

AMAZON WEB SERVICES

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The background features a dark gray gradient with several sets of concentric, glowing blue arcs. Interspersed among these arcs are small, semi-transparent blue spheres of varying sizes.

AWS IAM

Step1: starting lab

The screenshot shows a web browser window with three tabs open, all titled "Lab 1 - Introduction to AWS IAM". The URL in the address bar is `awsacademy.instructure.com/courses/37818/modules/items/3224381`. The browser's toolbar includes icons for WhatsApp, Meet, GDB online Debug, Get Emoji, Outlook, HTML, JavaScript, Play Chess Online, New Tab, Home - Chess.com, Amazon Sign-In, and 65 Common Cambri... .

The main content area displays the "ACFv2EN-37818 Modules Module 4 - A... Lab 1 - Introduction to AWS IAM" page. On the left, a sidebar menu lists: Account, Dashboard, Courses, Calendar, Inbox, History, and Help. The "Modules" option is selected. The main content area shows a "Start Lab" dialog box with the following details:

Region: us-east-1
Lab ID: arn:aws:cloudformation:us-east-1:615089242099:stack/c73982a150614713869049t1w615089242099/f91d2690-d22a-11ed-87c6-0e4bc29eaad5
Creation Time: 2023-04-03T07:22:33-0700

Start session at: 2023-04-03T07:22:33-0700
Remaining session time: 02:00:00 (120 minutes)
Lab status: in creation

Below the dialog, a task group section is partially visible with the text: "In this task, you will explore the Users and Groups that...".

At the bottom of the page are navigation buttons: "Previous" and "Next". The system tray at the bottom right shows the date and time as 03-04-2023 07:56 PM, along with icons for battery, signal, and network.

Step2: search for IAM

The screenshot shows the AWS Management Console search results for the term 'iam'. The search bar at the top contains 'Q. iam'. The results are categorized into 'Services' and 'Features'.

Services (9 results shown):

- IAM** ☆ Manage access to AWS resources
- IAM Identity Center (successor to AWS Single Sign-On)** ☆ Manage workforce user access to multiple AWS accounts and cloud applications
- Resource Access Manager** ☆ Share AWS resources with other accounts or AWS Organizations
- Serverless Application Repository** ☆ Assemble, deploy, and share serverless applications within teams or publicly

See all 9 results ▶

Features (19 results shown):

- Groups** ☆ IAM feature
- Roles**

See all 19 results ▶

A sidebar on the right titled 'AWS' contains the following sections:

- Started with AWS
- Find certification
- Learn with AWS?

A tooltip in the bottom-left corner of the search results area provides information about the 'Introducing AWS CloudWatch Metrics Toolbar'.

At the bottom of the screen, there is a navigation bar with icons for Search, Home, Play Chess Online, New Tab, Home - Chess.com, Amazon Sign-In, and 65 Common Cambri... . The status bar at the bottom right shows the date and time: 07:59 PM 03-04-2023.

Step3: In access management click on user

The screenshot shows the AWS IAM Management Console interface. On the left, there is a navigation sidebar with the following sections:

- Identity and Access Management (IAM)**: Contains links for Dashboard, Access management (User groups, Users, Roles, Policies, Identity providers, Account settings), and Access reports (Access analyzer, Archive rules, Analyzers, Settings).
- Credential report**
- Organization activity**

The main content area is titled "Users (4) Info" and contains a table with the following data:

User name	Groups	Last activity	MFA	Password age	Active key age
awsstudent	None	Never	None	None	-
user-1	None	Never	None	7 minutes ago	7 minutes ago
user-2	None	Never	None	7 minutes ago	7 minutes ago
user-3	None	Never	None	7 minutes ago	7 minutes ago

At the bottom of the page, there are links for CloudShell, Feedback, Language, Privacy, Terms, and Cookie preferences.

Step4: choose user-1 and click on groups

The screenshot shows the AWS IAM Management Console interface. The left sidebar is titled "Identity and Access Management (IAM)" and includes sections for "Access management" (User groups, Roles, Policies, Identity providers, Account settings), "Access reports" (Access analyzer, Archive rules, Analyzers, Settings), and "CloudShell", "Feedback", "Language". The main content area shows the "user-1" details under the "Users" section. The "Summary" tab is selected, displaying the ARN (arn:aws:iam::615089242099:user/spl66/user-1), Console access (Enabled without MFA), and Access keys (Access key 1: AKIAY6NRM77ZEDXZN4 - Active, Never used. Created today; Access key 2: Not enabled). Below the summary, the "Groups" tab is selected in the navigation bar, showing "User groups membership (0)". A note states: "A user group is a collection of IAM users. Use groups to specify permissions for a collection of users. A user can be a member of up to 10 groups at a time." There are buttons for "Add user to groups" and "Attached policies". The bottom of the screen shows the Windows taskbar with various pinned icons.

Step5: choose user group at left side

The screenshot shows the AWS IAM Management Console interface. The left sidebar is titled "Identity and Access Management (IAM)" and contains the following navigation items:

- Dashboard
- Access management
 - User groups** (selected)
 - Users
 - Roles
 - Policies
 - Identity providers
 - Account settings
- Access reports
 - Access analyzer
 - Archive rules
 - Analyzers
 - Settings
- Credential report
- Organization activity

The main content area is titled "User groups (3)" and displays a table with three entries:

Group name	Users	Permissions	Creation time
EC2-Admin	>Loading	>Loading	14 minutes ago
EC2-Support	>Loading	>Loading	14 minutes ago
S3-Support	>Loading	>Loading	14 minutes ago

At the bottom of the page, there are links for CloudShell, Feedback, Language, and a footer with copyright information and links for Privacy, Terms, and Cookie preferences.

Step6: choose EC2 support and click on permissions

The screenshot shows the AWS IAM Management Console interface. The left sidebar is titled "Identity and Access Management (IAM)" and includes sections for Dashboard, Access management (User groups, Users, Roles, Policies, Identity providers), and Access reports (Access analyzer, Archive rules, Analyzers, Settings). The main content area is titled "EC2-Support" under "User groups". It displays the "Summary" of the user group, including the User group name (EC2-Support), Creation time (April 03, 2023, 19:53 (UTC+05:30)), and ARN (arn:aws:iam::615089242099:group/spl66/EC2-Support). Below the summary, there are tabs for "Users", "Permissions" (which is selected), and "Access Advisor". The "Permissions policies" section shows one policy attached: "AmazonEC2ReadOnlyAccess" (AWS managed, Type: AWS managed, Description: Provides read only access to Ama...). There are buttons for "Edit", "Delete", "Simulate", "Remove", and "Add permissions". The bottom of the screen shows the browser's address bar with the URL https://us-east-1.console.aws.amazon.com/iamv2/home?region=us-east-1# and the status bar with system icons and the date/time.

Step7: choose user group and choose S3-Support

The screenshot shows the AWS IAM Management Console interface. The left sidebar is titled "Identity and Access Management (IAM)" and includes sections for Dashboard, Access management (User groups, Users, Roles, Policies, Identity providers, Account settings), and Access reports (Access analyzer, Archive rules, Analyzers, Settings, Credential report, Organization activity). The main content area is titled "S3-Support" under "User groups > S3-Support". It displays the "Summary" tab with the following details:

User group name	Creation time	ARN
S3-Support	April 03, 2023, 19:53 (UTC+05:30)	arn:aws:iam::615089242099:group/spl66/S3-Support

Below the summary, there are tabs for "Users", "Permissions", and "Access Advisor", with "Users" being the active tab. The "Users in this group (0)" section contains a search bar and buttons for "Remove users" and "Add users". A note states: "An IAM user is an entity that you create in AWS to represent the person or application that uses it to interact with AWS." At the bottom, there is a table header for "User name" and "Groups" with sorting and filtering options.

At the very bottom of the screen, a Windows taskbar is visible with icons for CloudShell, Feedback, Language, Search, File Explorer, Firefox, Google Chrome, Task View, and File History. The system tray shows battery level (ENG IN), signal strength, and the date and time (08:11 PM 03-04-2023).

Step8: choose permissions and click on + icon

The screenshot shows the AWS IAM Management Console interface. The left sidebar has 'Identity and Access Management (IAM)' selected. The main navigation bar at the top includes tabs for 'Users', 'Permissions' (which is active), and 'Access Advisor'. Below the navigation bar, there's a section titled 'Permissions policies (1)'. It shows a single policy named 'AmazonS3ReadOnlyAccess' which is 'AWS managed'. A detailed description states: 'Provides read only access to all buckets via the AWS Management Console.' Below this, the policy document is displayed in JSON format:

```
1: {  
2:     "Version": "2012-10-17",  
3:     "Statement": [  
4:         {  
5:             "Effect": "Allow",  
6:             "Action": [  
7:                 "s3:Get*",  
8:                 "s3:List*",  
9:                 "s3-object-lambda:Get*",  
10:                "s3-object-lambda>List*"  
11:            ],  
12:            "Resource": "*"  
13:        }  
14:    ]  
15:}
```

At the bottom of the page, there are links for 'CloudShell', 'Feedback', 'Language', '© 2023, Amazon Web Services, Inc. or its affiliates.', 'Privacy', 'Terms', and 'Cookie preferences'. The status bar at the bottom right shows the date '03-04-2023' and time '08:12 PM'.

Step9: click on user groups and now click on EC2-Admin and click on permissions and again click on +

The screenshot shows the AWS IAM Management Console interface. The left sidebar has 'Identity and Access Management (IAM)' selected. Under 'Access management', 'User groups' is selected, showing a list of groups: 'EC2-Admin'. The main panel displays the 'EC2-Admin' user group details. The 'Permissions' tab is selected in the navigation bar. In the 'Permissions policies' section, there is one policy named 'EC2-Admin-Policy' listed. The policy content is partially visible:

```
1+ "Version": "2012-10-17",
2- "Statement": [
3-   {
4-     "Effect": "Allow",
5-     "Action": "ec2:DescribeInstances",
6-     "Resource": "*"
7-   }
]
```

The ARN of the group is shown as: arn:aws:iam::615089242099:group/spl66/EC2-Admin.

Step 10: click on S3-Support again and choose users tab and click on Add user

The screenshot shows the AWS IAM Management Console interface. The left sidebar is titled 'Identity and Access Management (IAM)' and includes sections for 'Access management' (User groups, Users, Roles, Policies, Identity providers, Account settings), 'Access reports' (Access analyzer, Archive rules, Analyzers, Settings, Credential report, Organization activity), and navigation links for CloudShell, Feedback, and Language.

The main content area is titled 'Add users to S3-Support' and shows a list of 'Other users in this account (4)'. The table columns are User name, Groups, Last activity, and Creation time. The users listed are awsstudent, user-1, user-2, and user-3, all of whom have 0 Groups, None last activity, and were created 22 minutes ago.

At the bottom right of the main content area are 'Cancel' and 'Add users' buttons.

The browser's address bar shows the URL: us-east-1.console.aws.amazon.com/iamv2/home?region=us-east-1#/groups/details/S3-Support/add-users.

The status bar at the bottom right shows the date and time: 03-04-2023 08:16 PM, ENG IN.

Step11: choose user-1 and click on add users button

The screenshot shows the AWS IAM Management Console interface. The left sidebar is titled 'Identity and Access Management (IAM)' and contains sections for 'Access management' (User groups, Users, Roles, Policies, Identity providers, Account settings) and 'Access reports' (Access analyzer, Archive rules, Analyzers, Settings, Credential report, Organization activity). The main content area is titled 'Add users to S3-Support' and shows a list of 'Other users in this account' (Selected 1/4). The list includes 'awsstudent', 'user-1' (which is checked), 'user-2', and 'user-3'. At the bottom right of the list are 'Cancel' and 'Add users' buttons.

User Name	Groups	Last Activity	Creation Time
awsstudent	0	None	24 minutes ago
<input checked="" type="checkbox"/> user-1	0	None	24 minutes ago
<input type="checkbox"/> user-2	0	None	24 minutes ago
<input type="checkbox"/> user-3	0	None	24 minutes ago

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Step 12: users added to the group successfully

The screenshot shows the AWS IAM Management Console interface. On the left, the navigation pane is visible with sections like 'Identity and Access Management (IAM)', 'Access management' (selected), 'User groups' (highlighted in blue), 'Users', 'Roles', 'Policies', 'Identity providers', and 'Account settings'. Below that is another section for 'Access reports' with options like 'Access analyzer', 'Archive rules', 'Analyzers', 'Settings', 'Credential report', and 'Organization activity'. The main content area is titled 'S3-Support' under 'User groups'. A green banner at the top says 'Users added to this group.' Below it, the 'Summary' section shows details: User group name 'S3-Support', Creation time 'April 03, 2023, 19:53 (UTC+05:30)', and ARN 'arn:aws:iam::615089242099:group/spl66/S3-Support'. There are tabs for 'Users' (selected), 'Permissions', and 'Access Advisor'. The 'Users in this group (1)' section shows a table with one row for 'User-1'. The table has columns for 'User name', 'Groups', 'Last activity', and 'Creation time'. At the bottom right of this section are buttons for 'Remove users' and 'Add users'. The bottom of the page includes standard AWS footer links for CloudShell, Feedback, Language, Privacy, Terms, and Cookie preferences, along with system status icons.

Identity and Access Management (IAM)

Access management

User groups

Users

Roles

Policies

Identity providers

Account settings

Access reports

Access analyzer

Archive rules

Analyzers

Settings

Credential report

Organization activity

(4) WhatsApp https://www.awsacademy.com/... IAM Management Console https://www.awsacademy.com/... https://www.awsacademy.com/... us-east-1.console.aws.amazon.com/iamv2/home?region=us-east-1#/groups/details/S3-Support?section=users KL ERP Meet - wyz-wkyw-v... GDB online Debug... Get Emoji — All... Outlook HTML, JavaScript, &... Play Chess Online... New Tab Home - Chess.com Amazon Sign-In 65 Common Cambr... Global vclabs/user2076333=mnsreddy252@gmail.com @ 6150-8924-2099

Search [Alt+S]

Users added to this group.

IAM > User groups > S3-Support

S3-Support

Delete Edit

Summary

User group name	Creation time	ARN
S3-Support	April 03, 2023, 19:53 (UTC+05:30)	arn:aws:iam::615089242099:group/spl66/S3-Support

Users Permissions Access Advisor

Users in this group (1)

An IAM user is an entity that you create in AWS to represent the person or application that uses it to interact with AWS.

User name	Groups	Last activity	Creation time
User-1	1	None	25 minutes ago

Remove users Add users

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Step13: click on users group now click on EC2-Support and click on add users

The screenshot shows the AWS IAM Management Console interface. On the left, a sidebar menu is open under 'Access management' with 'User groups' selected. The main content area displays the 'EC2-Support' user group details. The 'Summary' section shows the group name 'EC2-Support', creation time 'April 03, 2023, 19:53 (UTC+05:30)', and ARN 'arn:aws:iam::615089242099:group/spl66/EC2-Support'. Below this, there are tabs for 'Users' (selected), 'Permissions', and 'Access Advisor'. The 'Users in this group (0)' section indicates that no users are currently assigned to this group. A search bar and pagination controls are visible in this section. At the bottom, a table header for user listing includes columns for 'User name', 'Groups', 'Last activity', and 'Creation time'. The status message 'No resources to display' is shown at the bottom right of the main content area.

Identity and Access Management (IAM)

Search IAM

Dashboard

User groups

Users

Roles

Policies

Identity providers

Account settings

Access analyzer

Archive rules

Analyzers

Settings

Credential report

Organization activity

Search

CloudShell

Feedback

Language

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Privacy Terms Cookie preferences

ENG IN

08:20 PM 03-04-2023

Step14: select user2 and click on add users

The screenshot shows the AWS IAM Management Console interface. The left sidebar is titled "Identity and Access Management (IAM)" and includes sections for Dashboard, Access management (User groups, Users, Roles, Policies, Identity providers, Account settings), and Access reports (Access analyzer, Archive rules, Analyzers, Settings). The main content area is titled "Add users to EC2-Support" and shows a list of "Other users in this account (Selected 1/4)". The list includes four users: awsstudent, user-1, user-2 (which is checked), and user-3. The "Add users" button is located at the bottom right of the list table.

User name	Groups	Last activity	Creation time
awsstudent	0	None	28 minutes ago
user-1	1	None	29 minutes ago
<input checked="" type="checkbox"/> user-2	0	None	29 minutes ago
user-3	0	None	29 minutes ago

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Step 15: user2 added successfully

The screenshot shows the AWS IAM Management Console interface. On the left, a sidebar menu is open under 'Access management' with 'User groups' selected. The main content area displays the 'EC2-Support' user group summary. At the top of this section, a green banner indicates 'Users added to this group.' Below the banner, the navigation path is IAM > User groups > EC2-Support. The group name 'EC2-Support' is prominently displayed with a 'Delete' button to its right. A 'Summary' section provides basic information: User group name (EC2-Support), Creation time (April 03, 2023, 19:53 (UTC+05:30)), and ARN (arn:aws:iam::615089242099:group/spl66/EC2-Support). Below the summary, tabs for 'Users' (selected), 'Permissions', and 'Access Advisor' are visible. The 'Users in this group (1)' section shows a single user entry: 'user-2'. This entry includes a checkbox, a search bar, and columns for 'User name' (user-2), 'Groups', 'Last activity' (None), and 'Creation time' (29 minutes ago). Buttons for 'Remove users' and 'Add users' are located at the top of this section. The bottom of the page includes standard AWS footer links for CloudShell, Feedback, Language, and various legal and support options.

Step16: in EC2 admin choose user-3 and click on add users

The screenshot shows the AWS IAM Management Console interface. On the left, there's a sidebar with 'Identity and Access Management (IAM)' selected. The main area is titled 'Add users to EC2-Admin'. Below it, a sub-section says 'Other users in this account (Selected 1/4)'. A table lists four users: 'awsstudent', 'user-1', 'user-2', and 'user-3'. The 'user-3' row has a checked checkbox next to it. At the bottom right of the table are 'Cancel' and 'Add users' buttons.

User name	Groups	Last activity	Creation time
awsstudent	0	None	32 minutes ago
user-1	1	None	33 minutes ago
user-2	1	None	33 minutes ago
<input checked="" type="checkbox"/> user-3	0	None	33 minutes ago

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Step17: user3 created successfully

The screenshot shows the AWS IAM Management Console interface. On the left, a sidebar menu is open under the 'Access management' section, specifically the 'User groups' tab. The main content area displays the 'EC2-Admin' user group details. At the top, a green banner states 'Users added to this group.' Below this, the 'Summary' section provides basic information: User group name (EC2-Admin), Creation time (April 03, 2023, 19:53 (UTC+05:30)), and ARN (arn:aws:iam::615089242099:group/spl66/EC2-Admin). There are 'Delete' and 'Edit' buttons in this section. Below the summary, there are tabs for 'Users' (which is selected), 'Permissions', and 'Access Advisor'. The 'Users in this group (1)' section shows a single user entry: 'user-3'. This entry includes a checkbox, a 'Remove users' button, and an 'Add users' button. A search bar and pagination controls are also present. The bottom of the screen shows the standard Windows taskbar with various pinned icons.

Identity and Access Management (IAM)

Search IAM

Dashboard

User groups

Users

Roles

Policies

Identity providers

Account settings

Access analyzer

Archive rules

Analyzers

Settings

Credential report

Organization activity

CloudShell Feedback Language

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ENG IN 08:26 PM 03-04-2023

Step 18: create each user in each group name

The screenshot shows the AWS IAM Management Console interface. On the left, there is a navigation sidebar with the following sections:

- Identity and Access Management (IAM)**: Contains links for Dashboard, Search IAM, and various management options like User groups, Users, Roles, Policies, Identity providers, Account settings, Access reports, Access analyzer, Archive rules, Analyzers, Settings, Credential report, and Organization activity.
- Access management**: Contains links for User groups, Users, Roles, Policies, Identity providers, Account settings, Access reports, Access analyzer, Archive rules, Analyzers, Settings, Credential report, and Organization activity.
- Access reports**: Contains links for Access analyzer, Archive rules, Analyzers, Settings, Credential report, and Organization activity.

The main content area is titled "User groups (3)" and includes an info message: "A user group is a collection of IAM users. Use groups to specify permissions for a collection of users." It features a search bar labeled "Filter User groups by property or group name and press enter". A table lists three user groups:

Group name	Users	Permissions	Creation time
EC2-Admin	1	↳ Loading	34 minutes ago
EC2-Support	1	↳ Loading	34 minutes ago
S3-Support	1	↳ Loading	34 minutes ago

At the bottom of the page, there are links for CloudShell, Feedback, Language, and a footer with copyright information and links for Privacy, Terms, and Cookie preferences.

Step19: copy the sign-in url and paste it in new tab.

The screenshot shows the AWS IAM Management Console dashboard. The left sidebar contains navigation links for Identity and Access Management (IAM), Access management, Access reports, and IAM resources. The main content area displays security recommendations, including a warning to add MFA for the root user and a notice about updating access permissions for AWS Billing, Cost Management, and Account consoles. Below these are sections for IAM resources (User groups: 3, Users: 4, Roles: 14, Policies: 1, Identity providers: 0) and What's new. On the right, there is an AWS Account summary with fields for Account ID (615089242099), Account Alias (615089242099), and a 'Sign-in URL Copied' message with a link to https://615089242099.signin.aws.amazon.com/console. A 'Tools' section includes a Policy simulator and a Web identity federation playground. The bottom of the screen shows the Windows taskbar with various pinned icons.

IAM dashboard

Security recommendations

- Add MFA for root user**
Sign in as the root user (or contact your administrator) and register a multi-factor authentication (MFA) device for the root user to improve security for this account.
- Update your access permissions for AWS Billing, Cost Management, and Account consoles**
We are replacing the following IAM actions for Billing, Cost Management, and Account consoles with granular IAM actions: `aws-portal:ViewBilling`, `aws-portal:ModifyBilling`, `aws-portal:ViewAccount`, `aws-portal:ModifyAccount`, `aws-portal:ViewPaymentMethods`, `aws-portal:ModifyPaymentMethods`, `aws-portal:ViewUsage`, `purchase-orders:ViewPurchaseOrders`, and `purchase-orders:ModifyPurchaseOrders`. To ensure you don't lose access to AWS Billing, Cost Management, and Account console based features, update your existing IAM policies to include the new IAM actions before July 2023. Examples of features impacted include AWS Cost Explorer, AWS Budgets, Billing console, and more. For more information, please visit blog [\[link\]](#).

IAM resources

User groups	Users	Roles	Policies	Identity providers
3	4	14	1	0

What's new

AWS Account

Account ID: 615089242099
Account Alias: 615089242099 Create
Sign-in URL Copied: IAM users in this account
<https://615089242099.signin.aws.amazon.com/console>

Tools

Policy simulator
The simulator evaluates the policies that you choose and determines the effective permissions for each of the actions that you specify.

Web identity federation playground
Authenticate yourself to any of the supported web identity providers, see the requests and responses, obtain a set of temporary security credentials,

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Step20: click on sign with credentials that they given in docx.

Amazon Web Services Sign-In

ap-southeast-2.signin.aws.amazon.com/auth?client_id=am%3Aaws%3Asignin%3A%3Aconsole%2Fcanvas&code_challenge=pfGXv8cBzg5hODSf8clKMTCSJu6Dlinus1fRStsW... Incognito

KLERP Meet - wyz-wkyw-v... GDB online Debug... Get Emoji — All... Outlook HTML, JavaScript, &... Play Chess Online... New Tab Home - Chess.com Amazon Sign-In 65 Common Cambr...

aws

Sign in as IAM user

Account ID (12 digits) or account alias
615089242099

IAM user name
user-1

Password
.....

Remember this account

Sign in

Sign in using root user email
Forgot password?

THE OFFICIAL
AWS Merch Store

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English ▾

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ENG IN 08:40 PM 03-04-2023

Step21: It shows like this

The screenshot shows the AWS Management Console home page in a web browser. The URL is ap-southeast-2.console.aws.amazon.com/console/home?region=ap-southeast-2. The browser toolbar includes tabs for KLERP, Meet - wyz-wkyw.v..., GDB online Debug..., Get Emoji — All..., Outlook, HTML, JavaScript, &..., Play Chess Online..., New Tab, Home - Chess.com, Amazon Sign-In, and 65 Common Cambr... The location bar shows Sydney and user-1 @ 6150-8924-2099.

The main interface features a "Service menu" box on the left with instructions to access all AWS services. Below it is a "Welcome to AWS" section with links to Getting started with AWS, Training and certification, and What's new with AWS. A central area displays a cube icon and a message: "No recently visited services. Explore one of these commonly visited AWS services." Below this are links for IAM, EC2, S3, RDS, and Lambda. A tooltip at the bottom left introduces AWS CloudShell. The footer includes links for CloudShell, Feedback, Language, and various AWS services like Cost and usage, and a copyright notice for 2023.

Step22: in services choose s3

The screenshot shows the AWS Management Console search results for the query 's3'. The search bar at the top contains 's3'. On the left, a sidebar lists categories: Services (7), Features (19), Resources (New), Blogs (1,215), Documentation (16,155), Knowledge Articles (30), Tutorials (12), Events (26), and Marketplace (1,034). The main content area displays search results for 'Services' and 'Features'.

Services

- S3** ★ Scalable Storage in the Cloud
- S3 Glacier** ★ Archive Storage in the Cloud
- AWS Snow Family** ★ Large Scale Data Transport
- AWS Transfer Family** ★ Fully managed support for SFTP, FTPS and FTP

See all 7 results ▶

Features

- Amazon S3 File Gateway**

See all 19 results ▶

On the right side of the search results, there is a sidebar titled 'AWS' with sections: 'Started with AWS', 'Fundamentals and find valuable', 'Find certification', 'AWS experts and advance your knowledge.', and 'View with AWS?'. At the bottom of the sidebar, there is a section titled 'Introducing AWS CloudWatch Metrics'.

At the very bottom of the page, there are links for CloudShell, Feedback, Language, © 2023, Amazon Web Services, Inc. or its affiliates., Privacy, Terms, and Cookie preferences. On the far right, there are system status icons including ENG IN, WiFi, battery level, and the date/time 03-04-2023 08:42 PM.

Step23: click on created bucket

The screenshot shows the AWS S3 Management Console interface. The left sidebar has a 'Buckets' section with links for Access Points, Object Lambda Access Points, Multi-Region Access Points, Batch Operations, IAM Access Analyzer for S3, Block Public Access settings for this account, Storage Lens (Dashboards and AWS Organizations settings), Feature spotlight, and AWS Marketplace for S3. The main content area is titled 'Amazon S3 > Buckets' and contains an 'Account snapshot' section with a link to 'View Storage Lens dashboard'. Below it is a table titled 'Buckets (1)' with one item: 'samplebucket-f91d2690'. The table includes columns for Name, AWS Region, Access, and Creation date. A 'Create bucket' button is located at the top right of the table area. The browser's address bar shows the URL s3.console.aws.amazon.com/s3/buckets?region=ap-southeast-2.

Name	AWS Region	Access	Creation date
samplebucket-f91d2690	US East (N. Virginia) us-east-1	Objects can be public	April 3, 2023, 19:52:38 (UTC+05:30)

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Step24: choose EC2 in search bar and click on instances at left side

The screenshot shows the AWS EC2 Management Console interface. The top navigation bar includes tabs for 'Dashboard' and 'EC2 Management'. The address bar shows the URL: <https://ap-southeast-2.console.aws.amazon.com/ec2/home?region=ap-southeast-2#Instances>. The top right corner displays the user 'user-1 @ 6150-8924-2099' and the region 'Sydney'.

The left sidebar contains a 'New EC2 Experience' survey, followed by a list of services: EC2 Dashboard, EC2 Global View, Events, Tags, Limits, Instances (selected), Instances, Instance Types, Launch Templates, Spot Requests, Savings Plans, Reserved Instances, Dedicated Hosts, Capacity Reservations, Images (AMIs, AMI Catalog), and Elastic Block Store.

The main content area is titled 'Resources' and displays the following message: 'You are using the following Amazon EC2 resources in the Asia Pacific (Sydney) Region:'. It lists categories: Instances (running) 0, Auto Scaling Groups, Dedicated Hosts, Elastic IPs, Instances, Key pairs, Load balancers, Placement groups, Security groups, Snapshots, Volumes, and Volumes. Each category has an 'API Error' link next to it.

A central callout box provides information about launching Microsoft SQL Server Always On availability groups using the AWS Launch Wizard for SQL Server, with a 'Learn more' link.

The 'Launch instance' section contains a 'Launch instance' button and a 'Migrate a server' button.

The 'Service health' section shows the status: Region Asia Pacific (Sydney), Status This service is operating normally.

The right sidebar is titled 'Account attributes' and includes sections for Supported platforms (with two error messages), Settings, EBS encryption, Zones, EC2 Serial Console, Default credit specification, and Console experiments.

The bottom of the page includes a footer with links for 'Explore AWS', '10 Things You Can Do Today to Reduce AWS Costs', and standard AWS footer links: © 2023, Amazon Web Services, Inc. or its affiliates., Privacy, Terms, and Cookie preferences. The bottom right corner shows the date '03-04-2023' and time '08:47 PM'.

Step25: click on sign out

The screenshot shows the AWS EC2 Management Console interface. The left sidebar is collapsed, showing the following navigation menu:

- New EC2 Experience (Feedback link)
- EC2 Dashboard
- EC2 Global View
- Events
- Tags
- Limits
- Instances
 - Instances (selected)
 - Instance Types
 - Launch Templates
 - Spot Requests
 - Savings Plans
 - Reserved Instances
 - Dedicated Hosts
 - Capacity Reservations
- Images
 - AMIs
 - AMI Catalog
- Elastic Block Store

The main content area is titled "Instances" and displays a message: "You are not authorized to perform this operation." Below this message, there is a section titled "Select an instance" which is currently empty.

On the right side of the screen, there is a vertical sidebar with account information and navigation links:

- Account ID: 6150-8924-2099
- IAM user: user-1
- Account
- Organization
- Service Quotas
- Billing Dashboard
- Security credentials
- Settings

At the bottom right of the main content area, there are two buttons: "Switch role" and "Sign out". The "Sign out" button is highlighted with a red rectangle.

The browser's address bar shows the URL: <https://ap-southeast-2.console.aws.amazon.com/ec2/logout?doLogout>.

The status bar at the bottom of the screen shows the date and time: 08:50 PM 03-04-2023, and the location: ENG IN.

Step26: copy the URL again and login with new credentials that given in docx

The screenshot shows the AWS IAM Management Console dashboard. The left sidebar contains navigation links for Identity and Access Management (IAM), including Dashboard, Access management, Access reports, and IAM resources. The main content area displays the IAM dashboard with sections for Security recommendations, IAM resources, and What's new. The Security recommendations section lists two items: 'Add MFA for root user' and 'Update your access permissions for AWS Billing, Cost Management, and Account consoles'. The IAM resources section shows statistics: 3 User groups, 4 Users, 14 Roles, 1 Policies, and 0 Identity providers. The What's new section indicates there are 14 updates. On the right side, there is an 'AWS Account' panel showing the Account ID (615089242099) and Account Alias (615089242099). A 'Sign-in URL Copied' message is displayed with a link: <https://615089242099.signin.aws.amazon.com/console>. Below this, there are links for Tools, Policy simulator, and Web identity federation playground. The bottom of the screen shows the Windows taskbar with various pinned icons.

IAM dashboard

Security recommendations

- Add MFA for root user
- Update your access permissions for AWS Billing, Cost Management, and Account consoles

IAM resources

User groups	Users	Roles	Policies	Identity providers
3	4	14	1	0

What's new

AWS Account

Account ID: 615089242099

Account Alias: 615089242099 [Create](#)

Sign-in URL Copied [IAM users in this account](https://615089242099.signin.aws.amazon.com/console)

<https://615089242099.signin.aws.amazon.com/console>

Tools

Policy simulator

The simulator evaluates the policies that you choose and determines the effective permissions for each of the actions that you specify.

Web identity federation playground

Authenticate yourself to any of the supported web identity providers, see the requests and responses, obtain a set of temporary security credentials,

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Step27: choose EC2

The screenshot shows the AWS Management Console search results for the term "ec2". The search bar at the top contains "Search results for 'ec2'".

Services (12)

- Features (53)
- Resources New
- Blogs (1,935)
- Documentation (26,835)
- Knowledge Articles (30)
- Tutorials (20)
- Events (30)
- Marketplace (2,297)

Services

- EC2** ☆ Virtual Servers in the Cloud
- EC2 Image Builder** ☆ A managed service to automate build, customize and deploy OS images
- Amazon Inspector** ☆ Continual vulnerability management at scale
- AWS Firewall Manager** ☆ Central management of firewall rules

See all 12 results ▶

Features

- Dashboard**
- EC2 feature**

Limits

layout + Add widgets

AWS

Started with AWS Get started

Find certification Find certification

Learn with AWS? Learn with AWS?

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Step28: click on the instances at left side

The screenshot shows the AWS Management Console interface for the EC2 service. The title bar reads "Instances | EC2 Management Con..." and the URL is "https://ap-southeast-2.console.aws.amazon.com/ec2/home?region=ap-southeast-2#Instances". The main content area is titled "Instances" and displays a message: "No instances. You do not have any instances in this region." Below this message is a large "Launch instances" button. On the left side, there is a navigation sidebar with the following sections and items:

- EC2 Dashboard**
- EC2 Global View**
- Events**
- Tags**
- Limits**
- Instances** (selected):
 - Instances** (highlighted in orange)
 - Instance Types
 - Launch Templates
 - Spot Requests
 - Savings Plans
 - Reserved Instances
 - Dedicated Hosts
 - Capacity Reservations
- Images**:
 - AMIs
 - AMI Catalog
- Elastic Block Store**

The status bar at the bottom shows the URL "https://ap-southeast-2.console.aws.amazon.com/ec2/home?region=ap-southeast-2#Instances", the copyright notice "© 2023, Amazon Web Services, Inc. or its affiliates.", and the system time "08:55 PM 03-04-2023".

Step29: choose N.Virgina as location then you can see LabHost

The screenshot shows the AWS Management Console interface for the EC2 service. The browser address bar indicates the URL is `us-east-1.console.aws.amazon.com/ec2/home?region=us-east-1#Instances:`. The AWS logo is at the top left, followed by the Services menu and a search bar. The top navigation bar includes tabs for 'Instances' (selected), 'Launch instances', 'Actions', 'Instance state', and 'Connect'. A sidebar on the left lists various EC2 management options like EC2 Dashboard, Global View, Events, Tags, Limits, and Instances (which is expanded to show 'Instances', 'Instance Types', 'Launch Templates', 'Spot Requests', 'Savings Plans', and 'Reserved Instances'). A modal window titled 'Select an instance' is open in the center, showing a list of two instances: 'Bastion Host' and 'LabHost', both of which are running t2.micro instances in the us-east-1a availability zone. The 'LabHost' instance has a Public IPv4 DNS of `ec2-3-231-33-21`. At the bottom of the modal, there's a message about AWS CloudShell and an 'OK' button. The footer of the page includes links for CloudShell, Feedback, Language, and cookie preferences, along with copyright information for 2023 and links for Privacy, Terms, and Cookie preferences.

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IPv4 DNS
Bastion Host	i-0c96d97afdd72e94b	Running	t2.micro	2/2 checks passed	No alarms	us-east-1a	ec2-3-237-60-73
LabHost	i-0d330c09f342dff3	Running	t2.micro	2/2 checks passed	No alarms	us-east-1a	ec2-3-231-33-21

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ENG IN 08:58 PM 03-04-2023

Step30: choose LabHost and click on stop instance

The screenshot shows the AWS Management Console EC2 Instances page. There are two instances listed:

Name	Instance ID	Instance state	Instance type	Status
Bastion Host	i-0c96d97afdd72e94b	Running	t2.micro	2/2
LabHost	i-0d330c09f342dff3	Running	t2.micro	2/2

The 'Actions' dropdown menu is open, showing the following options:

- Stop instance
- Start instance
- Reboot instance
- Hibernate instance
- Terminate instance

A tooltip on the left side of the screen provides information about AWS CloudShell.

At the bottom of the page, there is a processing bar and some footer links.

Step31: it shows an error while stoping error

The screenshot shows the AWS Management Console interface for the EC2 service. The main content area displays an error message about failing to stop an instance. Below the error message, the instance details are shown, including its ID, state, and network information.

Error Message:

Failed to stop the instance i-0d330c09f342dffe3

You are not authorized to perform this operation. Encoded authorization failure message: J2rYrW6ZKZMC7j9Fosv4K7SGx6RT4IUNVcQFN6fBWDP1OxuusxDVJ7_lZIW5GQ2Vsh9E6-v2XIVsVv36PskhqqOrU0SHr8-MncocJt6LjQ0Fl8bKT678hvBpjmyzgaKpTP6n7tzBKkEK9_aO8zQzzLHWHjDSZjwhwrJn6L-wbHBImqkUl4UMmihsgsDlFxfe56pBlmGW09SfQuoSSoknF38YzwRDwawR0Y7lqfu_BAFkY1Fsj0vw5bWZOcb9z-BXOXEVkmJQVWE9UnztdpbC94giJwKEUfYpoBo9yHTZ1lutMxEnvTR-X-BIGFkklWivkJlEZ5V2ksDgc2GwKb7dTiuqzO-n5jqu1d7FGZRTMw4xChfSvos1ao1H4O6xrOBmCLQagQTtPAyBnbsb43ul4d40os4voDCzvE89EGKVlmJoev6EEJMCDhc6J3hFO4VSGRN_U3y3sysFuRsqrF1L6oepEoE4L63MAleav9b49RCqqZjVjpGuCpa557HUMJkbO1R5T5S28WgG8FtoR0xDn38h_jheXn68OQ2-i6njd8GwN7a4FhZH0Y2H0mrkR5q6mf4qMljKqeKmt70NDBtBMhr_JCQJSFdpBLswM0Sz5kg-UJahQejc0vR7pK-oZqh4aZQ55X-0-aJvCHUoc0OwncZ_jKx4T2B2W5gu-9gMVTv_OEjj23LZPr6wgWNbDbNE09TvbUcgcaD4LjG5qc512q6aMPif78F2T7IUI_vR22xFBQdFkzcfrfrk1UA4v6lGiS13tNOnEGAJM-GX336bZB-hEP_QBDwHAvtSBMDjenfpbzZeOP7gMEM8FRCmNPsoYMI5jHb6Vp6vDtvtS2wW9kn3-4uFmrPQBx-INmCbktmqX_j8nl2ogjOlqLgLFWBSkWmy-RvTJCSl7dl1B2u-uLowQXgpTgsFEAjDEzT2KTwcSTFsyzCVKvx4b1u42IMbr98QFMXYOoDRU2YjGwvIKEmZY3PhJDCMRGR08op1nQ

Instances (1/2) Info

Find instance by attribute or tag (case-sensitive)

Instance: i-0d330c09f342dffe3 (LabHost)

Details Security Networking Storage Status checks Monitoring Tags

Instance summary

Attribute	Value	Action
Public IPv4 address	3.231.33.215 open address	
Private IPv4 addresses	10.1.11.6	
Instance state	Running	
Public IPv4 DNS	ec2-3-231-33-215.compute-1.amazonaws.com open address	
Private IP DNS name (IPv4 only)	ip-10-1-11-6.ec2.internal	

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ENG IN 09:03 PM 03-04-2023

Step32: click on sign up

The screenshot shows the AWS S3 Management Console interface. The top navigation bar includes tabs for 'AWS Management Console' and 'S3 Management Console'. The main content area is titled 'Amazon S3 > Buckets' and displays an 'Account snapshot' section with storage usage information. Below this is a 'Buckets' table with columns for Name, AWS Region, Access, Creation date, and Settings. The table shows 'No buckets' under all categories. A 'Create bucket' button is located at the bottom right of the table area. On the far right, a sidebar lists account details: Account ID (6150-8924-2099), IAM user (user-2), and various links for Account, Organization, Service Quotas, Billing Dashboard, and Security credentials. At the bottom right of the sidebar are 'Switch role' and 'Sign out' buttons. A modal window titled 'Introducing AWS CloudShell in the Console Toolbar' is overlaid on the left side of the screen. It contains two items: 'Introducing AWS CloudShell in the Console Toolbar' and 'Get quick access to CloudShell while navigating throughout the AWS Management Console.' An 'OK' button is at the bottom right of the modal. The browser's address bar shows the URL <https://s3.console.aws.amazon.com/s3/logout?logout>. The bottom of the screen features a dark footer bar with various icons and the text '© 2023, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences'.

Step33: Sign-in with new credentials details given and chooseEC2

The screenshot shows the AWS Management Console Home page. At the top, there are three tabs labeled "AWS Management Console" and a "New Incognito Tab". The browser's address bar shows the URL "us-east-1.console.aws.amazon.com/console/home?region=us-east-1#". The main content area has two main sections: "Recently visited" and "Welcome to AWS". The "Recently visited" section lists "EC2" and "S3". The "Welcome to AWS" section includes links for "Getting started with AWS", "Training and certification", and "What's new with AWS?". A tooltip at the bottom left introduces "AWS CloudShell" with the message: "Introducing AWS CloudShell in the Console Toolbar. Get quick access to CloudShell while navigating throughout the AWS Management Console." The bottom navigation bar includes links for "CloudShell", "Feedback", "Language", "© 2023, Amazon Web Services, Inc. or its affiliates.", "Privacy", "Terms", and "Cookie preferences". The system tray at the bottom right shows the date and time as "03-04-2023 09:07 PM ENG IN".

Console Home [Info](#)

Recently visited [Info](#)

- [EC2](#)
- [S3](#)

Welcome to AWS

- [Getting started with AWS](#)
- [Training and certification](#)
- [What's new with AWS?](#)

Introducing AWS CloudShell in the Console Toolbar. Get quick access to CloudShell while navigating throughout the AWS Management Console.

View all services

Cost and usage [Info](#)

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03-04-2023 09:07 PM ENG IN

Step34: choose Labhost and click on stop instance

The screenshot shows the AWS Management Console EC2 Instances page. There are two instances listed:

Name	Instance ID	Instance state	Instance type	Status
Bastion Host	i-0c96d97afdd72e94b	Running	t2.micro	2/2
LabHost	i-0d330c09f342dff3	Running	t2.micro	2/2

A context menu is open over the 'LabHost' instance, with the 'Stop instance' option highlighted.

Instance: i-0d330c09f342dff3 (LabHost)

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

Instance summary

Introducing AWS CloudShell in the Console Toolbar
Get quick access to CloudShell while navigating throughout the AWS Management Console.

OK

Public IPv4 address: 3.231.33.215 | open address

Private IP DNS name (IPv4 only): ip-10-1-11-6.ec2.internal

Instance state: Running

Private IPv4 addresses: 10.1.11.6

Public IPv4 DNS: ec2-3-231-33-215.compute-1.amazonaws.com | open address

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Step35: LabHost has been successfully stopped

The screenshot shows the AWS Management Console with the EC2 Instances page open. A success message at the top left says "Successfully stopped i-0d330c09f342dff3". The main table lists two instances: a "Bastion Host" in a "Running" state and the "LabHost" instance, which is currently "Stopping". The "LabHost" instance has a Public IPv4 DNS of "ec2-3-231-33-21.compute-1.amazonaws.com". A tooltip for the IP address "ip-10-1-11-6.ec2.internal" is visible at the bottom left. The navigation bar at the bottom includes CloudShell, Feedback, Language, and links to 2023, Privacy, Terms, and Cookie preferences.

Successfully stopped i-0d330c09f342dff3

Instances (1/2) [Info](#)

Find instance by attribute or tag (case-sensitive)

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IPv4 DNS
Bastion Host	i-0c96d97afdd72e94b	Running	t2.micro	2/2 checks passed	User: arn:aws:iam::123456789012:root	us-east-1a	ec2-3-237-60-73
LabHost	i-0d330c09f342dff3	Stopping	t2.micro	2/2 checks passed	User: arn:aws:iam::123456789012:root	us-east-1a	ec2-3-231-33-21

Instance: i-0d330c09f342dff3 (LabHost)

Details Security Networking Storage Status checks Monitoring Tags

Instance summary [Info](#)

Introducing AWS CloudShell in the Console Toolbar

Get quick access to CloudShell while navigating throughout the AWS Management Console.

OK

Public IPv4 address: 3.231.33.215 | [open address](#)

Private IPv4 addresses: 10.1.11.6

Public IPv4 DNS: ec2-3-231-33-215.compute-1.amazonaws.com | [open address](#)

Instance state: Stopping

Private IP DNS name (IPv4 only): ip-10-1-11-6.ec2.internal

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VIRTUAL PRIVATE CLOUD

Lab-2 - Build your VPC and Launch EC2 Instances

VPC Management Console

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

KLERP Meet - wyz-wkyw-v... GDB online Debug... Get Emoji — All... Outlook HTML, JavaScript, & CSS Play Chess Online ... New Tab Home - Chess.com Amazon Sign-In 65 Common Cambr...

aws Services Search [Alt+S]

VPC dashboard Create VPC Launch EC2 Instances

Note: Your Instances will launch in the US East region.

Filter by VPC: Select a VPC

Virtual private cloud

- Your VPCs New
- Subnets
- Route tables
- Internet gateways
- Egress-only internet gateways
- Carrier gateways
- DHCP option sets
- Elastic IPs
- Managed prefix lists
- Endpoints
- Endpoint services
- NAT gateways
- Peering connections

Service Health

View complete service health details Check

Settings

Zones

Console Experiments

Additional Information

VPC Documentation

All VPC Resources

Forums

Report an Issue

AWS Network Manager

AWS Network Manager provides tools and features to help you manage and monitor your network on AWS. Network Manager makes it easier to perform connectivity management, network monitoring and troubleshooting, IP management, and network security and governance.

Get started with Network Manager

Site-to-Site VPN Connections

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11:09 PM ENG IN 03-04-2023

Q Search

Resources by Region Refresh Resources

You are using the following Amazon VPC resources

VPCs	US East 2	NAT Gateways	US East 0
Subnets	US East 7	VPC Peering Connections	US East 0
Route Tables	US East 3	Network ACLs	US East 2
Internet Gateways	US East 2	Security Groups	US East 3
Egress-only Internet Gateways	US East 0	Customer Gateways	US East 0
DHCP Option Sets	US East 1	Virtual Private Gateways	US East 0

Lab 2 - Build your VPC and Launch EC2 Instances

VPC Management Console

us-east-1.console.aws.amazon.com/vpc/home?region=us-east-1#CreateVpc:createMode=vpcWithResources

KL ERP Meet - wyz-wkyw-v... GDB online Debug... Get Emoji — All... Outlook HTML, JavaScript, & CSS Play Chess Online New Tab Home - Chess.com Amazon Sign-In 65 Common Cambr...

AWS Services Search [Alt+S]

N. Virginia v voclabs/user2076333=mnsreddy252@gmail.com @ 6849-1428-7339

VPC > Your VPCs > Create VPC

Create VPC Info

A VPC is an isolated portion of the AWS Cloud populated by AWS objects, such as Amazon EC2 instances. Mouse over a resource to highlight the related resources.

VPC settings

Resources to create Info
Create only the VPC resource or the VPC and other networking resources.

VPC only VPC and more

Name tag auto-generation Info
Enter a value for the Name tag. This value will be used to auto-generate Name tags for all resources in the VPC.
 Auto-generate
project

IPv4 CIDR block Info
Determine the starting IP and the size of your VPC using CIDR notation.
10.0.0.0/16 65,536 IPs

IPv6 CIDR block Info
 No IPv6 CIDR block
 Amazon-provided IPv6 CIDR block

Preview

VPC Show details
Your AWS virtual network
project-vpc

Subnets (4)
Subnets within this VPC

- us-east-1a
 - project-subnet-public1-us-east-1a
 - project-subnet-private1-us-east-1a
- us-east-1b
 - project-subnet-public2-us-east-1b
 - project-subnet-private2-us-east-1b

Route tables (3)
Route network traffic to re

- project-rtb-public
- project-rtb-private1-us-east-1a
- project-rtb-private2-us-east-1b

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VPC settings

Resources to create [Info](#)

Create only the VPC resource or the VPC and other networking resources.

- VPC only
- VPC and more

Name tag auto-generation [Info](#)

Enter a value for the Name tag. This value will be used to auto-generate Name tags for all resources in the VPC.

- Auto-generate

lab

IPv4 CIDR block [Info](#)

Determine the starting IP and the size of your VPC using CIDR notation.

10.0.0.0/16 65,536 IPs

IPv6 CIDR block [Info](#)

- No IPv6 CIDR block
- Amazon-provided IPv6 CIDR block

Tenancy [Info](#)

Default

Number of Availability Zones (AZs) [Info](#)

Preview

VPC [Show details](#)

Your AWS virtual network

lab-vpc

Subnets (2)

Subnets within this VPC

us-east-1a

lab-subnet-public1-us-east-1a

lab-subnet-private1-us-east-1a

Route tables (2)

Route network traffic to re

lab-rtb-public

lab-rtb-private1-us-ea

Lab 2 - Build your VPC and Launch EC2 Instances | VPC Management Console

us-east-1.console.aws.amazon.com/vpc/home?region=us-east-1#CreateVpc:createMode=vpcWithResources

KLERP: Meet - wyz-wkyw-v... GDB online Debug... Get Emoji — All... Outlook HTML, JavaScript, &... Play Chess Online ... New Tab Home - Chess.com Amazon Sign-In 65 Common Cambr...

AWS Services Search [Alt+S] N. Virginia v vodlabs/user2076333=mnsreddy252@gmail.com @ 6849-1428-7339

Number of Availability Zones (AZs) [Info](#)
Choose the number of AZs in which to provision subnets. We recommend at least two AZs for high availability.
 1 2 3

► Customize AZs

Number of public subnets [Info](#)
The number of public subnets to add to your VPC. Use public subnets for web applications that need to be publicly accessible over the internet.
 0 1 2

Number of private subnets [Info](#)
The number of private subnets to add to your VPC. Use private subnets to secure backend resources that don't need public access.
 0 1 2

▼ Customize subnets CIDR blocks

Public subnet CIDR block in us-east-1a
10.0.0.0/24 256 IPs

Private subnet CIDR block in us-east-1a
10.0.1.0/24 256 IPs

NAT gateways (\$) [Info](#)
Choose the number of Availability Zones (AZs) in which to create NAT gateways. Note that there is a charge for each NAT gateway.

Preview

VPC [Show details](#)
Your AWS virtual network
lab-vpc

Subnets (2)
Subnets within this VPC

us-east-1a
lab-subnet-public1-us-east-1a
lab-subnet-private1-us-east-1a

Route tables (2)
Route network traffic to re-

lab-rtb-public
lab-rtb-private1-us-ea

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Lab 2 - Build your VPC and Launch EC2 Instances

VPC Management Console

us-east-1.console.aws.amazon.com/vpc/home?region=us-east-1#CreateVpc:createMode=vpcWithResources

NAT gateways (\$)

Choose the number of Availability Zones (AZs) in which to create NAT gateways. Note that there is a charge for each NAT gateway.

None In 1 AZ 1 per AZ

VPC endpoints

Endpoints can help reduce NAT gateway charges and improve security by accessing S3 directly from the VPC. By default, full access policy is used. You can customize this policy at any time.

None S3 Gateway

DNS options

Enable DNS hostnames
 Enable DNS resolution

Additional tags

Add tags to the VPC and all resources within the VPC. Do not set the Name tag here. Set the Name tag under Name tag auto-generation above or directly in the visualizer.

Add new tag

You can add 49 more tags.

Cancel Create VPC

Preview

VPC Show details Your AWS virtual network lab-vpc

Subnets (2) Subnets within this VPC

us-east-1a
lab-subnet-public1-us-east-1a
lab-subnet-private1-us-east-1a

Route tables (2) Route network traffic to resources

lab-rtb-public
lab-rtb-private1-us-east-1a

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Success

▼ Details

- ✓ Create VPC: vpc-0399b05ea0da59681
- ✓ Enable DNS hostnames
- ✓ Enable DNS resolution
- ✓ Verifying VPC creation: vpc-0399b05ea0da59681
- ✓ Create subnet: subnet-04391bc52335bc724
- ✓ Create subnet: subnet-07687eacd8e5acdcc
- ✓ Create internet gateway: igw-04afdf1edbf9268c98f
- ✓ Attach internet gateway to the VPC
- ✓ Create route table: rtb-0ad266ebaac3d10cd
- ✓ Create route
- ✓ Associate route table
- ✓ Allocate elastic IP: eipalloc-0c8252424e4917617
- ✓ Create NAT gateway: nat-02fccfc16ea482be8
- ✓ Wait for NAT Gateways to activate
- ✓ Create route table: rtb-0e0a933fe9d8438ab
- ✓ Create route
- ✓ Associate route table
- ✓ Verifying route table creation

View VPC

Lab 2 - Build your VPC and Launch EC2 Instances

VPC Management Console

us-east-1.console.aws.amazon.com/vpc/home?region=us-east-1#VpcDetails?VpcId=vpc-0399b05ea0da59681

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VPC dashboard X

EC2 Global View Filter by VPC: Select a VPC ▾

Virtual private cloud

Your VPCs New Subnets Route tables Internet gateways Egress-only internet gateways Carrier gateways DHCP option sets Elastic IPs Managed prefix lists Endpoints Endpoint services NAT gateways Peering connections Security

VPC > Your VPCs > vpc-0399b05ea0da59681

vpc-0399b05ea0da59681 / lab-vpc

Actions ▾

Details Info

VPC ID <input type="checkbox"/> vpc-0399b05ea0da59681	State Available	DNS hostnames Enabled	DNS resolution Enabled
Tenancy Default	DHCP option set dopt-Oae28e350a7da3ef5	Main route table rtb-02c85dd1e9e23823c	Main network ACL acl-030dff3205da17b4c
Default VPC No	IPv4 CIDR 10.0.0.0/16	IPv6 pool -	IPv6 CIDR (Network border group) -
Network Address Usage metrics Disabled	Route 53 Resolver DNS Firewall rule groups ✖ Failed to load rule groups	Owner ID <input type="checkbox"/> 684914287339	

Resource map New CIDRs Flow logs Tags

Resource map Info

VPC Show details Your AWS virtual network	Subnets (2) Subnets within this VPC	Route tables (3) Route network traffic to resources	Net: Conn:
--	--	--	------------

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Lab 2 - Build your VPC and Launch EC2 Instances | Subnets | VPC Management Console

us-east-1.console.aws.amazon.com/vpc/home?region=us-east-1#subnets

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VPC dashboard X EC2 Global View Filter by VPC: Select a VPC Virtual private cloud Your VPCs New Subnets Route tables Internet gateways Egress-only internet gateways Carrier gateways DHCP option sets Elastic IPs Managed prefix lists Endpoints Endpoint services NAT gateways Peering connections Security

Subnets (9) Info

Filter subnets

Name	Subnet ID	State	VPC	IPv4 CIDR	IPv6 CIDR
Work Public Subnet	subnet-0cb30fe277da81e06	Available	vpc-02e92a5045cb098a0 Wo...	10.0.0.0/24	-
-	subnet-072b987f28b74df7f	Available	vpc-0ad8547162cf98ee1	172.31.16.0/20	-
-	subnet-0968783cccd59bcd7	Available	vpc-0ad8547162cf98ee1	172.31.64.0/20	-
-	subnet-0d4a80ed95ef41f8d	Available	vpc-0ad8547162cf98ee1	172.31.80.0/20	-
-	subnet-020f1654c3ddc8055	Available	vpc-0ad8547162cf98ee1	172.31.32.0/20	-
-	subnet-04ac61f37344e9fdb	Available	vpc-0ad8547162cf98ee1	172.31.48.0/20	-
-	[REDACTED]	-	-	-	-
-	[REDACTED]	-	-	-	-

Select a subnet

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Lab 2 - Build your VPC and Launch EC2 Instances | VPC Management Console

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

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Subnet settings

Specify the CIDR blocks and Availability Zone for the subnet.

Subnet 1 of 1

Subnet name
Create a tag with a key of 'Name' and a value that you specify.
 The name can be up to 256 characters long.

Availability Zone [Info](#)
Choose the zone in which your subnet will reside, or let Amazon choose one for you.

IPv4 CIDR block [Info](#)

Tags - optional

Key	Value - optional
<input type="text" value="Name"/>	<input type="text" value="lab-subnet-public2"/>

[Add new tag](#)
You can add 49 more tags.

[Remove](#)

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Lab 2 - Build your VPC and Launch EC2 Instances | Subnets | VPC Management Console

us-east-1.console.aws.amazon.com/vpc/home?region=us-east-1#subnets:subnetId=subnet-05d020d8b457ec570

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VPC dashboard X

EC2 Global View Filter by VPC: Select a VPC

Virtual private cloud

Your VPCs New Subnets

Route tables

Internet gateways

Egress-only internet gateways

Carrier gateways

DHCP option sets

Elastic IPs

Managed prefix lists

Endpoints

Endpoint services

NAT gateways

Peering connections

Security

You have successfully created 1 subnet: subnet-05d020d8b457ec570

Subnets (1) Info Actions Create subnet

Filter subnets Subnet ID: subnet-05d020d8b457ec570 X Clear filters

Name	Subnet ID	State	VPC	IPv4 CIDR	IPv6 CIDR
lab-subnet-public2	subnet-05d020d8b457ec570	Available	vpc-0399b05ea0da59681 lab...	10.0.2.0/24	-

Select a subnet

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Lab 2 - Build your VPC and Launch EC2 Instances | VPC Management Console

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

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Subnet settings

Specify the CIDR blocks and Availability Zone for the subnet.

Subnet 1 of 1

Subnet name
Create a tag with a key of 'Name' and a value that you specify.
 The name can be up to 256 characters long.

Availability Zone [Info](#)
Choose the zone in which your subnet will reside, or let Amazon choose one for you.

IPv4 CIDR block [Info](#)
 X

Tags - optional

Key	Value - optional
<input type="text" value="Name"/> X	<input type="text" value="lab-subnet-private2"/> X

Add new tag
You can add 49 more tags.

Remove

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Lab 2 - Build your VPC and Launch EC2 Instances | Subnets | VPC Management Console

us-east-1.console.aws.amazon.com/vpc/home?region=us-east-1#subnets:subnetId=subnet-085f9bc08036df987

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VPC dashboard X

EC2 Global View Filter by VPC: Select a VPC

Virtual private cloud

Your VPCs New Subnets

Route tables

Internet gateways

Egress-only internet gateways

Carrier gateways

DHCP option sets

Elastic IPs

Managed prefix lists

Endpoints

Endpoint services

NAT gateways

Peering connections

Security

You have successfully created 1 subnet: subnet-085f9bc08036df987

Subnets (1) Info Actions Create subnet

Filter subnets Subnet ID: subnet-085f9bc08036df987 Clear filters

Name	Subnet ID	State	VPC	IPv4 CIDR	IPv6 CIDR
lab-subnet-private2	subnet-085f9bc08036df987	Available	vpc-0399b05ea0da59681 lab...	10.0.3.0/24	-

Select a subnet

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Lab 2 - Build your VPC and Launch EC2 Instances | Route tables | VPC Management

us-east-1.console.aws.amazon.com/vpc/home?region=us-east-1#RouteTables

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VPC dashboard X

EC2 Global View Filter by VPC: Select a VPC ▾

Virtual private cloud Your VPCs New Subnets Route tables Internet gateways Egress-only internet gateways Carrier gateways DHCP option sets Elastic IPs Managed prefix lists Endpoints Endpoint services NAT gateways Peering connections Security

Route tables (6) Info

Filter route tables

Name	Route table ID	Explicit subnet associations	Edge associations	Main	VPC	Ov...
lab-rtb-public	rtb-0ad266ebaac3d10cd	subnet-04391bc52335b...	-	No	vpc-0399b05ea0da59681 lab...	68...
Work Public Route ...	rtb-0cbc1d33808078191	subnet-0cb30fe277da8...	-	No	vpc-02e92a5045cb098a0 Wo...	68...
-	rtb-02c85dd1e9e23823c	-	-	Yes	vpc-0399b05ea0da59681 lab...	68...
-	rtb-04aabc690195fef10	-	-	Yes	vpc-02e92a5045cb098a0 Wo...	68...
-	rtb-0c9cfced0afce6930	-	-	Yes	vpc-0ad8547162cf98ee1	68...
lab-rtb-private1-us...	rtb-0e0a933fe9d8438ab	subnet-07687eacd8e5a...	-	No	vpc-0399b05ea0da59681 lab...	68...

Select a route table

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Lab 2 - Build your VPC and Launch EC2 Instances | Route tables | VPC Management

us-east-1.console.aws.amazon.com/vpc/home?region=us-east-1#RouteTables

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VPC dashboard X

EC2 Global View Filter by VPC: Select a VPC Virtual private cloud Your VPCs New Subnets Route tables Internet gateways Egress-only internet gateways Carrier gateways DHCP option sets Elastic IPs Managed prefix lists Endpoints Endpoint services NAT gateways Peering connections Security

Route tables (1/6) Info

Filter route tables

Name Route table ID Explicit subnet associations Edge associations Main VPC Overview

lab-rtb-public	rtb-0ad266ebaac3d10cd	subnet-04391bc52335b...	-	No	vpc-0399b05ea0da59681 lab...	68...
----------------	-----------------------	-------------------------	---	----	--------------------------------	-------

rtb-0e0a933fe9d8438ab / lab-rtb-private1-us-east-1a

Details Routes Subnet associations Edge associations Route propagation Tags

Routes (2)

Edit routes

Filter routes Both

Destination	Target	Status	Propagated
0.0.0.0/0	nat-02fccfc16ea482be8	Active	No
10.0.0.0/16	local	Active	No

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Lab 2 - Build your VPC and Launch EC2 Instances

VPC Management Console

us-east-1.console.aws.amazon.com/vpc/home?region=us-east-1#EditRouteTableSubnetAssociations:RouteTableId=rtb-0e0a933fe9d8438ab

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VPC > Route tables > rtb-0e0a933fe9d8438ab > Edit subnet associations

Edit subnet associations

Change which subnets are associated with this route table.

Available subnets (2/4)

Filter subnet associations < 1 > ⌂

Name	Subnet ID	IPv4 CIDR	IPv6 CIDR	Route table ID
<input type="checkbox"/> lab-subnet-public2	subnet-05d020d8b457ec570	10.0.2.0/24	-	Main (rtb-02c85dd1e9e23823c)
<input checked="" type="checkbox"/> lab-subnet-private1-us-east-1a	subnet-07687eacd8e5acdcc	10.0.1.0/24	-	rtb-0e0a933fe9d8438ab / lab-rtb-priv...
<input type="checkbox"/> lab-subnet-public1-us-east-1a	subnet-04391bc52335bc724	10.0.0.0/24	-	rtb-0ad266ebaac3d10cd / lab-rtb-public
<input checked="" type="checkbox"/> lab-subnet-private2	subnet-085f9bc08036df987	10.0.3.0/24	-	Main (rtb-02c85dd1e9e23823c)

Selected subnets

subnet-07687eacd8e5acdcc / lab-subnet-private1-us-east-1a X subnet-085f9bc08036df987 / lab-subnet-private2 X

Cancel Save associations

Lab 2 - Build your VPC and Launch EC2 Instances | Route tables | VPC Management

us-east-1.console.aws.amazon.com/vpc/home?region=us-east-1#RouteTables

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VPC dashboard X

EC2 Global View Filter by VPC: Select a VPC

Virtual private cloud

Your VPCs New Subnets Route tables Internet gateways Egress-only internet gateways Carrier gateways DHCP option sets Elastic IPs Managed prefix lists Endpoints Endpoint services NAT gateways Peering connections Security

You have successfully updated subnet associations for rtb-0e0a933fe9d8438ab / lab-rtb-private1-us-east-1a.

Route tables (1/6) Info

Filter route tables

Name	Route table ID	Explicit subnet associations	Edge associations	Main	VPC	Ov
<input checked="" type="checkbox"/> lab-rtb-public	rtb-0ad266ebaac3d10cd	subnet-04391bc52335b...	-	No	vpc-0399b05ea0da59681 lab...	68-
<input type="checkbox"/> Work Public Route ...	rtb-0cbc1d33808078191	subnet-0cb30fe277da8...	-	No	vpc-02e92a5045cb098a0 Wo...	68-
<input type="checkbox"/> -	rtb-02c85dd1e9e23823c	-	-	Yes	vpc-0399b05ea0da59681 lab...	68-
<input type="checkbox"/> -	rtb-04aabc690195fef10	-	-	Yes	vpc-02e92a5045cb098a0 Wo...	68-
<input type="checkbox"/> -	rtb-0c9cfced0afce6930	-	-	Yes	vpc-0ad8547162cf98ee1	68-
<input type="checkbox"/> lab-rtb-private1-us...	rtb-0e0a933fe9d8438ab	2 subnets	-	No	vpc-0399b05ea0da59681 lab...	68-

rtb-0ad266ebaac3d10cd / lab-rtb-public

Details Routes Subnet associations Edge associations Route propagation Tags

You can now check network connectivity with Reachability Analyzer Run Reachability Analyzer

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Lab 2 - Build your VPC and Launch EC2 Instances

VPC Management Console

us-east-1.console.aws.amazon.com/vpc/home?region=us-east-1#EditRouteTableSubnetAssociations:RouteTableId=rtb-0ad266ebaac3d10cd

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VPC > Route tables > rtb-0ad266ebaac3d10cd > Edit subnet associations

Edit subnet associations

Change which subnets are associated with this route table.

Available subnets (2/4)

Filter subnet associations < 1 > ⌂

Name	Subnet ID	IPv4 CIDR	IPv6 CIDR	Route table ID
<input checked="" type="checkbox"/> lab-subnet-public2	subnet-05d020d8b457ec570	10.0.2.0/24	-	Main (rtb-02c85dd1e9e23823c)
<input type="checkbox"/> lab-subnet-private1-us-east-1a	subnet-07687eacd8e5acdcc	10.0.1.0/24	-	rtb-0e0a933fe9d8438ab / lab-rtb-priv...
<input checked="" type="checkbox"/> lab-subnet-public1-us-east-1a	subnet-04391bc52335bc724	10.0.0.0/24	-	rtb-0ad266ebaac3d10cd / lab-rtb-public
<input type="checkbox"/> lab-subnet-private2	subnet-085f9bc08036df987	10.0.3.0/24	-	rtb-0e0a933fe9d8438ab / lab-rtb-priv...

Selected subnets

subnet-04391bc52335bc724 / lab-subnet-public1-us-east-1a X subnet-05d020d8b457ec570 / lab-subnet-public2 X

Cancel Save associations

Lab 2 - Build your VPC and Launch EC2 Instances | Route tables | VPC Management

us-east-1.console.aws.amazon.com/vpc/home?region=us-east-1#RouteTables

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VPC dashboard X

EC2 Global View Filter by VPC: Select a VPC

Virtual private cloud

Your VPCs New Subnets Route tables Internet gateways Egress-only internet gateways Carrier gateways DHCP option sets Elastic IPs Managed prefix lists Endpoints Endpoint services NAT gateways Peering connections Security

You have successfully updated subnet associations for rtb-0ad266ebaac3d10cd / lab-rtb-public.

Route tables (6) Info

Filter route tables

<input type="checkbox"/>	Name	Route table ID	Explicit subnet associat...	Edge associations	Main	VPC	Ov...
<input type="checkbox"/>	lab-rtb-public	rtb-0ad266ebaac3d10cd	2 subnets	-	No	vpc-0399b05ea0da59681 lab...	68...
<input type="checkbox"/>	Work Public Route ...	rtb-0cbc1d33808078191	subnet-0cb30fe277da8...	-	No	vpc-02e92a5045cb098a0 Wo...	68...
<input type="checkbox"/>	-	rtb-02c85dd1e9e23823c	-	-	Yes	vpc-0399b05ea0da59681 lab...	68...
<input type="checkbox"/>	-	rtb-04aabc690195fef10	-	-	Yes	vpc-02e92a5045cb098a0 Wo...	68...
<input type="checkbox"/>	-	rtb-0c9cfced0afce6930	-	-	Yes	vpc-0ad8547162cf98ee1	68...
<input type="checkbox"/>	lab-rtb-private1-us...	rtb-0e0a933fe9d8438ab	2 subnets	-	No	vpc-0399b05ea0da59681 lab...	68...

Select a route table

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Lab 2 - Build your VPC and Launch... X VPC Management Console X

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

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Internet gateways
Egress-only internet gateways
Carrier gateways
DHCP option sets
Elastic IPs
Managed prefix lists
Endpoints
Endpoint services
NAT gateways
Peering connections

▼ Security
Network ACLs
Security groups
▼ DNS firewall
Rule groups
Domain lists
▼ Network Firewall
Firewalls
Firewall policies
Network Firewall rule

Security Groups (4) [Info](#)

C Actions Export security groups to CSV Create security group

Filter security groups

<input type="checkbox"/>	Name	Security group ID	Security group name	VPC ID	Description	Owner
<input type="checkbox"/>	-	sg-0fc36fd034789a40	Ec2SecurityGroup	vpc-02e92a5045cb098a0	VPC Security Group	684914287339
<input type="checkbox"/>	-	sg-036137dafe72d505e	default	vpc-02e92a5045cb098a0	default VPC security gr...	684914287339
<input type="checkbox"/>	-	sg-082d5439a55ba4967	default	vpc-0ad8547162cf98ee1	default VPC security gr...	684914287339
<input type="checkbox"/>	-	sg-04441478e7a334cb3	default	vpc-0399b05ea0da59681	default VPC security gr...	684914287339

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Lab 2 - Build your VPC and Launch... X VPC Management Console X +

us-east-1.console.aws.amazon.com/vpc/home?region=us-east-1#CreateSecurityGroup

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Create security group Info

A security group acts as a virtual firewall for your instance to control inbound and outbound traffic. To create a new security group, complete the fields below.

Basic details

Security group name Info

Web Security Group

Name cannot be edited after creation.

Description Info

Enable HTTP access

VPC Info

vpc-0399b05ea0da59681

Inbound rules Info

Type <small>Info</small>	Protocol <small>Info</small>	Port range <small>Info</small>	Source <small>Info</small>	Description - optional <small>Info</small>	Delete
HTTP	TCP	80	Anywhere <small>Info</small>	0.0.0.0/0	Permit web requests

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Lab 2 - Build your VPC and Launch EC2 Instances | VPC Management Console

us-east-1.console.aws.amazon.com/vpc/home?region=us-east-1#SecurityGroup:groupId=sg-0dabff752e7e52db1

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VPC dashboard X

EC2 Global View Filter by VPC: Select a VPC ▾

Virtual private cloud Your VPCs New Subnets Route tables Internet gateways Egress-only internet gateways Carrier gateways DHCP option sets Elastic IPs Managed prefix lists Endpoints Endpoint services NAT gateways Peering connections Security

Security group (sg-0dabff752e7e52db1 | Web Security Group) was created successfully

Details

VPC > Security Groups > sg-0dabff752e7e52db1 - Web Security Group Actions ▾

sg-0dabff752e7e52db1 - Web Security Group

Details			
Security group name	Security group ID	Description	VPC ID
<input type="checkbox"/> Web Security Group	<input type="checkbox"/> sg-0dabff752e7e52db1	<input type="checkbox"/> Enable HTTP access	<input type="checkbox"/> vpc-0399b05ea0da59681
Owner	Inbound rules count	Outbound rules count	
<input type="checkbox"/> 684914287339	1 Permission entry	1 Permission entry	

Inbound rules Outbound rules Tags

You can now check network connectivity with Reachability Analyzer Run Reachability Analyzer

Inbound rules (1/1)

C Manage tags Edit inbound rules

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Lab 2 - Build your VPC and Launch EC2 Instances

VPC Management Console

us-east-1.console.aws.amazon.com/vpc/home?region=us-east-1#SecurityGroup:groupId=sg-0dabff752e7e52db1

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Services Q ec2

VPC dashboard

EC2 Global View

Filter by VPC: Select a VPC

Virtual private cloud

Your VPCs [New](#)

Subnets

Route tables

Internet gateways

Egress-only internet gateways

Carrier gateways

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Elastic IPs

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Endpoint services

NAT gateways

Peering connections

Security

Search results for 'ec2'

Services (12)

EC2

Virtual Servers in the Cloud

EC2 Image Builder

A managed service to automate build, customize and deploy OS images

Amazon Inspector

Continual vulnerability management at scale

AWS Firewall Manager

Central management of firewall rules

See all 12 results ▶

Features (53)

Dashboard

EC2 feature

Limits

See all 53 results ▶

Actions ▾

VPC ID

vpc-0399b05ea0da59681

Run Reachability Analyzer X

Manage tags

Edit inbound rules

Inbound Rules (1 / 1)

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11:45 PM

03-04-2023

Lab 2 - Build your VPC and Launch... X Dashboard | EC2 Management C... X

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

KLERP Meet - wyz-wkyw-v... GDB online Debug... Get Emoji — All... Outlook HTML, JavaScript, &... Play Chess Online ... New Tab Home - Chess.com Amazon Sign-In 65 Common Cambr...

AWS Services Search [Alt+S]

New EC2 Experience Tell us what you think X

EC2 Dashboard

EC2 Global View

Events

Tags

Limits

Instances

Instances

Instance Types

Launch Templates

Spot Requests

Savings Plans

Reserved Instances

Dedicated Hosts

Scheduled Instances

Capacity Reservations

Images

AMIs

AMI Catalog

Instances (running) 1 Auto Scaling Groups 0 API Error Dedicated Hosts 0

Elastic IPs 2 Instances 1 Key pairs 1

Load balancers 0 Placement groups 0 Security groups 5

Snapshots 0 Volumes 1

Easily size, configure, and deploy Microsoft SQL Server Always On availability groups on AWS using the AWS Launch Wizard for SQL Server. Learn more X

Launch instance

Launch instance which is a Launch instance from template Launch instance Migrate a server

Note: Your instances will launch in the US East (N. Virginia) Region

Scheduled events

Service health

AWS Health Dashboard

Region: US East (N. Virginia)

Status: This service is operating normally

Zones

Zone name	Zone ID

Explore AWS

Save up to 90% on EC2 with Spot Instances

Optimize price-performance by combining EC2 purchase options in a single EC2 ASG. Learn more

Amazon GuardDuty Malware Protection

GuardDuty now provides agentless malware detection in Amazon EC2 & EC2 container workloads. Learn more

Enable Best Price-Performance with AWS Graviton2

AWS Graviton2 powered EC2 instances enable up to 40% better price performance for a broad spectrum of

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

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Lab 2 - Build your VPC and Launch instances | Launch an instance | EC2 Manager

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

KLERP Meet - wyz-wkyw-v... GDB online Debug... Get Emoji — All... Outlook HTML, JavaScript, & CSS Play Chess Online New Tab Home - Chess.com Amazon Sign-In 65 Common Cambri...

Services Search [Alt+S] N. Virginia vodlabs/user2076333=mnsreddy252@gmail.com @ 6849-1428-7339

Network settings

VPC - required [Info](#)
vpc-0399b05ea0da59681 (lab-vpc)
10.0.0.0/16

Subnet [Info](#)
subnet-05d020d8b457ec570 lab-subnet-public2
VPC: vpc-0399b05ea0da59681 Owner: 684914287339
Availability Zone: us-east-1b IP addresses available: 251 CIDR: 10.0.2.0/24

Create new subnet

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

Common security groups [Info](#)
Select security groups
Web Security Group sg-0dabff752e7e52db1 X
VPC: vpc-0399b05ea0da59681

Compare security group rules

Summary

Number of instances [Info](#)
1

Software Image (AMI)
Amazon Linux 2023 AMI 2023.0.2... [read more](#)
ami-0c39f71452c09778

Virtual server type (instance type)
t2.micro

Firewall (security group)
Web 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 US East (N. Virginia) region) at no charge.

Cancel **Launch instance** Review commands

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Lab 2 - Build your VPC and Launch... X Launch an instance | EC2 Manager X

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

KLERP Meet - wyz-wkyw-v... GDB online Debug... Get Emoji — All... Outlook HTML, JavaScript, &... Play Chess Online New Tab Home - Chess.com Amazon Sign-In 65 Common Cambr...

AWS Services Search [Alt+S] N. Virginia v vodlabs/user2076333=mnsreddy252@gmail.com @ 6849-1428-7339

Metadata response hop limit [Info](#)
Select

Allow tags in metadata [Info](#)
Select

User data - optional [Info](#)
Enter user data in the field.

```
#!/bin/bash
# Install Apache Web Server and PHP
sudo dnf install -y httpd wget php mariadb105-server
# Download Lab files
wget https://aws-tc-largeobjects.s3.us-west-2.amazonaws.com/CUR-TF-100-ACCLFO-2-9026/2-lab2-vpc/s3/lab-app.zip
unzip lab-app.zip -d /var/www/html/
# Turn on web server
chkconfig httpd on
service httpd start
```

User data has already been base64 encoded

▼ Summary

Number of instances [Info](#)
1

Software Image (AMI)
Amazon Linux 2023 AMI 2023.0.2... [read more](#)
ami-00c39f71452c09778

Virtual server type (instance type)
t2.micro

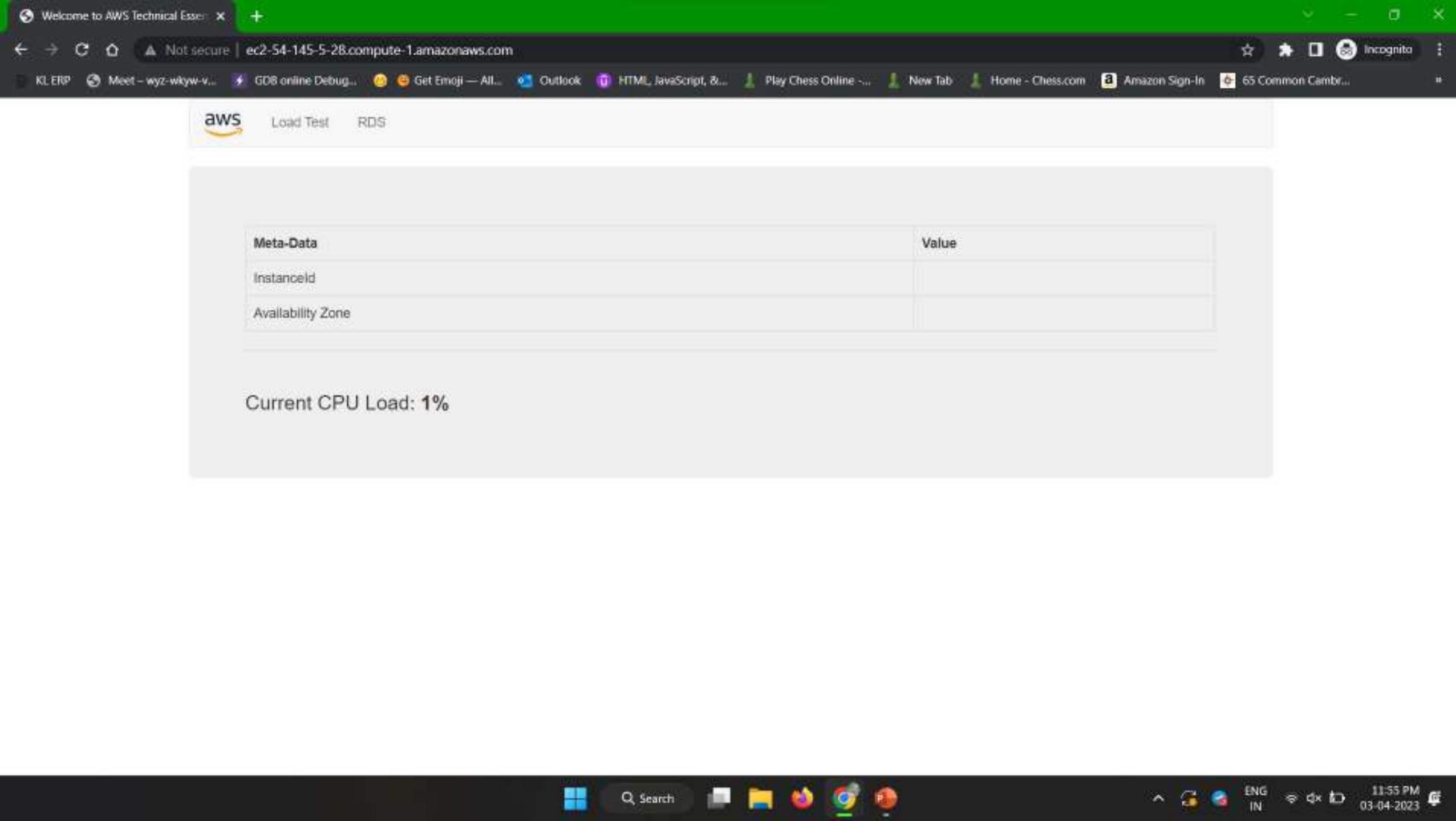
Firewall (security group)
Web Security Group

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

Free tier: In your first year includes 750 hours of t2.micro (or t3.micro in the

[Cancel](#) [Launch instance](#) [Review commands](#)

Lab 2 - Build your VPC and Launch Instances | Instances | EC2 Management Con... + us-east-1.console.aws.amazon.com/ec2/home?region=us-east-1#Instances: KLERP: Meet - wyz-wkyw-v... GDB online Debug... Get Emoji — All... Outlook HTML, JavaScript, &... Play Chess Online New Tab Home - Chess.com Amazon Sign-In 65 Common Cambr... AWS Services Search [Alt+S] N. Virginia v vodlabs/user2076333=mnsreddy252@gmail.com @ 6849-1428-7339 New EC2 Experience Tell us what you think X Instances (1/2) Info Connect Instance state Actions Launch instances Find instance by attribute or tag (case-sensitive) 1 2 3 EC2 Dashboard EC2 Global View Events Tags Limits Instances Instances Instance Types Launch Templates Spot Requests Savings Plans Reserved Instances Dedicated Hosts Scheduled Instances Capacity Reservations Images AMIs AMI Catalog Instance: i-0542285c8177c230f (Web Server 1) Instance ID i-0542285c8177c230f (Web Server 1) Public IPv4 address 54.145.5.28 | open address Private IPv4 addresses Public IPv4 DNS copied IPv6 address Instance state Running Private IP DNS name (IPv4 only) ip-10-0-2-100.ec2.internal Hostname type IP name: ip-10-0-2-100.ec2.internal © 2023, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences CloudShell Feedback Language ENG IN 11:54 PM 03-04-2023



AWS ELASTIC BEANSTALK

Lab 4 - Working with EBS X | Lab 4 - Working with EBS X | Instances | EC2 Management Con X +

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

KLERP: Meet - wyz-wkyw-v... GDB online Debug... Get Emoji — All... Outlook HTML, JavaScript, &... Play Chess Online ... New Tab Home - Chess.com Amazon Sign-In 65 Common Cambr...

AWS Services Search [Alt+S] N. Virginia v vodlabs/user2076333=mnsreddy252@gmail.com @ 4127-5313-5747

New EC2 Experience Tell us what you think X

Instances (2) Info

Find instance by attribute or tag (case-sensitive)

EC2 Dashboard

EC2 Global View

Events

Tags

Limits

Instances

Instances

Instance Types

Launch Templates

Spot Requests

Savings Plans

Reserved Instances

Select an instance

Introducing AWS CloudShell in the Console Toolbar

Get quick access to CloudShell while navigating throughout the AWS Management Console.

OK

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Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IPv4 DNS
Bastion Host	i-03a7b9dcc0ed5e292	Running	t2.micro	2/2 checks passed	No alarms	+ us-east-1a	ec2-44-201-36-1
Lab	i-0014cf04374dd86f6	Running	t2.micro	2/2 checks passed	No alarms	+ us-east-1a	ec2-44-212-221-

Lab 4 - Working with EBS

Volumes | EC2 Management Con...

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

KLERP Meet - wyz-wkyw-v... GDB online Debug... Get Emoji — All... Outlook HTML, JavaScript, &... Play Chess Online ... New Tab Home - Chess.com Amazon Sign-In 65 Common Cambr...

AWS Services Search [Alt+S]

Savings Plans

Reserved Instances

Dedicated Hosts

Scheduled Instances

Capacity Reservations

Images

AMIs

AMI Catalog

Elastic Block Store

Volumes

Snapshots

Lifecycle Manager

Network & Security

Security Groups

Elastic IPs

Placement Groups

Key Pairs

Network Interfaces

Load Balancing

Volumes (2)

Search

Name	Volume ID	Type	Size	IOPS	Throughput	Snapshot	Created	Available
-	vol-082d285167dc2ccf1	gp2	8 GiB	100	-	snap-016944d...	2023/04/04 00:12 GMT+5:...	us-east-1
-	vol-0e2042bf2267a8249	gp2	8 GiB	100	-	snap-016944d...	2023/04/04 00:14 GMT+5:...	us-east-1

Select a volume above

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Lab 4 - Working with EBS

Create volume | EC2 Management

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

KLERP Meet - wyz-wkyw-v... GDB online Debug... Get Emoji — All... Outlook HTML, JavaScript, &... Play Chess Online New Tab Home - Chess.com Amazon Sign-In 65 Common Cambr...

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100 / 3000
Baseline of 5 IOPS per GiB with a minimum of 100 IOPS, burstable to 3000 IOPS.

Throughput (MiB/s) Info
Not applicable

Availability Zone Info
us-east-1a

Snapshot ID - optional Info
Don't create volume from a snapshot

Encryption Info
Use Amazon EBS encryption as an encryption solution for your EBS resources associated with your EC2 instances.
 Encrypt this volume

Tags - optional Info
A tag is a label that you assign to an AWS resource. Each tag consists of a key and an optional value. You can use tags to search and filter your resources or track your AWS costs.

Key Use "My Volume"
Name My Volume Remove

Add tag

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Lab 4 - Working with EBS

Volumes | EC2 Management Con...

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

KLERP Meet - wyz-wkyw-v... GDB online Debug... Get Emoji — All... Outlook HTML, JavaScript, &... Play Chess Online New Tab Home - Chess.com Amazon Sign-In 65 Common Cambr...

AWS Services Search [Alt+S] N. Virginia v vodlabs/user2076333=mnsreddy252@gmail.com @ 4127-5313-5747

New EC2 Experience Tell us what you think X

Volumes (3)

Search

Name	Volume ID	Type	Size	IOPS	Throughput	Snapshot	Created	Available
-	vol-082d285167dc2ccf1	gp2	8 GiB	100	-	snap-016944d...	2023/04/04 00:12 GMT+5...	us-east
-	vol-0e2042bf2267a8249	gp2	8 GiB	100	-	snap-016944d...	2023/04/04 00:14 GMT+5...	us-east
My Volume	vol-05f0b354c83972f75	gp2	1 GiB	100	-	-	2023/04/04 00:28 GMT+5...	us-east

Select a volume above

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Lab 4 - Working with EBS

Attach volume | EC2 Management

us-east-1.console.aws.amazon.com/ec2/home?region=us-east-1#AttachVolume?volumeId=vol-05f0b354c83972f75

KLERP Meet - wyz-wkyw-v... GDB online Debug... Get Emoji — All... Outlook HTML, JavaScript, &... Play Chess Online... New Tab Home - Chess.com Amazon Sign-In 65 Common Cambr...

AWS Services Search [Alt+S]

N. Virginia v vclabs/user2076333=mnsreddy252@gmail.com @ 4127-5313-5747

Attach a volume to an instance to use it as your instance's root or a data drive.

Basic details

Volume ID
 vol-05f0b354c83972f75 {My Volume}

Availability Zone
us-east-1a

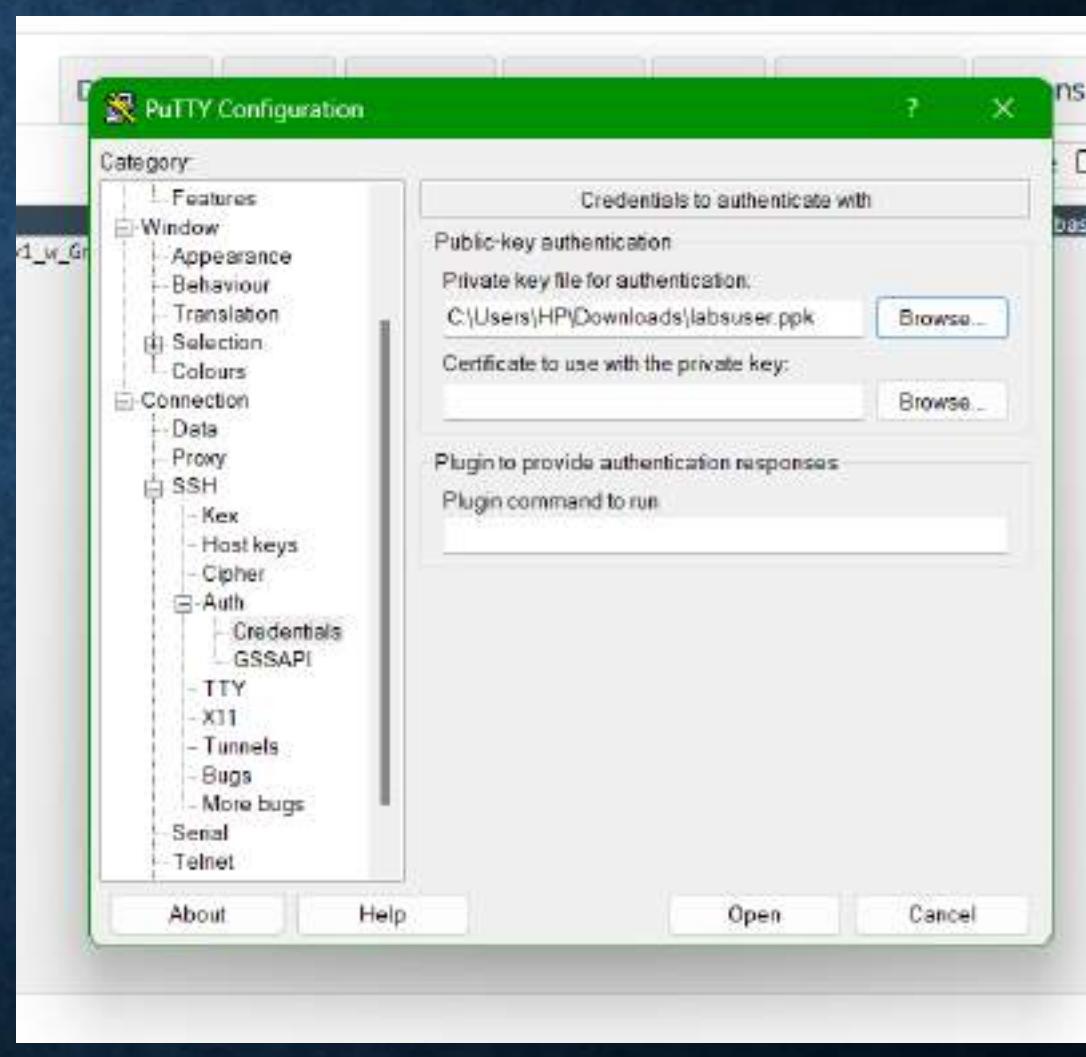
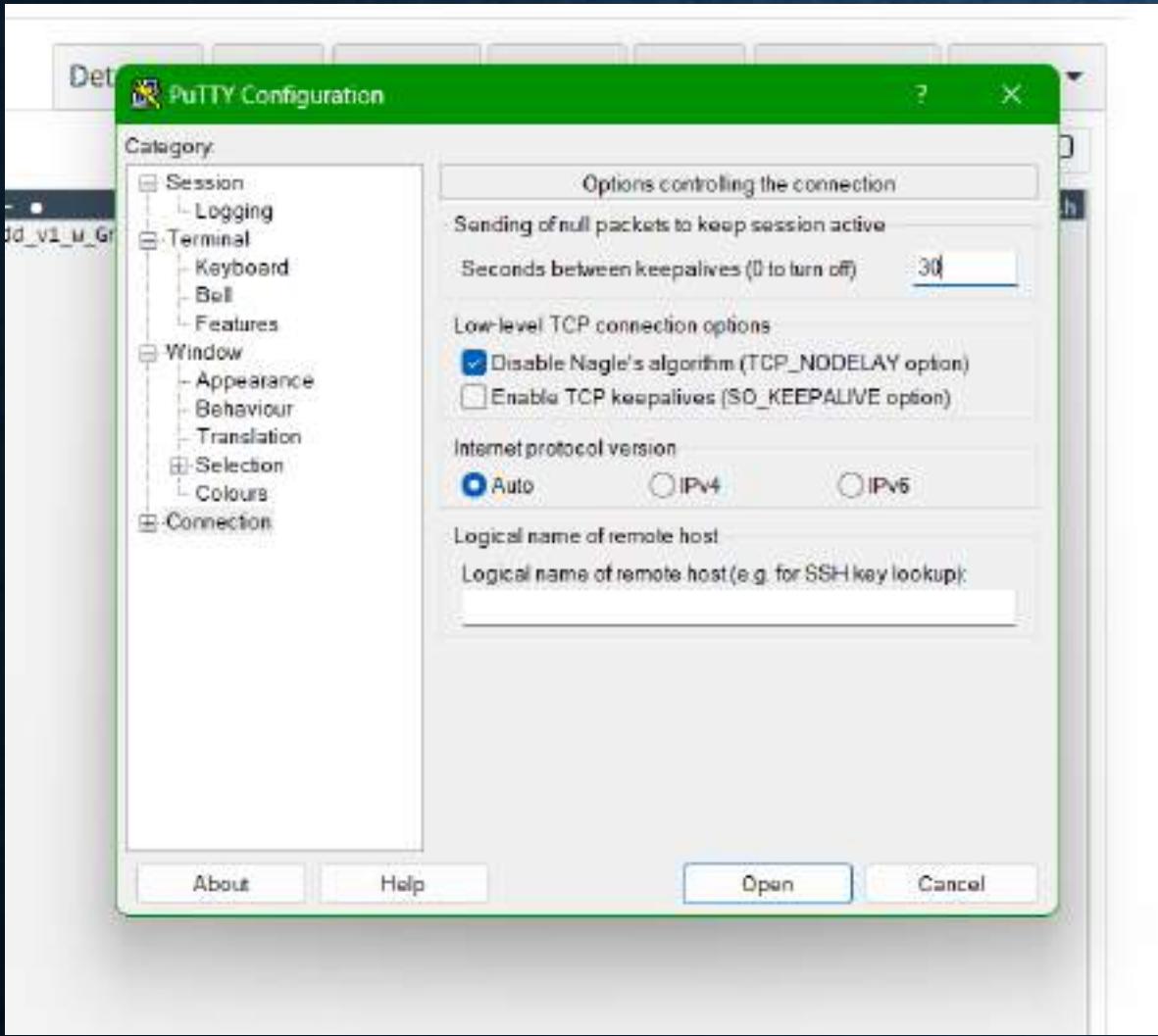
Instance [Info](#)
 [C](#)
Only instances in the same Availability Zone as the selected volume are displayed.

Device name [Info](#)

Recommended device names for Linux: /dev/sda1 for root volume. /dev/sd[f-p] for data volumes.

ⓘ Newer Linux kernels may rename your devices to /dev/xvdf through /dev/xvdz internally, even when the device name entered here (and shown in the details) is /dev/sdf through /dev/sdp.

Cancel [Attach volume](#)



```
ec2-user@ip-10-1-11-130:~  
login as: ec2-user  
Authenticating with public key "imported-openssh-key"  
[ec2-user@ip-10-1-11-130 ~]$ https://aws.amazon.com/amazon-linux-2/  
[ec2-user@ip-10-1-11-130 ~]$
```

```
ec2-user@ip-10-1-11-130:~  
login as: ec2-user  
Authenticating with public key "imported-openssh-key"  
[ec2-user@ip-10-1-11-130 ~]$ https://aws.amazon.com/amazon-linux-2/  
[ec2-user@ip-10-1-11-130 ~]$ x  
-bash: x: command not found  
[ec2-user@ip-10-1-11-130 ~]$ x  
-bash: x: command not found  
[ec2-user@ip-10-1-11-130 ~]$ df -h  
Filesystem      Size  Used Avail Use% Mounted on  
devtmpfs        478M    0  478M  0% /dev  
tmpfs          486M    0  486M  0% /dev/shm  
tmpfs          486M  468K  485M  1% /run  
tmpfs          486M    0  486M  0% /sys/fs/cgroup  
/dev/xvda1     8.0G  1.5G  6.5G  19% /  
tmpfs          98M    0   98M  0% /run/user/0  
tmpfs          98M    0   98M  0% /run/user/1000  
[ec2-user@ip-10-1-11-130 ~]$
```

```
ec2-user@ip-10-1-11-130:~
```

```
First data block=0  
Maximumm filesystem blocks=268435456  
8 block groups  
32768 blocks per group, 32768 fragments per group  
8192 inodes per group  
Superblock backups stored on blocks:  
    32768, 98304, 163840, 229376
```

```
Allocating group tables: done
```

```
Writing inode tables: done
```

```
Creating journal (8192 blocks): done
```

```
Writing superblocks and filesystem accounting information: done
```

```
[ec2-user@ip-10-1-11-130 ~]$ sudo mkdir /mnt/data-store
```

```
[ec2-user@ip-10-1-11-130 ~]$ sudo mount /dev/sdf /mnt/data-store
```

```
[ec2-user@ip-10-1-11-130 ~]$ echo "/dev/sdf /mnt/data-store ext3 defaults,noatime 1 2" | sudo tee -a /etc/fstab
```

```
/dev/sdf /mnt/data-store ext3 defaults,noatime 1 2
```

```
[ec2-user@ip-10-1-11-130 ~]$ cat /etc/fstab
```

```
#
```

```
UUID=9da90cbe-ac2c-449c-ba5c-c06e3466d676    /          xfs    defaults,noatim
```

```
e 1 1
```

```
/dev/sdf /mnt/data-store ext3 defaults,noatime 1 2
```

```
[ec2-user@ip-10-1-11-130 ~]$
```

```
ec2-user@ip-10-1-11-130:~
```

```
[ec2-user@ip-10-1-11-130 ~]$ sudo mount /dev/sdf /mnt/data-store  
[ec2-user@ip-10-1-11-130 ~]$ echo "/dev/sdf /mnt/data-store ext3 defaults,noatime 1 2" | sudo tee -a /etc/fstab  
/dev/sdf /mnt/data-store ext3 defaults,noatime 1 2  
[ec2-user@ip-10-1-11-130 ~]$ cat /etc/fstab
```

```
#  
UUID=9da90cbe-ac2c-449c-ba5c-c06e3466d676    /          xfs    defaults,noatim  
e 1 1
```

```
/dev/sdf /mnt/data-store ext3 defaults,noatime 1 2
```

```
[ec2-user@ip-10-1-11-130 ~]$ df -h
```

Filesystem	Size	Used	Avail	Use%	Mounted on
devtmpfs	478M	0	478M	0%	/dev
tmpfs	486M	0	486M	0%	/dev/shm
tmpfs	486M	468K	485M	1%	/run
tmpfs	486M	0	486M	0%	/sys/fs/cgroup
/dev/xvda1	8.0G	1.5G	6.5G	19%	/
tmpfs	98M	0	98M	0%	/run/user/0
tmpfs	98M	0	98M	0%	/run/user/1000
/dev/xvdf	975M	60K	924M	1%	/mnt/data-store

```
[ec2-user@ip-10-1-11-130 ~]$ sudo sh -c "echo some text has been written > /mnt/  
data-store/file.txt"
```

```
[ec2-user@ip-10-1-11-130 ~]$ cat /mnt/data-store/file.txt
```

```
some text has been written
```

```
[ec2-user@ip-10-1-11-130 ~]$
```

Lab 4 - Working with EBS

Create snapshot | EC2 Manager

us-east-1.console.aws.amazon.com/ec2/home?region=us-east-1#CreateSnapshotFromVolume;volumeId=vol-05f0b354c83972f75

KLERP Meet - wyz-wkyw-v... GDB online Debug... Get Emoji — All... Outlook HTML, JavaScript, &... Play Chess Online ... New volume 1/2 X 65 Common Cambr...

AWS Services Search [Alt+S] N. Virginia v vodlabs/user2076333=mnsreddy252@gmail.com @ 4127-5313-5747

Volume ID
vol-05f0b354c83972f75 (My Volume)

Description
Add a description for your snapshot

255 characters maximum.

Encryption [Info](#)
Not encrypted

Tags [Info](#)

A tag is a label that you assign to an AWS resource. Each tag consists of a key and an optional value. You can use tags to search and filter your resources or track your AWS costs.

Key Value - optional

Name My Snapshot Remove

Add tag

You can add 49 more tags.

Cancel Create snapshot


```
#  
UUID=9da90cbe-ac2c-449c-ba5c-c06e3466d676      /          xfs  defaults,noatim  
e 1 1  
/dev/sdf  /mnt/data-store ext3 defaults,noatime 1 2  
[ec2-user@ip-10-1-11-130 ~]$ df -h  
Filesystem      Size  Used Avail Use% Mounted on  
devtmpfs        478M   0  478M  0% /dev  
tmpfs          486M   0  486M  0% /dev/shm  
tmpfs          486M  468K  485M  1% /run  
tmpfs          486M   0  486M  0% /sys/fs/cgroup  
/dev/xvda1     8.0G  1.5G  6.5G  19% /  
tmpfs          98M   0   98M  0% /run/user/0  
tmpfs          98M   0   98M  0% /run/user/1000  
/dev/xvdf     975M  60K  924M  1% /mnt/data-store  
[ec2-user@ip-10-1-11-130 ~]$ sudo sh -c "echo some text has been written > /mnt/  
data-store/file.txt"  
[ec2-user@ip-10-1-11-130 ~]$ cat /mnt/data-store/file.txt  
some text has been written  
[ec2-user@ip-10-1-11-130 ~]$  
[ec2-user@ip-10-1-11-130 ~]$ sudo rm /mnt/data-store/file.txt  
[ec2-user@ip-10-1-11-130 ~]$  
[ec2-user@ip-10-1-11-130 ~]$ ls /mnt/data-store/  
lost+found  
[ec2-user@ip-10-1-11-130 ~]$
```

Lab 4 - Working with EBS

Create volume | EC2 Management

us-east-1.console.aws.amazon.com/ec2/home?region=us-east-1#CreateVolumeFromSnapshot:snapshotId=snap-0b0a581fd4df8cf42

KLERP Meet - wyz-wkyw-v... GDB online Debug... Get Emoji — All... Outlook HTML, JavaScript, &... Play Chess Online ... New Tab Home - Chess.com Amazon Sign-In 65 Common Cambr...

AWS Services Search [Alt+S]

Not applicable

Availability Zone [Info](#)

us-east-1a

Fast snapshot restore [Info](#)

Not enabled for selected snapshot

Encryption [Info](#)

Use Amazon EBS encryption as an encryption solution for your EBS resources associated with your EC2 instances.

Encrypt this volume

Tags - optional [Info](#)

A tag is a label that you assign to an AWS resource. Each tag consists of a key and an optional value. You can use tags to search and filter your resources or track your AWS costs.

Key	Value - optional
<input type="text" value="Name"/>	<input type="text" value="Restored Volume"/> Use "Restored Volume"

Add tag

You can add 49 more tags.

Cancel **Create volume**

Lab 4 - Working with EBS

Attach volume | EC2 Management

us-east-1.console.aws.amazon.com/ec2/home?region=us-east-1#AttachVolume;volumeId=vol-0cacc09c334162e36

KLERP Meet - wyz-wkyw-v... GDB online Debug... Get Emoji — All... Outlook HTML, JavaScript, &... Play Chess Online... New Tab Home - Chess.com Amazon Sign-In 65 Common Cambr...

AWS Services Search [Alt+S] N. Virginia v vclabs/user2076333=mnsreddy252@gmail.com @ 4127-5313-5747

Select a volume to attach instance to. Use it as your instance's root or register it as a data drive.

Basic details

Volume ID
 vol-0cacc09c334162e36 (Restored Volume)

Availability Zone
us-east-1a

Instance [Info](#)
 Only instances in the same Availability Zone as the selected volume are displayed.

Device name [Info](#)

Recommended device names for Linux: /dev/sda1 for root volume. /dev/sd[f-p] for data volumes.

ⓘ Newer Linux kernels may rename your devices to /dev/xvdf through /dev/xvdp internally, even when the device name entered here (and shown in the details) is /dev/sdf through /dev/sdp.

Cancel Attach volume

```
[ec2-user@ip-10-1-11-130 ~]$ df -h
Filesystem      size  Used Avail Use% Mounted on
devtmpfs        478M    0  478M   0% /dev
tmpfs          486M    0  486M   0% /dev/shm
tmpfs          486M  468K  485M   1% /run
tmpfs          486M    0  486M   0% /sys/fs/cgroup
/dev/xvda1     8.0G  1.5G  6.5G  19% /
tmpfs          98M    0   98M   0% /run/user/0
tmpfs          98M    0   98M   0% /run/user/1000
/dev/xvdf      975M   60K  924M   1% /mnt/data-store
[ec2-user@ip-10-1-11-130 ~]$ sudo sh -c "echo some text has been written > /mnt/
data-store/file.txt"
[ec2-user@ip-10-1-11-130 ~]$ cat /mnt/data-store/file.txt
some text has been written
[ec2-user@ip-10-1-11-130 ~]$
[ec2-user@ip-10-1-11-130 ~]$ sudo rm /mnt/data-store/file.txt
[ec2-user@ip-10-1-11-130 ~]$
[ec2-user@ip-10-1-11-130 ~]$ ls /mnt/data-store/
lost+found
[ec2-user@ip-10-1-11-130 ~]$ sudo mkdir /mnt/data-store2
[ec2-user@ip-10-1-11-130 ~]$ sudo mount /dev/sdg /mnt/data-store2
[ec2-user@ip-10-1-11-130 ~]$ ls /mnt/data-store2/
file.txt  lost+found
[ec2-user@ip-10-1-11-130 ~]$
```

AWS LAMBDA

Learner Lab

Functions - Lambda

https://us-east-1.console.aws.amazon.com/lambda/home?region=us-east-1#functions

AWS Services Search [Alt+5] N. Virginia v vclabs/user2076333=mnsreddy252@gmail.com @ 6226-0392-9032

AWS Lambda

Lambda > Functions

Functions (4) Last fetched 1 second ago Actions Create function

Filter by tags and attributes or search by keyword

Function name	Description	Package type	Runtime	Last modified
RedshiftOverwatch	Deletes Redshift Cluster if the count is more than 2.	Zip	Python 3.8	10 days ago
MainMonitoringFunction	-	Zip	Python 3.8	10 days ago
RoleCreationFunction	Create SLR if absent	Zip	Python 3.8	10 days ago
RedshiftEventSubscription	Create Redshift event subscription to SNS Topic.	Zip	Python 3.8	10 days ago

Additional resources

- Code signing configurations
- Layers
- Replicas

Related AWS resources

- Step Functions state machines

https://us-east-1.console.aws.amazon.com/lambda/home?region=us-east-1#create/function

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ENG IN 01:35 AM 04-04-2023

Learner Lab

Create function - Lambda

https://us-east-1.console.aws.amazon.com/lambda/home?region=us-east-1#/create/function

Services Search [Alt+5]

N. Virginia voclabs/user2076333=mnsreddy252@gmail.com @ 6226-0392-9032

Lambda > Functions > Create function

Create function Info

AWS Serverless Application Repository applications have moved to [Create application](#).

- Author from scratch
Start with a simple Hello World example.
- Use a blueprint
Build a Lambda application from sample code and configuration presets for common use cases.
- Container image
Select a container image to deploy for your function.

Basic information

Function name
Enter a name that describes the purpose of your function.

Use only letters, numbers, hyphens, or underscores with no spaces.

Runtime Info
Choose the language to use to write your function. Note that the console code editor supports only Node.js, Python, and Ruby.

Architecture Info
Choose the instruction set architecture you want for your function code.
 x86_64
 arm64

Permissions Info

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ENG IN 01:37 AM 04-04-2023

Learner Lab

Add triggers - Lambda

https://us-east-1.console.aws.amazon.com/lambda/home?region=us-east-1#add/relation?focus=aws%2Flambda&target=am%3Aaws%3Alambda%3Aus-east-1

Services Search [Alt+5] N. Virginia voclabs/user2076333=mnsreddy252@gmail.com @ 6226-0392-9032

EventBridge (CloudWatch Events)

aws events management-tools

Rule

Pick an existing rule, or create a new one.

Create a new rule

Existing rules

Rule name

Enter a name to uniquely identify your rule.

everyMinute

Rule description

Provide an optional description for your rule.

Rule type

Trigger your target based on an event pattern, or based on an automated schedule.

Event pattern

Schedule expression

Schedule expression

Self-trigger your target on an automated schedule using [Cron](#) or [rate](#) expressions. Cron expressions are in UTC.

rate(1 minute)

e.g. rate(1 day), cron(0-17 ? * MON-FRI *)

Lambda will add the necessary permissions for Amazon EventBridge (CloudWatch Events) to invoke your Lambda function from this trigger. [Learn more](#) about the Lambda permissions model.

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ENG IN 01:41 AM 04-04-2023

Learner Lab myStopinator - Lambda Instances | EC2 Management

https://us-east-1.console.aws.amazon.com/lambda/home?region=us-east-1#functions/myStopinator?tab=code

AWS Services Search [Alt+5] N. Virginia v vclabs/user2076333=mnsreddy252@gmail.com @ 6226-0392-9032

File Edit Find View Go Tools Window Test Deploy Changes not deployed

Environment Go to Anything (Ctrl-P) lambda_function

myStopinator lambda_function.py

```
1 import boto3
2 region = "us-east-1"
3 instances = ['i-059d53c74d63d5ac1']
4 ec2 = boto3.client('ec2', region_name=region)
5
6 def lambda_handler(event, context):
7     ec2.stop_instances(InstanceIds=instances)
8     print("stopped your instances: " + str(instances))
```

8:34 Python Spaces: 4

Code properties

CloudShell Feedback Language

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Learner Lab myStopinator - Lambda Instances | EC2 Management

https://us-east-1.console.aws.amazon.com/lambda/home?region=us-east-1#functions/myStopinator?tab=monitoring

AWS Services Search [Alt+5] N. Virginia v vclabs/user2076333=mnsreddy252@gmail.com @ 6226-0392-9032

AWS Lambda Successfully updated the function myStopinator.

Function URL: [Info](#)

Dashboard Applications Functions **myStopinator**

Additional resources: Code signing configurations, Layers, Replicas

Related AWS resources: Step Functions state machines

Code Test Monitor Configuration Aliases Versions

Metrics Logs Traces [View CloudWatch logs](#) [View X-Ray traces](#) [View Lambda Insights](#) [View CodeGuru profiles](#)

CloudWatch metrics [Info](#)

Filter by Function

Lambda sends runtime metrics for your functions to Amazon CloudWatch. The metrics shown are an aggregate view of all function runtime activity. To view metrics for the unqualified or \$LATEST resource, choose Filter by. To view metrics for a specific function version or alias, choose Aliases or Versions, select the alias or version, and then choose Monitor.

1h 3h 12h 1d 3d 1w Custom [C](#) [▼](#)

Invocations	Duration	Error count and success rate (%)
Count: 2	Milliseconds: 1.21	Count: 1 No unit: ~100
11	11	11

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moni Highlight All Match Case Match Diacritics Whole Words 1 of 1 match

ENG IN 01:49 AM 04-04-2023

In ec2 the instance that we chosen has been stopped.

The screenshot shows the AWS EC2 Management console interface. The top navigation bar includes tabs for 'Learner Lab', 'myStopinator - Lambda', and 'Instances | EC2 Management'. The main content area displays a table of instances. A single row is selected, showing details for an instance named 'ec2server' with Instance ID 'i-025769a7f5e2e1a2d'. The instance is listed as 'Running' with a status check of '2/2 checks passed' and one alarm. The instance is located in the 'us-east-1b' availability zone and has a public IPv4 DNS of 'ec2-44-201-212-17'. The left sidebar shows navigation links for 'EC2 Dashboard', 'EC2 Global View', 'Events', 'Tags', 'Limits', and sections for 'Instances' (selected) and 'Images' (AMIs, AMI Catalog).

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IPv4 DNS
ec2server	i-025769a7f5e2e1a2d	Running	t2.micro	2/2 checks passed	1 alarms	us-east-1b	ec2-44-201-212-17

Instance: i-059d53c74d63d6ac1 (Web Server 1)

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

Instance summary

Instance ID	i-059d53c74d63d6ac1 (Web Server 1)	Public IPv4 address	100.26.186.135 open address	Private IPv4 addresses	10.0.2.82
IPv6 address	-	Instance state	Running	Public IPv4 DNS	ec2-100-26-186-135.compute-1.amazonaws.com open address
Hostname type	IP name: ip-10-0-2-82.ec2.internal	Private IP DNS name (IPv4 only)	ip-10-0-2-82.ec2.internal		

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ENG IN 01:49 AM 04-04-2023

AWS LIGHT SAIL

- PROCEDURE:

1. On the home page, choose Create instance.
2. Select a location for your instance (an AWS Region and Availability Zone). Choose Change Region and zone to create your instance in another location.
3. Optionally, you can change the Availability Zone. Choose an Availability Zone from the dropdown list.
4. Pick an application (Apps + OS) or an operating system (OS Only).
- 5. Choose your instance plan.
- 6. Enter a name for your instance.
- Resource names:
 1. Must be unique within each AWS Region in your Lightsail account.
 2. Must contain 2 to 255 characters.
 3. Must start and end with an alphanumeric character or number.
 4. Can include alphanumeric characters, numbers, periods, dashes, and underscores.

7. Choose one of the following options to add tags to your instance:

- Add key-only tags or Edit key-only tags (if tags have already been added). Enter your new tag into the tag key text box, and press Enter. Choose Save when you're done entering your tags to add them, or choose Cancel to not add them.



- Create a key-value tag, then enter a key into the Key text box, and a value into the Value text box. Choose Save when you're done entering your tags, or choose Cancel to not add them. Key-value tags can only be added one at a time before saving. To add more than one key-value tag, repeat the previous steps.



8. Choose Create instance.

Within minutes, your Lightsail instance is ready and you can connect to it via SSH, without leaving Lightsail!

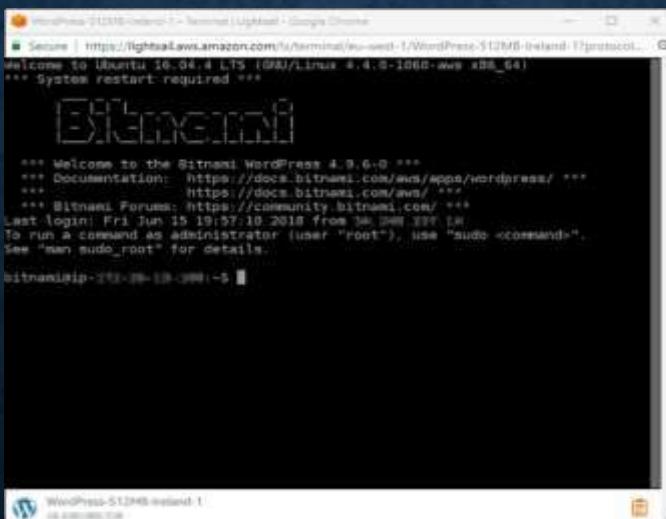
How to connect to your instance

- 1. From the Lightsail home page, choose the menu on the right of your instance's name, and then choose connect.



Alternately, you can open your instance management page and choose the Connect tab.

- 2. You can now type commands into the terminal and manage your Lightsail instance without setting up an SSH client.



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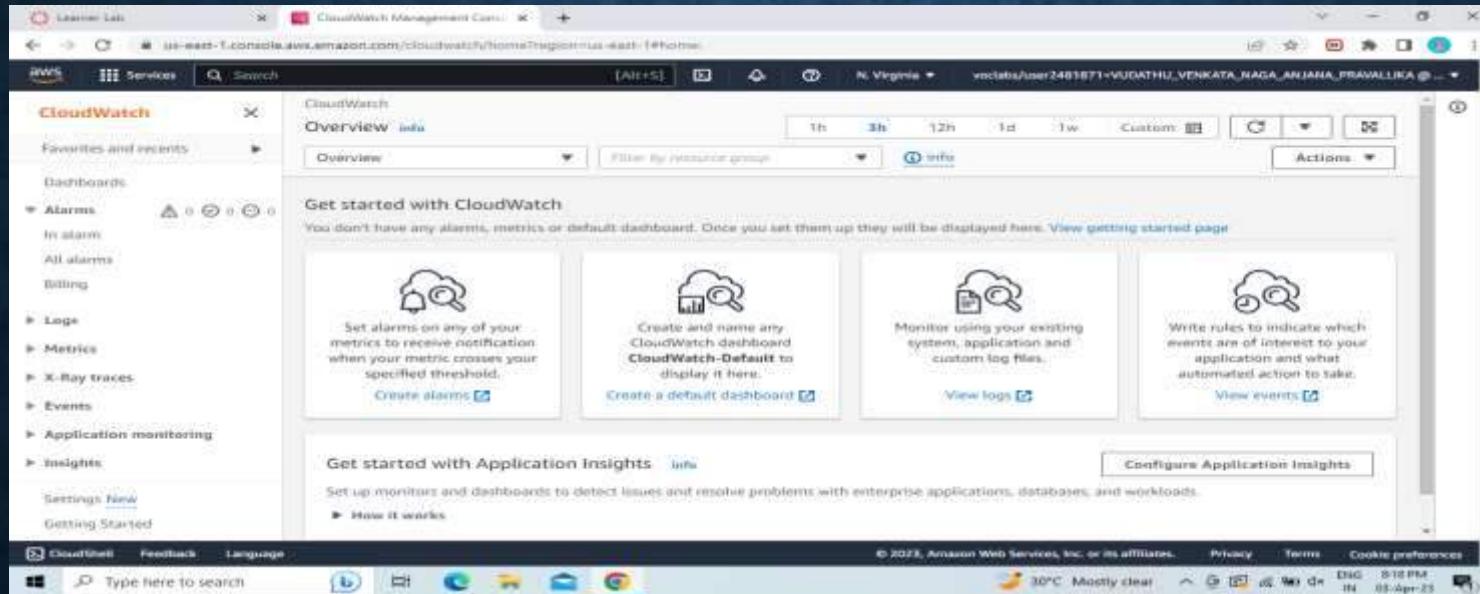
2. You can now type commands into the terminal and manage your Lightsail instance without setting up an SSH client.



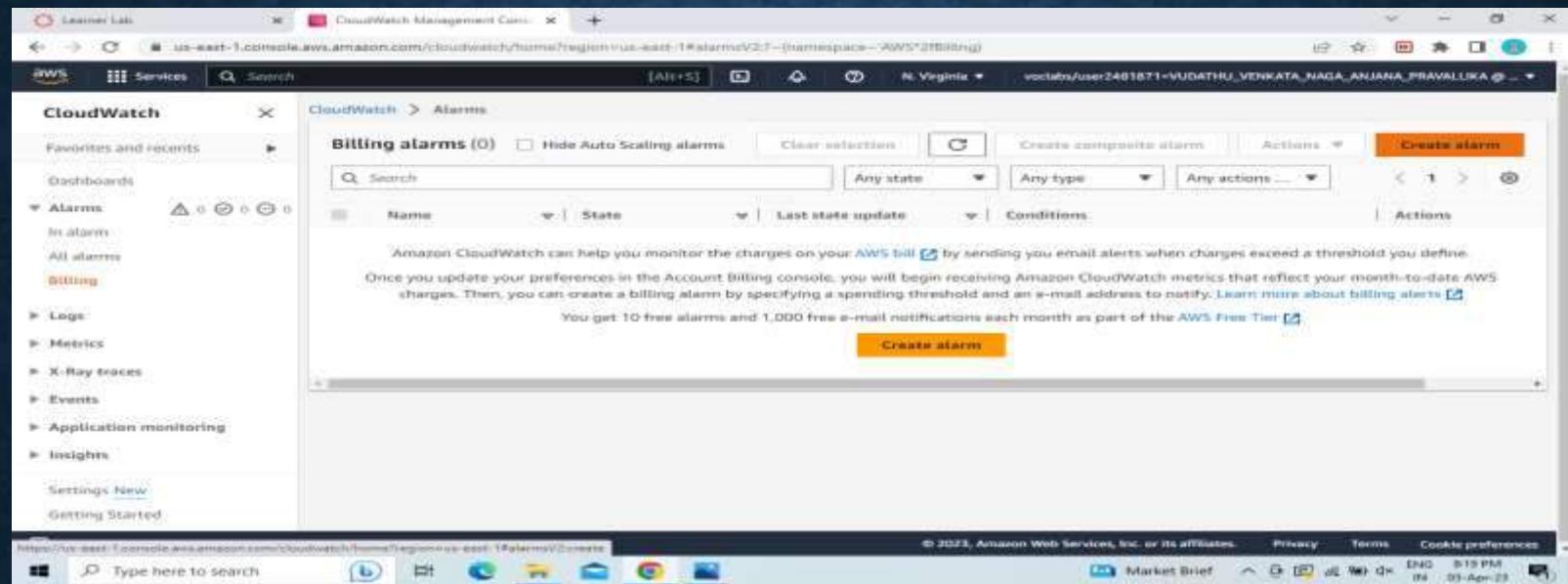
AWS CLOUD WATCH

PROCEDURE

1. Go to AWS Services, Click on CloudWatch and then in the Dashboard go to Alarms section and select Billings.



2.Then Click on CREATE ALARM.



3.Then follow the steps.

In the first step it will ask us to Specify metric and conditions.Click on Select Metric.
Change the Currency to Rupee.

In the Conditions section choose the EstimatedCharges like
Greater/GreaterEqual/Lowerequal/Lower and also define the threshold value.

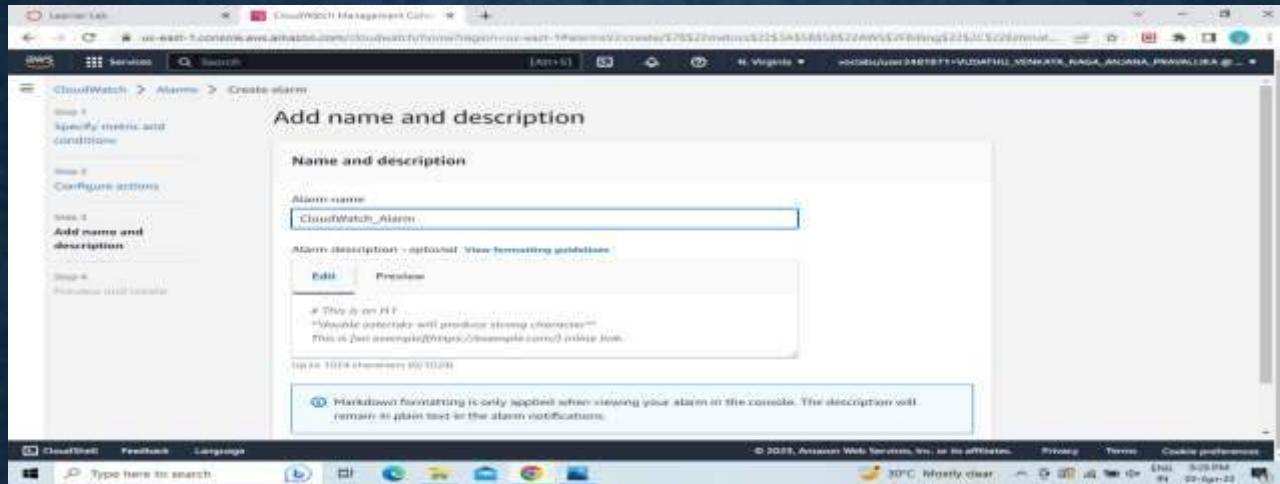
4.Click on Next.

The image consists of two side-by-side screenshots of the AWS CloudWatch Metrics Metrics & Alarms interface. The left screenshot shows the 'Specify metric and conditions' step. It has a sidebar with 'Metrics' and 'CloudWatch Metrics'. The main area shows a 'Metric' section with a dropdown menu open, showing 'EstimatedCharges' as the selected option. Below it are fields for 'Comparison Operator' (Set to 'Greater than or equal to') and 'Threshold' (Set to 1000). The right screenshot shows the 'Conditions' step. It has a 'Threshold type' section with 'State' selected (Set to 'Greater than or equal to threshold'). Below it is a 'When this EstimatedCharge is...' section with 'Greater than or equal to threshold' selected. At the bottom, there is a 'Create' button.

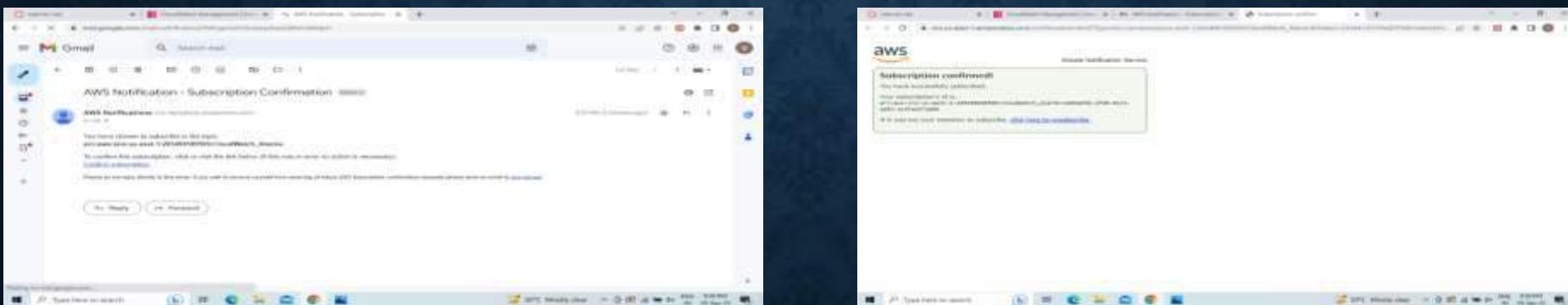
5. Now for Configure Actions choose Create new topic. Give a name to the topic and enter your email to receive a notification. Click on Create Topic, then Next.

The image shows the 'Step 4: Preview and Create' screen of the AWS CloudWatch Metrics Metrics & Alarms interface. It is titled 'Send a notification to the following SNS topic'. There are three options: 'Select an existing SNS topic' (radio button is not selected), 'Create new topic' (radio button is selected), and 'Use topic ARN to notify other accounts'. The 'Create a new topic' section shows a text input field with 'CloudWatch_Alarms' typed into it. Below it, it says 'Email endpoints that will receive the notification...'. A text input field contains the email address 'pravallika.vudathu2003@gmail.com'. At the bottom, there are two buttons: 'Create topic' and 'Add notification'. Below these buttons, there is a section titled 'Auto Scaling action'.

6.Give a name to your Alarm and Click on next.



7.You will get a AWS Notification-Subscription Confirmation mail to the email which you have provided.Click on Confirm Subscription.Then it will open a window showing Subscription Confirmed.



8.Preview the details you have entered .

9.Click on Create alarm.This will Create your Alarm.

The screenshot shows the AWS CloudWatch Management Console interface. The left sidebar lists various monitoring services: Dashboards, Alarms (selected), In alarm, All alarms (highlighted in red), Billing, Logs, Metrics, X-Ray traces, Events, Application monitoring, Insights, Settings, and Getting Started. The main content area displays a green success message: "Successfully created alarm CloudWatch_Alarm." Below this, a table lists the created alarm: "Billing alarms (1)". The table includes columns for Name, State, Last state update, Conditions, and Actions. The alarm listed is "CloudWatch_Alarm" (State: Insufficient data, Last state update: 2023-04-03 20:30:53, Conditions: EstimatedCharges > 1000 for 1 datapoints within 6 hours, Actions: Actions enabled). At the top right of the main area, there are buttons for "View alarm" and "Create alarm". The browser's address bar shows the URL: us-east-1.console.aws.amazon.com/cloudwatch/home?region=us-east-1#alarmsV2?<Page=MetricSelection~AlarmType=MetricAlarm~AlarmData=(Metrics...". The bottom navigation bar includes CloudShell, Feedback, Language, Privacy, Terms, and Cookie preferences. The system tray at the bottom right shows the date (03-Apr-23), time (8:31 PM), and weather (30°C, Mostly clear).

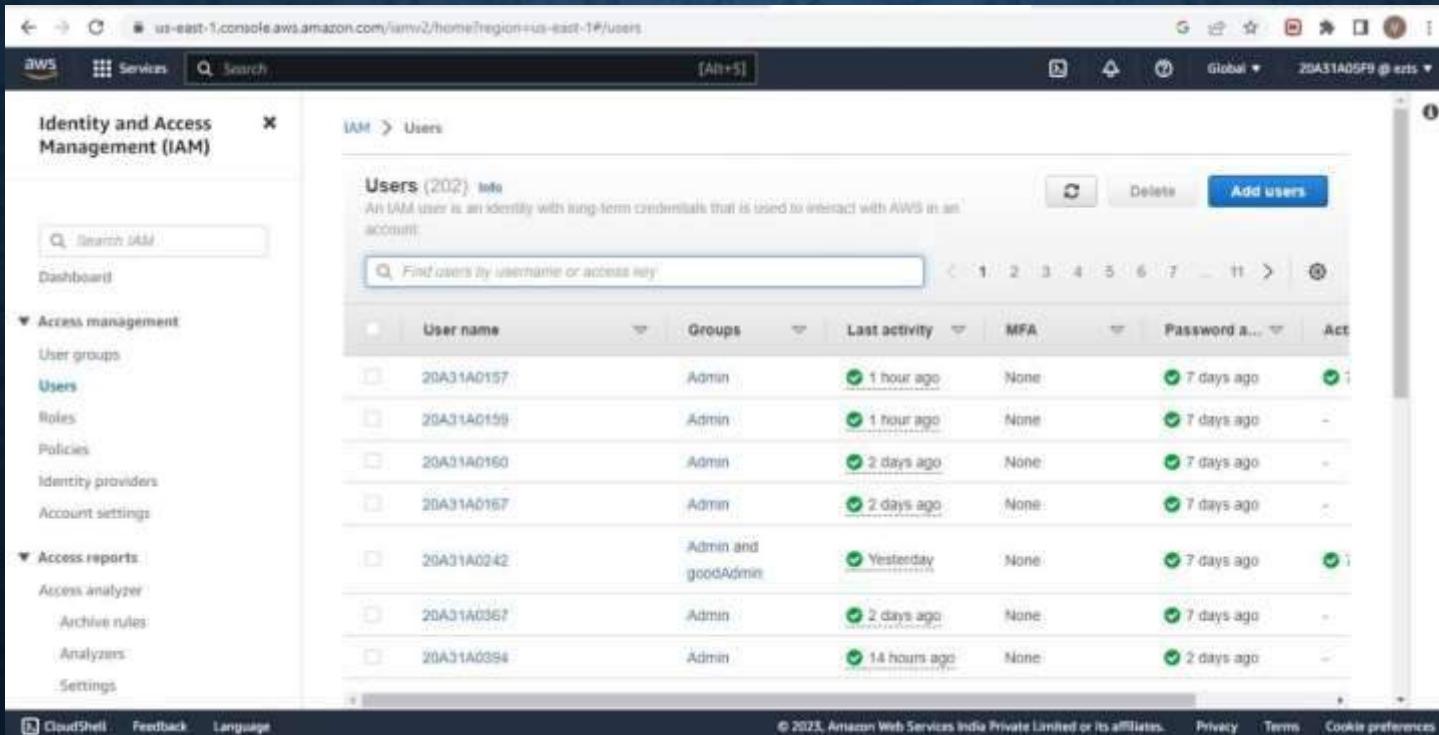
AWS COMMAND LINE INTERFACE

Procedure:

STEP 1 - Download and install AWS CLI and complete the installation steps.

STEP 2 - Login to AWS Management Console and search for IAM.

STEP 3 - In the navigation pane ,select Users



The screenshot shows the AWS IAM service in the AWS Management Console. The left sidebar has 'Identity and Access Management (IAM)' selected. Under 'Access management', 'Users' is selected. The main area displays a table titled 'Users (202)'. The table columns are: User name, Groups, Last activity, MFA, Password last used, and Actions. The table lists several users, each with their user ID, group assignment (Admin), last activity time (e.g., 1 hour ago, 2 days ago, Yesterday), and password last used time (e.g., 7 days ago, 2 days ago). The 'Actions' column contains a small icon for each user.

User name	Groups	Last activity	MFA	Password last used	Actions
20A31A0157	Admin	1 hour ago	None	7 days ago	
20A31A0159	Admin	1 hour ago	None	7 days ago	
20A31A0160	Admin	2 days ago	None	7 days ago	
20A31A0167	Admin	2 days ago	None	7 days ago	
20A31A0242	Admin and goodAdmin	Yesterday	None	7 days ago	
20A31A0367	Admin	2 days ago	None	7 days ago	
20A31A0394	Admin	14 hours ago	None	2 days ago	

STEP 4 - In the users select the name of the user whose access keys you want to create.

STEP 5 - Click on Security Credentials tab.

The screenshot shows the AWS Identity and Access Management (IAM) service in the AWS Management Console. The URL in the browser is `us-east-1.console.aws.amazon.com/iamv2/home?region=us-east-1#/users/details/20A31A0502?section=security_credentials`. The left sidebar shows the navigation menu for IAM, with 'Users' selected. The main content area displays details for a user named '20A31A0502'. At the top, it shows the user was created on March 21, 2023, at 14:51 (UTC+05:30). It also indicates that 'Access key 2' is not enabled. Below this, there are tabs for 'Permissions', 'Groups (1)', 'Tags', 'Security credentials' (which is highlighted in green), and 'Access Advisor'. The 'Security credentials' section contains two main sections: 'Console sign-in' and 'Multi-factor authentication (MFA)'. Under 'Console sign-in', it shows a 'Console sign-in link' (a blue link to `https://ezts.signin.aws.amazon.com/console`) and a 'Console password' (last updated 7 days ago). Under 'Multi-factor authentication (MFA)', it says '0 MFA devices assigned' and provides links to 'Remove', 'Revoke', and 'Assign MFA device'. The bottom of the page includes standard AWS footer links for CloudShell, Feedback, Language, and legal information.

STEP 6 - In the access Keys section , choose Create access key.

The screenshot shows the AWS IAM Access Keys page. The left sidebar lists navigation options like Dashboard, User groups, Users, Roles, Policies, Identity providers, Account settings, and Access reports. The main content area displays a table for Access keys, showing one entry:

Access keys (1)	
Use access keys to send programmatic calls to AWS from the AWS CLI, AWS Tools for PowerShell, AWS SDKs, or direct AWS API calls. You can have a maximum of two access keys (active or inactive) at a time. Learn more	
Create access key	
AKIATR4OXV3QNPAMUQBM	
Description	Status
-	Active
Last used	Created
7 days ago	7 days ago
Last used region	Last used service
us-east-1	iam

Below the table, there is a section titled "SSH public keys for AWS CodeCommit (0)".

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Access key best practices & alternatives

Avoid using long-term credentials like access keys to improve your security. Consider the following use cases and alternatives:

- Command Line Interface (CLI)**
You often need this access key to enable the AWS CLI to access your AWS account.
- Local code**
You plan to use this access key to enable application code in a local development environment to access your AWS account.
- Application running on an AWS compute service**
You plan to use this access key to enable application code running on an AWS compute service like Amazon EC2, Amazon SNS, or AWS Lambda to access your AWS account.
- Third-party service**
You plan to use this access key to enable access for a third-party application or service that requires you to manage your AWS resources.
- Application running outside AWS**

Set description tag - optional

The description for this access key will be attached to this user as a tag and shown alongside the access key.

Description tag value
Describe the purpose of this access key and where it will be used. A good description will help you re-create this access key if necessary.

Maximum 256 characters. Allowed characters are letters, numbers, underscores, hyphens, and periods.

Create access key

Access key created

This is the only time that the secret access key can be viewed or downloaded. You cannot recover it later. However, you can create a new access key any time.

Retrieve access keys

Access key	Secret access key
AKIAJRAOXV3QD5GD6HZZ Show

Access key best practices

- Never store your access key in plain text, in a code repository, or in code.
- Disable or delete access key when no longer needed.
- Enable least-privilege permissions.
- Store access keys securely.

STEP 6 – Now you can use this access key to configure CLI

STEP 7 - Open Command Line Interface and run the following command>aws configure

After entering this command AWS CLI prompts us with four pieces of information

1. Access Key ID: (enter your ID)
2. Secret Access Key: (enter your key)
3. AWS Region: (enter the desired region)
4. Output Format: (enter the desired output)

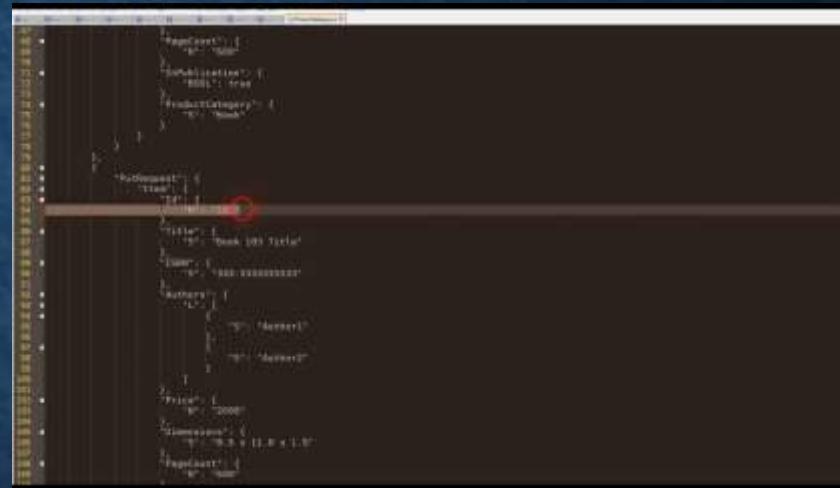
```
Microsoft Windows [Version 10.0.22621.1413]
(c) Microsoft Corporation. All rights reserved.

C:\Users\sivas>aws configure
AWS Access Key ID [None]: AKIATR40XV3QD5GD6MZZ
AWS Secret Access Key [None]: vMQP4GL99CbDSxsPWSgiTkkozMiRsUUZ0i+hDdNT
Default region name [None]: us-east-1
Default output format [None]: json
```

Finally we get Javascript Object Notation of all the users as output.

DYNAMO DB

- Setting up the Amazon DynamoDB
- here, we will be having an JSON file which is a product catalog
- the products have a lot of different attributes and **id** is only common.
- the interface looks like this:



Set table schema

DynamoDB is a schema-less database that every requires a table name and primary key. This table's primary key is made up of one or more attributes that uniquely identify items, partition the data, and sort data within each partition.

Table name: ProductCatalog

Primary key: ProductID

Number

Add sort key

Table settings

Default settings provide the fastest way to get started with your table. You can modify these default settings later as after your table has been created.

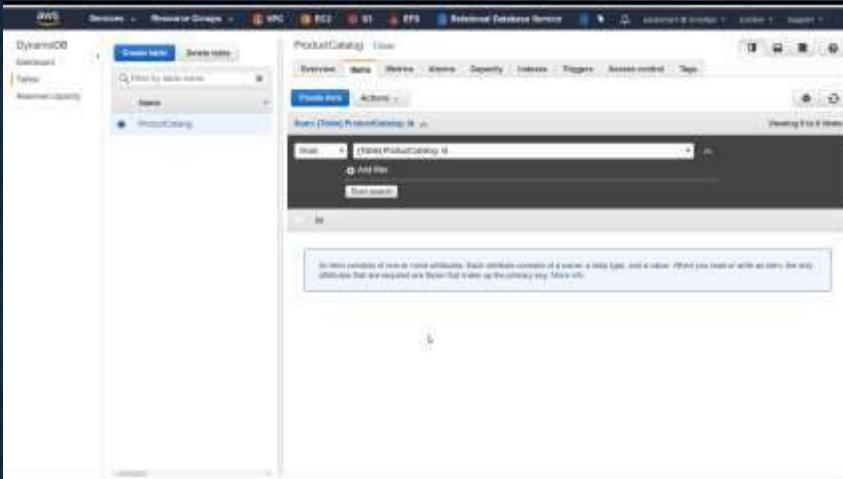
Use default settings

- No secondary indexes
- Provisioned capacity set to 5 reads and 5 writes
- Item size with 80% upper threshold using unit type "Standard"

You do not have the required role to enable Auto Scaling by default.
Please refer to documentation.

Create

- After creating the table , we can see that there are no items present.



- So we will use the CLI to populate the table. Open powershell of AWS.

```
C:\> aws dynamodb list-tables --region eu-west-2
{
    "TableNames": [
        "ProductCatalog"
    ]
}

C:\> aws dynamodb describe-table --table-name ProductCatalog --region eu-west-2
{
    "Table": {
        "TableArn": "arn:aws:dynamodb:eu-west-2:489281224315:table/ProductCatalog",
        "AttributeDefinitions": [
            {
                "AttributeName": "id",
                "AttributeType": "NUMERIC"
            }
        ],
        "ProvisionedThroughput": {
            "NumberOfDecreasesToday": 0,
            "WriteCapacityUnits": 5,
            "ReadCapacityUnits": 5
        },
        "TableSizeBytes": 0,
        "TableName": "ProductCatalog",
        "TableStatus": "ACTIVE",
        "Replicas": [
            {
                "RegionName": "USWEST2",
                "AttributeDefinitions": [
                    {
                        "AttributeName": "id",
                        "AttributeType": "NUMERIC"
                    }
                ],
                "CreationDateTime": 152178613.734
            }
        ]
    }
}

C:\> aws dynamodb batch-write-item --request-items file://ProductCatalog.json --region eu-west-2
```

ID	Price	ProductCategory	Title	BicycleType	Brand	Color	Description
100	300	Bicycle	'Bicycle 204'	Hybrid	'Brand Comp.'	["R", "Red"]	300 Description
101	300	Bicycle	'Bicycle 202'	Road	'Brand Comp.'	["B", "Blue"]	302 Description
102	300	Bicycle	'Bicycle 201'	Road	'Mountains R'	["B", "Red"]	301 Description
103	400	Bicycle	'Bicycle 204'	Mountains	'Brand Comp.'	["B", "Red"]	2M Description
104	20	Book	'Book 102 Title'				
105	3000	Book	'Book 103 Title'				
106	2	Book	'Book 101 Title'				

AWS DynamoDB console showing the ProductCatalog table. The table has 8 items.

Table Headers: ID, Price, ProductCategory, Title, BicycleType, Brand, Color, Description

Items:

ID	Price	ProductCategory	Title	BicycleType	Brand	Color	Description
206	900	Bicycle	10-Omnibike	Hybrid	Brand-Corp	[{"1": "Red"}, {"2": "Blue"}]	200 Description
208	300	Bicycle	10-Omnibike	Road	Brand-Corp	[{"1": "Red"}, {"2": "Blue"}]	200 Description
209	200	Bicycle	21-Sporty-202	Road	Brand-Corp	[{"1": "Red"}, {"2": "Blue"}]	200 Description
201	150	Bicycle	10-Sporty-201	Road	Mosun-A	[{"1": "Red"}, {"2": "Blue"}]	201 Description
204	400	Bicycle	10-Omnibike	Mountain	Brand-Corp	[{"1": "Red"}, {"2": "Blue"}]	200 Description
102	30	Bike	Bike-102-Tire				
108	3000	Bike	Bike-103-Tire				
107	2	Bike	Bike-101-Tire				

AWS DynamoDB console showing the ProductCatalog table. The table has 1 item.

Table Headers: ID, Price, ProductCategory, Title, BicycleType, Brand, Color, Description

Items:

ID	Price	ProductCategory	Title	BicycleType	Brand	Color	Description
204	400	Bicycle	10-Omnibike	Mountain	Brand-Corp	[{"1": "Red"}, {"2": "Blue"}]	200 Description

RDS

Procedure:

Step 1: Create a Security Group for the RDS DB Instance.

aws management console → vpc → security groups → choose create security group → add inbound rule → create security group.

The screenshot shows the AWS VPC Management Console with the 'Security groups' page open. The left sidebar includes sections for Carrier gateways, DHCP option sets, Elastic IPs, Managed prefix lists, Endpoints, Endpoint services, NAT gateways, Peering connections, Security (Network ACLs, Security groups), DNS firewall (Rule groups, Domain lists), and Network Firewall (Firewalls, Firewall policies, Network Firewall rule). The main area displays a table of existing security groups:

Name	Security group ID	Security group name	VPC ID	Description
Web Security Group	sg-01d38ed3846f1fb22	Web Security Group	vpc-0a63c938af50af6dd	Enable HTTP access
-	sg-b0f5c02e11cf2e061	default	vpc-0e99d72d284adab5a	default VPC security gr...
-	sg-b924ea7436e12708c	default	vpc-0a63c938af50af6dd	default VPC security gr...
-	sg-0de814af15ac8f2c0	WorkEc2SecurityGroup	vpc-0a130348b7d35abd3	VPC Security Group
-	sg-06c2bf11f5ec2d5d	default	vpc-0a110348b7d35abd3	default VPC security gr...

The screenshot shows the 'Create security group' wizard. The first step, 'Basic details', is completed with the following information:

- Security group name: DB Security Group
- Description: Permit access from Web Security Group
- VPC: vpc-0a63c938af50af6dd

The second step, 'Inbound rules', is partially completed with one rule added:

Type	Protocol	Port range	Source	Description - optional
MySQL/Aurora	TCP	3306	Custom	

Step 2 : Create a DB Subnet Group.

Rds → subnet groups → choose create DB subnet group → add subnets → create DB subnet group.

The screenshot shows the 'Subnet groups' page in the Amazon RDS console. On the left, there's a sidebar with links like Dashboard, Databases, Query Editor, Performance insights, Snapshots, Exports in Amazon S3, Automated backups, Reserved instances, and Patches. Under 'Subnet groups', it says 'Subnet groups (1)'. A table lists one entry: 'db-subnet-group' (DB Subnet Group), 'Complete' status, and 'vpc-0f8f7faaf6c154fc2' VPC. At the top right, there's a 'Create DB subnet group' button.

The screenshot shows the 'Create DB subnet group' wizard. It has a header 'Create DB subnet group' with a note: 'To create a new subnet group, give it a name and a description, and choose an existing VPC. You will then be able to add subnets related to that VPC.' The 'Subnet group details' section contains fields for 'Name' (set to 'DB-Subnet-Group') and 'Description' (set to 'DB Subnet Group'). Below that is a 'VPC' section with a dropdown menu showing 'Lab VPC (vpc-0a63c938af50a76d0)'.

Step 3: In the left navigation pane, choose Databases → choose create database → MySQL

This screenshot shows the Amazon RDS Management console. The left sidebar includes options like Dashboard, Databases (which is selected), Query Editor, Performance insights, Snapshots, Exports in Amazon S3, Automated backups, Reserved instances, Proxies, and others. The main area is titled 'Databases' and shows a table with columns for DB identifier, Role, Engine, Region & AZ, Size, Status, and Actions. A modal window at the top provides information about Blue/Green Deployments. At the bottom, there are CloudShell, Feedback, Language, and cookie preference links.

This screenshot shows the 'Create database' page for MySQL. It starts with a section titled 'Choose a database creation method' which offers 'Standard create' (selected) and 'Easy create'. Below this is the 'Engine options' section, where 'MySQL' is chosen from three options: Aurora (MySQL Compatible), Aurora (PostgreSQL Compatible), and MySQL. To the right of the MySQL option is a detailed list of features: supports database sizes up to 64 TB, general purpose, memory optimized, and burstable performance instance classes, automated backup and point-in-time recovery, and up to 15 read replicas per instance within a single region or 5 read replicas cross-region. The page also includes CloudShell, Feedback, Language, and cookie preference links.

Step 4: In Availability and durability ,choose Multi –AZ DB instance then configure settings , DB instance class, Storage, connectivity, choose existing vpc security group and setup additional configuration.

The screenshot shows the 'Availability and durability' section of the AWS RDS MySQL creation wizard. It includes:

- Deployment options:** Info. The deployment options below are limited to those supported by the engine you selected above:
 - Multi-AZ DB Cluster - new: Creates a DB cluster with a primary DB instance and two read-only standby DB instances, with each DB instance in a different Availability Zone (AZ). Provides high availability, data redundancy, and increases capacity to serve read workloads.
 - Multi-AZ DB instance: Creates a primary DB instance and a standby DB instance in a different AZ. Provides high availability and data redundancy, but the standby DB instance doesn't support connections for read workloads.
 - Single DB instance: Creates a single DB instance with no standby DB instances.
- Settings**
 - DB instance identifier:** Info. Type a name for your DB instance. The name must be unique across all DB instances owned by your AWS account in the current AWS Region.
database-1
 - The DB instance identifier is case insensitive, but is stored as all lowercase (as in "mydbinstance"). Constraints: 1 to 10 alphanumeric characters or hyphens. First character must be a letter. Can't contain two consecutive hyphens, can't end with a hyphen.

The screenshot shows the configuration details for the MySQL DB instance. It includes:

- Amazon RDS Optimized Writes - new**: Info. Show instance classes that support Amazon RDS Optimized Writes.
- DB instance class:** Info. Standard classes (includes m classes), Memory optimized classes (includes r and x classes), and **Burstable classes (includes t classes)**. db.t3.micro is selected.
- Storage**
 - Storage type:** Info. Provisioned IOPS SSD (io1) is selected.
 - Allocated storage: Info.
- Additional configuration**
 - Supports automated backup and point-in-time recovery.
 - Supports up to 15 Read Replicas per instance, within a single Region or 5 read replicas cross-region.

Step 5: Wait until Info changes to Modifying or Available.

Scroll down to the Connectivity & security section and copy the Endpoint field.

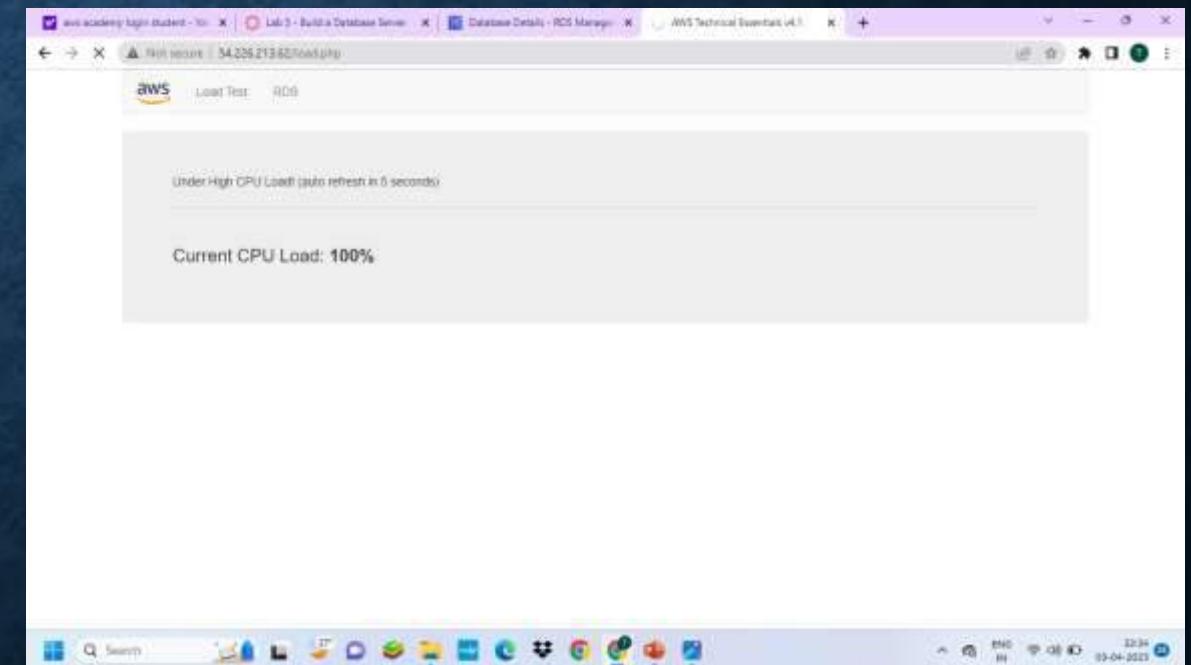
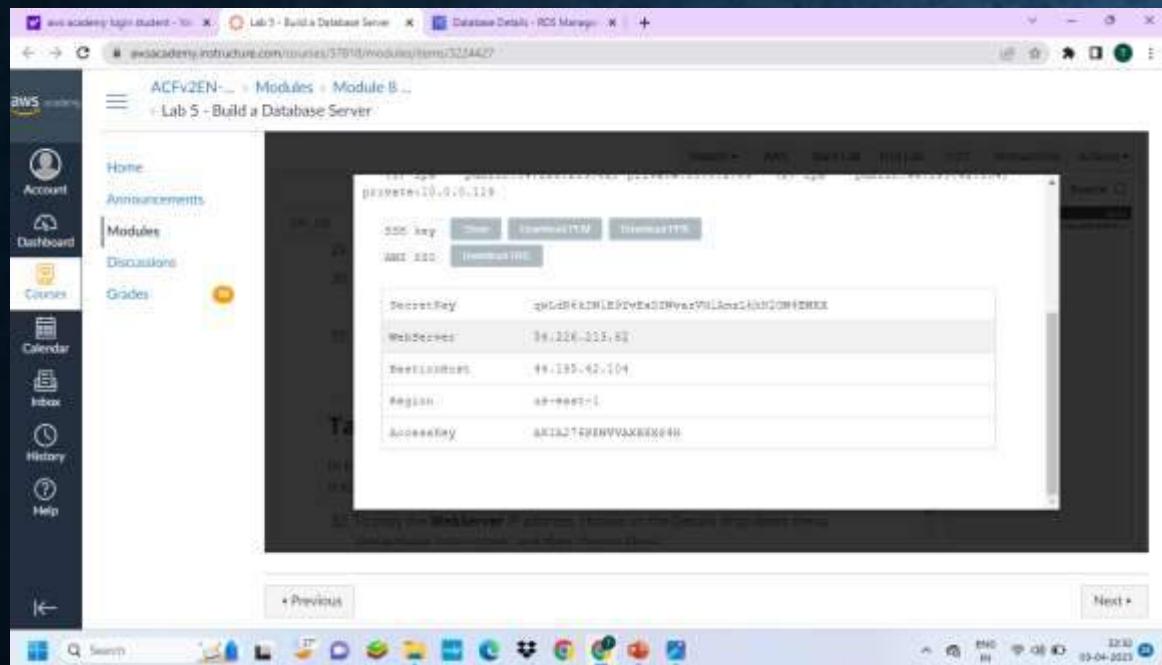
The screenshot shows the AWS RDS Database Details page for a database named 'lab-db'. The 'Summary' section displays the following information:

DB Identifier	CPU	Status	Class
lab-db	2.63%	Available	db.t3.micro
Role	Current activity	Engine	Region & AZ
Instance	0 Connectors	MySQL Community	us-east-1a

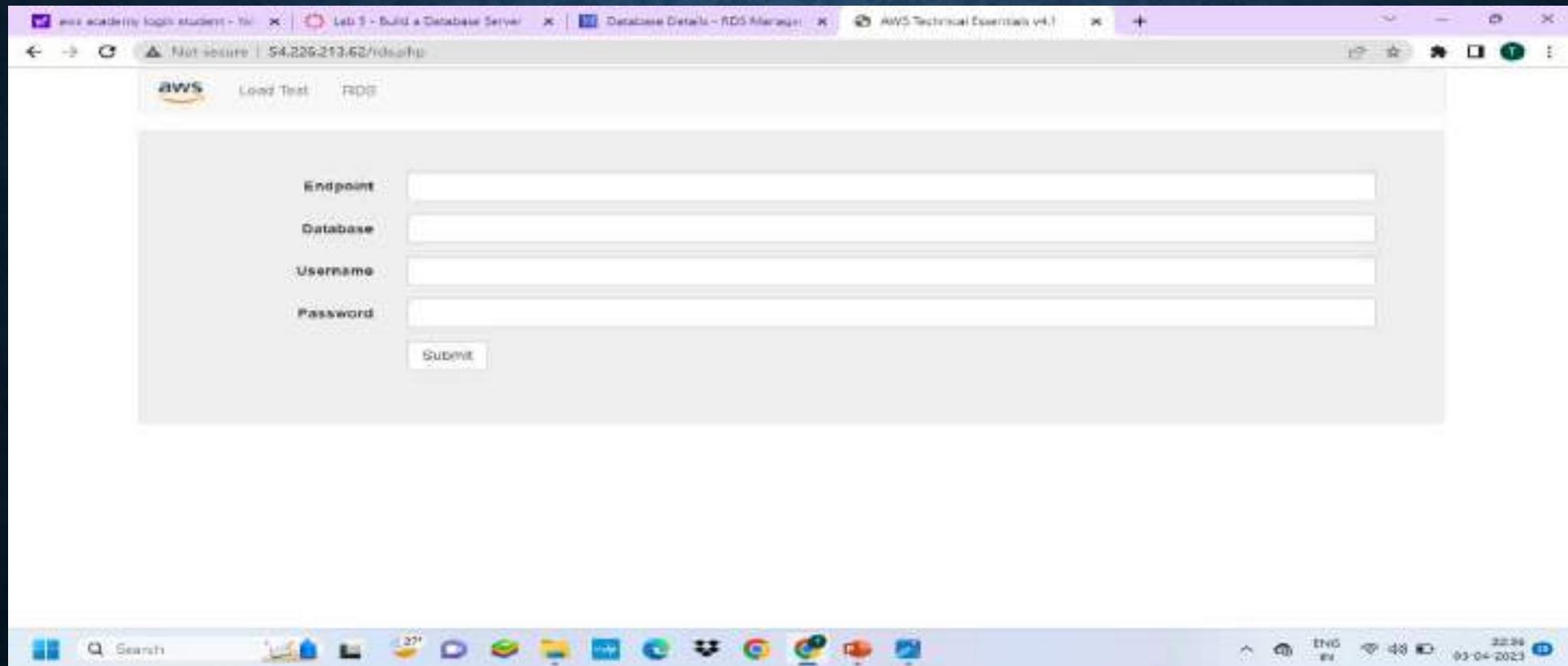
The 'Connectivity & security' tab is selected, showing the 'Endpoint & port' section with the 'Endpoint' field containing the value 'lab-db.ckjwv1qyv33o.us-east-1.rds.amazonaws.com'. Below this, the 'Networking' and 'Security' sections are visible.

Step 6 : Interact with Your Database.

On Details , copy the WebServer IP address. Open a new web browser tab, paste the WebServer IP address and press Enter. The web application will be displayed, showing information about the EC2 instance.



Step 7 : Choose the RDS link at the top of the page and configure the settings.



Step 8: After a few seconds the application will display an **Address Book**.

The Address Book application is using the RDS database to store information.

A screenshot of a Microsoft Edge browser window. The address bar shows the URL `Not secure | $4.225.212.63/rds.php`. The page title is "Address Book". The content area displays a table with two rows of contact information. The columns are labeled "Last name", "First name", "Phone", "Email", and "Admin". The first row contains "Doe" in the Last name column, "Jane" in the First name column, "010-110-1101" in the Phone column, and "janed@someotheraddress.org" in the Email column. The Admin column contains a blue "Add Contact" link. The second row contains "Johnson" in the Last name column, "Roberto" in the First name column, "123-456-7890" in the Phone column, and "robertoj@someaddress.com" in the Email column. The Admin column for this row also contains "Edit" and "Remove" links. The browser's taskbar at the bottom shows various pinned icons and the date "03-04-2023".

Last name	First name	Phone	Email	Admin
Doe	Jane	010-110-1101	janed@someotheraddress.org	Add Contact Edit Remove
Johnson	Roberto	123-456-7890	robertoj@someaddress.com	Edit Remove

ELASTIC LOAD BALANCER

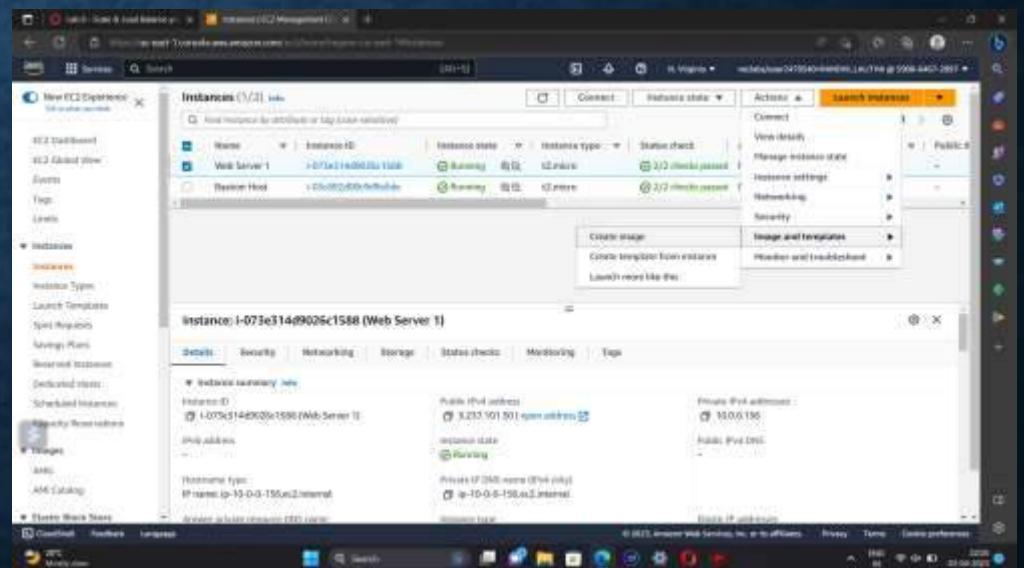
Elastic Load Balancing automatically distributes incoming application traffic across multiple Amazon EC2 instances.

In this lab, We are provided with the given infrastructure.

Procedure:

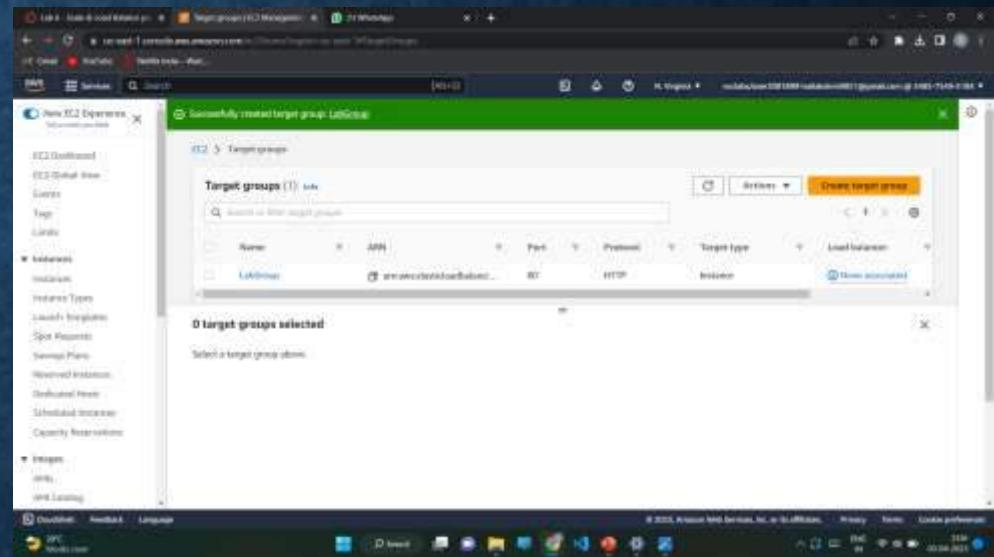
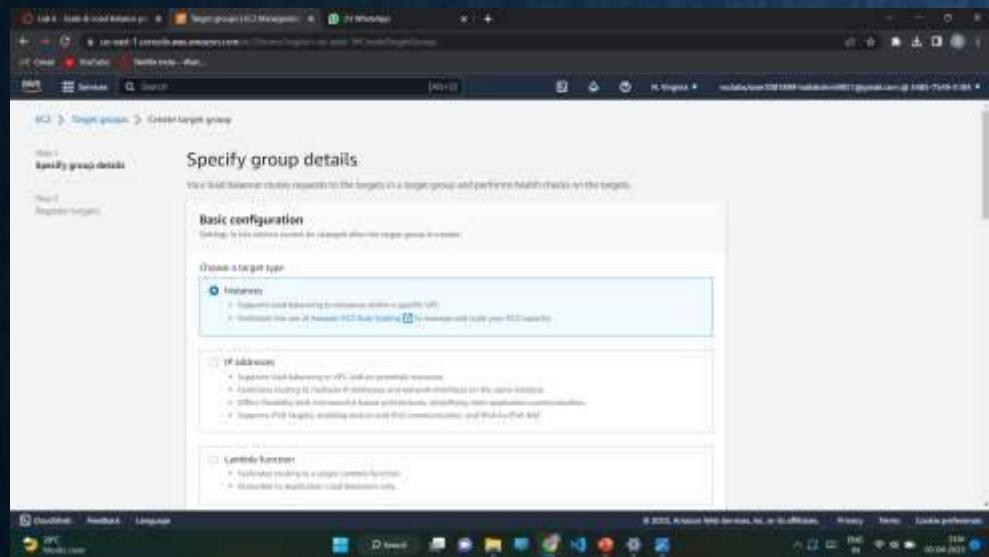
Task1: Creating an AMI for Auto Scaling

- ❖ Click start lab then click on AWS.
- ❖ You will navigate to AWS management console. Click on services and select EC2.
- ❖ Click instances. Make sure that **Status Checks** for **Web Server 1** displays 2/2 checks.
- ❖ Select Web Server 1 and in actions click images and templates > create image. Name the image and give the description.
- ❖ Click create image.

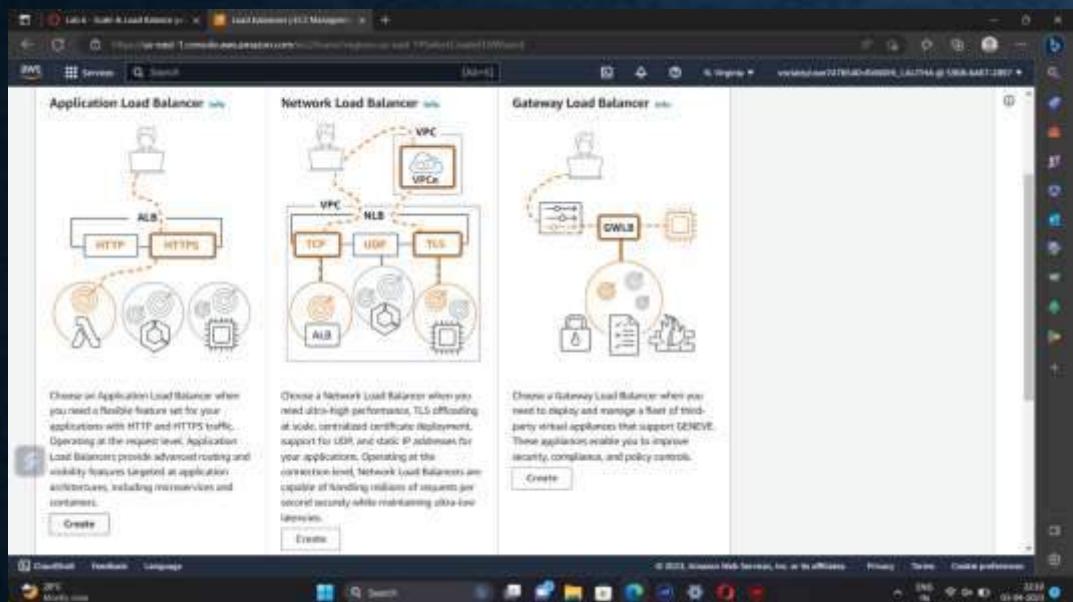


Task 2: Creating a load balancer

- ❖ Choose Target Groups and then click on create target group.
- ❖ Select target type as instances. Name the target group. Select Lab VPC under VPC that is we are creating load balancer in Lab VPC .
- ❖ Choose next and then click on create target group.



- ❖ From the left navigation pane , select Load Balancers. Click create load balancer.
- ❖ To create a application balancer, click create under Application Load Balancer and Name it.
- ❖ In Networking mapping, select Lab VPC and specify the subnets that the load balancer should use.
- ❖ In security groups, select only Web Security Group and deselect all other than it .
- ❖ For the Listener HTTP:80 row, set the Default action to forward to **LabGroup**.



This screenshot shows the configuration of a Listener for an Application Load Balancer (ALB). The "Listeners and routing" section is open, showing a listener for port 80 (HTTP) with a target group named "lambda-1".

Listeners and routing:

- Listener HTTP-80:**
 - Protocol: HTTP
 - Port: 80
 - Default action: Lambda-1 (Target type: Lambda function)

Security groups: A dropdown menu lists existing security groups, with "Web Security Group" selected.

This screenshot shows the initial steps of creating a new load balancer:

- Add-on services:** Options for CloudWatch Metrics and CloudWatch Logs.
- Tags:** A table for adding tags to the load balancer.
- Attributes:** A note stating that certain default attributes will be applied to the load balancer.
- Create load balancer:** A prominent orange button at the bottom right.

This screenshot shows the ECI Management Console interface, specifically the "Launch configurations" section. A blue banner at the top provides a warning about the deprecation of launch configurations.

ECI:

- Instances:** Includes sections for APIs and API Catalog.
- Elastic Block Store:** Includes sections for Volumes, Snapshots, and Lifecycle Manager.
- Network & Security:** Includes sections for Security Groups, Elastic IP, Placement Groups, Key Pairs, and Network Interface.
- Load Balancing:** Includes sections for Load Balancers and Target Groups.
- Auto Scaling:** Includes sections for Launch Configurations and Auto Scaling Groups.

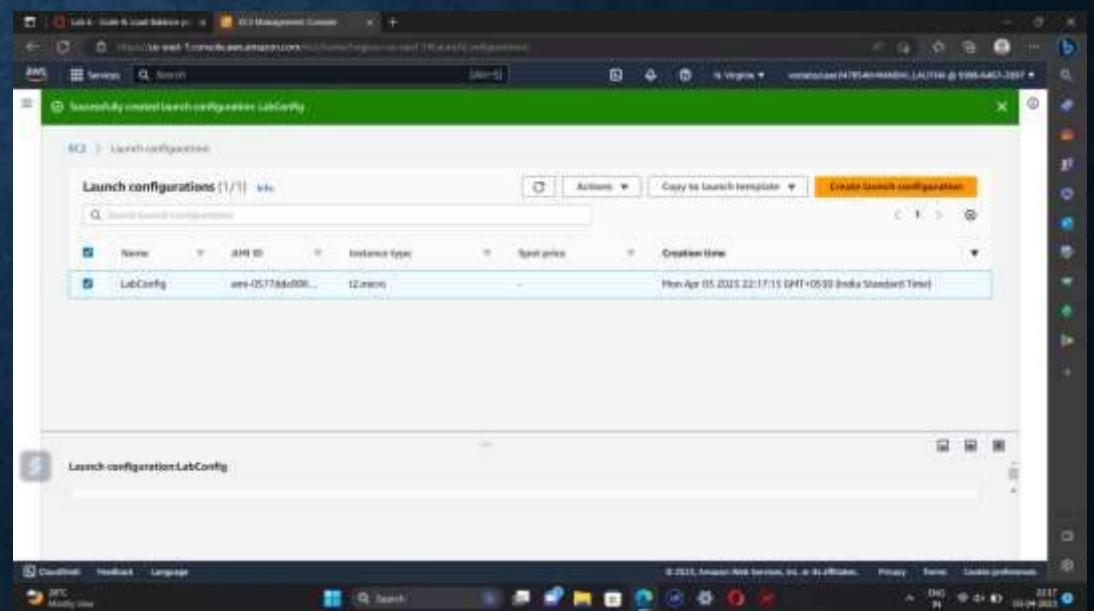
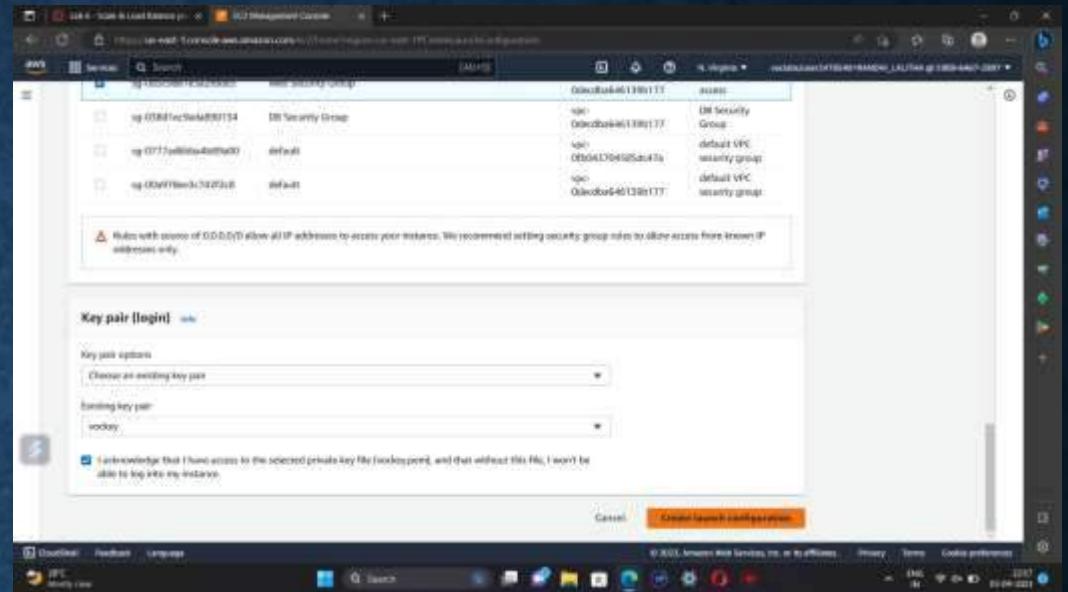
Launch configurations:

- A search bar: "Search launch configurations..."
- Table columns: Name, AMI ID, Instance type, Spot price, and Creation time.
- A message: "No launch configurations found in this region." with a "Create launch configuration" button.

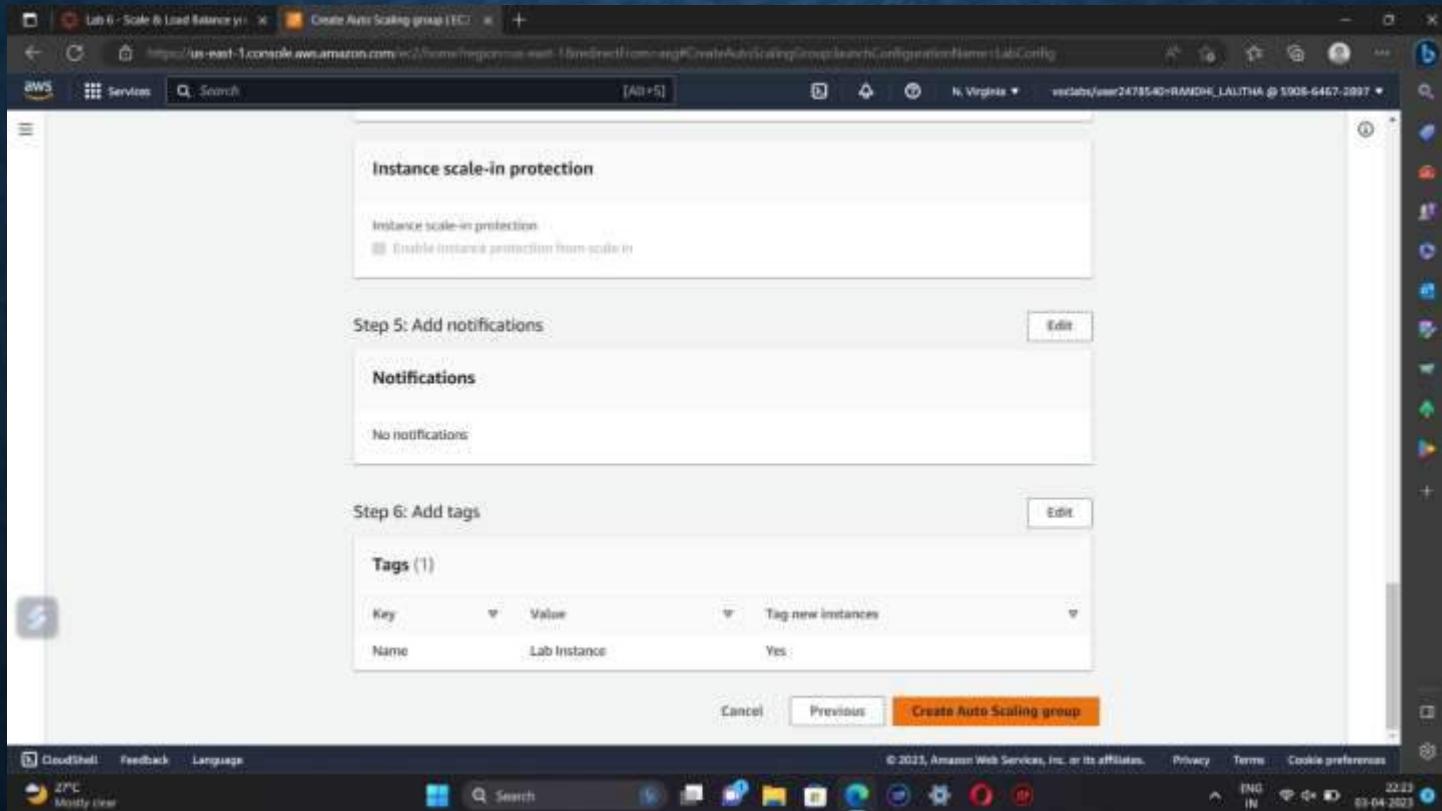
- ❖ Click create load balancer.

Task 3: Create a Launch Configuration and an Auto Scaling Group

- ❖ In Launch Configurations, click create launch configuration.
- ❖ Name the configuration and for AMI choose web server AMI that you created in task 1.
- ❖ Select the instance type.
- ❖ Under Additional Configuration, for monitoring select Enable EC2 instance detailed monitoring within CloudWatch.
- ❖ Under security groups , choose an existing security group Web Security Group.
- ❖ Under key pair, choose an existing key pair vockey. Check I acknowledge...
- ❖ Click Create launch configuration.
- ❖ For created launch configuration, select create auto scaling group from actions.
- ❖ Name it and select Lab VPC under VPC, select the private subnets.
- ❖ Select an existing load balancer which was created earlier.
- ❖ In the **Additional settings - optional** pane, select **Enable group metrics collection within CloudWatch**

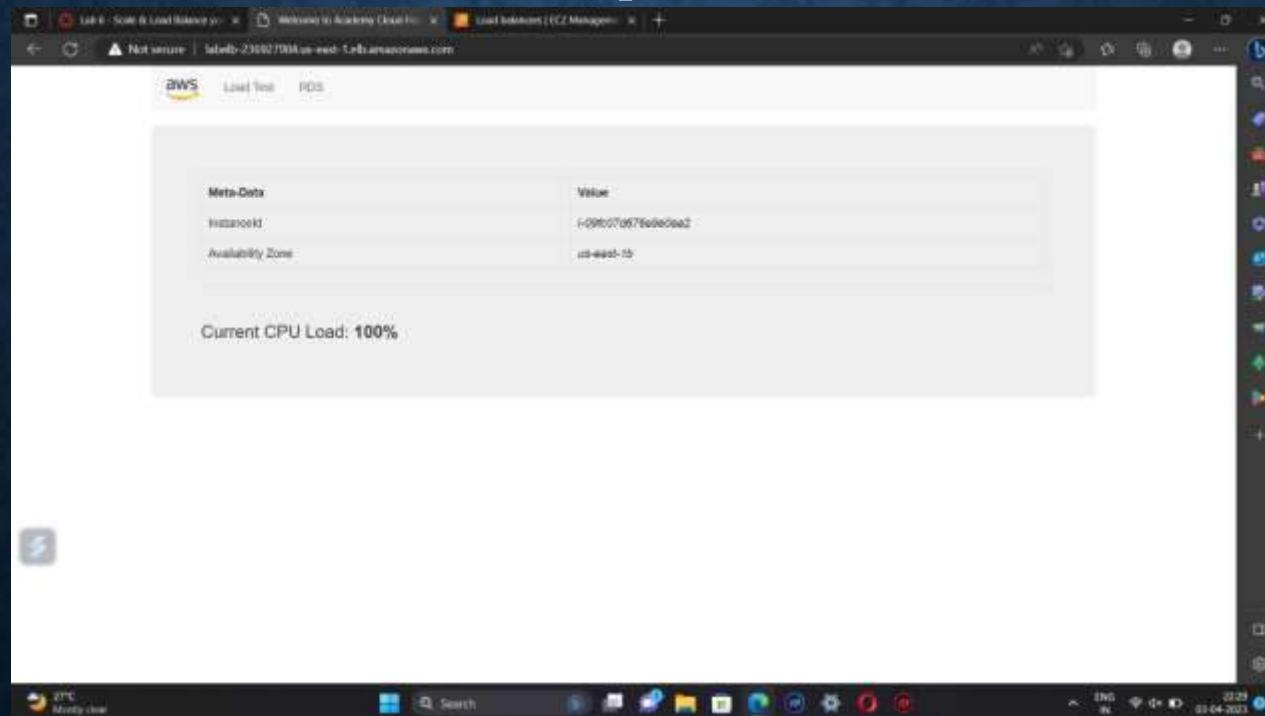


- ❖ Specify the values under Group size.
- ❖ Under **Scaling policies**, choose *Target tracking scaling policy* and name the policy. Specify metric type and target value. Then add a tag and click create auto scaling group.



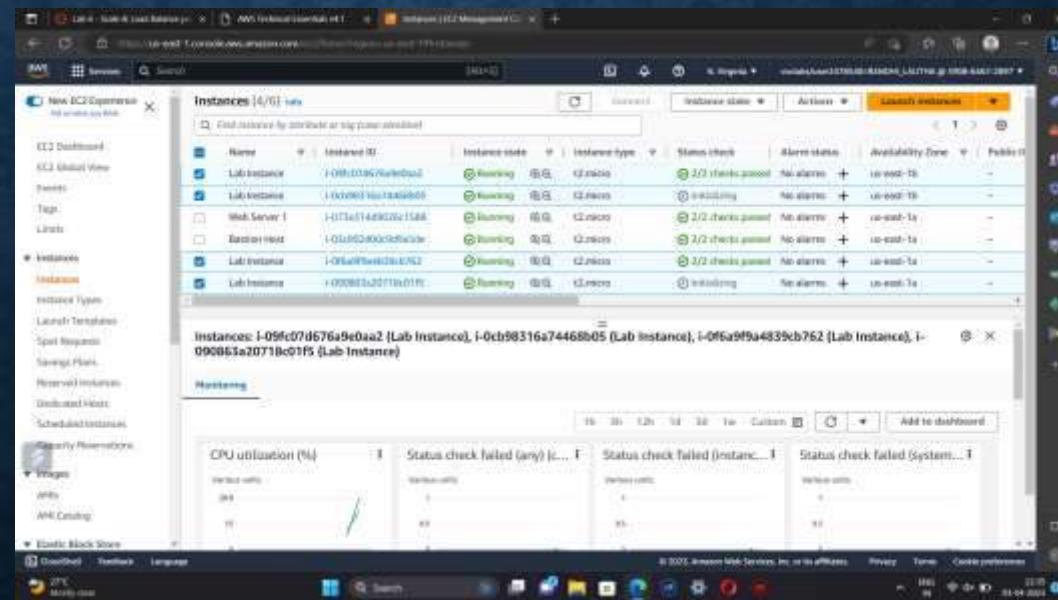
Task 4: Verify that Load Balancing is Working

- ❖ click **Instances**. You should see two new instances named **Lab Instance**. These were launched by Auto Scaling.
- ❖ In the labgroup target group, two **Lab Instance** targets should be listed for this target group. Wait until the **Status** of both instances transitions to *healthy*.
- ❖ Now copy the DNS name of the created load balancer making sure to omit "(A Record)". and paste it in a new browser
- ❖ The application should appear in your browser. This indicates that the Load Balancer received the request, sent it to one of the EC2 instances, then passed back the result.



Task 5: Test Auto Scaling

- ❖ On the **Services** menu, click **CloudWatch**. In the left navigation pane, choose **All alarms**. Two alarms will be displayed. These were created automatically by the Auto Scaling group.
- ❖ From services select EC2 and choose Auto Scaling Groups and select Lab Auto Scaling Group which you created.
- ❖ choose the **Automatic Scaling** tab. Select **LabScalingPolicy** and from actions change the target value to 50.click update.
- ❖ To go cloudwatch and click all alarms and verify.
- ❖ Click the **OK** alarm, which has *AlarmHigh* in its name.Return to the browser tab with the web application. Click **Load Test** beside the AWS logo.This will cause the application to generate high loads.
- ❖ You should see the **AlarmHigh** chart indicating an increasing CPU percentage. Once it crosses the 60% line for more than 3 minutes, it will trigger Auto Scaling to add additional instances.
- ❖ In EC2 instances , you notice that more than two instances labeled **Lab Instance** should now be running.
- ❖ Finally terminate the Web Server 1.



AWS S3 (SIMPLE STORAGE SERVICE)

Procedure:

TASKS FOR CONFIGURING S3:

- 1.Log into the AWS Management Console.
- 2.Create an S3 bucket.
- 3.Upload an object to S3 Bucket.
- 4.Access the object on the browser.
- 5.Change S3 object permissions.
- 6.Setup the bucket policy and permission and test the object accessibility.

STEPS :

Step 1: Click on **create group**.

Step 2: Set up the bucket name. S3 bucket name are globally unique, choose a name which is available. Leave other settings as default and click on **create group**.

Step 3: Click on your bucket name.

Step 4: Click Upload.

Step 5: Click on Add Files , and choose a file from your computer.

Step 6: After choosing your file, click on Next.

Step 7: Click on Upload.

Step 8: Now you have a private S3 bucket with a private object uploaded, which means you cannot visit it through Internet.

Step 9: Now you have a private S3 bucket with a private object uploaded, which means you cannot visit it through Internet.

CHANGE BUCKET PERMISSIONS:

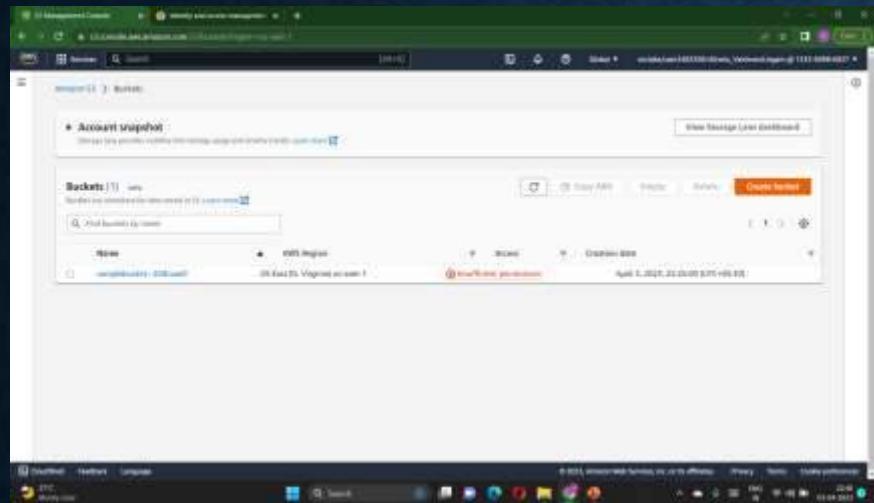
Step 10: Go back to your bcket and click on Permissions.

Step 11: Click on Everyone under the Public access, and click on Read object on the right of pop-up window. Then click on Save.

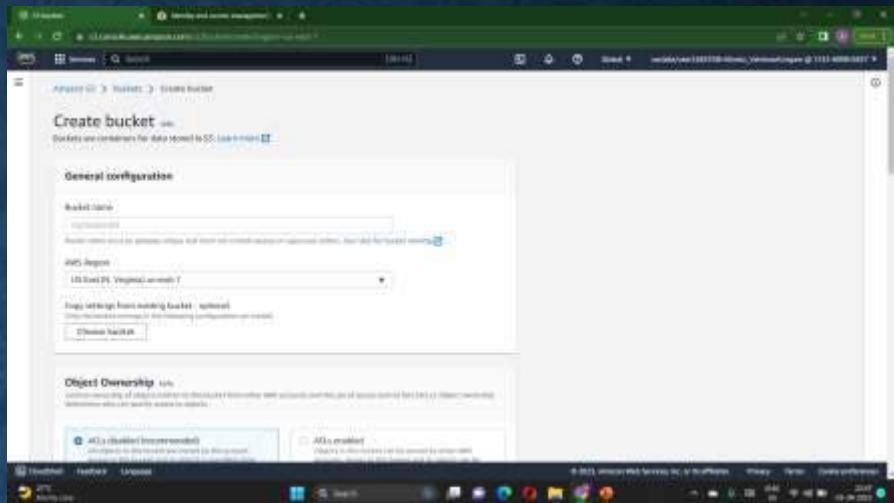
Step 12 : Now its state switches to Read Object - Yes

Step 13: Click on Overview, and click on your Object URL again .

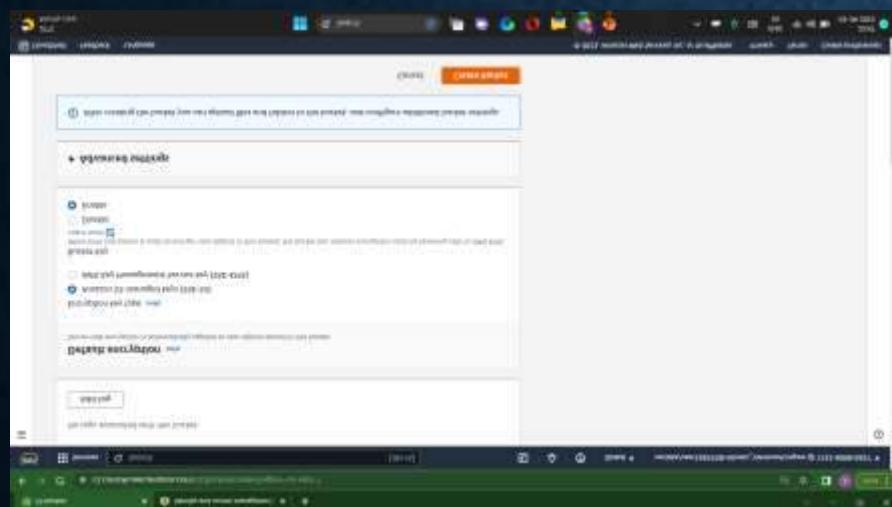
Step 14: Notice the URL on your browser



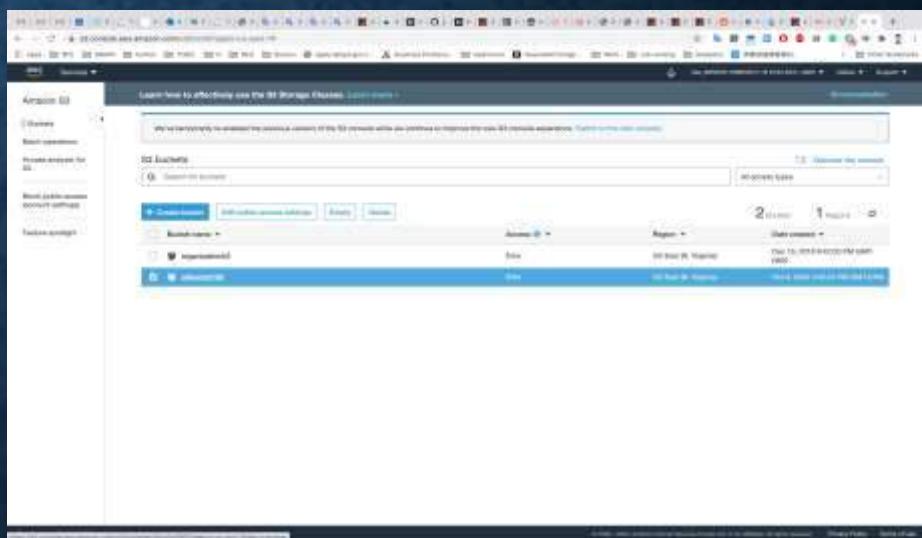
Step 1



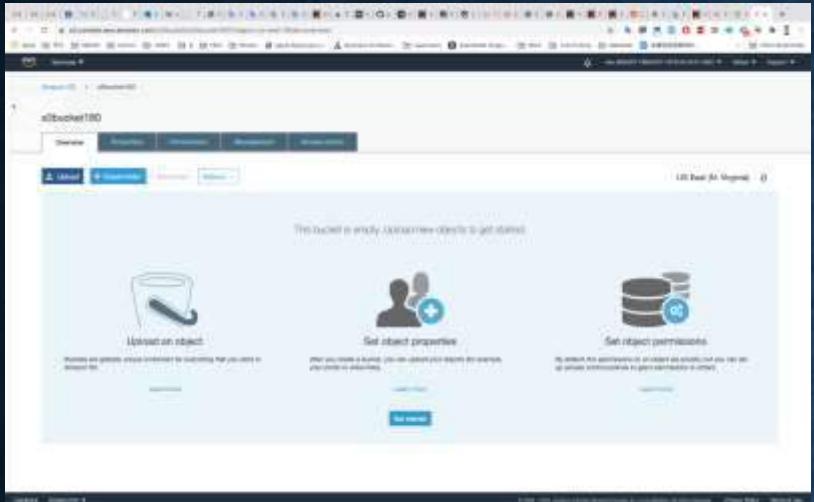
Step 2



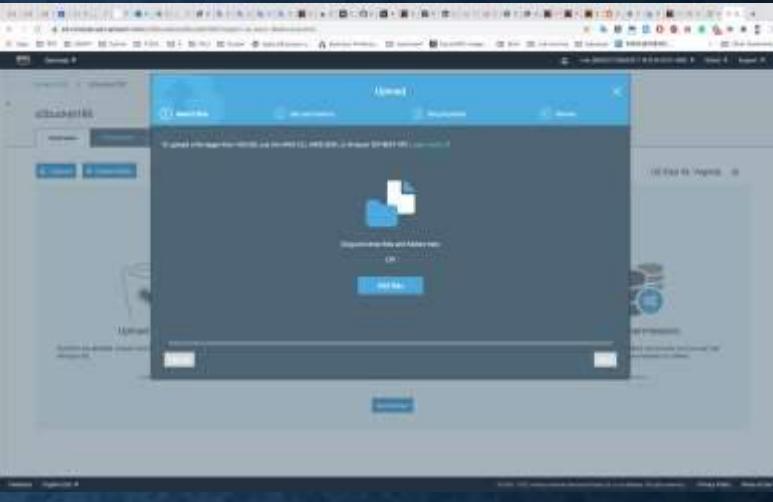
Step 2



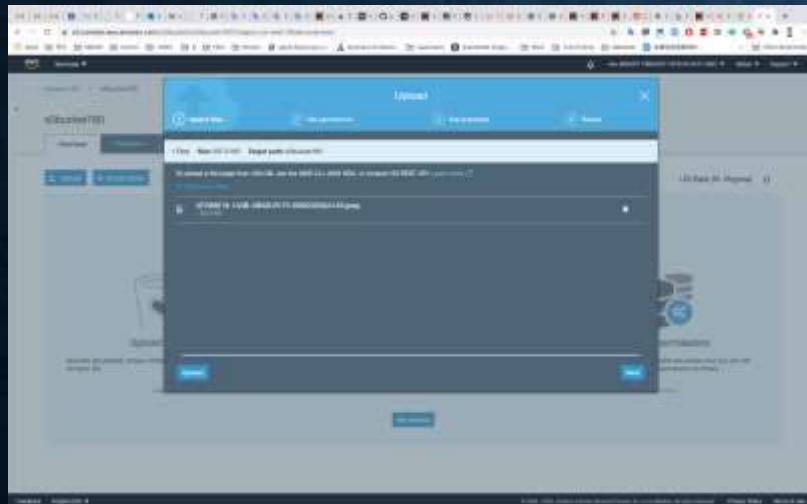
Step 3



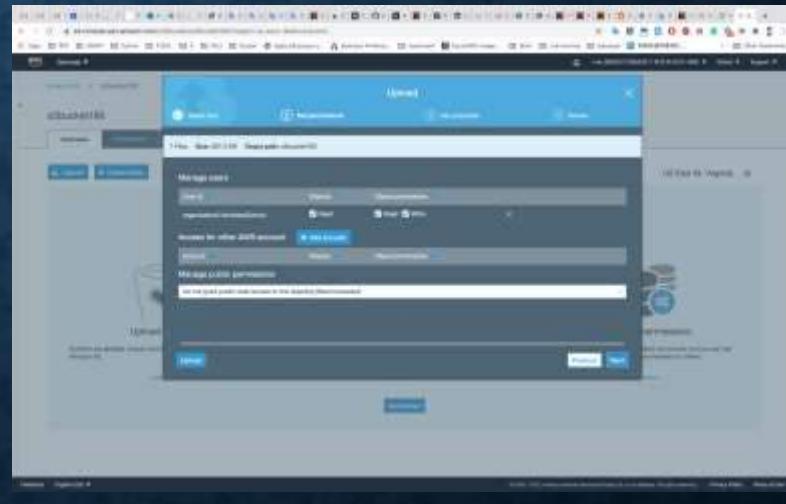
Step 4



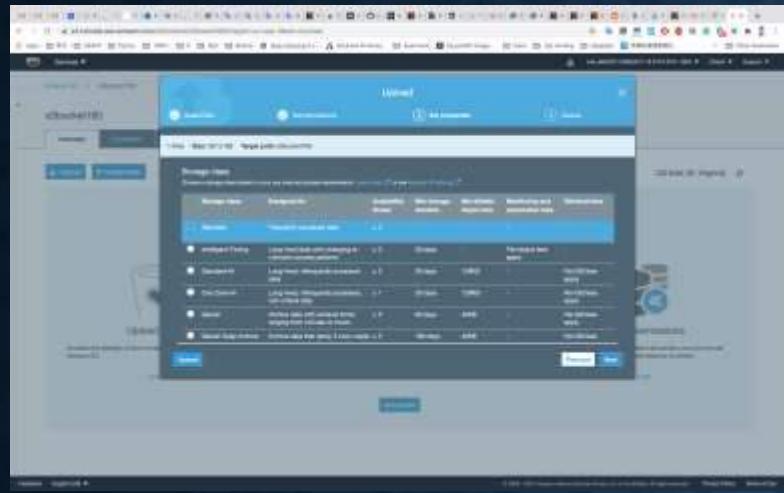
Step 5



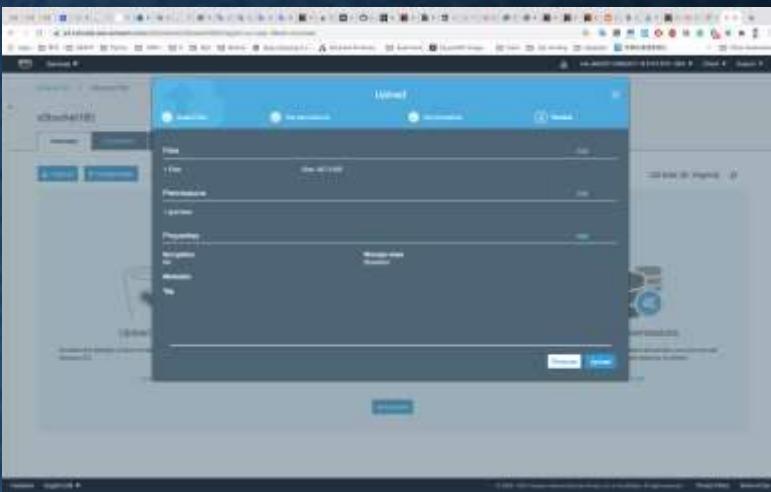
Step 6



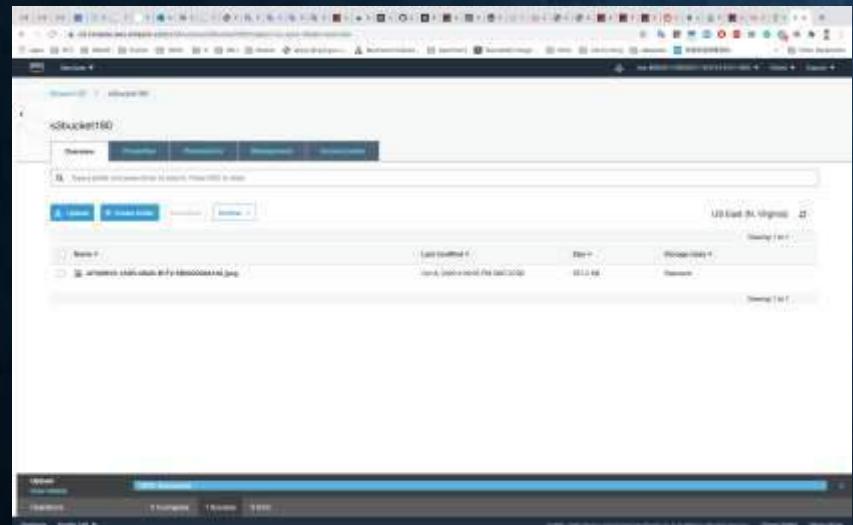
Step 7



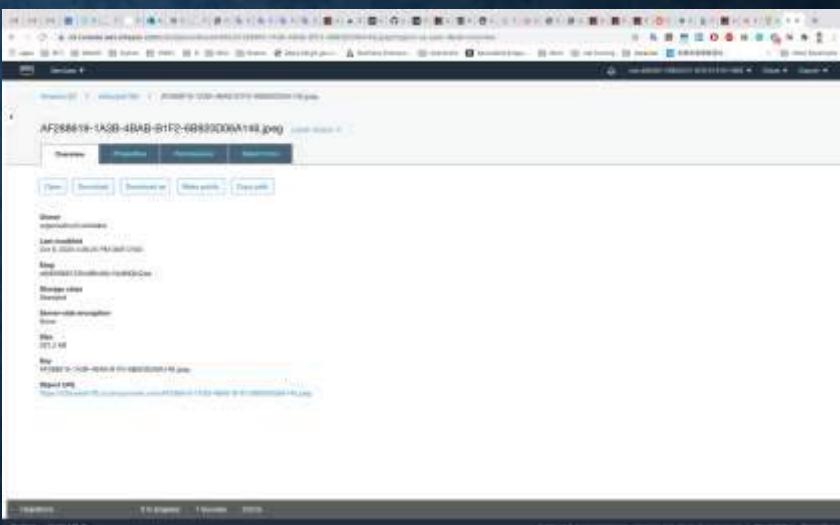
Step 8



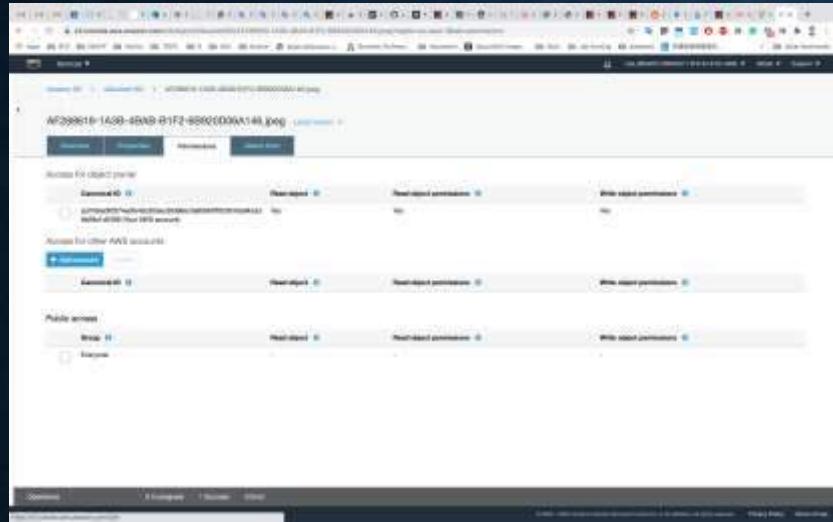
Step 9



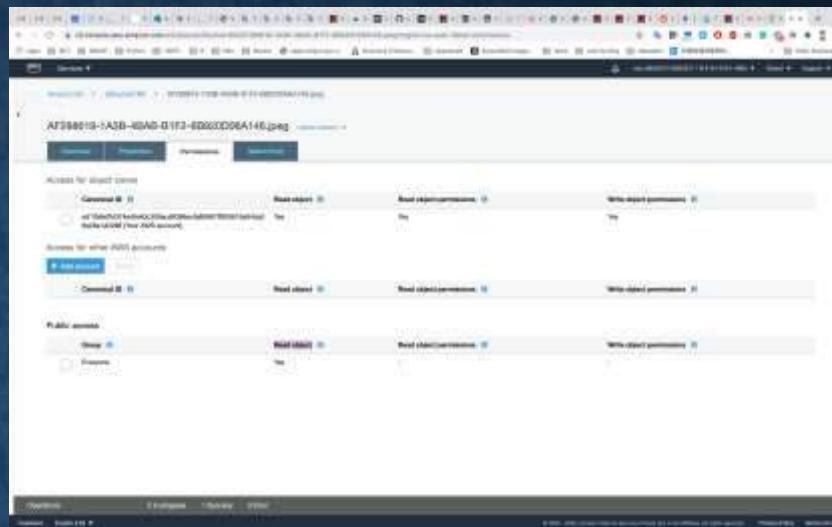
Step 10



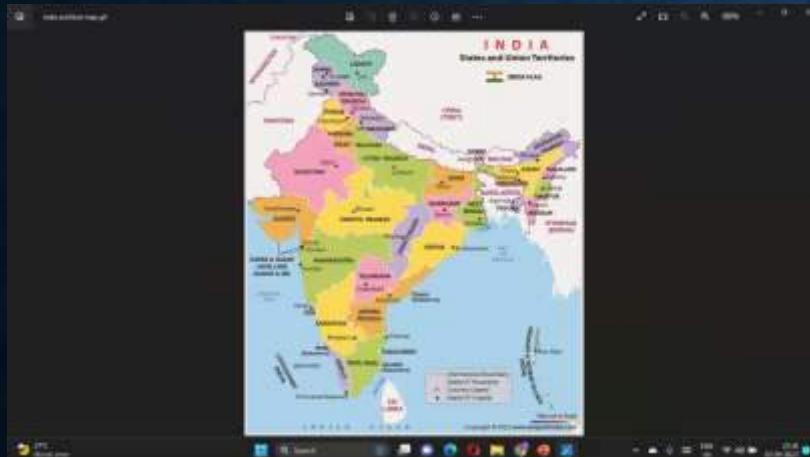
Step 11



Step 12



Step 13



Step 14