main pane displays detailed information for the selected instance, including its ID (i-0e3dbd4eae1c40639), Name (demo-vm-01), Instance state (Running), Instance type (t2.micro), Status check (2/2 checks passed), Alarm status (No alarms), Availability Zone (ap-northeast-1a), and Public IPv4 (10.0.7.196). It also shows its Private IP address (131.207.111) and Public IP address (ec2-13-231-207-111.ap-northeast-1.compute.amazonaws.com).

Instances (1/4) Info

Find instance by attribute or tag (case-sensitive)

running

Clear filters

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IPv4
My Second EC2	i-0405eac4b6dbe701e	Running	t2.medium	2/2 checks passed	No alarms	ap-northeast-1d	-
My First EC2	i-05251994f246247fe	Running	t2.medium	2/2 checks passed	No alarms	ap-northeast-1a	ec2-18-183
<b>demo-vm-01</b>	<b>i-0e3dbd4eae1c40639</b>	<b>Running</b>	<b>t2.micro</b>	<b>2/2 checks passed</b>	<b>No alarms</b>	<b>ap-northeast-1a</b>	<b>ec2-13-231-207-111.ap-northeast-1.compute.amazonaws.com</b>
demo-vm-02	i-0e95b2		t2.micro	Initializing	No alarms	ap-northeast-1a	ec2-18-183

Launch instances

Launch instance from template

Migrate a server

1 Connect

Stop instance

Start instance

Reboot instance

Hibernate instance

Terminate instance

Details Security Network

Instance summary

Instance ID: i-0e3dbd4eae1c40639 (demo-vm-01)

IPv6 address: -

Hostname type: IP name: ip-10-0-7-196.ap-northeast-1.compute.internal

Private IP DNS name (IPv4 only): ip-10-0-7-196.ap-northeast-1.compute.internal

Answer private resource DNS name: IPv4 (A)

Instance type: t2.micro

Private IPv4 addresses: 10.0.7.196

Public IPv4 DNS: ec2-13-231-207-111.ap-northeast-1.compute.amazonaws.com | open address

Elastic IP addresses: -

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# EC2 인스턴스 생성

## demo-vm-01 터미널 접근

The screenshot shows the AWS EC2 Connect interface for instance `i-0e3dbd4eae1c40639 (demo-vm)`. The interface includes:

- Connect to instance** section with **Info** link.
- Instructions: "Connect to your instance `i-0e3dbd4eae1c40639 (demo-vm)` using any of these options".
- Connection methods:
  - EC2 Instance Connect** (selected)
  - Session Manager
  - SSH client
  - EC2 serial console
- Instance ID**: `i-0e3dbd4eae1c40639 (demo-vm)`
- Public IP address**: `13.231.207.111`
- User name**: `ec2-user`
- Note: "In most cases, the guessed user name is correct. However, read your AMI usage instructions to check if the AMI owner has changed the default AMI user name."
- Callout arrow pointing to the **Connect** button.

At the bottom of the page, there are links for Feedback, Unified Settings, Copyright notice (© 2022, Amazon Web Services, Inc. or its affiliates.), Privacy, Terms, and Cookie preferences.

# EC2 인스턴스 생성

## demo-vm-01 터미널 접근

The screenshot shows a CloudShell terminal window with the AWS logo at the top left. The title bar includes "Services", a search bar ("Search for services, features, blogs, docs, and more"), and "[Option+S]". On the right, there are icons for a refresh arrow, a downward arrow, a question mark, and "Tokyo" with a dropdown arrow, followed by "kbi-0092 @ 4078-1521-9100".

```
Verifying : mailcap-2.1.41-2.amzn2.noarch 6/9
Verifying : generic-logos-httpd-18.0.0-4.amzn2.noarch 7/9
Verifying : httpd-filesystem-2.4.54-1.amzn2.noarch 8/9
Verifying : apr-1.7.0-9.amzn2.x86_64 9/9

Installed:
httpd.x86_64 0:2.4.54-1.amzn2

Dependency Installed:
apr.x86_64 0:1.7.0-9.amzn2           apr-util.x86_64 0:1.6.1-5.amzn2.0.2  apr-util-bdb.x86_64 0:1.6.1-5.amzn2.0.2  generic-logos-httpd.noarch 0:18.0.0-4.amzn2
httpd-filesystem.noarch 0:2.4.54-1.amzn2  httpd-tools.x86_64 0:2.4.54-1.amzn2  mailcap.noarch 0:2.1.41-2.amzn2      mod_http2.x86_64 0:1.15.19-1.amzn2.0.1

Complete!
[ec2-user@ip-10-0-7-196 ~]$ sudo systemctl enable httpd.service
Created symlink from /etc/systemd/system/multi-user.target.wants/httpd.service to /usr/lib/systemd/system/httpd.service.
[ec2-user@ip-10-0-7-196 ~]$ sudo systemctl start httpd.service
[ec2-user@ip-10-0-7-196 ~]$ sudo systemctl status httpd.service
● httpd.service - The Apache HTTP Server
   Loaded: loaded (/usr/lib/systemd/system/httpd.service; enabled; vendor preset: disabled)
   Active: active (running) since Mon 2022-09-26 17:08:59 UTC; 40ms ago
     Docs: man:httpd.service(8)
 Main PID: 3745 (httpd)
    Status: "Configuration loaded."
   CGroup: /system.slice/httpd.service
           ├─3745 /usr/sbin/httpd -DFOREGROUND
           ├─3756 /usr/sbin/httpd -DFOREGROUND
           └─3757 /usr/sbin/httpd -DFOREGROUND

Sep 26 17:08:59 ip-10-0-7-196.ap-northeast-1.compute.internal systemd[1]: Starting The Apache HTTP Server...
Sep 26 17:08:59 ip-10-0-7-196.ap-northeast-1.compute.internal systemd[1]: Started The Apache HTTP Server.
[ec2-user@ip-10-0-7-196 ~]$ sudo groupadd www
[ec2-user@ip-10-0-7-196 ~]$ sudo usermod -a -G www ec2-user
[ec2-user@ip-10-0-7-196 ~]$ exit
logout

i-0e3dbd4eae1c40639 (demo-vm-01)
Public IPs: 13.231.207.111  Private IPs: 10.0.7.196
```

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**sudo yum install -y httpd  
sudo systemctl enable httpd.service  
sudo systemctl start httpd.service  
sudo systemctl status httpd.service**

**sudo groupadd www  
sudo usermod -a -G www ec2-user**

**exit**

**#콘솔 재접속**

# EC2 인스턴스 생성

## demo-vm-01 터미널 재접근

The screenshot shows the AWS EC2 Connect interface for instance `i-0e3dbd4eae1c40639`. The top navigation bar includes the AWS logo, Services, a search bar, and account information for Tokyo (Region) and user `kbi-0092 @ 4078-1521-9100`.

The main content area is titled "Connect to instance" and provides four connection methods:

- EC2 Instance Connect** (selected)
- Session Manager
- SSH client
- EC2 serial console

Below these options, the instance details are listed:

- Instance ID: `i-0e3dbd4eae1c40639` (demo-vm)
- Public IP address: `13.231.207.111`
- User name: `ec2-user`

A note at the bottom states: "Connect using a custom user name, or use the default user name `ec2-user` for the AMI used to launch the instance."

A callout arrow points to the "Connect" button, which is highlighted in orange.

Page footer: <https://ap-northeast-1.console.aws.amazon.com/ec2/home?region=ap-northeast-1#InstanceDetails:instanceId=i-0e3dbd4eae1c40639> | © 2022, Amazon Web Services, Inc. or its affiliates. | Privacy | Terms | Cookie preferences

# EC2 인스턴스 생성

## demo-vm-01 터미널 재접근

The screenshot shows a CloudShell terminal window with the following details:

- Header:** AWS Services Search for services, features, blogs, docs, and more [Option+S]
- User:** kbi-0092 @ 4078-1521-9100
- Last login:** Mon Sep 26 17:08:30 2022 from ec2-3-112-23-5.ap-northeast-1.compute.amazonaws.com
- Instance Details:** Amazon Linux 2 AMI
- Terminal Content:**

```
Last login: Mon Sep 26 17:08:30 2022 from ec2-3-112-23-5.ap-northeast-1.compute.amazonaws.com
[ec2-user@ip-10-0-7-196 ~]$ cd /var/www
[ec2-user@ip-10-0-7-196 www]$ sudo chown -R root:www /var/www
[ec2-user@ip-10-0-7-196 www]$ sudo chmod 2775 /var/www/html/
[ec2-user@ip-10-0-7-196 www]$ cd html
[ec2-user@ip-10-0-7-196 html]$ cat << EOF > index.html
> [Instance 01] KBI Cloud Data Platorm: Load Balancer Demo
> EOF
[ec2-user@ip-10-0-7-196 html]$
```

```
cd /var/www
sudo chown -R root:www /var/www
sudo chmod 2775 /var/www/html/
cd html

cat << EOF > index.html
[Instance 01] KBI Cloud Data Platorm: Load Balancer Demo
EOF
```

i-0e3dbd4eae1c40639 (demo-vm-01)

Public IPs: 13.231.207.111 Private IPs: 10.0.7.196

# EC2 인스턴스 생성

## demo-vm-02 터미널 접근

The screenshot shows the AWS EC2 Instances page with the following details:

- Instances (1/4) Info**: Shows 1 instance running.
- Filters**: Running.
- Instances Table**:

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IPv4
My Second EC2	i-0405eac4b6dbe701e	Running	t2.medium	2/2 checks passed	No alarms	ap-northeast-1d	-
My First EC2	i-05251994f246247fe	Running	t2.medium	2/2 checks passed	No alarms	ap-northeast-1a	ec2-18-183-
demo-vm-01	i-0e3dbd4eae1c40639	Running	t2.micro	2/2 checks passed	No alarms	ap-northeast-1a	ec2-13-231-
<b>demo-vm-02</b>	<b>i-0e95b24bcde2c2577</b>	<b>Running</b>	<b>t2.micro</b>	<b>Initializing</b>	<b>No alarms</b>	<b>ap-northeast-1a</b>	<b>ec2-18-183-</b>
- Actions**: A context menu is open for the selected instance (demo-vm-02). The "Connect" option is highlighted with a yellow arrow.
- Instance Details**:
  - Details** tab is active.
  - Instance summary**: Instance ID: i-0e95b24bcde2c2577 (demo-vm-02).
  - Networking**: IP address: -
  - Monitoring** and **Tags** tabs are available.
- Networking**:
  - Private IPv4 addresses: 10.0.12.103
  - Public IPv4 DNS: ec2-18-183-212-221.ap-northeast-1.compute.amazonaws.com
- Network & Security**:
  - Hostname type: IP name: ip-10-0-12-103.ap-northeast-1.compute.internal
  - Answer private resource DNS name: IPv4 (A)
  - Private IP DNS name (IPv4 only): ip-10-0-12-103.ap-northeast-1.compute.internal
  - Instance type: t2.micro
  - Elastic IP addresses: -

# EC2 인스턴스 생성

## demo-vm-02 터미널 접근

The screenshot shows the AWS EC2 Instances page for an instance named "demo-vm-02". The "Connect to instance" section is displayed, featuring four connection methods: EC2 Instance Connect (selected), Session Manager, SSH client, and EC2 serial console. The "EC2 Instance Connect" tab is highlighted in orange. Below these tabs, the instance ID "i-0e95b24bcde2c2577 (demo-vm-02)" and public IP address "18.183.212.221" are listed. A "User name" input field contains "ec2-user". A note at the bottom states: "Note: In most cases, the guessed user name is correct. However, read your AMI usage instructions to check if the AMI owner has changed the default AMI user name." An orange arrow points to the "Connect" button, which is located at the bottom right of the "EC2 Instance Connect" panel.

aws Services Search for services, features, blogs, docs, and more [Option+S]

EC2 > Instances > i-0e95b24bcde2c2577 > Connect to instance

**Connect to instance** Info

Connect to your instance i-0e95b24bcde2c2577 (demo-vm-02) using any of these options

EC2 Instance Connect Session Manager SSH client EC2 serial console

Instance ID  
i-0e95b24bcde2c2577 (demo-vm-02)

Public IP address  
18.183.212.221

User name  
ec2-user

Connect using a custom user name, or use the default user name ec2-user for the AMI used to launch the instance.

**Note:** In most cases, the guessed user name is correct. However, read your AMI usage instructions to check if the AMI owner has changed the default AMI user name.

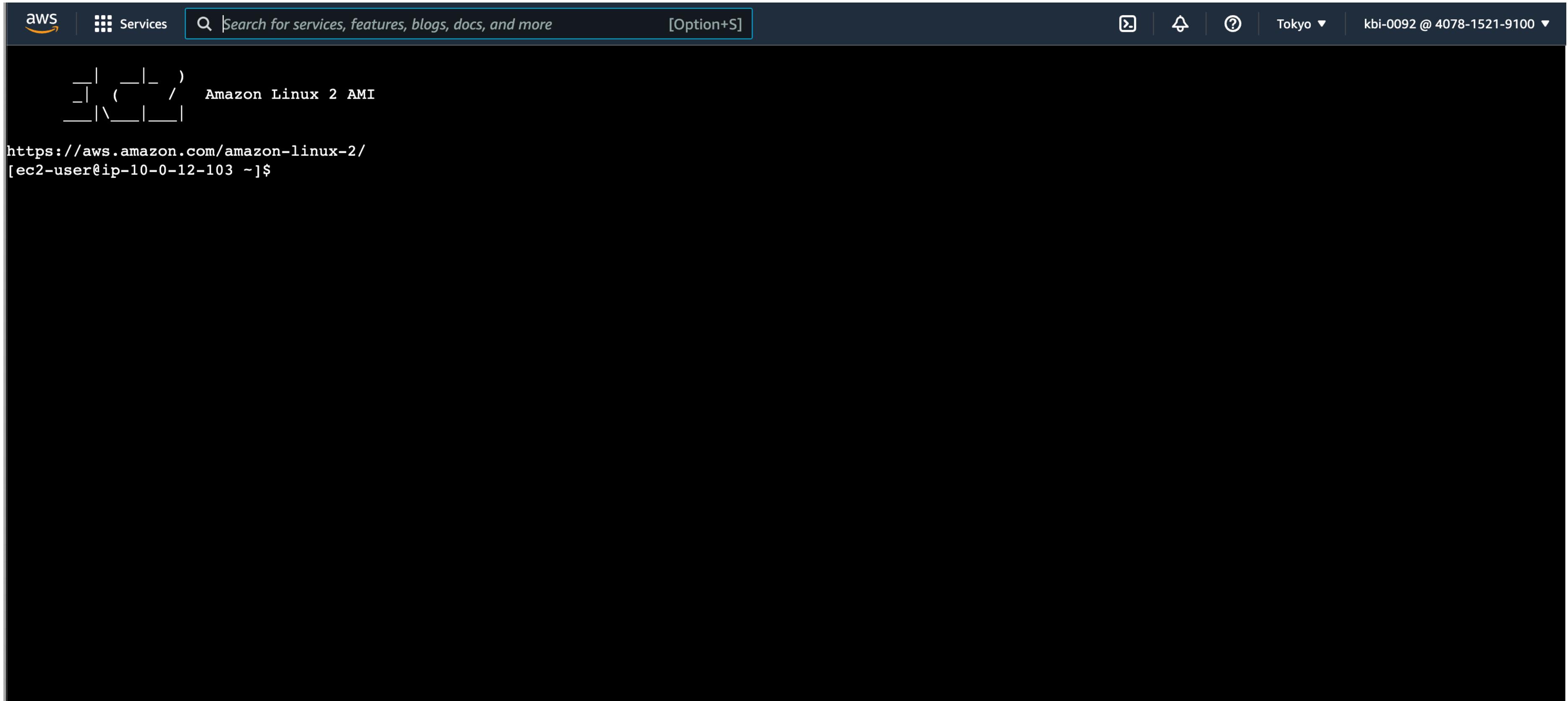
Callout 1: Connect

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# EC2 인스턴스 생성

## demo-vm-02 터미널 접근



The screenshot shows a terminal window within the AWS CloudShell interface. The terminal title is "Amazon Linux 2 AMI". The user has navigated to the root directory via the command "cd /". The URL "https://aws.amazon.com/amazon-linux-2/" is displayed, indicating the instance type. The command "[ec2-user@ip-10-0-12-103 ~]\$" is shown at the bottom of the terminal window.

```
__|_( _|_ ) Amazon Linux 2 AMI
__|\_\_|_
https://aws.amazon.com/amazon-linux-2/
[ec2-user@ip-10-0-12-103 ~]$
```

i-0e95b24bcde2c2577 (demo-vm-02)  
Public IPs: 18.183.212.221 Private IPs: 10.0.12.103

Feedback Looking for language selection? Find it in the new Unified Settings [↗](#)

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# EC2 인스턴스 생성

## demo-vm-02 터미널 접근

The screenshot shows a CloudShell terminal window with the AWS logo and navigation bar at the top. The terminal session is titled 'kbi-0092 @ 4078-1521-9100'. The command history includes:

- Verifying :apr-1.7.0-9.amzn2.x86\_64
- Installed:  
httpd.x86\_64 0:2.4.54-1.amzn2
- Dependency Installed:  
apr.x86\_64 0:1.7.0-9.amzn2 apr-util.x86\_64 0:1.6.1-5.amzn2.0.2 apr-util-bdb.x86\_64 0:1.6.1-5.amzn2.0.2 generic-logos-httpd.noarch 0:18.0.0-4.amzn2 httpd-filesystem.noarch 0:2.4.54-1.amzn2 httpd-tools.x86\_64 0:2.4.54-1.amzn2 mailcap.noarch 0:2.1.41-2.amzn2 mod\_http2.x86\_64 0:1.15.19-1.amzn2.0.1
- Complete!  
[ec2-user@ip-10-0-12-103 ~]\$ sudo systemctl enable httpd.service  
Created symlink from /etc/systemd/system/multi-user.target.wants/httpd.service to /usr/lib/systemd/system/httpd.service.  
[ec2-user@ip-10-0-12-103 ~]\$ sudo systemctl start httpd.service  
[ec2-user@ip-10-0-12-103 ~]\$ sudo systemctl status httpd.service  
● httpd.service - The Apache HTTP Server  
  Loaded: loaded (/usr/lib/systemd/system/httpd.service; enabled; vendor preset: disabled)  
  Active: active (running) since Mon 2022-09-26 17:10:27 UTC; 32ms ago  
    Docs: man:httpd.service(8)  
  Main PID: 3754 (httpd)  
  Status: "Processing requests..."  
  CGroup: /system.slice/httpd.service  
      └─3754 /usr/sbin/httpd -DFOREGROUND  
         ├─3762 /usr/sbin/httpd -DFOREGROUND  
         ├─3763 /usr/sbin/httpd -DFOREGROUND  
         ├─3764 /usr/sbin/httpd -DFOREGROUND  
         ├─3765 /usr/sbin/httpd -DFOREGROUND  
         └─3766 /usr/sbin/httpd -DFOREGROUND  
  
Sep 26 17:10:27 ip-10-0-12-103.ap-northeast-1.compute.internal systemd[1]: Starting The Apache HTTP Server...  
Sep 26 17:10:27 ip-10-0-12-103.ap-northeast-1.compute.internal systemd[1]: Started The Apache HTTP Server.  
[ec2-user@ip-10-0-12-103 ~]\$ sudo groupadd www  
[ec2-user@ip-10-0-12-103 ~]\$ sudo usermod -a -G www ec2-user  
[ec2-user@ip-10-0-12-103 ~]\$ exit  
logout

i-0e95b24bcde2c2577 (demo-vm-02)

Public IPs: 18.183.212.221 Private IPs: 10.0.12.103

**sudo yum install -y httpd  
sudo systemctl enable httpd.service  
sudo systemctl start httpd.service  
sudo systemctl status httpd.service**

**sudo groupadd www  
sudo usermod -a -G www ec2-user**

**exit**

**#콘솔 재접속**

# EC2 인스턴스 생성

## demo-vm-02 터미널 재접근

The screenshot shows the AWS EC2 Connect interface for instance `i-0e95b24bcde2c2577 (demo-vm-02)`. The interface includes:

- Connect to instance** tab selected.
- Info** tab available.
- Connect to your instance** instruction: "Connect to your instance `i-0e95b24bcde2c2577 (demo-vm-02)` using any of these options".
- Connection Methods:**
  - EC2 Instance Connect** (selected)
  - Session Manager**
  - SSH client**
  - EC2 serial console**
- Instance ID:** `i-0e95b24bcde2c2577 (demo-vm-02)`
- Public IP address:** `18.183.212.221`
- User name:** `ec2-user`
- Note:** "In most cases, the guessed user name is correct. However, read your AMI usage instructions to check if the AMI owner has changed the default AMI user name."
- Connect button:** An orange button with the number "1" above it, indicating the first step in the process.

# EC2 인스턴스 생성

## demo-vm-02 터미널 재접근

The screenshot shows a terminal session on an Amazon Linux 2 AMI instance. The user has run several commands to change directory to /var/www, change ownership to root:www, and change permissions to 2775. They then navigated to the /html directory and created an index.html file with the text "[Instance 01] KBI Cloud Data Platform: Load Balancer Demo". The terminal window also displays the instance ID (i-0e95b24bcde2c2577) and its public and private IP addresses.

```
Last login: Mon Sep 26 17:10:10 2022 from ec2-3-112-23-5.ap-northeast-1.compute.amazonaws.com
[ec2-user@ip-10-0-12-103 ~]$ cd /var/www
[ec2-user@ip-10-0-12-103 www]$ sudo chown -R root:www /var/www
[ec2-user@ip-10-0-12-103 www]$ sudo chmod 2775 /var/www/html/
[ec2-user@ip-10-0-12-103 www]$ cd html
[ec2-user@ip-10-0-12-103 html]$ cat << EOF > index.html
> [Instance 01] KBI Cloud Data Platform: Load Balancer Demo
> EOF
[ec2-user@ip-10-0-12-103 html]$ \q

i-0e95b24bcde2c2577 (demo-vm-02)
PublicIPs: 18.183.212.221 PrivateIPs: 10.0.12.103
```

```
cd /var/www
sudo chown -R root:www /var/www
sudo chmod 2775 /var/www/html/
cd html

cat << EOF > index.html
[Instance 01] KBI Cloud Data Platform: Load Balancer Demo
EOF
```

# EC2 인스턴스 생성

## demo-vm-01 브라우저 접근

The screenshot shows the AWS EC2 Instances page with four running instances listed:

Instance ID	Instance type	Status check	Alarm status	Availability Zone	Public IPv4 DNS	Public IPv4 IP	Elastic IP	IPv6 IP
i-0e3dbd4eae1c40639	t2.medium	2/2 checks passed	No alarms	ap-northeast-1d	-	18.179.1.189	-	-
i-0e3dbd4eae1c40639	t2.medium	2/2 checks passed	No alarms	ap-northeast-1a	ec2-18-183-105-202	18.183.105.202	-	-
i-0e3dbd4eae1c40639	t2.micro	2/2 checks passed	No alarms	ap-northeast-1a	ec2-13-231-207-111	13.231.207.111	-	-
i-0e3dbd4eae1c40639	t2.micro	2/2 checks passed	No alarms	ap-northeast-1a	ec2-18-183-212-221	18.183.212.221	-	-

Details for Instance i-0e3dbd4eae1c40639 (demo-vm-01):

- Public IPv4 address: 13.231.207.111
- Private IPv4 address: 10.0.7.196
- Public IPv4 DNS: ec2-13-231-207-111.ap-northeast-1.compute.amazonaws.com
- Instance state: Running
- Instance type: t2.micro

# EC2 인스턴스 생성

## demo-vm-02 브라우저 접근

The screenshot shows the AWS EC2 Instances page with four running instances listed:

ID	Type	Status check	Availability Zone	Public IPv4 DNS	Public IPv4 IP	Elastic IP	IPv6 IP
i-0e3dbd4eae1c40639	t2.medium	2/2 checks passed	No alarms	ap-northeast-1d	-	18.179.1.189	-
i-0e3dbd4eae1c40639	t2.medium	2/2 checks passed	No alarms	ap-northeast-1a	ec2-18-183-105-202.ap...	18.183.105.202	-
i-0e3dbd4eae1c40639	t2.micro	2/2 checks passed	No alarms	ap-northeast-1a	ec2-13-231-207-111.	13.231.207.111	-
i-0e3dbd4eae1c40639	t2.micro	2/2 checks passed	No alarms	ap-northeast-1a	ec2-18-183-21	18.183.212.221	-

The instance details page for the fourth instance (i-0e3dbd4eae1c40639) is shown, highlighting its Public IPv4 address (18.183.212.221). A yellow arrow points to this address.

**Instance: i-0e3dbd4eae1c40639 (demo-vm-01)**

**Details** | Security | Networking | Storage | Status checks | Monitoring | Tags

**Instance summary**

Instance ID i-0e3dbd4eae1c40639 (demo-vm-01)	Public IPv4 address 13.231.207.111   <a href="#">open address</a>	Private IPv4 addresses 10.0.7.196
IPv6 address -	Instance state Running	Public IPv4 DNS ec2-13-231-207-111.ap-northeast-1.compute.amazonaws.com   <a href="#">open address</a>
Hostname type IP name: ip-10-0-7-196.ap-northeast-1.compute.internal	Private IP DNS name (IPv4 only) ip-10-0-7-196.ap-northeast-1.compute.internal	Elastic IP addresses -
Answer private resource DNS name IPv4 (A)	Instance type t2.micro	

# LB 인스턴스 생성

## LB CONSOLE

The screenshot shows the AWS EC2 Instances page. On the left, there's a sidebar with various navigation options like EC2 Dashboard, Events, Tags, Limits, Instances, Images, Elastic Block Store, and Network & Security. The Instances section is expanded, showing a table of running instances:

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IPv4
My Second EC2	i-0405ead4bb00e701e	Running	t2.medium	2/2 checks passed	No alarms	ap-northeast-1a	-
My First EC2	i-05251994f246247fe	Running	t2.medium	2/2 checks passed	No alarms	ap-northeast-1a	ec2-18-183
demo-vm-01	i-0e3dbd4eae1c40639	Running	t2.micro	2/2 checks passed	No alarms	ap-northeast-1a	ec2-13-231
demo-vm-02	i-0e95b24bcde2c2577	Running	t2.micro	2/2 checks passed	No alarms	ap-northeast-1a	ec2-18-183

The instance 'demo-vm-02' is selected, and its details are shown in the main pane:

**Instance: i-0e95b24bcde2c2577 (demo-vm-02)**

Details	Security	Networking	Storage	Status checks	Monitoring	Tags
<b>Instance summary</b>						
Instance ID i-0e95b24bcde2c2577 (demo-vm-02)	Public IPv4 address 18.183.212.221   <a href="#">open address</a>	Private IPv4 addresses 10.0.12.103				
IPv6 address -	Instance state Running	Public IPv4 DNS ec2-18-183-212-221.ap-northeast-1.compute.amazonaws.com   <a href="#">open address</a>				
Hostname type IP name: ip-10-0-12-103.ap-northeast-1.compute.internal	Private IP DNS name (IPv4 only) ip-10-0-12-103.ap-northeast-1.compute.internal	Elastic IP addresses -				
Answer private resource DNS name IPv4 (A)	Instance type t2.micro					

At the bottom of the page, there are links for Feedback, Unified Settings, Copyright notice (© 2022, Amazon Web Services, Inc. or its affiliates.), Privacy, Terms, and Cookie preferences.

# LB 인스턴스 생성

## LB TARGET GROUP

The screenshot shows the AWS EC2 Target Groups interface. On the left, a navigation sidebar lists various services under 'Load Balancing' (Load Balancers, Target Groups, Auto Scaling). A yellow arrow labeled '1' points to the 'Target Groups' link. In the main content area, a green success message at the top states 'Successfully deleted target group: KBILBGroup.' Below it, the 'Target groups' table is empty, showing 'No target groups'. A yellow arrow labeled '2' points to the 'Create target group' button. At the bottom, a modal window titled '0 target groups selected' displays the message 'Select a target group above.'

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# LB 인스턴스 생성

## LB TARGET GROUP

The screenshot shows the 'Specify group details' step of the 'Create target group' wizard in the AWS EC2 console. The 'Basic configuration' section is visible, containing a note about settings being不可变 (unchangeable) after creation. The 'Choose a target type' section is expanded, showing four options: 'Instances' (selected), 'IP addresses', 'Lambda function', and 'Application Load Balancer'. Each option has a brief description. At the bottom, there is a 'Target group name' input field and a 'Next Step' button.

Step 1  
Specify group details

Step 2  
Register targets

EC2 > Target groups > Create target group

Specify group details

Your load balancer routes requests to the targets in a target group and performs health checks on the targets.

Basic configuration

Settings in this section cannot be changed after the target group is created.

Choose a target type

1

Instances

- Supports load balancing to instances within a specific VPC.
- Facilitates the use of [Amazon EC2 Auto Scaling](#) to manage and scale your EC2 capacity.

IP addresses

- Supports load balancing to VPC and on-premises resources.
- Facilitates routing to multiple IP addresses and network interfaces on the same instance.
- Offers flexibility with microservice based architectures, simplifying inter-application communication.
- Supports IPv6 targets, enabling end-to-end IPv6 communication, and IPv4-to-IPv6 NAT.

Lambda function

- Facilitates routing to a single Lambda function.
- Accessible to Application Load Balancers only.

Application Load Balancer

- Offers the flexibility for a Network Load Balancer to accept and route TCP requests within a specific VPC.
- Facilitates using static IP addresses and PrivateLink with an Application Load Balancer.

2

Target group name

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# LB 인스턴스 생성

## LB TARGET GROUP

The screenshot shows the AWS Lambda Target Group creation interface. A vertical sequence of orange arrows numbered 1 through 7 indicates the steps being followed:

- Step 1:** Target group name. An orange arrow points to the input field containing "LB-VMS".
- Step 2:** Protocol and Port. An orange arrow points to the "Protocol" dropdown set to "HTTP" and the "Port" input field containing "80".
- Step 3:** VPC. An orange arrow points to the "VPC" dropdown menu, which lists "kbi-0092-main-vpc" and its sub-options.
- Step 4:** Protocol version. An orange arrow points to the "Protocol version" section, where "HTTP1" is selected.
- Step 5:** Health checks. An orange arrow points to the "Health check protocol" dropdown set to "HTTP".
- Step 6:** Health check path. An orange arrow points to the "Health check path" input field containing "/".
- Step 7:** Final step, indicated by a large orange arrow pointing downwards at the bottom right of the screen.

**Target group name:** LB-VMS  
A maximum of 32 alphanumeric characters including hyphens are allowed, but the name must not begin or end with a hyphen.

**Protocol:** HTTP : 80

**VPC:**  
Select the VPC with the instances that you want to include in the target group.  
kbi-0092-main-vpc  
vpc-0fe8c6e35561155f6  
IPv4: 10.0.0.0/16

**Protocol version:**  
 **HTTP1**  
Send requests to targets using HTTP/1.1. Supported when the request protocol is HTTP/1.1 or HTTP/2.  
 **HTTP2**  
Send requests to targets using HTTP/2. Supported when the request protocol is HTTP/2 or gRPC, but gRPC-specific features are not available.  
 **gRPC**  
Send requests to targets using gRPC. Supported when the request protocol is gRPC.

**Health checks:**  
The associated load balancer periodically sends requests, per the settings below, to the registered targets to test their status.

**Health check protocol:** HTTP

**Health check path:** Use the default path of "/" to ping the root, or specify a custom path if preferred.  
/

Up to 1024 characters allowed.

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# LB 인스턴스 생성

## LB TARGET GROUP

The screenshot shows the AWS Lambda Target Group configuration page. The configuration fields and their values are:

- Healthy threshold:** 5 (Step 1)
- Unhealthy threshold:** 2 (Step 2)
- Timeout:** 2 seconds (Step 3)
- Interval:** 10 seconds (Step 4)
- Success codes:** 200 (Step 5)

A yellow arrow labeled "6" points to the "Next" button at the bottom right.

**Tags - optional**  
Consider adding tags to your target group. Tags enable you to categorize your AWS resources so you can more easily manage them.

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# LB 인스턴스 생성

## LB TARGET GROUP

This screenshot shows the 'Register targets' step in the AWS Lambda Target Group creation wizard. It displays two available instances and the configuration for registering them.

**Available instances (2/2)**

Instance ID	Name	State	Security groups	Zone	Subnet ID
i-0e3dbd4eae1c40639	demo-vm-01	running	webserver security group	ap-northeast-1a	subnet-022c3e01730133414
i-0e95b24bcde2c2577	demo-vm-02	running	webserver security group	ap-northeast-1a	subnet-022c3e01730133414

**Ports for the selected instances**  
Ports for routing traffic to the selected instances.  
80  
1-65535 (separate multiple ports with commas)

**Review targets**

**Targets (0)**

No instances added yet

**Step 2: Register targets**

- 1: Select the checkbox for the first instance.
- 2: Select the checkbox for the second instance.
- 3: Click the "Include as pending below" button.
- 4: Click the "Next Step" button.

# LB 인스턴스 생성

## LB TARGET GROUP

The screenshot shows the AWS Lambda Targets creation interface. At the top, there is a search bar and a navigation bar with the AWS logo, services dropdown, and user information (kbi-0092 @ 4078-1521-9100). Below the search bar is a table with columns: Instance ID, Name, State, Security groups, Zone, and Subnet ID. Two instances are listed:

Instance ID	Name	State	Security groups	Zone	Subnet ID
i-0e3dbd4eae1c40639	demo-vm-01	running	webserver security group	ap-northeast-1a	subnet-022c3e01730133414
i-0e95b24bcde2c2577	demo-vm-02	running	webserver security group	ap-northeast-1a	subnet-022c3e01730133414

Below the table, it says "0 selected". Under "Ports for the selected instances", there is a text input field containing "80" and a note "1-65535 (separate multiple ports with commas)". A button "Include as pending below" is present. A note at the bottom says "2 selections are now pending below. Include more or register targets when ready."

At the bottom, the "Review targets" section shows a table titled "Targets (2)". It includes a "Remove all pending" button and a "Filter resources by property or value" search bar. The table has columns: Remove, Health status, Instance ID, Name, Port, State, Security groups, Zone, and Subnet ID. The pending targets are:

Remove	Health status	Instance ID	Name	Port	State	Security groups	Zone	Subnet ID
X	Pending	i-0e95b24bcde2c2577	demo-vm-02	80	running	webserver security group	ap-northeast-1a	subnet-022c3e01730133414
X	Pending	i-0e3dbd4eae1c40639	demo-vm-01	80	running	webserver security group	ap-northeast-1a	subnet-022c3e01730133414

At the bottom right, there are buttons for "Cancel", "Prev 1", and "Create target group". An orange arrow points to the "Create target group" button.

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# LB 인스턴스 생성

## LB TARGET GROUP

The screenshot shows the AWS EC2 Target Groups interface. A green success message at the top right states "Successfully created target group: LB-VMS". The main table displays one target group:

Name	ARN	Port	Protocol	Target type	Load balancer
LB-VMS	arn:aws:elasticloadbalancing:... arn:aws:elasticloadbalancin...	80	HTTP	Instance	(i) None associated

A modal window titled "0 target groups selected" is open at the bottom left, instructing the user to "Select a target group above."

**Sidebar Navigation:**

- New EC2 Experience (radio button selected)
- EC2 Dashboard
- EC2 Global View
- Events
- Tags
- Limits
- Instances**
  - Instances New
  - Instance Types
  - Launch Templates
  - Spot Requests
  - Savings Plans
  - Reserved Instances New
  - Dedicated Hosts
  - Capacity Reservations
- Images**
- Elastic Block Store**
  - Volumes New
  - Snapshots New
  - Lifecycle Manager New
- Network & Security**
  - Security Groups
  - Elastic IPs

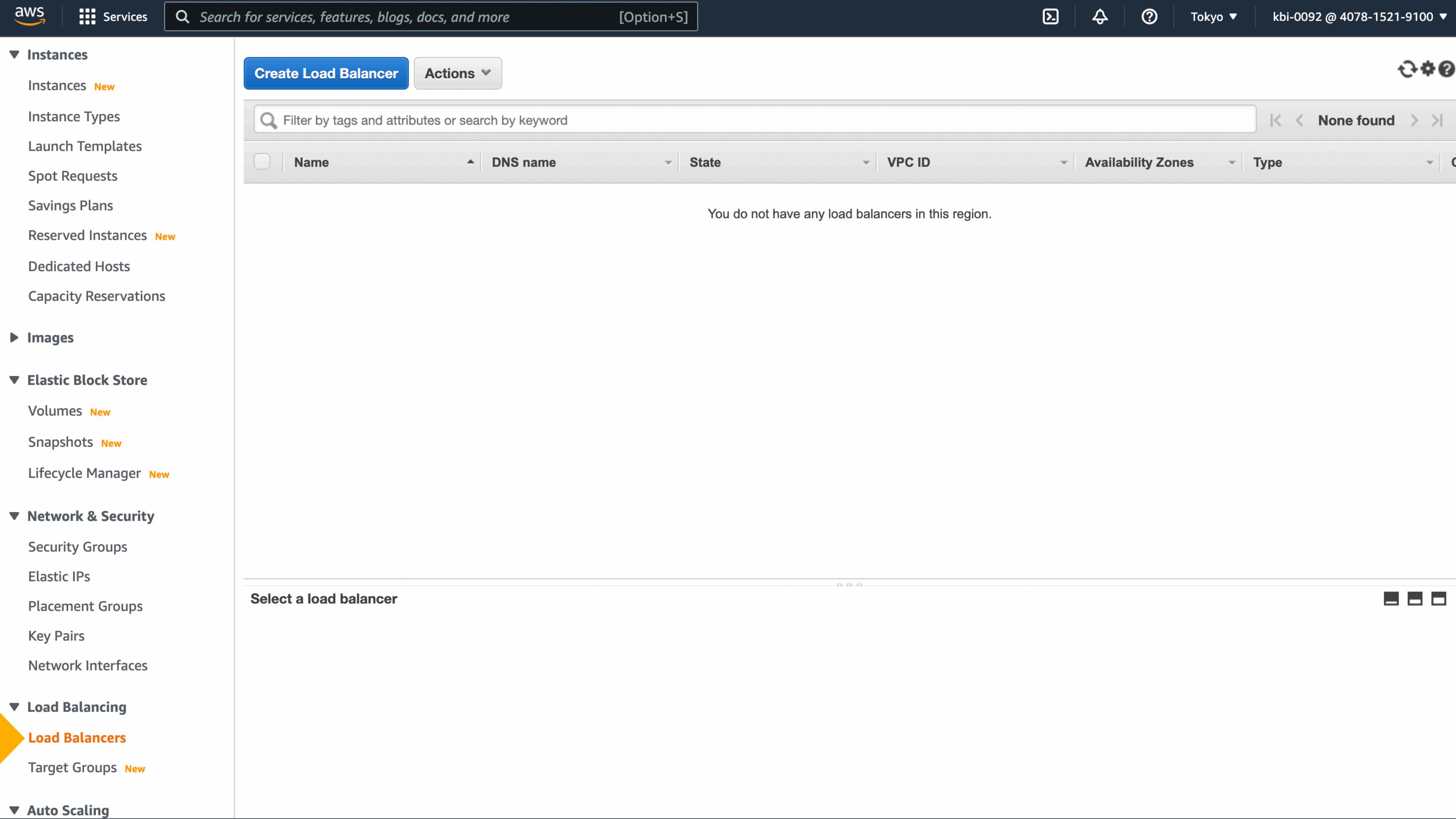
**Page Footer:**

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# LB 인스턴스 생성

## LB 등록



The screenshot shows the AWS Lambda service page. On the left, there is a sidebar with the following navigation items:

- Instances**
  - Instances [New](#)
  - Instance Types
  - Launch Templates
  - Spot Requests
  - Savings Plans
  - Reserved Instances [New](#)
  - Dedicated Hosts
  - Capacity Reservations
- Images**
- Elastic Block Store**
  - Volumes [New](#)
  - Snapshots [New](#)
  - Lifecycle Manager [New](#)
- Network & Security**
  - Security Groups
  - Elastic IPs
  - Placement Groups
  - Key Pairs
  - Network Interfaces
- Load Balancing**
  - Load Balancers** 1
    - Target Groups [New](#)
- Auto Scaling**

The main content area has the following elements:

- A blue button labeled "Create Load Balancer".
- An "Actions" dropdown menu.
- A search bar with placeholder text "Filter by tags and attributes or search by keyword".
- A message: "You do not have any load balancers in this region."
- A section titled "Select a load balancer" with three small icons.
- Page footer with links: Feedback, Unified Settings, © 2022, Amazon Web Services, Inc. or its affiliates., Privacy, Terms, and Cookie preferences.

# LB 인스턴스 생성

## LB 등록

The screenshot shows the AWS Lambda service console. On the left, there is a navigation sidebar with the following categories:

- Instances**:
  - Instances [New](#)
  - Instance Types
  - Launch Templates
  - Spot Requests
  - Savings Plans
  - Reserved Instances [New](#)
  - Dedicated Hosts
  - Capacity Reservations
- Images**
- Elastic Block Store**:
  - Volumes [New](#)
  - Snapshots [New](#)
  - Lifecycle Manager [New](#)
- Network & Security**:
  - Security Groups
  - Elastic IPs
  - Placement Groups
  - Key Pairs
  - Network Interfaces
- Load Balancing**:
  - Load Balancers** (highlighted with a yellow arrow labeled '1')
    - Target Groups [New](#)
- Auto Scaling**

The main content area shows the 'Create Load Balancer' button highlighted with a yellow arrow labeled '2'. Below it is a search bar and a table header with columns: Name, DNS name, State, VPC ID, Availability Zones, and Type. A message at the bottom states: "You do not have any load balancers in this region."

At the bottom of the page, there are links for Feedback, Unified Settings, Copyright notice (© 2022, Amazon Web Services, Inc. or its affiliates.), Privacy, Terms, and Cookie preferences.

# LB 인스턴스 생성

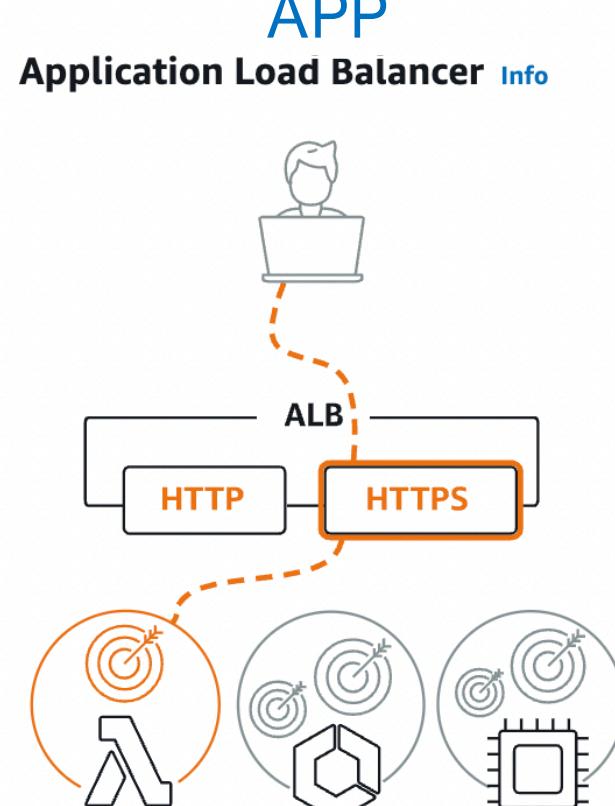
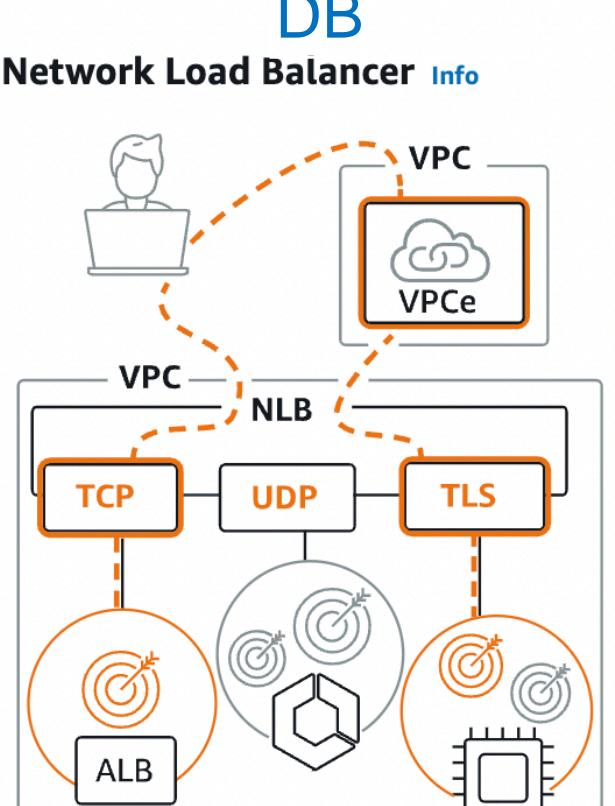
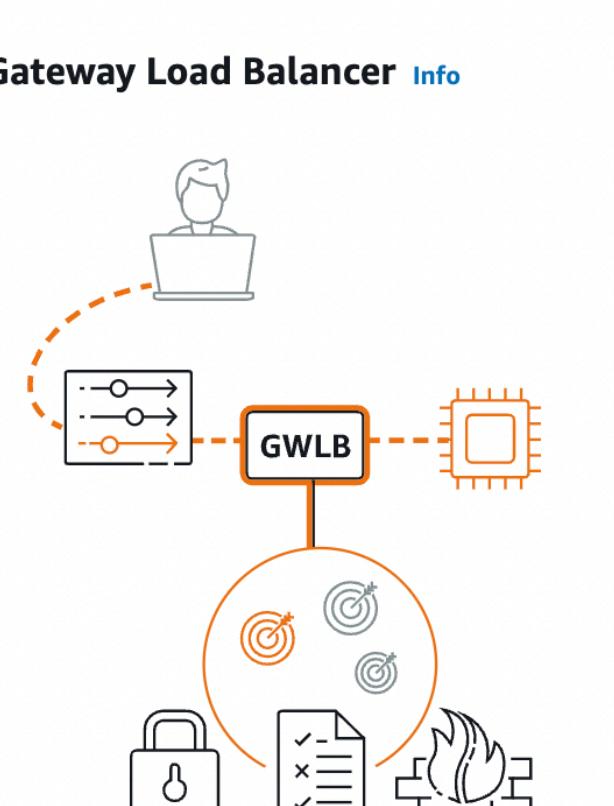
## LB 등록

aws Services Search for services, features, blogs, docs, and more [Option+S] Tokyo kbi-0092 @ 4078-1521-9100 ⓘ

EC2 > Load balancers > Select load balancer type

### Select load balancer type

A complete feature-by-feature comparison along with detailed highlights is also available. [Learn more](#)

Load balancer types		
<b>APP</b> <b>Application Load Balancer</b> <a href="#">Info</a>  <p>Choose an Application Load Balancer when you need a flexible feature set for your applications with HTTP and HTTPS traffic. Operating at the request level, Application Load Balancers provide advanced routing and visibility features targeted at application architectures, including microservices and containers.</p> <p><a href="#">Create</a></p>	<b>DB</b> <b>Network Load Balancer</b> <a href="#">Info</a>  <p>Choose a Network Load Balancer when you need ultra-high performance, TLS offloading at scale, centralized certificate deployment, support for UDP, and static IP addresses for your applications. Operating at the connection level, Network Load Balancers are capable of handling millions of requests per second securely while maintaining ultra-low latencies.</p> <p><a href="#">Create</a></p>	<b>Gateway Load Balancer</b> <a href="#">Info</a>  <p>Choose a Gateway Load Balancer when you need to deploy and manage a fleet of third-party virtual appliances that support GENEVE. These appliances enable you to improve security, compliance, and policy controls.</p> <p><a href="#">Create</a></p>

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An orange arrow points to the "Create" button under the Application Load Balancer section.

# LB 인스턴스 생성

## LB 등록

The screenshot shows the 'Create Application Load Balancer' wizard on the AWS Management Console. The page is titled 'Create Application Load Balancer' and includes a description of what an Application Load Balancer does. The 'Basic configuration' section is active, containing the following fields:

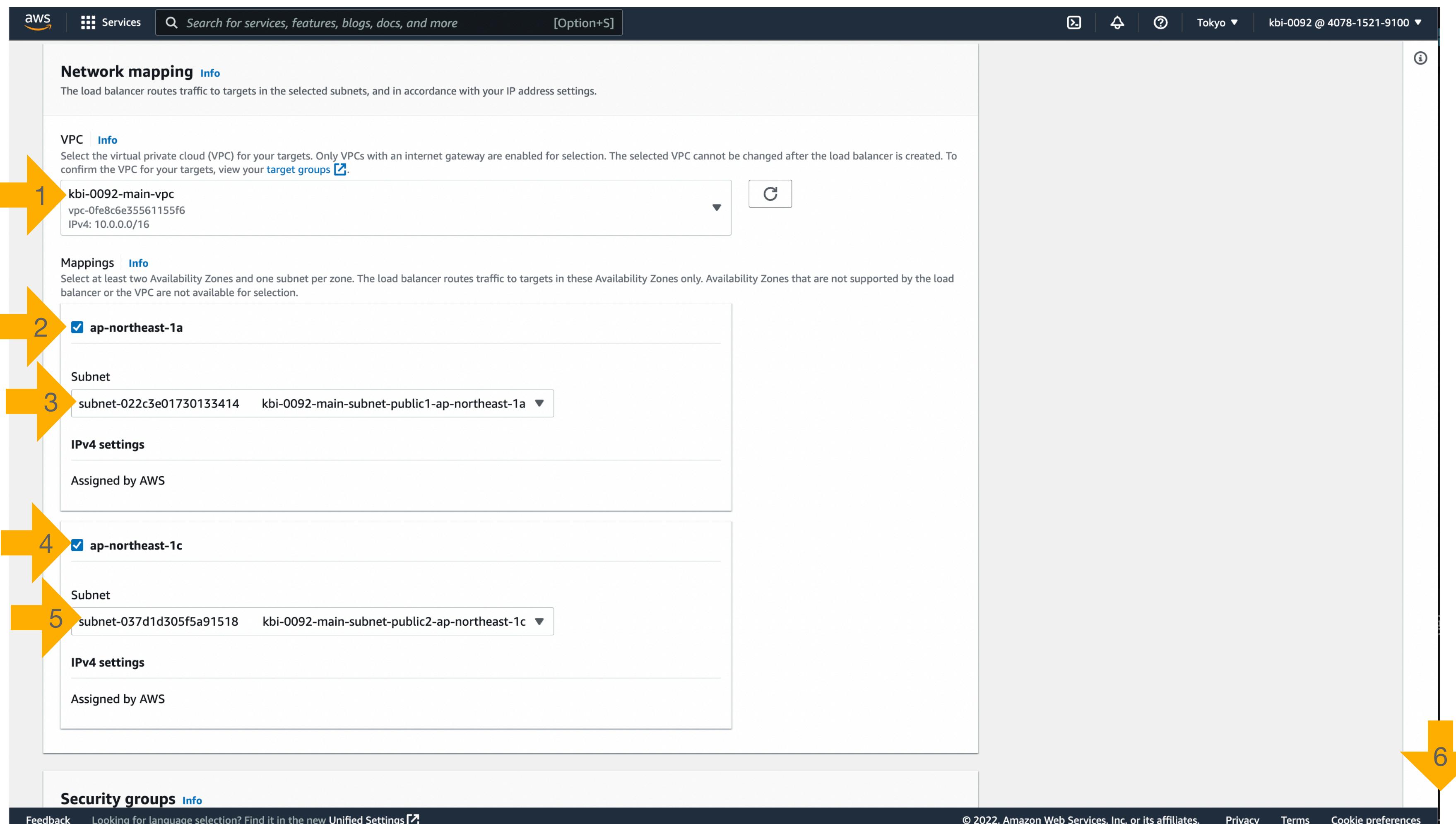
- Load balancer name:** demo-lb (highlighted by a large orange arrow labeled '1').
- Scheme:** Internet-facing (highlighted by a large orange arrow labeled '2').
- IP address type:** IPv4 (highlighted by a large orange arrow labeled '3').

Below the configuration section is a 'Network mapping' section with the following text:  
The load balancer routes traffic to targets in the selected subnets, and in accordance with your IP address settings.

At the bottom of the page, there are several footer links: Feedback, Looking for language selection? Find it in the new Unified Settings, © 2022, Amazon Web Services, Inc. or its affiliates., Privacy, Terms, and Cookie preferences. A large orange arrow labeled '4' points downwards from the bottom right towards the 'Cookie preferences' link.

# LB 인스턴스 생성

## LB 등록



# LB 인스턴스 생성

## LB 등록

The screenshot shows the AWS Load Balancer creation process. Step 1 highlights the selection of security groups, Step 2 highlights the configuration of a listener (port 80), and Step 3 indicates the final step.

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

**Select up to 5 security groups**

**Create new security group**

**Listeners and routing**  
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.

**Listener HTTP:80**

**Protocol**: HTTP : Port 80  
1-65535

**Default action**  
Forward to LB-VMS HTTP  
Target type: Instance, IPv4

**Add target group**

**Add listener**

**Add-on services - optional**

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**포트 설정 주의!!**

- 1
- 2
- 3

# LB 인스턴스 생성

## LB 등록

The screenshot shows the AWS Load Balancer creation wizard. At the top, there's a navigation bar with the AWS logo, a search bar, and account information (Tokyo, kbi-0092 @ 4078-1521-9100). The main area displays configuration steps:

- AWS Global Accelerator Info:** A note about creating an accelerator for static IP addresses.
- Tags - optional:** A section for adding tags to the load balancer.
- Summary:** A review of the configurations:
  - Basic configuration:** Load balancer name: demo-lb, Internet-facing, IPv4.
  - Security groups:** default (sg-041c4aa18bc06efc6), webserver security group (sg-048ed5d3dd4ba4c32).
  - Network mapping:** VPC (vpc-0fe8c6e35561155f6), subnet (subnet-022c3e01730133414), and two application load balancers (ap-northeast-1a and ap-northeast-1c).
  - Listeners and routing:** An HTTP listener on port 80 routing to LB-VMS.
- Add-on services:** None.
- Attributes:** A note stating certain default attributes will be applied after creation.

At the bottom right, a large orange button with a yellow arrow contains the text "1 Create load balancer".

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# LB 인스턴스 생성

## LB 등록

The screenshot shows the AWS Lambda console with the following details:

- Header:** AWS logo, Services menu, search bar ("Search for services, features, blogs, docs, and more"), Option+S keybinding, notifications, account info (Tokyo, kbi-0092 @ 4078-1521-9100), and a dropdown menu.
- Success Message:** A green banner at the top states "Successfully created load balancer: demo-lb" with a note: "Note: It might take a few minutes for your load balancer to be fully set up and ready to route traffic. Targets will also take a few minutes to complete the registration process and pass initial health checks."
- Breadcrumbs:** EC2 > Load balancers > Create Application Load Balancer
- Title:** Create Application Load Balancer
- Suggested next steps:**
  - Review, customize, or enable attributes for your load balancer and listeners using the **Description** and **Listeners** tabs within [demo-lb](#).
  - Discover other services that you can integrate with your load balancer. Visit the **Integrated services** tab within [demo-lb](#).
- Action Button:** An orange button labeled "View load balancer" is highlighted with a large yellow arrow pointing to it.
- Page Footer:** Feedback link, language selection note ("Looking for language selection? Find it in the new Unified Settings"), copyright notice ("© 2022, Amazon Web Services, Inc. or its affiliates."), and links for Privacy, Terms, and Cookie preferences.

# LB 인스턴스 생성

## LB 등록

The screenshot shows the AWS Elastic Load Balancing (ELB) service in the AWS Management Console. The left sidebar shows the EC2 dashboard and various instance-related options like Instance Types, Launch Templates, and Spot Requests. The main content area displays a table of existing load balancers, with one entry for 'demo-lb'. A large orange arrow points to the 'Name' field in the 'Basic Configuration' section, which is currently set to 'demo-lb'. Other configuration details shown include the ARN, State (Provisioning), Type (application), Scheme (internet-facing), IP address type (IPv4), VPC (vpc-0fe8c6e35561155f6), Availability Zones (ap-northeast-1a, ap-northeast-1c), and Hosted zone (Z14GRHDCWA56QT). The bottom of the page includes standard AWS navigation links for Feedback, Language selection, and legal notices.

Load balancer: demo-lb

Description    Listeners    Monitoring    Integrated services    Tags

**Basic Configuration**

Name	demo-lb
ARN	arn:aws:elasticloadbalancing:ap-northeast-1:407815219100:loadbalancer/app/demo-lb/803dac5c6e56f6a2
DNS Name	demo-lb-987731382.ap-northeast-1.elb.amazonaws.com
State	Provisioning
Type	application
Scheme	internet-facing
IP address type	ipv4
VPC	vpc-0fe8c6e35561155f6
Availability Zones	subnet-022c3e01730133414 - ap-northeast-1a subnet-037d1d305f5a91518 - ap-northeast-1c
Hosted zone	Z14GRHDCWA56QT

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# LB 인스턴스 생성

## LB 등록

The screenshot shows the AWS Elastic Load Balancing (ELB) service in the AWS Management Console. The left sidebar is the EC2 dashboard, and the main area is titled "Create Load Balancer". A search bar at the top right shows "search : demo-lb". The results table lists one item: "demo-lb" with details: Name: demo-lb, DNS name: demo-lb-987731382.ap-northeast-1.elb.amazonaws.com, State: Provisioning, VPC ID: vpc-0fe8c6e35561155f6, Availability Zones: ap-northeast-1a, ap-northeast-1c, Type: application, Created At: September 27, 2022 at 2:17:...". Below the table, the "Load balancer: demo-lb" configuration page is shown. The "Basic Configuration" section includes fields for Name (demo-lb), ARN (arn:aws:elasticloadbalancing:ap-northeast-1:407815219100:loadbalancer/app/demo-lb/803dac5c6e56f6a2), State (Provisioning), Type (application), Scheme (internet-facing), IP address type (ipv4), VPC (vpc-0fe8c6e35561155f6), Availability Zones (subnet-022c3e01730133414 - ap-northeast-1a, subnet-037d1d305f5a91518 - ap-northeast-1c), Hosted zone (Z14GRHDCWA56QT), and subnets (Edit subnets). A large orange arrow labeled "1" points to the ARN field. The "Listeners", "Monitoring", "Integrated services", and "Tags" tabs are also visible.

Load balancer: demo-lb

Description    Listeners    Monitoring    Integrated services    Tags

**Basic Configuration**

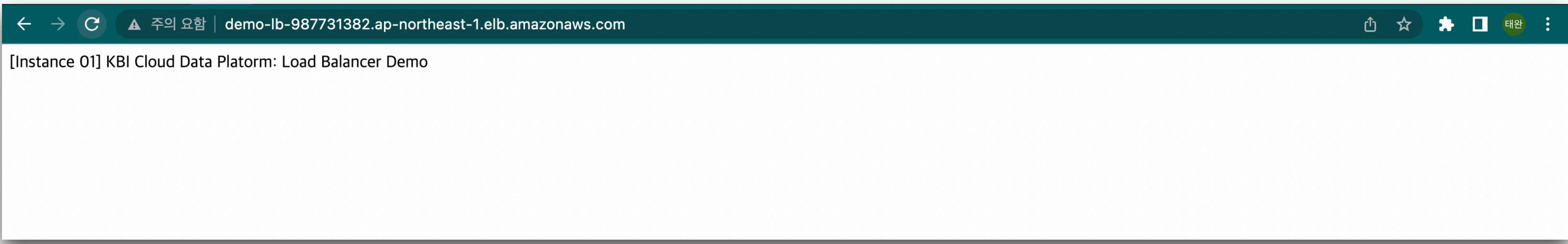
Name	demo-lb
ARN	arn:aws:elasticloadbalancing:ap-northeast-1:407815219100:loadbalancer/app/demo-lb/803dac5c6e56f6a2
D 1	demo-lb-987731382.ap-northeast-1.elb.amazonaws.com
State	Provisioning
Type	application
Scheme	internet-facing
IP address type	ipv4
VPC	vpc-0fe8c6e35561155f6
Availability Zones	subnet-022c3e01730133414 - ap-northeast-1a IPv4 address: Assigned by AWS
	subnet-037d1d305f5a91518 - ap-northeast-1c IPv4 address: Assigned by AWS
Hosted zone	Z14GRHDCWA56QT

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# LB 인스턴스 생성

## LB 테스트



# LB 인스턴스 생성

## LB 모드 변환: Stickiness

어디에서 변경해야 할까요?