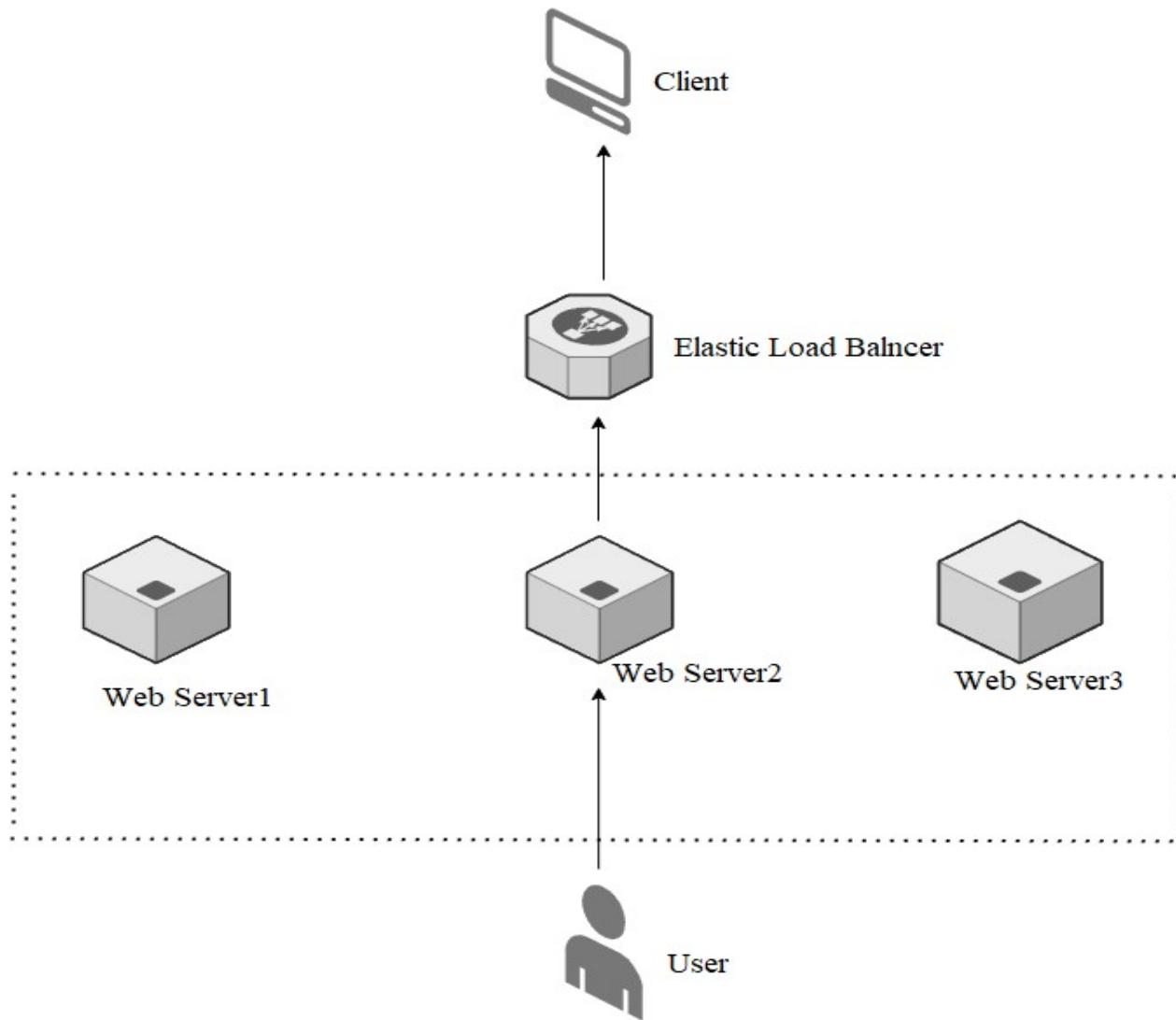


# PROJECT 1

Create a web app and deploy it on EC2 instance with different Linux distributions. Web app has to have LOAD BALANCING, but deployment should be done with different user and website should be added by different AWS IAM user. And web app should have at least 3 html pages (more are always good).

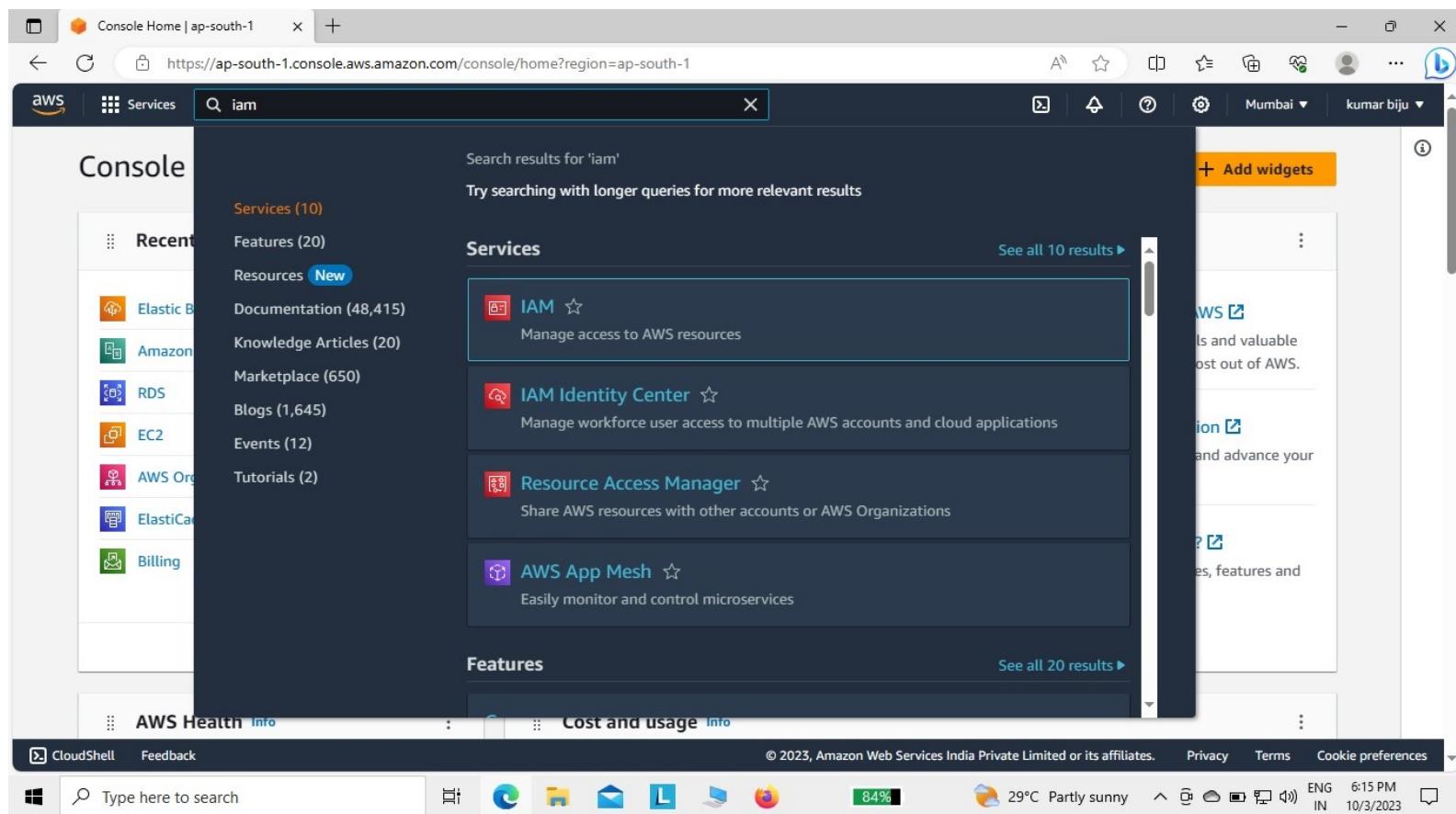
# Create Architecture Diagram



# CREATE A IAM USER

Create a IAM user. First Login to AWS Console page and login root user as per guide. After login root user in AWS then Search IAM Page.

1. Search the IAM page and click the IAM button



## 2. Give a name IAM user and scroll down.

The screenshot shows the AWS IAM User Creation Wizard, Step 2: Set permissions. The left sidebar lists steps: Step 2 (Set permissions), Step 3 (Review and create), and Step 4 (Retrieve password). The main area is titled "User details" and shows the "User name" field set to "Ruchita". Below it, a note states: "The user name can have up to 64 characters. Valid characters: A-Z, a-z, 0-9, and + = , . @ \_ - (hyphen)". A checkbox labeled "Provide user access to the AWS Management Console - optional" is checked, with a note below it: "If you're providing console access to a person, it's a best practice [link] to manage their access in IAM Identity Center." A callout box asks "Are you providing console access to a person?" with two options: "Specify a user in Identity Center - Recommended" (unselected) and "I want to create an IAM user" (selected). The selected option notes: "We recommend that you create IAM users only if you need to enable programmatic access through access keys, service-specific credentials for AWS CodeCommit or Amazon Keyspaces, or a backup credential for emergency account access." Below this, the "Console password" section shows "Custom password" selected, with a note: "Enter a custom password for the user." At the bottom, the footer includes links for CloudShell, Feedback, Privacy, Terms, and Cookie preferences, along with system status icons for battery (83%), weather (29°C Partly sunny), and date/time (10/3/2023).

# 3.Create a custom Password and click next page

The screenshot shows the AWS IAM User Creation Wizard, Step 3: Set Password. The URL in the browser is <https://us-east-1.console.aws.amazon.com/iamv2/home?region=ap-south-1#/users/create>. The page title is "Create user | IAM | Global".

**I want to create an IAM user**  
We recommend that you create IAM users only if you need to enable programmatic access through access keys, service-specific credentials for AWS CodeCommit or Amazon Keypairs, or a backup credential for emergency account access.

**Console password**

Autogenerated password  
You can view the password after you create the user.

Custom password  
Enter a custom password for the user.  
.....

Must be at least 8 characters long  
Must include at least three of the following mix of character types: uppercase letters (A-Z), lowercase letters (a-z), numbers (0-9), and symbols ! @ # \$ % ^ & \* ( ) \_ + - (hyphen) = [ ] { } |'

Show password

Users must create a new password at next sign-in - Recommended  
Users automatically get the [IAMUserChangePassword](#) policy to allow them to change their own password.

If you are creating programmatic access through access keys or service-specific credentials for AWS CodeCommit or Amazon Keypairs, you can generate them after you create this IAM user. [Learn more](#)

Cancel **Next**

CloudShell Feedback © 2023, Amazon Web Services India Private Limited or its affiliates. Privacy Terms Cookie preferences

Type here to search

82% 29°C Partly sunny ENG IN 6:19 PM 10/3/2023

# 4. Assigned the group and click the scroll down page

The screenshot shows the AWS IAM User Creation process at Step 2: Set permissions. The main content area displays the 'Permissions options' section with three choices:

- Add user to group: Add user to an existing group, or create a new group. We recommend using groups to manage user permissions by job function.
- Copy permissions: Copy all group memberships, attached managed policies, and inline policies from an existing user.
- Attach policies directly: Attach a managed policy directly to a user. As a best practice, we recommend attaching policies to a group instead. Then, add the user to the appropriate group.

Below this, the 'User groups (1/1)' section shows a table with one entry:

Group name	Users	Attached policies	Created
<a href="#">Trainingpurpose</a>	1	<a href="#">AdministratorAccess</a>	2023-09-03 (30 days...)

At the bottom, there is an optional section titled 'Set permissions boundary - optional'.

At the very bottom of the browser window, the Windows taskbar is visible with various icons and system status information.

# 5. Give Administrative access and click the next page

The screenshot shows a browser window for the AWS IAM User Creation wizard. The URL is <https://us-east-1.console.aws.amazon.com/iamv2/home?region=ap-south-1#/users/create>. The page is titled "Create user | IAM | Global". The main section is "Set permissions boundary - optional". It includes a note about using a permissions boundary to control maximum permissions, a checked checkbox for "Use a permissions boundary to control the maximum permissions", and a "Permissions policies" list. The list shows three AWS managed policies: "AmazonCognitoDeveloperAuthenticatedUsersAccess", "AWSCodeBuildDeveloperAccess", and "AWSProtonDeveloperAccess". The "AWSCodeBuildDeveloperAccess" policy is selected. Navigation buttons at the bottom right include "Cancel", "Previous", and "Next".

Set permissions boundary - *optional*

Set a permissions boundary to control the maximum permissions for this user. Use this advanced feature used to delegate permission management to others. [Learn more](#)

Use a permissions boundary to control the maximum permissions  
You can select one of the existing permissions policies to define the boundary.

**Permissions policies (1/1131)**

Select policy to set the permissions boundary.

Policy name	Type	Attached entities
AmazonCognitoDeveloperAuthenticatedUsersAccess	AWS managed	0
AWSCodeBuildDeveloperAccess	AWS managed	0
AWSProtonDeveloperAccess	AWS managed	0

Filter by Type

deve

All types

3 matches

Cancel Previous Next

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Type here to search

82%

29°C Partly sunny ENG 6:21 PM IN 10/3/2023

# 6. Now review and create a IAM user

The screenshot shows the AWS IAM 'Create user' wizard at Step 1: Review and create. The left sidebar lists steps: Step 1 (Specify user details), Step 2 (Set permissions), Step 3 (Review and create), and Step 4 (Retrieve password). The main area displays 'User details' and 'Permissions summary'.

**User details:**

User name	Console password type	Require password reset
Ruchita	Custom password	Yes

**Permissions summary:**

Name	Type	Used as
<a href="#">AWSCodeBuildDeveloperAccess</a>	AWS managed	Permissions boundary
<a href="#">IAMUserChangePassword</a>	AWS managed	Permissions policy
<a href="#">Trainingpurpose</a>	Group	Permissions group

At the bottom, there are buttons for 'Create user' and 'Cancel'.

# 7. Now Successfully create IAM user. Now download user credential future reference

The screenshot shows the AWS Management Console interface for creating a new IAM user. The top navigation bar includes tabs for 'Create user | IAM | Global' and a search bar. The main content area displays a green success message: 'User created successfully' with a checkmark icon. It also provides instructions: 'You can view and download the user's password and email instructions for signing in to the AWS Management Console.' Below this, the breadcrumb navigation shows 'IAM > Users > Create user'. The process is divided into four steps: Step 1 (Specify user details), Step 2 (Set permissions), Step 3 (Review and create), and Step 4 (Retrieve password). Step 4 is currently active, titled 'Retrieve password'. It contains a section for 'Console sign-in details' with a link to 'Email sign-in instructions'. Below this, it lists the 'Console sign-in URL' as <https://133935829274.signin.aws.amazon.com/console>, the 'User name' as 'Ruchita', and the 'Console password' as a masked string followed by a 'Show' link. At the bottom of the page are buttons for 'Cancel', 'Download .csv file', and 'Return to users list'. The bottom of the screen shows the Windows taskbar with various pinned icons and system status information.

After successfully create IAM user then login AWS consol page and click IAM user and Give username and password now open IAM user Page.

The screenshot shows the AWS Console Home page. At the top, there's a navigation bar with File, Edit, View, History, Bookmarks, Tools, and Help. Below it is a toolbar with a logo, a search bar containing 'Console Home | ap-southeast-2 X', and a URL bar showing 'https://ap-southeast-2.console.aws.amazon.com/console/home?nc2=h\_ct&region=ap-southeast-2&src=header-signin#'. The main content area has three columns: 'Recently visited' (EFS, VPC, Billing, ElastiCache, AWS Organizations, EC2, RDS), 'Welcome to AWS' (Getting started with AWS, Training and certification, What's new with AWS?), and 'AWS Health' (Open issues, Scheduled changes, Other notifications). A bottom navigation bar includes CloudShell, Feedback, and links to various AWS services like CloudWatch, Lambda, and S3. The status bar at the bottom shows battery level (93%), temperature (29°C), weather (Partly sunny), and system information (ENG IN 5:42 PM 10/4/2023).

# CREATE A SECOND IAM USER

Create a IAM user. First Login to AWS Console page and login root user as per guide. After login root user in AWS then Search IAM Page.

Follow the previous step 1to 7 and now create successfully second IAM User.

The screenshot shows the AWS EC2 Dashboard in the Asia Pacific (Sydney) Region. The left sidebar includes links for EC2 Dashboard, Instances (with sub-links for Instances, Instance Types, Launch Templates, Spot Requests, Savings Plans, Reserved Instances, Dedicated Hosts, and Capacity Reservations), and Images (with sub-links for AMIs and AMI Catalog). The main content area displays a grid of resource counts: Instances (running) 0, Auto Scaling Groups 0, Dedicated Hosts 0, Elastic IPs 0, Instances 3, Key pairs 2, Load balancers 0, Placement groups 0, Security groups 2, Snapshots 0, and Volumes 0. Below this is a 'Launch instance' section with a note to get started. To the right, the 'Account attributes' section shows the Default VPC (vpc-05dff080b19a8db07) and various settings like Data protection and security, Zones, EC2 Serial Console, Default credit specification, and Console experiments. An 'Explore AWS' section highlights up to 40% better performance and 20% lower cost by moving workloads to Graviton-based instances. The bottom navigation bar includes links for Feedback, Privacy, Terms, and Cookie preferences, along with system status indicators for battery, signal, and network.

# CREATE A EC2 INSTANCE

Go to search and type EC2 and click create button.  
1.Create a Ec2 instance and name is Web1.

The screenshot shows the AWS EC2 'Launch an instance' wizard. In the 'Name and tags' section, the 'Name' field contains 'Web1'. The 'Software Image (AMI)' section shows 'Amazon Linux 2023 AMI 2023.2.2...read more ami-0e12285fd54f7620'. The 'Virtual server type (instance type)' is set to 't2.micro'. Under 'Application and OS Images (Amazon Machine Image)', there is a note about AMIs and a search bar. The right side of the screen displays a summary of the configuration, including the number of instances (1), software image, instance type, security group, storage, and a 'Launch instance' button.

File Edit View History Bookmarks Tools Help

Launch an instance | EC2 | ap-southeast-2 | +

https://ap-southeast-2.console.aws.amazon.com/ec2/home?region=ap-southeast-2#LaunchInstances:

aws Services Search [Alt+S]

EC2 > Instances > Launch an instance

Launch an instance [Info](#)

Amazon EC2 allows you to create virtual machines, or instances, that run on the AWS Cloud. Quickly get started by following the simple steps below.

Name and tags [Info](#)

Name  Add additional tags

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

Feedback

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Type here to search

92%

29°C Partly sunny

ENG IN 5:44 PM 10/4/2023

## 2. Choose AMI image Amazon Linux as per configuration

The screenshot shows the AWS EC2 console interface. In the top navigation bar, the URL is https://ap-southeast-2.console.aws.amazon.com/ec2/home?region=ap-southeast-2#LaunchInstances:. The search bar contains 'Search' and the keyboard shortcut [Alt+S]. On the left, there's a 'Quick Start' section with icons for various AMIs: Amazon Linux, macOS, Ubuntu, Windows, Red Hat, and SUSE Linux. Below this, the 'Amazon Machine Image (AMI)' section displays 'Amazon Linux 2023 AMI' with the AMI ID ami-0e812285fd54f7620. It lists details like 'Free tier eligible', 'Virtualization: hvm', 'ENA enabled: true', and 'Root device type: ebs'. To the right, the 'Summary' section shows the configuration for launching one instance. It includes fields for 'Software Image (AMI)', 'Virtual server type (instance type)', 'Firewall (security group)', 'Storage (volumes)', and a large 'Launch instance' button. At the bottom, there are links for 'Review commands', 'Cancel', and 'Launch instance'.

# 3.Create a key pair and give name project1

The screenshot shows the AWS Management Console interface for creating a new key pair. The browser window title is "EC2 | ap-southeast-2". The URL is "https://ap-southeast-2.console.aws.amazon.com/ec2/home?region=ap-southeast-2#LaunchInstances:". The AWS logo is visible in the top left, and the user "Ruchita @ 1339-3582-9274" is logged in.

**Key pair name:** project1

**Key pair type:** RSA (selected)

**Private key file format:** .ppk (selected)

**Warning:** 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. [Learn more](#)

**Buttons:** Cancel, Create key pair

**Feedback Bar:** Type here to search, battery level (86%), temperature (29°C), weather (Partly sunny), and system status (ENG IN 6:00 PM 10/4/2023).

# 4. Select the key pair and scroll down page

The screenshot shows the AWS EC2 'Launch an instance' wizard. The current step is 'Key pair (login)'. It displays a dropdown menu for 'Key pair name - required' containing the value 'project'. A 'Create new key pair' button is visible next to the dropdown. To the right, the 'Summary' section is partially visible, showing settings for 1 instance, Amazon Linux 2023 AMI, t2.micro instance type, and a New security group. At the bottom right of the summary section is a large orange 'Launch instance' button.

File Edit View History Bookmarks Tools Help

Launch an instance | EC2 | ap-southeast-2 X +

https://ap-southeast-2.console.aws.amazon.com/ec2/home?region=ap-southeast-2#LaunchInstances:

aws Services Search [Alt+S]

Instance type Info

Instance type

t2.micro Free tier eligible

Family: t2 1 vCPU 1 GiB Memory Current generation: true  
On-Demand Linux base pricing: 0.0146 USD per Hour  
On-Demand Windows base pricing: 0.0192 USD per Hour  
On-Demand SUSE base pricing: 0.0146 USD per Hour  
On-Demand RHEL base pricing: 0.0746 USD per Hour

All generations

Compare instance types

Additional costs apply for AMIs with pre-installed software

Key pair (login) Info

You can use a key pair to securely connect to your instance. Ensure that you have access to the selected key pair before you launch the instance.

Key pair name - required

project

Create new key pair

Summary

Number of instances Info

1

Software Image (AMI)

Amazon Linux 2023 AMI 2023.2.2... read more

ami-0e812285fd54f7620

Virtual server type (instance type)

t2.micro

Firewall (security group)

New security group

Storage (volumes)

1 volume(s) - 8 GiB

Cancel

Launch instance

Review commands

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Type here to search 91% 29°C Partly sunny ENG 5:46 PM IN 10/4/2023

# 5.Create a Security Group and allow HTTP and HTTPS

The screenshot shows the AWS EC2 Launch Wizard interface. On the left, under 'Network settings', it lists a VPC (vpc-05dff080b19a8db07) and a subnet (No preference). It also shows options for auto-assigning a public IP and enabling a security group. A note indicates that a new security group will be created named 'launch-wizard-1' with rules for SSH, HTTPS, and HTTP traffic. On the right, the 'Summary' section shows 1 instance and 1 volume (8 GiB). A tooltip provides information about the free tier. At the bottom, there are 'Cancel', 'Launch instance', and 'Review commands' buttons.

File Edit View History Bookmarks Tools Help

Launch an instance | EC2 | ap-southeast-2

https://ap-southeast-2.console.aws.amazon.com/ec2/home?region=ap-southeast-2#LaunchInstances:

aws Services Search [Alt+S]

Network settings [Info](#)

Network [Info](#)  
vpc-05dff080b19a8db07

Subnet [Info](#)  
No preference (Default subnet in any availability zone)

Auto-assign public IP [Info](#)  
Enable

Firewall (security groups) [Info](#)  
A security group is a set of firewall rules that control the traffic for your instance. Add rules to allow specific traffic to reach your instance.

Create security group    Select existing security group

We'll create a new security group called 'launch-wizard-1' with the following rules:

Allow SSH traffic from Anywhere  
Helps you connect to your instance  
0.0.0.0/0

Allow HTTPS traffic from the internet  
To set up an endpoint, for example when creating a web server

Allow HTTP traffic from the internet  
To set up an endpoint, for example when creating a web server

Summary

Number of instances [Info](#)  
1

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 100 GB of bandwidth to the internet.

Cancel **Launch instance** Review commands

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Type here to search 91% 29°C Partly sunny ENG IN 5:47 PM 10/4/2023

# 6. Configure the storage for ec2 instance and click the Launch Instance

The screenshot shows the AWS EC2 Launch Instance wizard. On the left, under 'Configure storage', a root volume of 8 GiB gp3 is selected as 'Root volume (Not encrypted)'. A note indicates that free tier eligible customers can get up to 30 GB of EBS General Purpose (SSD) or Magnetic storage. On the right, the summary panel shows 'Number of instances' set to 1, and '1 volume(s) - 8 GiB'. A detailed note about the free tier is displayed. At the bottom right are 'Cancel', 'Launch instance' (in orange), and 'Review commands' buttons.

File Edit View History Bookmarks Tools Help

Launch an instance | EC2 | ap-southeast-2

https://ap-southeast-2.console.aws.amazon.com/ec2/home?region=ap-southeast-2#LaunchInstances:

AWS Services Search [Alt+S]

Ruchita @ 1339-3582-9274

Number of instances **1**

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.

Cancel **Launch instance** Review commands

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Type here to search 91% 29°C Partly sunny ENG IN 5:48 PM 10/4/2023

# 7. Now ec2 is launching in few minutes

A screenshot of a web browser window displaying the AWS Cloud9 console at <https://ap-southeast-2.console.aws.amazon.com/ec2/home?region=ap-southeast-2#LaunchInstances>. The browser title bar says "Launch an instance | EC2 | ap-southeast-2". The AWS navigation bar shows "Services" and the user "Ruchita @ 1339-3582-9274". The main content area shows a progress bar for launching an instance, with the status "Creating security group rules" and a progress bar at 21%. Below the progress bar, there is a message: "Please wait while we launch your instance. Do not close your browser while this is loading." At the bottom of the screen, the Windows taskbar shows various pinned icons and the system tray.

File Edit View History Bookmarks Tools Help

Launch an instance | EC2 | ap-southeast-2 X

https://ap-southeast-2.console.aws.amazon.com/ec2/home?region=ap-southeast-2#LaunchInstances:

aws Services Search [Alt+S]

EC2 > Instances > Launch an instance

Launching instance  
Creating security group rules

21%

Please wait while we launch your instance.  
Do not close your browser while this is loading.

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Type here to search 90% 29°C Partly sunny ENG IN 5:48 PM 10/4/2023

# 8.Create a another new instance and give a name Web2

The screenshot shows the AWS EC2 Launch Instance wizard. The browser title bar reads "EC2 | ap-southeast-2". The URL is "https://ap-southeast-2.console.aws.amazon.com/ec2/home?region=ap-southeast-2#LaunchInstances:". The page header includes "aws" logo, "Services", "Search [Alt+S]", and user "Ruchita @ 1339-3582-9274". The main content area shows the "Launch an instance" process:

- Name and tags**: Name is set to "Web2".
- Application and OS Images (Amazon Machine Image)**: An AMI is selected: "Canonical, Ubuntu, 22.04 LTS, ami-0310483fb2b488153".
- Virtual server type (instance type)**: Selected: "t2.micro".
- Firewall (security group)**: New security group.
- Storage (volumes)**: 1 volume(s) - 8 GiB.

At the bottom right are "Cancel" and "Launch instance" buttons. The status bar at the bottom shows "89%", "29°C", "ENG IN", "5:51 PM", and "10/4/2023".

# 9. Choose the AMI image Ubuntu.

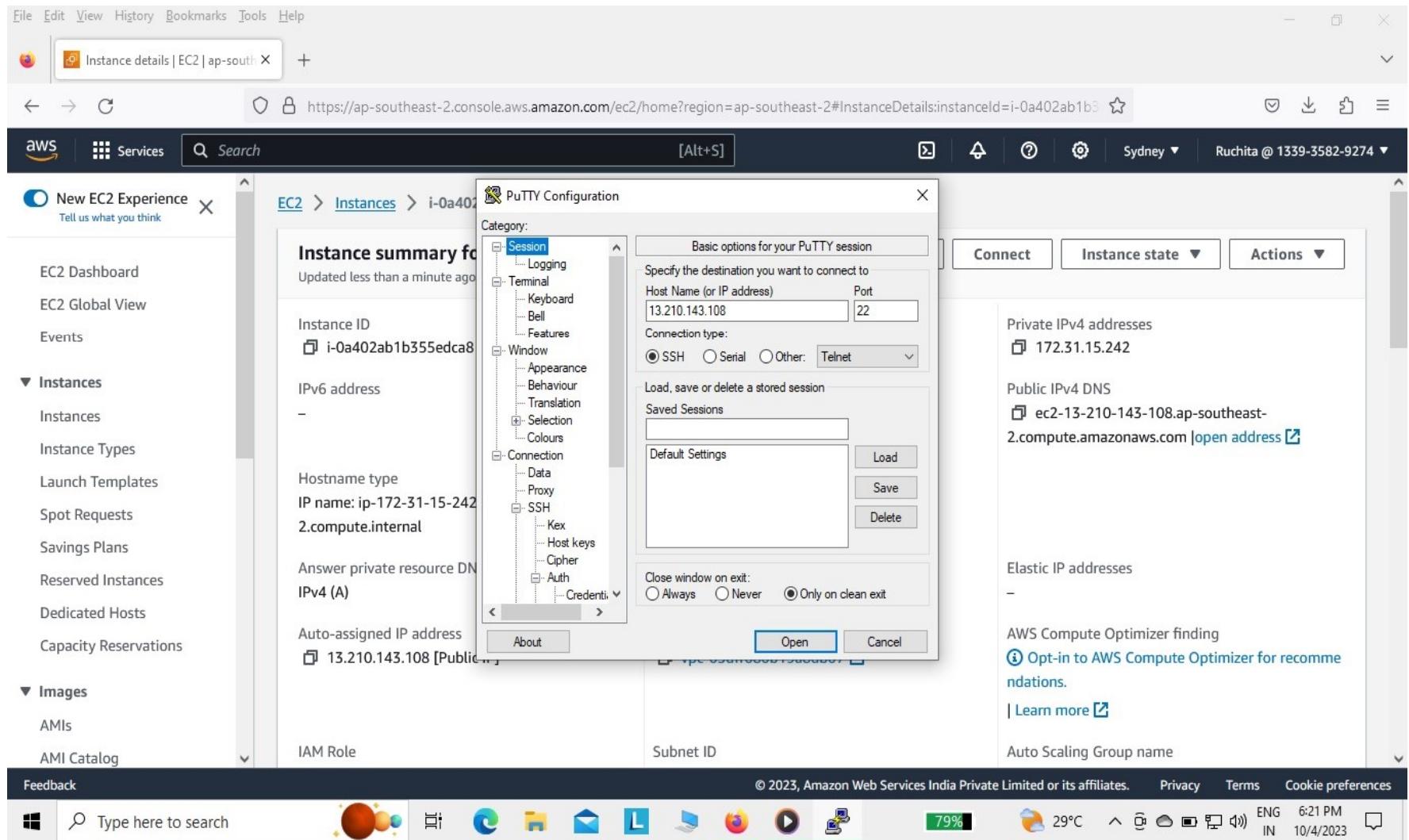
## Repeat the previous step 3 to 6.

The screenshot shows the AWS EC2 console interface. In the top navigation bar, the region is set to 'ap-southeast-2'. The main area displays various operating system options under 'Amazon Machine Image (AMI)'. The 'Ubuntu' option is selected, highlighted with a blue border. On the right side, a 'Summary' panel is open, showing configuration details for launching an instance. The summary includes:

- Number of instances:** 1
- Software Image (AMI):** Canonical, Ubuntu, 22.04 LTS, ami-0310483fb2b488153
- Virtual server type (instance type):** t2.micro
- Firewall (security group):** New security group
- Storage (volumes):** 1 volume(s) - 8 GiB

At the bottom of the summary panel are 'Cancel' and 'Launch instance' buttons. The status bar at the bottom of the browser window shows the date and time as 10/4/2023 5:52 PM.

# 10. Connect ec2 instance via Putty. Input IP address or credential and click open button



# Now Amazon Linux is connect and login

The screenshot shows the AWS EC2 Instance Details page for an Amazon Linux 2023 instance. A terminal window is open, displaying a successful SSH connection from a Windows host to the EC2 instance. The terminal output includes:

```
ec2-user@ip-172-31-15-242:~$ login as: ec2-user
Authenticating with public key "project1"
, _#
~\ #####
~~ \#####
~~ \###| Amazon Linux 2023
~~ \#/
~~ V~' ,-> https://aws.amazon.com/linux/amazon-linux-2023
~~ /_
~~ ._/
~~ /_/
/m/,-/ Last login: Wed Oct 4 12:35:36 2023 from 117.217.26.176
[ec2-user@ip-172-31-15-242 ~]$
```

The main pane displays the instance's configuration details:

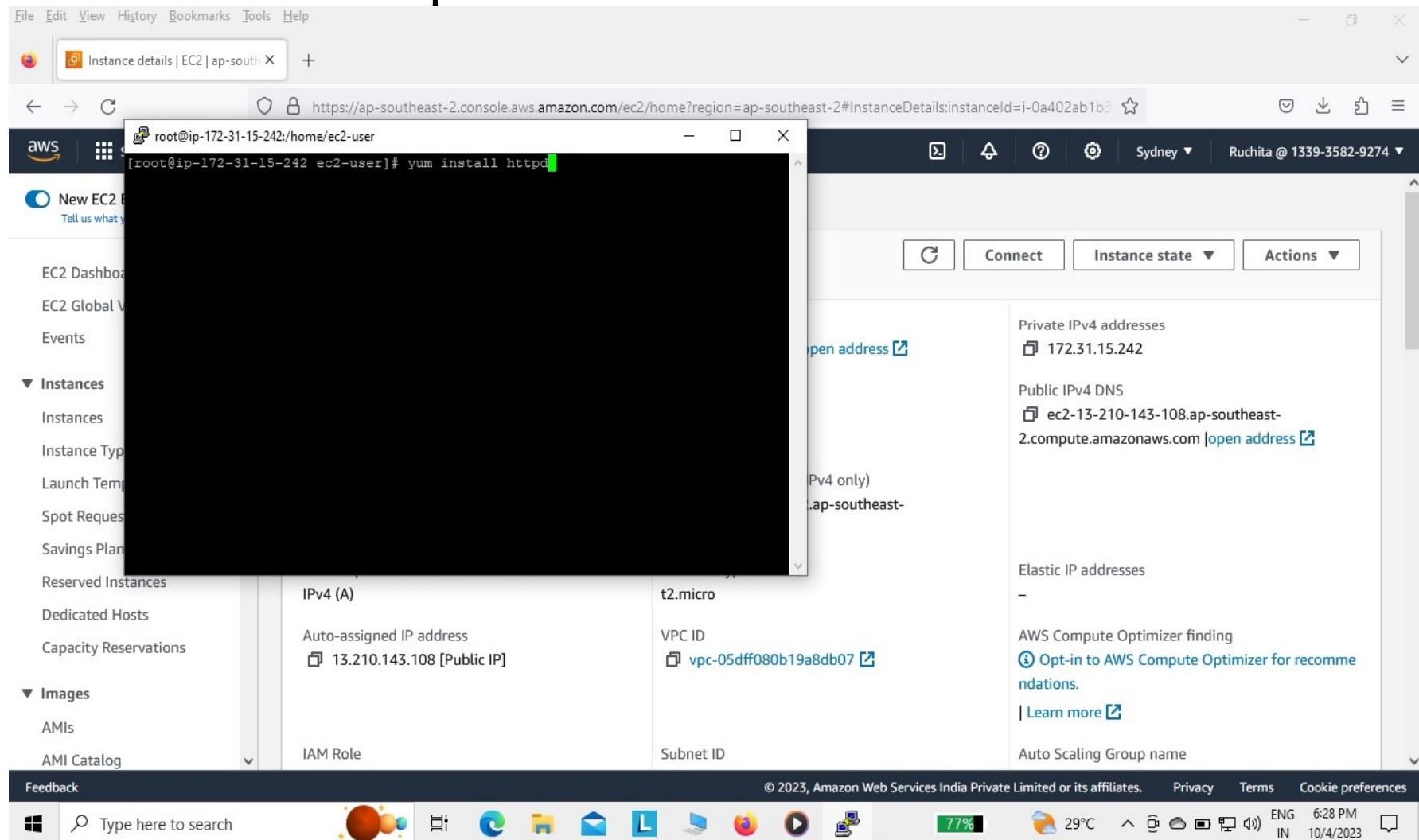
IPv4 (A)	t2.micro
Auto-assigned IP address 13.210.143.108 [Public IP]	VPC ID vpc-05dff080b19a8db07
IAM Role	Subnet ID
	Auto Scaling Group name

On the right side, there are sections for Private IPv4 addresses (172.31.15.242), Public IPv4 DNS (ec2-13-210-143-108.ap-southeast-2.compute.amazonaws.com), and Elastic IP addresses (none listed). A note about AWS Compute Optimizer is also present.

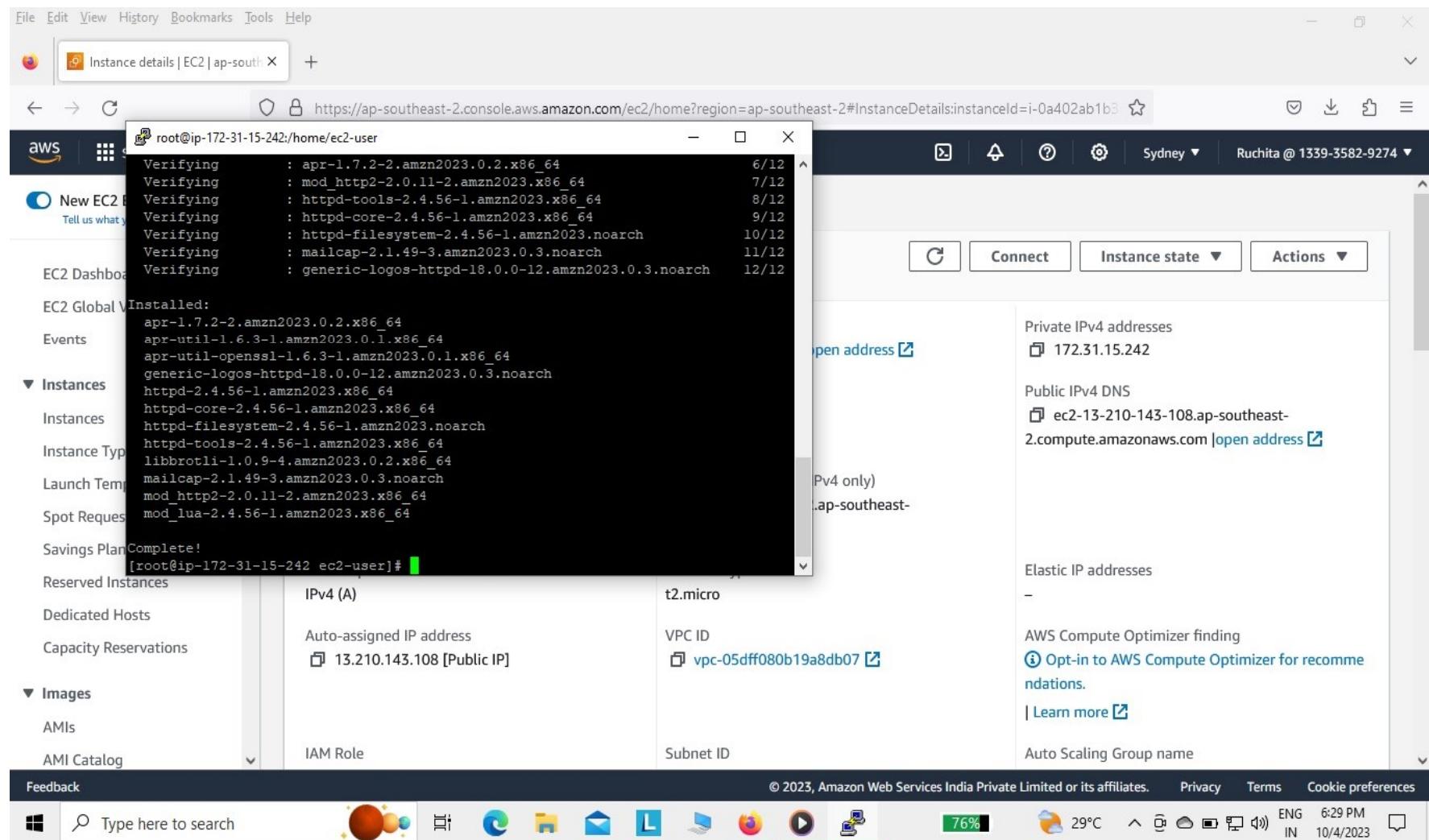
At the bottom, the Windows taskbar shows the search bar, file explorer, and other pinned icons.

# Create a Html Page

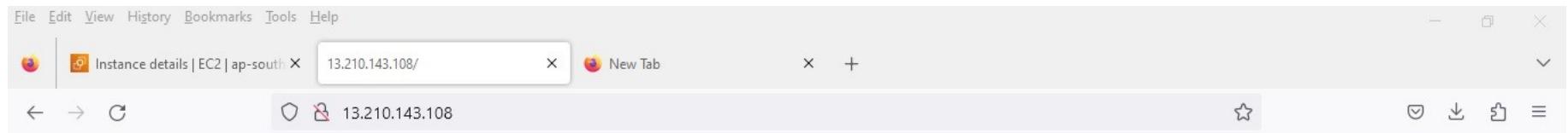
1. First go to root user in Amazon Linux and install the httpd server in Amazon Linux



## 2. Installation procedure is complete. Now create a HTML page.



### 3. Write HTML code and save. And run through browser via IP address



#### IAM User

Making Of AWS Project\_1.

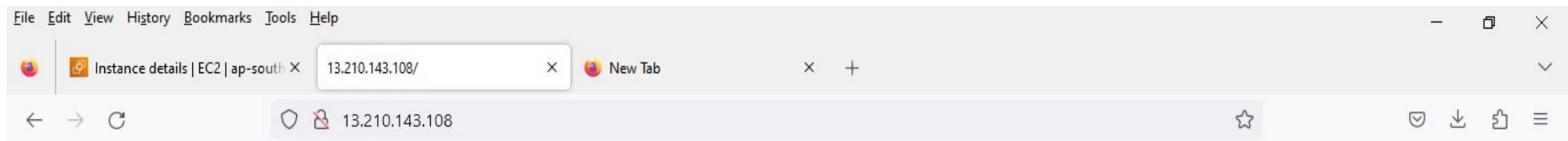
A screenshot of a terminal window titled "root@ip-172-31-15-242:/home/ec2-user". It displays the following HTML code in the nano editor:

```
GNU nano 5.8          /var/www/html/index.html
<!DOCTYPE html>
<html>
<h2 title="I'm a header">IAM User</h2>
<p title="I'm a tooltip">Making Of AWS Project_1.</p>
</body>
</html>
```

The bottom of the terminal shows the nano editor's command-line interface with options like Help, DOS Format, Append, Backup File, Cancel, Mac Format, Prepend, and Browse.



# Now website is running successfully



## IAM User

Making Of AWS Project\_1.

## 4. Connect to another instance through putty and install apache2 server

The screenshot shows a Linux terminal window and the AWS CloudWatch Metrics console side-by-side.

In the terminal window (root shell on Ubuntu), the command `apt install apache2` is being typed.

In the CloudWatch Metrics console, the following details are visible for an EC2 instance:

- IP name: ip-172-31-6-67.ap-southeast-2.compute.internal
- Answer private resource DNS name IPv4 (A)
- Auto-assigned IP address 3.27.195.104 [Public IP]
- IAM Role
- Subnet ID
- Private IPv4 addresses 172.31.6.67
- Public IPv4 DNS ec2-3-27-195-104.ap-southeast-2.compute.amazonaws.com [open address]
- Elastic IP addresses -
- AWS Compute Optimizer finding Opt-in to AWS Compute Optimizer for recommendations. Learn more
- Auto Scaling Group name

The CloudWatch Metrics interface includes a toolbar with Refresh, Connect, Instance state, and Actions buttons.

At the bottom, the Windows taskbar shows the search bar, Start button, and various pinned icons (File Explorer, Edge, Mail, etc.). The system tray displays battery level (74%), temperature (29°C), network status, volume, and system information (ENG IN, 6:55 PM, 10/4/2023).

Repeat the previous step 3. And now website running successfully.



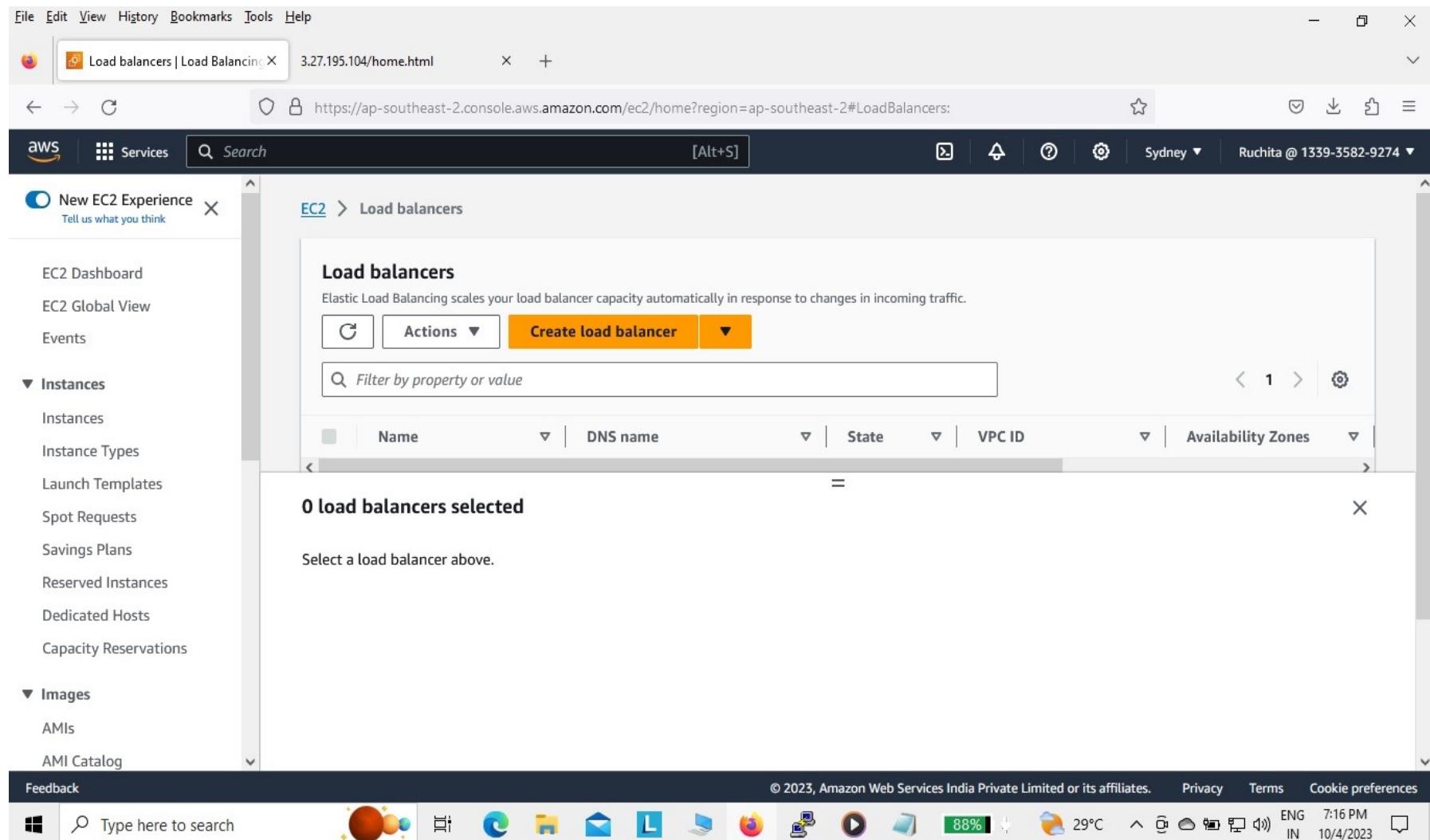
**IAM user/developer page**

**Making of AWS project\_1.**



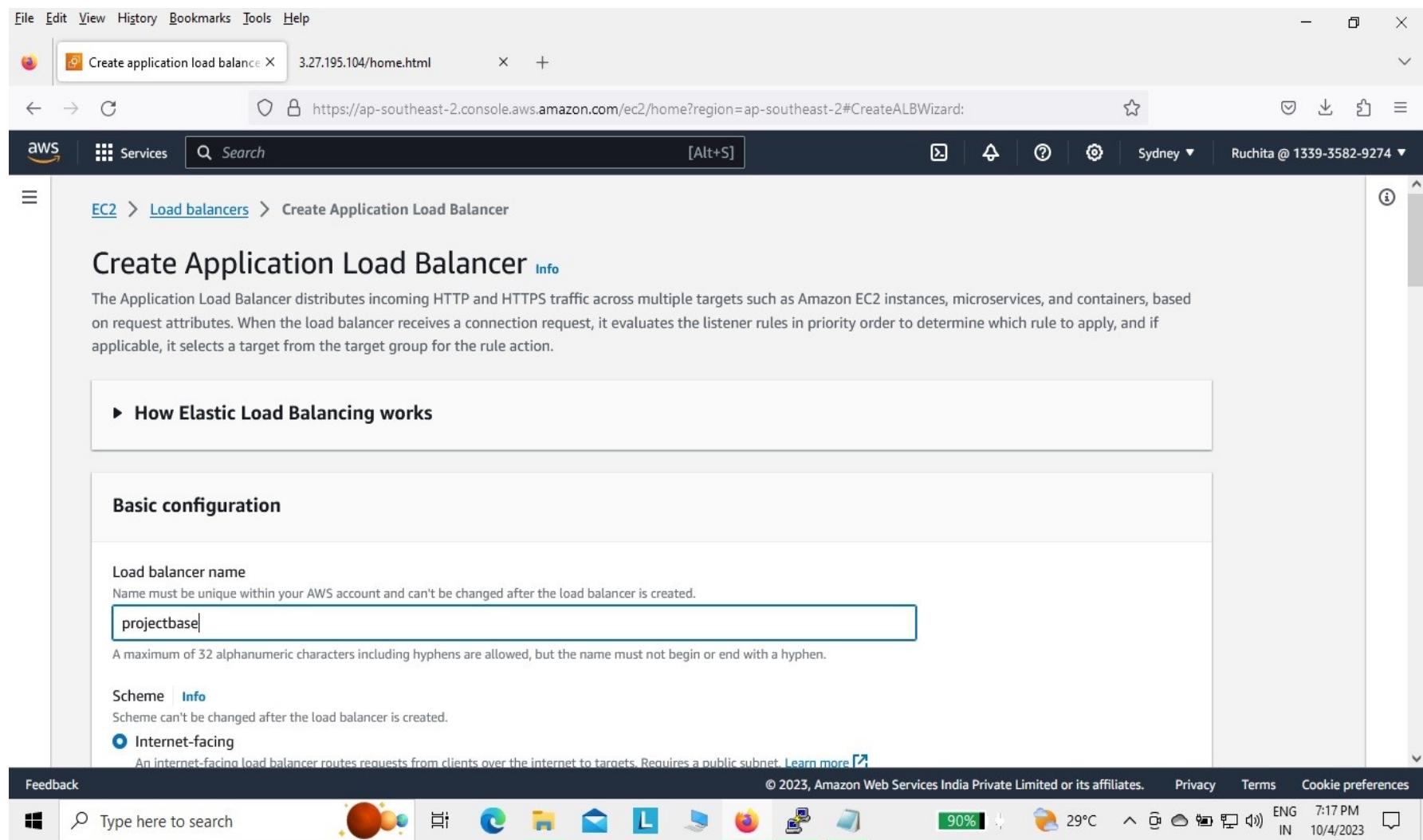
# Create a Load Balancer

Go to the search page and search load balancer and click the create load balancer.



The screenshot shows the AWS EC2 Load Balancers console. At the top, there's a navigation bar with links for File, Edit, View, History, Bookmarks, Tools, and Help. Below that is a browser-style header with tabs for 'Load balancers | Load Balancing' and '3.27.195.104/home.html'. The URL in the address bar is <https://ap-southeast-2.console.aws.amazon.com/ec2/home?region=ap-southeast-2#LoadBalancers>. On the left, there's a sidebar with 'New EC2 Experience' and a 'Tell us what you think' link. The main content area has a title 'Load balancers' with a sub-instruction: 'Elastic Load Balancing scales your load balancer capacity automatically in response to changes in incoming traffic.' Below this is a toolbar with 'Actions' and 'Create load balancer' buttons, and a search bar labeled 'Filter by property or value'. A table header shows columns for Name, DNS name, State, VPC ID, and Availability Zones. The message '0 load balancers selected' is displayed, followed by the instruction 'Select a load balancer above.' At the bottom, there's a footer with links for Feedback, Privacy, Terms, and Cookie preferences, along with system status icons like battery level (88%), temperature (29°C), and network connection.

# 1. Create a load balancer and give a name projectbase



The screenshot shows a web browser window with the URL <https://ap-southeast-2.console.aws.amazon.com/ec2/home?region=ap-southeast-2#CreateALBWizard>. The page is titled "Create Application Load Balancer". The "Basic configuration" section is active, showing a "Load balancer name" input field containing "projectbase". The "Scheme" section is set to "Internet-facing". The browser's address bar shows "Create application load balance" and the IP "3.27.195.104/home.html". The top navigation bar includes "File Edit View History Bookmarks Tools Help" and the AWS logo.

## 2. Scroll down page and configure the scheme and IP address.

The screenshot shows a web browser window with the URL <https://ap-southeast-2.console.aws.amazon.com/ec2/home?region=ap-southeast-2#CreateALBWizard>. The browser title bar says "Create application load balance X 3.27.195.104/home.html". The page is titled "Create application load balancer" and displays the "Scheme" configuration section. It shows two options: "Internet-facing" (selected) and "Internal". The "Internet-facing" option is described as routing requests from clients over the internet to targets using a public subnet. The "Internal" option is described as routing requests from clients to targets using private IP addresses. Below this, the "IP address type" section is shown, with "IPv4" selected (recommended for internal load balancers). The "Network mapping" section indicates that traffic will be routed to targets in selected subnets based on IP address settings. A "VPC" section allows selecting a virtual private cloud, with a dropdown menu showing "vpc-05dff080b19a8db07" and its IPv4 range "172.31.0.0/16". The bottom of the screen shows the Windows taskbar with various pinned icons and system status information.

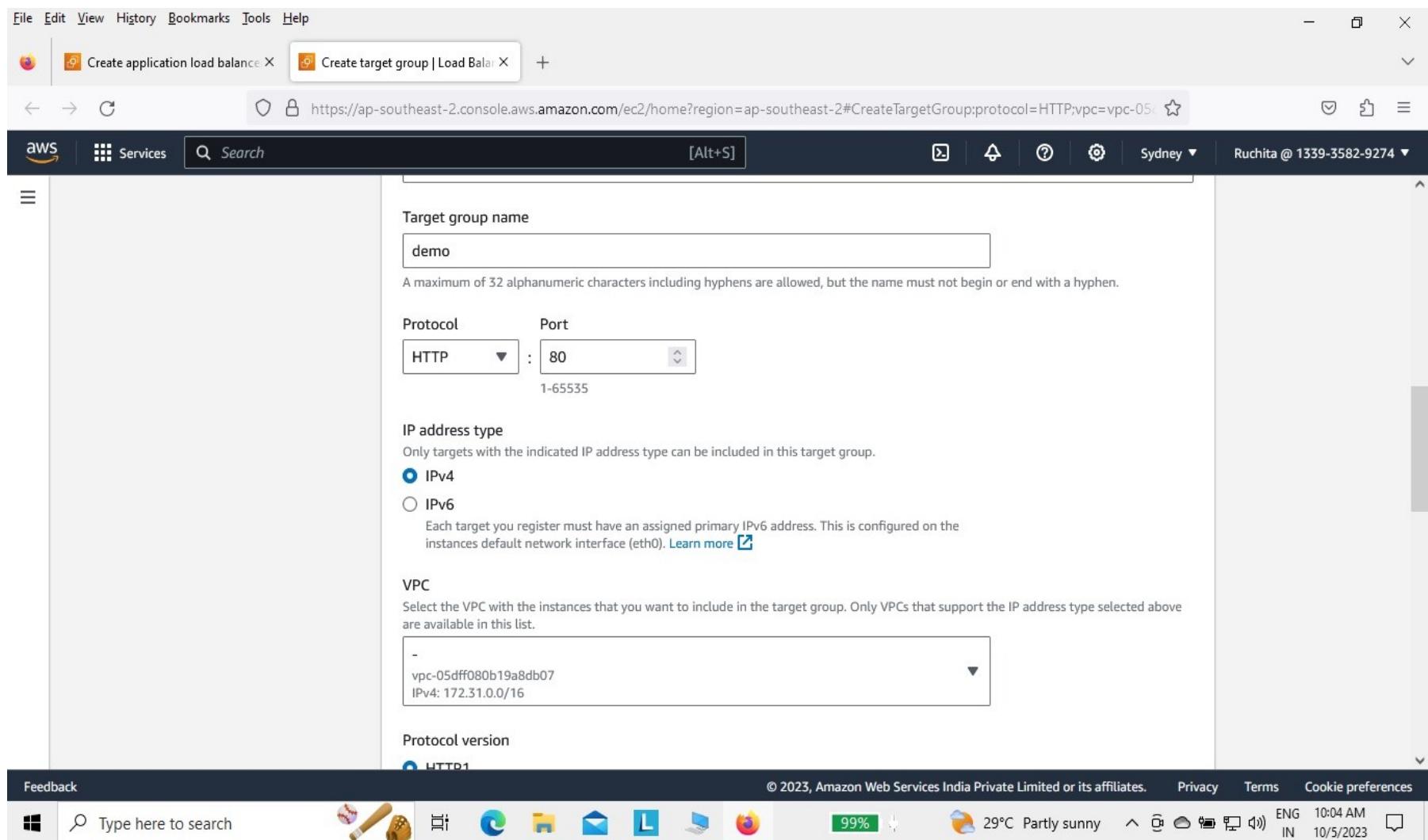
### 3. Select the Security Groups and scroll down the page.

The screenshot shows a web browser window with the URL <https://ap-southeast-2.console.aws.amazon.com/ec2/home?region=ap-southeast-2#CreateALBWizard>. The browser title bar says "Create application load balance". The page is titled "Security groups" under the "Info" section. It states that a security group is a set of firewall rules that control traffic to the load balancer. A link to "create a new security group" is provided. Below this, a dropdown menu shows "Select up to 5 security groups" with one item selected: "launch-wizard-1" (sg-0aba8cf107b55504c, VPC: vpc-05dff080b19a8db07). The "Listeners and routing" section is partially visible below, showing a "Listener HTTP:80" entry with a "Remove" button and an "Add listener" button. The bottom of the screen shows the Windows taskbar with various pinned icons and system status information.

# 4.Create a Target group and choose the instance

The screenshot shows a web browser window with the AWS Lambda console. The title bar says "Create target group | Load Balancer". The address bar shows the URL "https://ap-southeast-2.console.aws.amazon.com/ec2/home?region=ap-southeast-2#CreateTargetGroup:protocol=HTTP:vpc=vpc-05...". The AWS logo is in the top left, and the top navigation bar includes "File Edit View History Bookmarks Tools Help", a search bar, and user information "Ruchita @ 1339-3582-9274". The main content area is titled "Specify group details" under "Step 1: Specify group details". It says "Your load balancer routes requests to the targets in a target group and performs health checks on the targets." A "Basic configuration" section states "Settings in this section can't be changed after the target group is created." Below it, "Choose a target type" has two options: "Instances" (selected) and "IP addresses". The "Instances" section lists: "Supports load balancing to instances within a specific VPC.", "Facilitates the use of Amazon EC2 Auto Scaling [?] to manage and scale your EC2 capacity.", and "Offers flexibility with microservice based architectures, simplifying inter-application communication." The "IP addresses" section lists: "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.", and "Supports IPv6 targets, enabling end-to-end IPv6 communication, and IPv4-to-IPv6 NAT.". At the bottom, there are links for "Feedback", "Privacy", "Terms", and "Cookie preferences". The system tray at the bottom right shows battery level (99%), temperature (29°C), weather (Partly sunny), and system status.

# 5. Give a target group name demo and scroll down page



The screenshot shows a browser window with the AWS Lambda console. The URL in the address bar is <https://ap-southeast-2.console.aws.amazon.com/ec2/home?region=ap-southeast-2#CreateTargetGroup:protocol=HTTP;vpc=vpc-05dff080b19a8db07>. The page is titled "Create target group | Load Balancer". The "Target group name" field contains "demo". Under "Protocol", "HTTP" is selected and "Port" is set to "80". The "IP address type" section shows "IPv4" is selected. The "VPC" section lists "vpc-05dff080b19a8db07" and "IPv4: 172.31.0.0/16". The "Protocol version" section shows "HTTP1". The bottom of the screen shows the Windows taskbar with various pinned icons and system status.

File Edit View History Bookmarks Tools Help

Create application load balance X Create target group | Load Balancer X +

https://ap-southeast-2.console.aws.amazon.com/ec2/home?region=ap-southeast-2#CreateTargetGroup:protocol=HTTP;vpc=vpc-05dff080b19a8db07

aws Services Search [Alt+S]

Target group name

demo

A maximum of 32 alphanumeric characters including hyphens are allowed, but the name must not begin or end with a hyphen.

Protocol Port

HTTP : 80

1-65535

IP address type

Only targets with the indicated IP address type can be included in this target group.

IPv4

IPv6

Each target you register must have an assigned primary IPv6 address. This is configured on the instances default network interface (eth0). [Learn more](#)

VPC

Select the VPC with the instances that you want to include in the target group. Only VPCs that support the IP address type selected above are available in this list.

vpc-05dff080b19a8db07

IPv4: 172.31.0.0/16

Protocol version

HTTP1

Feedback

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Type here to search

99% 29°C Partly sunny ENG IN 10:04 AM 10/5/2023

6.Click the instance id and select all and click the include pending button

The screenshot shows the 'Register targets' step 2 of creating a target group in the AWS EC2 console. The page title is 'Register targets'. A sidebar on the left shows 'Specify group details' and 'Step 2 Register targets'. The main content area is titled 'Available instances (2/2)' and lists two instances: 'Web1' and 'Web2', both in the 'Running' state and associated with 'launch-wizard-1'. Both instances have a checkmark next to their 'Instance ID' column. Below the table, it says '2 selected'. Under 'Ports for the selected instances', there is a field containing '80'. At the bottom, there is a button labeled 'Include as pending below'.

Instance ID	Name	State	Security groups
i-0a402ab1b355edca8	Web1	Running	launch-wizard-1
i-0d4fef1f4e5e8c4cc	Web2	Running	launch-wizard-1

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

Include as pending below

# 7. Now click the create target group button.

The screenshot shows a browser window with the AWS Lambda console. The title bar says "Create target group | Load Balancer". The address bar shows the URL: https://ap-southeast-2.console.aws.amazon.com/ec2/home?region=ap-southeast-2#CreateTargetGroup:protocol=HTTP;vpc=vpc-05...". The AWS logo and "Services" link are visible in the top navigation bar. A search bar contains "Search [Alt+S]". On the right, there are icons for "Sydney", "Ruchita @ 1339-3582-9274", and a dropdown menu. The main content area has a header "Review targets" with a sub-section "Targets (2)". It includes a "Remove all pending" button and a "Filter resources by property or value" input field. A table lists two targets:

Remove	Health status	Instance ID	Name	Port	State	Security groups	Zone
X	Pending	i-0a402ab1b355edca8	Web1	80	Running	launch-wizard-1	ap-so
X	Pending	i-0d4fef1f4e5e8c4cc	Web2	80	Running	launch-wizard-1	ap-so

Below the table, it says "2 pending". There are "Cancel", "Previous", and "Create target group" buttons. At the bottom, there's a feedback section with icons for reporting issues, and a system tray showing battery level (99%), temperature (29°C), weather (Partly sunny), and system status (ENG IN 10:05 AM 10/5/2023).

# 8. Check the summary and click the create a load balancer.

The screenshot shows the AWS CloudFormation Create Application Load Balancer wizard, specifically Step 5: Summary. The browser title is "Create application load balance X". The URL is "https://ap-southeast-2.console.aws.amazon.com/ec2/home?region=ap-southeast-2#CreateALBWizard:3.27.195.104/home.html".

**Summary**

Review and confirm your configurations. [Estimate cost](#)

<b>Basic configuration</b> <a href="#">Edit</a> projectbase <ul style="list-style-type: none"><li>Internet-facing</li><li>IPv4</li></ul>	<b>Security groups</b> <a href="#">Edit</a> launch-wizard-1 <a href="#">sg-0aba8cf107b55504c</a>	<b>Network mapping</b> <a href="#">Edit</a> VPC <a href="#">vpc-05dff080b19a8db07</a> <ul style="list-style-type: none"><li>ap-southeast-2a <a href="#">subnet-0b868542bd81726eb</a></li><li>ap-southeast-2b <a href="#">subnet-0a53cd5c39732de59</a></li><li>ap-southeast-2c <a href="#">subnet-06fb4355cb5e1447b</a></li></ul>	<b>Listeners and routing</b> <a href="#">Edit</a> <ul style="list-style-type: none"><li>HTTP:80 defaults to <i>Target group not defined</i></li></ul>
<b>Add-on services</b> <a href="#">Edit</a> None	<b>Tags</b> <a href="#">Edit</a> None		
<b>Attributes</b> <p><span>ⓘ</span> Certain default attributes will be applied to your load balancer. You can view and edit them after creating the load balancer.</p>			

**Feedback** Type here to search © 2023, Amazon Web Services India Private Limited or its affiliates. Privacy Terms Cookie preferences

92% 29°C ENG IN 7:21 PM 10/4/2023

# 9. Now successfully create a load balancer.

The screenshot shows a web browser window with the AWS EC2 console. The URL is <https://ap-southeast-2.console.aws.amazon.com/ec2/home?region=ap-southeast-2#CreateLBWizardSuccess:loadBalancerArn=arn:aws:elasticloadbalancing:ap-southeast-2:123456789012:loadbalancer/5678901234567890>. The browser tabs show "Load Balancer created successfully" and "Register targets | Load Balancer". The main content area displays a green success message: "Successfully created load balancer: project2". It includes 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." Below this, the breadcrumb navigation shows "EC2 > Load balancers > project2 > Create Application Load Balancer". The title "Create Application Load Balancer" is centered above a "Suggested next steps" box. This box contains two bullet points: "Review, customize, or configure attributes for your load balancer and listeners using the **Description** and **Listeners** tabs within project2." and "Discover other services that you can integrate with your load balancer. Visit the **Integrated services** tab within project2." At the bottom right of the main content area is a yellow "View load balancer" button. The browser's status bar at the bottom shows "Feedback", "© 2023, Amazon Web Services India Private Limited or its affiliates.", "Privacy", "Terms", "Cookie preferences", "100%", "29°C", "ENG IN 10:54 AM 10/6/2023", and a search bar.

10. Go to the load balancer and click DNS button copy address and paste the browser. And run the address.

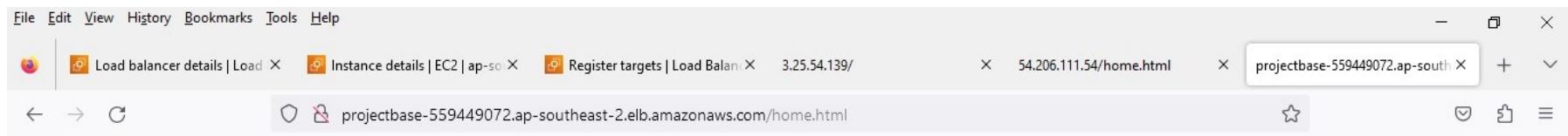
Now page is running



IAM User

Making Of AWS Project\_1.

# Refresh the page and running another web page



**IAM user/developer page**

**Making of AWS project\_1.**

# Create Second User and EC2 Instance

## 1.Create a EC2 instance and give a name server1

The screenshot shows the 'Launch an instance' wizard in the AWS Management Console. The browser address bar indicates the URL is <https://ap-southeast-2.console.aws.amazon.com/ec2/home?region=ap-southeast-2#LaunchInstances>.

**Name and tags:** The name is set to "server1".

**Software Image (AMI):** Amazon Linux 2023.2.2...read more  
ami-0e812285fd54f7620

**Virtual server type (instance type):** t2.micro

**Firewall (security group):** launch-wizard-1

**Storage (volumes):** 1 volume(s) - 8 GiB

**Buttons:** Cancel, Launch instance, Review commands.

**Feedback:** Type here to search

**System tray:** Shows battery level (100%), weather (29°C Partly sunny), and system status (ENG IN 11:02 AM 10/5/2023).

## 2. Choose the AMI image Amazon Linux

The screenshot shows the AWS EC2 console interface. In the top navigation bar, the user is in the 'Services' section under the 'EC2' tab. The URL in the address bar is <https://ap-southeast-2.console.aws.amazon.com/ec2/home?region=ap-southeast-2#LaunchInstances>. On the left sidebar, there's a 'Quick Start' section with icons for various AMIs: Amazon Linux, macOS, Ubuntu, Windows, Red Hat, and SUSE Linux. Below this, a section for 'Amazon Machine Image (AMI)' displays the 'Amazon Linux 2023 AMI' (ami-0e812285fd54f7620). This AMI is listed as 'Free tier eligible'. The configuration details include: Virtualization: hvm; ENA enabled: true; Root device type: ebs. To the right, a 'Summary' panel shows the launch configuration: Number of instances set to 1, Software Image (AMI) set to 'Amazon Linux 2023 AMI 2023.2.2...', Virtual server type (instance type) set to 't2.micro', Firewall (security group) set to 'launch-wizard-1', and Storage (volumes) set to 1 volume(s) - 8 GiB. At the bottom right of the summary panel are 'Cancel' and 'Launch instance' buttons. The status bar at the bottom of the browser window shows the date and time as 10/5/2023 11:03 AM.

### 3. Choose existing key pair and Instance type.

The screenshot shows the AWS EC2 Launch Instances wizard. The top navigation bar includes File, Edit, View, History, Bookmarks, Tools, Help, and a tab for Launch an instance | EC2 | ap-southeast-2. The browser address bar shows https://ap-southeast-2.console.aws.amazon.com/ec2/home?region=ap-southeast-2#LaunchInstances. The AWS logo and Services menu are visible in the header. The main content area is divided into sections:

- Instance type**: Shows the selected t2.micro instance type, which is Free tier eligible. It lists family details, On-Demand Linux base pricing (0.0146 USD per Hour), and other operating system options. A note states "Additional costs apply for AMIs with pre-installed software".
- Key pair (login)**: A dropdown menu shows "project1" selected, with an option to "Create new key pair".
- Summary**: Displays the number of instances (1), Software Image (Amazon Linux 2023 AMI 2023.2.2...), Virtual server type (t2.micro), Firewall (security group launch-wizard-1), and Storage (1 volume(s) - 8 GiB).
- Buttons**: "Cancel", "Launch instance" (highlighted in orange), and "Review commands".

The bottom of the screen shows the Windows taskbar with icons for File Explorer, Mail, and Edge, along with system status indicators like battery level (100%), temperature (29°C), and network connection.

## 4. Select security group and scroll down or click the launch instance button.

The screenshot shows the AWS EC2 Launch Instances wizard. The left sidebar lists network options: Network (Info), Subnet (Info), Auto-assign public IP (Info), and Firewall (security groups) (Info). Under Firewall, the 'Select existing security group' option is selected, indicated by a blue outline around the radio button. Below this, a dropdown menu titled 'Select security groups' contains one item: 'launch-wizard-1 sg-0aba8cf107b55504c'. A note below the dropdown states: 'Security groups that you add or remove here will be added to or removed from all your network interfaces.' On the right, the 'Summary' section shows the following details:

- Number of instances: 1
- Software Image (AMI): Amazon Linux 2023 AMI 2023.2.2... (read more)
- Virtual server type (instance type): t2.micro
- Firewall (security group): launch-wizard-1
- Storage (volumes): 1 volume(s) - 8 GiB

At the bottom right of the summary section are 'Cancel' and 'Launch instance' buttons. The 'Launch instance' button is highlighted with a yellow background. The status bar at the bottom of the browser window shows the date and time as '10/5/2023 11:04 AM'.

# Launching the Instance

A screenshot of a web browser window showing the AWS Cloud9 console at <https://ap-southeast-2.console.aws.amazon.com/ec2/home?region=ap-southeast-2#LaunchInstances>. The browser title bar says "Launch an instance | EC2 | ap-s...". The page header shows the AWS logo, Services, a search bar, and user information for "Sahil @ 1339-3582-9274". The main content area displays a progress bar titled "Launching instance" under "Launch initiation" with a progress of 75%. Below the bar, there is a "Details" link and two instructions: "Please wait while we launch your instance." and "Do not close your browser while this is loading." The bottom of the screen shows the Windows taskbar with various icons and system status.

File Edit View History Bookmarks Tools Help

Launch an instance | EC2 | ap-s... X

https://ap-southeast-2.console.aws.amazon.com/ec2/home?region=ap-southeast-2#LaunchInstances:

AWS Services Search [Alt+S]

EC2 > Instances > Launch an instance

Launching instance  
Launch initiation

75%

▶ Details

Please wait while we launch your instance.  
Do not close your browser while this is loading.

Feedback © 2023, Amazon Web Services India Private Limited or its affiliates. Privacy Terms Cookie preferences

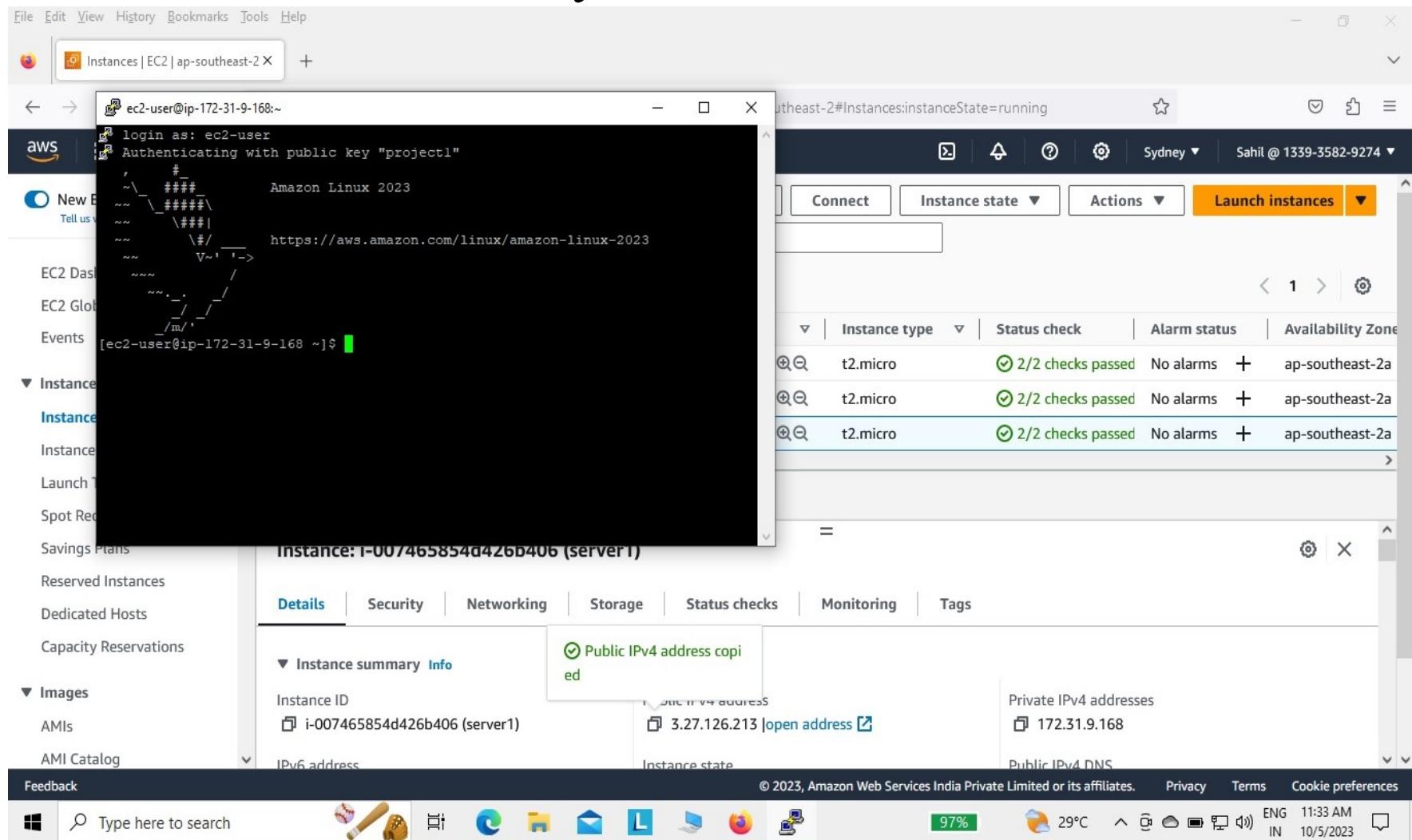
Type here to search 100% 29°C Partly sunny ENG IN 11:05 AM 10/5/2023

Successfully instance is running.  
And previous step 1 to 4 following create two new Instance and give a name Server2 or sever 3.

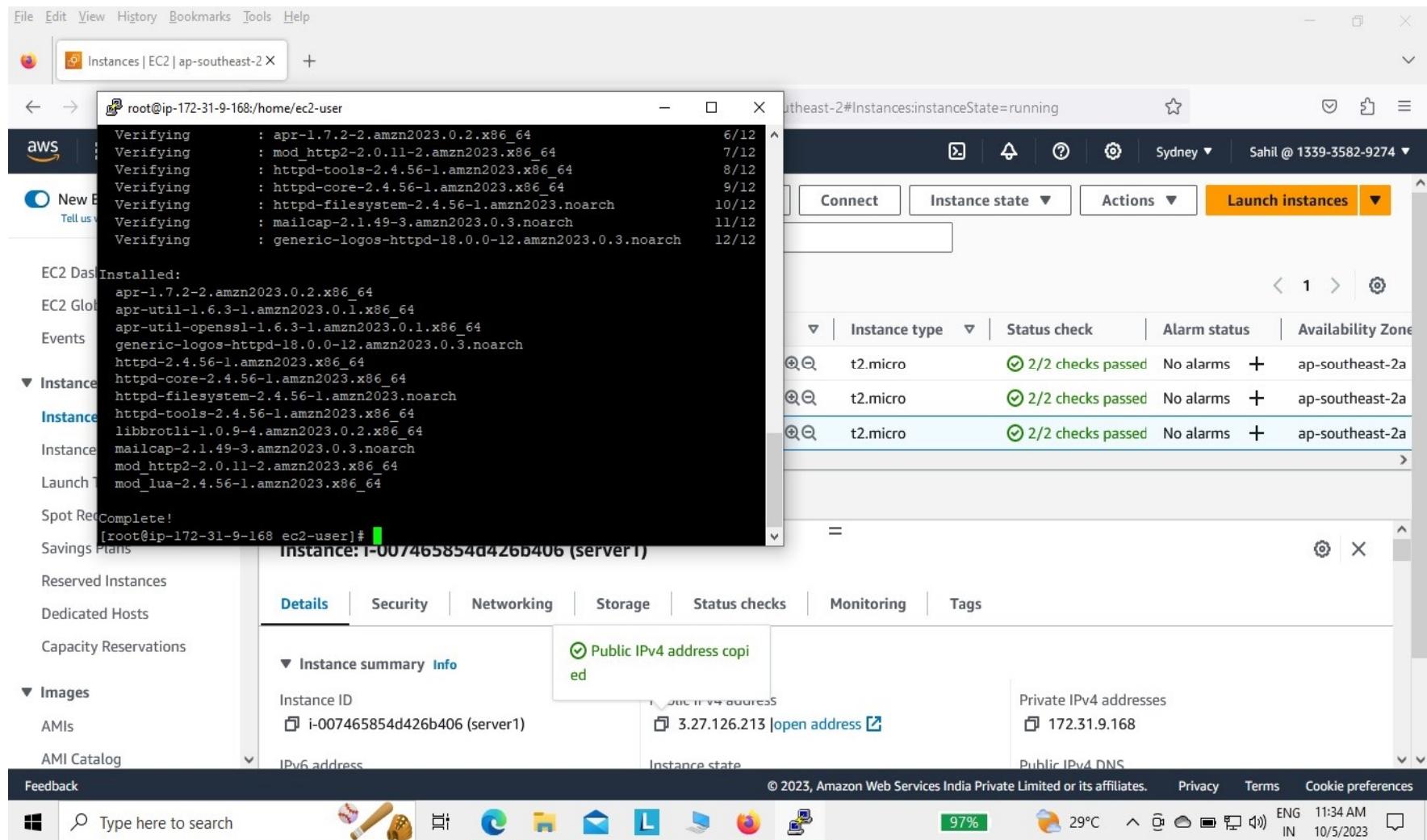
The screenshot shows the AWS EC2 Instances page. The browser title bar reads "Instances | EC2 | ap-southeast-2". The URL is "https://ap-southeast-2.console.aws.amazon.com/ec2/home?region=ap-southeast-2#Instances:instanceId=i-007465854d426b406". The left sidebar shows the "Instances" section with "Instances" selected, listing options like Instance Types, Launch Templates, and Capacity Reservations. The main content area displays "Instances (1/1) Info" with a search bar and a filter for "Instance ID = i-007465854d426b406". A table lists one instance: "server1" (Instance ID: i-007465854d426b406, State: Running, Type: t2.micro, Status check: Initializing, Alarm status: No alarms, Availability Zone: ap-southeast-2a). Below the table, the "Instance: i-007465854d426b406 (server1)" details are shown, including tabs for Details, Security, Networking, Storage, Status checks, Monitoring, and Tags. Under the Details tab, the "Instance summary" section shows the Instance ID (i-007465854d426b406), Public IPv4 address (3.27.126.213), Private IPv4 address (172.31.9.168), and Public IPv4 DNS. The bottom of the page includes a footer with copyright information, privacy terms, and cookie preferences, along with a system tray showing the date and time (10/5/2023, 11:05 AM).

# Create a HTML page in ec2 instance

1. Open putty app or connect the Amazon Linux. Now successfully connection establish



## 2. Install httpd application and create a html page and run the web page.



# Successfully run html page in ec2 instance

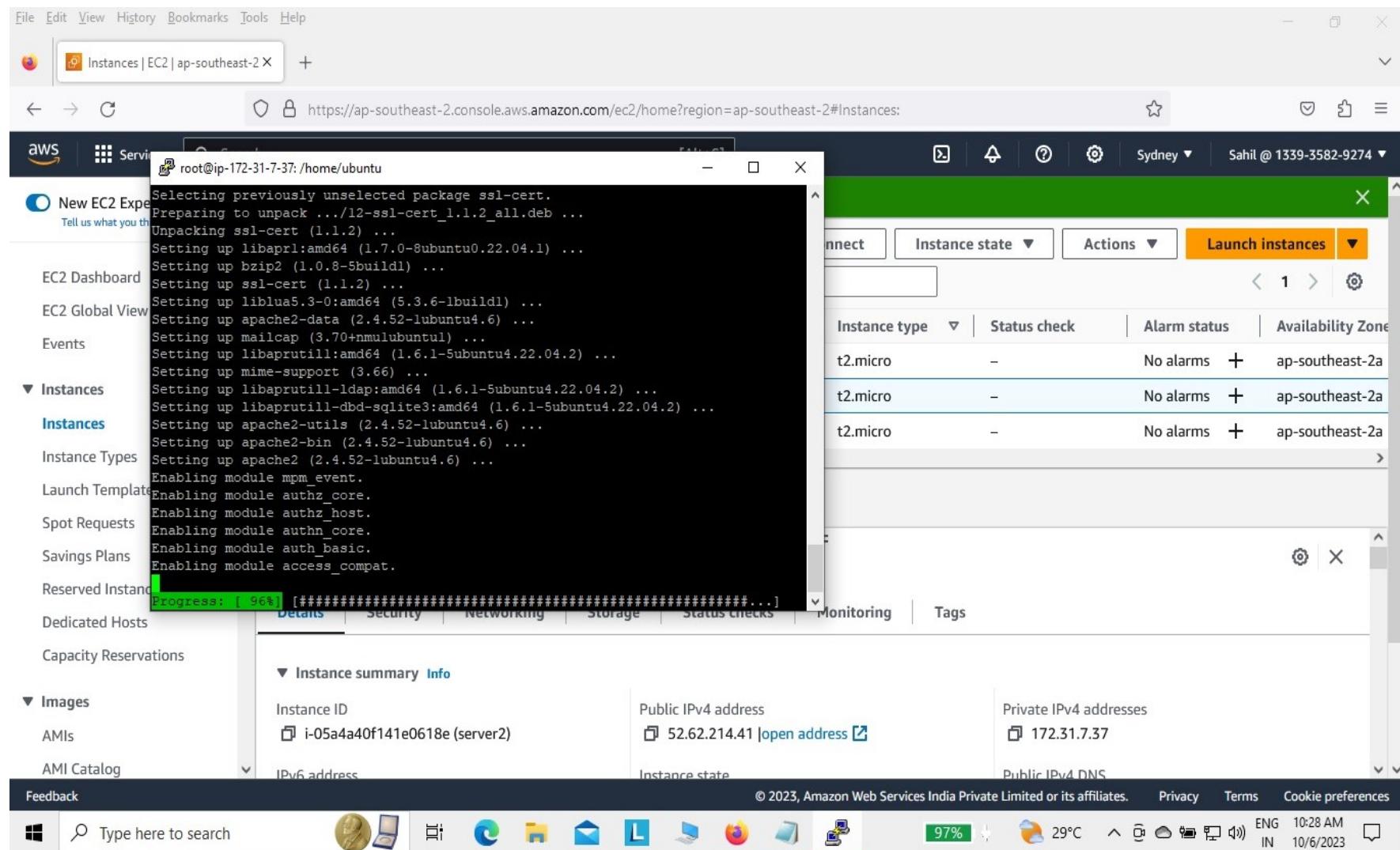


**Hello Welcom Amazon Linux**

EC2 Project web App1.



# Follow the previous step 1 or 2 then create html in ubuntu



# Successfully running the web page

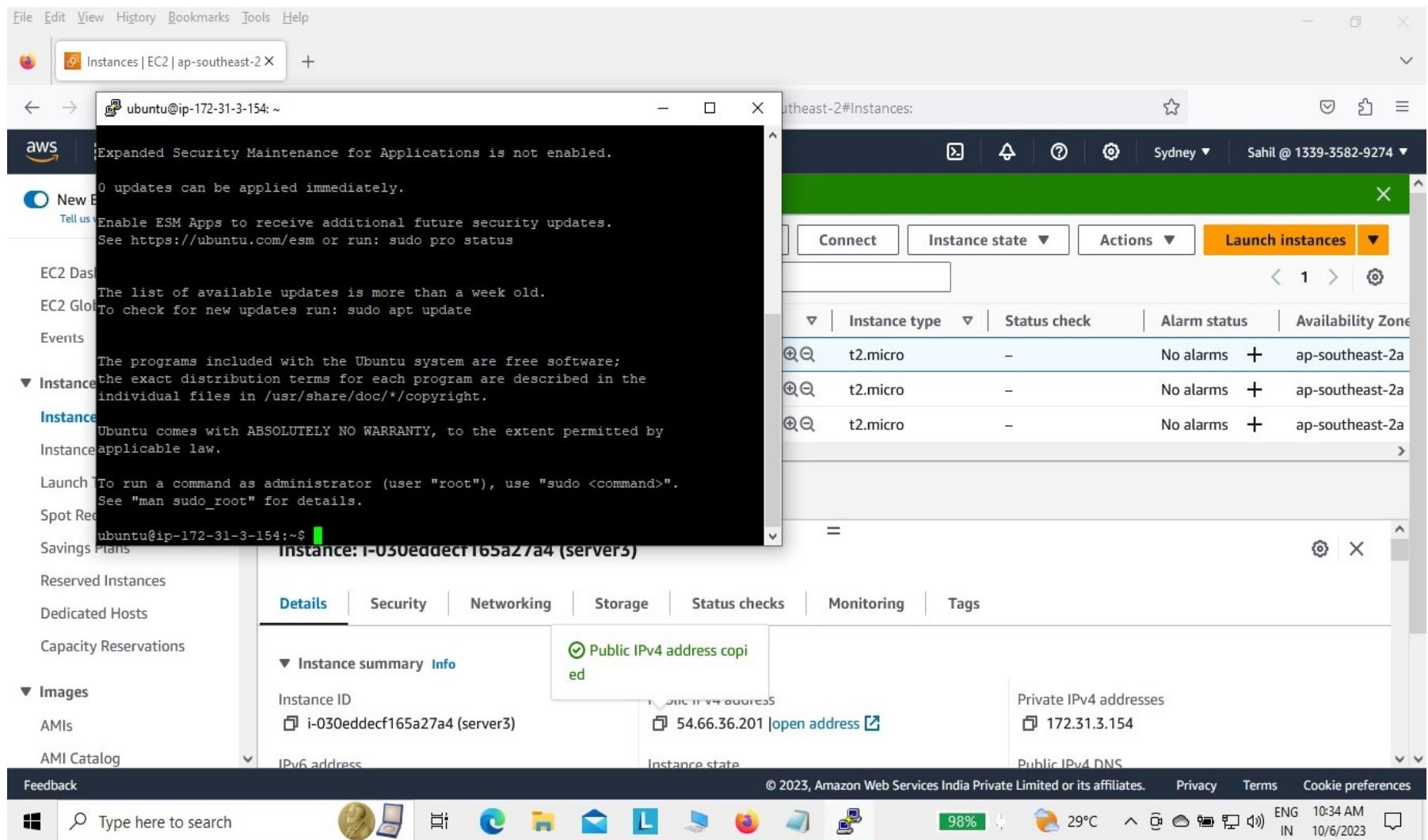


**Hello welcom Ubuntu**

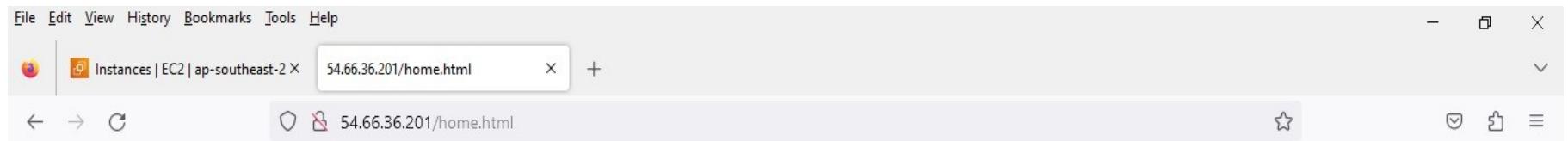
EC2 Project Web App2.



# Now follow previous step 1 or 2 and create html page 3<sup>rd</sup> server



# Now successfully running the web page



Hello Welcome To Ubuntu2

EC2 Project Web App3.



# Create a load balancer

## 1. Create a new load balancer and give a name project2

The screenshot shows a browser window with the AWS Lambda console. The URL is <https://ap-southeast-2.console.aws.amazon.com/lambda/home?region=ap-southeast-2#CreateFunctionWizard>. The page is titled "Basic configuration".

**Load balancer name:** project2

**Scheme:** Internet-facing (selected)

**IP address type:** IPv4 (selected)

At the bottom, there are "Next Step" and "Cancel" buttons.

## 2. Scroll down page and select mapping and select all

The screenshot shows a browser window with the AWS Lambda console URL: <https://ap-southeast-2.console.aws.amazon.com/ec2/home?region=ap-southeast-2#CreateALBWizard>. The page is titled "Create application load balancer".

The "Mappings" section is active, showing two Availability Zones selected:

- ap-southeast-2a (apse2-az1)**: Subnet: subnet-0b868542bd81726eb, IPv4 address: Assigned by AWS.
- ap-southeast-2b (apse2-az3)**: Subnet: subnet-0b868542bd81726eb, IPv4 address: Assigned by AWS.

At the bottom of the "Mappings" section, there is a link: "Select at least two Availability Zones and one subnet per zone. The load balancer routes traffic to targets in these Availability Zones only. Availability Zones that are not supported by the load balancer or the VPC are not available for selection."

Below the mappings, there is a note about VPC selection: "Select the virtual private cloud (VPC) for your targets or you can [create a new VPC](#). Only VPCs with an internet gateway are enabled for selection. The selected VPC can't be changed after the load balancer is created. To confirm the VPC for your targets, view your [target groups](#)".

The browser's address bar shows the URL: <https://ap-southeast-2.console.aws.amazon.com/ec2/home?region=ap-southeast-2#CreateALBWizard>.

### 3. Select the security group and scroll down page

The screenshot shows a web browser window displaying the AWS EC2 Create Application Load Balancer wizard. The URL in the address bar is <https://ap-southeast-2.console.aws.amazon.com/ec2/home?region=ap-southeast-2#CreateALBWizard>. The browser interface includes a menu bar with File, Edit, View, History, Bookmarks, Tools, and Help. A tab labeled "Create application load balance X" is open. The main content area is titled "Security groups" with a link to "Info". It states: "A security group is a set of firewall rules that control the traffic to your load balancer. Select an existing security group, or you can [create a new security group](#)". Below this, there is a section titled "Security groups" with a dropdown menu containing "Select up to 5 security groups". A single security group, "launch-wizard-1", is selected and highlighted with a blue border. The group details show "sg-0aba8cf107b55504c" and "VPC: vpc-05dff080b19a8db07". Further down the page, there is a section titled "Listeners and routing" with a link to "Info". It describes a listener as 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. A table header for "Listener HTTP:80" is visible, showing columns for "Protocol", "Port", "Default action", and "Info". At the bottom of the page, there are links for "Feedback", "© 2023, Amazon Web Services India Private Limited or its affiliates.", "Privacy", "Terms", and "Cookie preferences". The system tray at the bottom right shows battery level (99%), temperature (29°C), and system status.

# 4. Select basic configuration and select instances

The screenshot shows a web browser window displaying the AWS Lambda console. The URL in the address bar is <https://ap-southeast-2.console.aws.amazon.com/ec2/home?region=ap-southeast-2#CreateTargetGroup:protocol=HTTP:vpc=vpc-05>. The page is titled "Basic configuration" and contains the following content:

**Basic configuration**  
Settings in this section can't be changed after the target group is created.

**Choose a target type**

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.

At the bottom of the browser window, the taskbar shows various icons and system status information, including the date and time (10:48 AM, 10/6/2023), battery level (99%), and temperature (29°C).

# 5. Create target group and give a name web3

The screenshot shows a Microsoft Edge browser window with two tabs open: "Create application load balance" and "Create target group | Load Balancer". The URL in the address bar is <https://ap-southeast-2.console.aws.amazon.com/ec2/home?region=ap-southeast-2#CreateTargetGroup:protocol=HTTP;vpc=vpc-05dff080b19a8db07>. The page is titled "Create target group" under the "Load Balancer" section. It contains fields for "Target group name" (set to "Web3"), "Protocol" (set to "HTTP" with port "80"), "IP address type" (set to "IPv4"), and "VPC" (listing "vpc-05dff080b19a8db07" with "IPv4: 172.31.0.0/16"). The browser's status bar at the bottom shows system information like battery level (99%), temperature (29°C), and date/time (10/6/2023).

# 6. Register the instances in target group

The screenshot shows a web browser window for the AWS Cloud Console. The URL is <https://ap-southeast-2.console.aws.amazon.com/ec2/home?region=ap-southeast-2#CreateTargetGroup:protocol=HTTP:vpc-05>. The page title is "Create target group | Load Balancer". The main content is titled "Register targets" under "Step 1 Specify group details". It says, "This is an optional step to create a target group. However, to ensure that your load balancer routes traffic to this target group you must register your targets." Below this is a table titled "Available instances (3/3)" showing three instances: server1, server2, and server3, all in the "Running" state and associated with "launch-wizard-1". At the bottom, it says "3 selected". The browser's address bar shows the same URL. The bottom of the screen shows the Windows taskbar with various icons and system status.

File Edit View History Bookmarks Tools Help

Create application load balancer X Create target group | Load Balancer X +

https://ap-southeast-2.console.aws.amazon.com/ec2/home?region=ap-southeast-2#CreateTargetGroup:protocol=HTTP:vpc-05

AWS Services Search [Alt+S] Sydney Sahil @ 1339-3582-9274

EC2 > Target groups > Create target group

Step 1  
Specify group details

Step 2  
Register targets

Register targets

Available instances (3/3)

Instance ID	Name	State	Security groups
i-0460c14c4a76845b0	server1	Running	launch-wizard-1
i-05a4a40f141e0618e	server2	Running	launch-wizard-1
i-030eddecf165a27a4	server3	Running	launch-wizard-1

3 selected

Ports for the selected instances

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Type here to search

99% 29°C ENG IN 10:50 AM 10/6/2023

# 7. Scroll down page and click the create target group button

The screenshot shows a browser window with the AWS Lambda console. The URL is <https://ap-southeast-2.console.aws.amazon.com/ec2/home?region=ap-southeast-2#CreateTargetGroup:protocol=HTTP:vpc=vpc-05e>. The title bar says "Create target group | Load Balancer". The main content area is titled "Review targets" and displays a table of targets:

Remove	Health status	Instance ID	Name	Port	State	Security groups	Zon
X	Pending	i-0460c14c4a76845b0	server1	80	Running	launch-wizard-1	ap-s
X	Pending	i-05a4a40f141e0618e	server2	80	Running	launch-wizard-1	ap-s
X	Pending	i-030eddecf165a27a4	server3	80	Running	launch-wizard-1	ap-s

Below the table, it says "3 pending". At the bottom right, there are buttons for "Cancel", "Previous", and "Create target group".

# Successfully create target group

The screenshot shows a browser window with the AWS EC2 Target Groups page. The title bar indicates the user is in the Load Balancing section. A prominent green success message at the top center says "Successfully created target group: Web3". Below this, the main content area shows a table titled "Target groups (1) Info". The table has columns for Name, ARN, Port, Protocol, and Target type. A message below the table states "0 target groups selected" and "Select a target group above." The left sidebar lists various EC2 services like Dashboard, Global View, Events, Instances, Images, AMIs, and Catalog. The bottom navigation bar includes CloudShell, Feedback, and links to Privacy, Terms, and Cookie preferences. The system tray at the bottom right shows battery level (99%), temperature (29°C), and system status.

File Edit View History Bookmarks Tools Help

Create application load balance X Target groups | Load Balancing X +

https://ap-southeast-2.console.aws.amazon.com/ec2/home?region=ap-southeast-2#TargetGroups:

New EC2 Experience Tell us what you think

EC2 Dashboard

EC2 Global View

Events

Instances

Instances

Instance Types

Launch Templates

Spot Requests

Savings Plans

Reserved Instances

Dedicated Hosts

Capacity Reservations

Images

AMIs

AMI Catalog

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Type here to search 99% 29°C ENG IN 10:52 AM 10/6/2023

# 8. Scroll down page and select target group

The screenshot shows a web browser window with the AWS Lambda console. The URL is <https://ap-southeast-2.console.aws.amazon.com/lambda/home?region=ap-southeast-2#CreateFunctionWizard>. The page title is "Create function". The main content area displays the "Basic configuration" section for creating a new Lambda function. The "Function name" field is filled with "HelloWorld", and the "Runtime" dropdown is set to "Node.js 14.x". The "Handler" dropdown is set to "index.handler". Under the "Memory size" dropdown, "128 MB" is selected. The "Timeout" dropdown is set to "3 seconds". The "Role" dropdown is set to "Lambda execution role". The "VPC settings" section is collapsed. The "Tags" section is collapsed. The "Advanced settings" section is collapsed. The "Next Step" button at the bottom right is labeled "Create function".

# 9. Check the summary page and click the load balancer button.

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

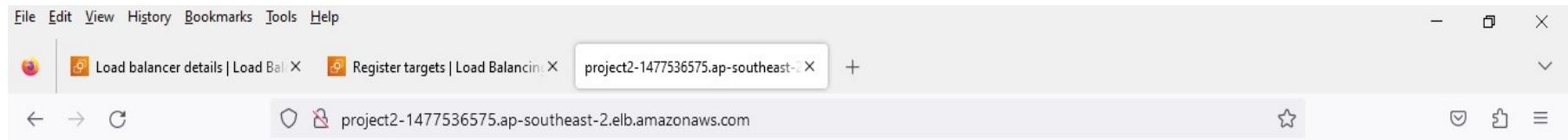
- Basic configuration:** project2
  - Internet-facing
  - IPv4
- Security groups:** launch-wizard-1 (sg-0aba8cf107b55504c)
- Network mapping:** VPC vpc-05dff080b19a8db07
  - ap-southeast-2a (subnet-0b868542bd81726eb)
  - ap-southeast-2b (subnet-0a53cd5c39732de59)
  - ap-southeast-2c (subnet-06fb4355cb5e1447b)
- Listeners and routing:** HTTP:80 defaults to Web
- Add-on services:** None
- Tags:** None
- Attributes:** None

At the bottom, there are links for Feedback, © 2023, Amazon Web Services India Private Limited or its affiliates., Privacy, Terms, and Cookie preferences. The status bar shows 100% zoom, 29°C, ENG IN, 10:54 AM, and 10/6/2023.

# Successfully create load balancer

The screenshot shows a browser window with the AWS EC2 Load Balancers console. The title bar includes 'File Edit View History Bookmarks Tools Help' and the address bar shows 'https://ap-southeast-2.console.aws.amazon.com/ec2/home?region=ap-southeast-2#CreateLBWizardSuccess:loadBalancerArn=arn:aws:elasticloadbalancing:ap-southeast-2:123456789012:loadbalancer/5678901234567890'. The main content area displays a green success message: 'Successfully created load balancer: project2'. It includes 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.' Below this, the breadcrumb navigation is 'EC2 > Load balancers > project2 > Create Application Load Balancer'. A 'Create Application Load Balancer' button is visible. On the left, there's a sidebar with 'Suggested next steps' containing two bullet points: 'Review, customize, or configure attributes for your load balancer and listeners using the Description and Listeners tabs within project2.' and 'Discover other services that you can integrate with your load balancer. Visit the Integrated services tab within project2.' At the bottom right is a yellow 'View load balancer' button. The footer includes 'Feedback', copyright information '© 2023, Amazon Web Services India Private Limited or its affiliates.', and links for 'Privacy', 'Terms', and 'Cookie preferences'. The system tray at the bottom shows '100%', '29°C', 'ENG IN', '10:54 AM', and the date '10/6/2023'.

Go to load balancer page and click the DNS and browse the page. Now running successfully web page

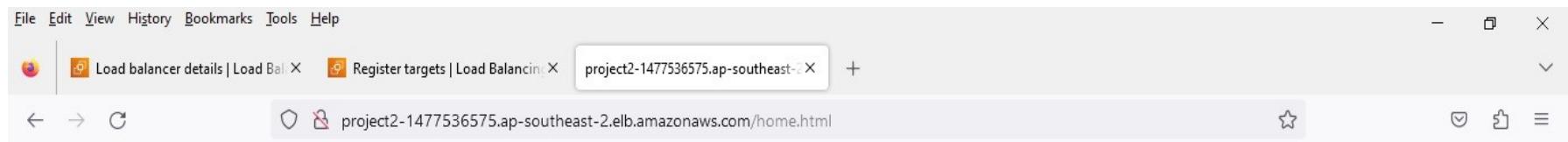


**Hello Welcom Amazon Linux**

EC2 Project web App1.



# Refresh the browser and now running second web page

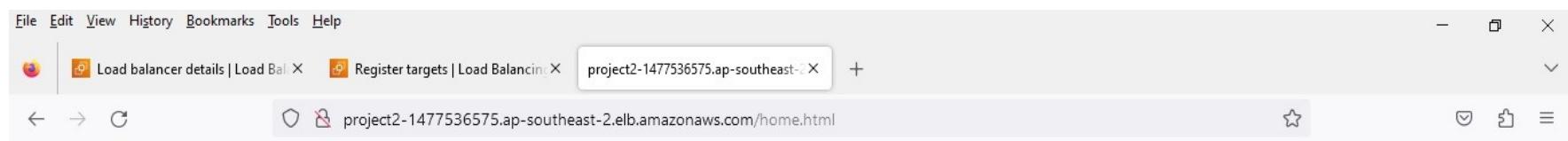


**Hello Welcome To Ubuntu2**

EC2 Project Web App3.



# Refresh the browser and now running third web page



Hello welcom Ubuntu

EC2 Project Web App2.

