



Pelatihan ABCD – Hari 5 Cloud Computing

Sekolah Teknik Elektro dan Informatika Institut Teknologi Bandung
Universitas Singaperbangsa Karawang

Introduction to Cloud 101

<https://www.awseducate.com/student/s/>

Lab 6: Introduction to IAM

https://awseducate.instructure.com/courses/746/assignments/3109?module_item_id=13261

Lab 6: Introduction to IAM

The screenshot shows a web browser window with the URL awseducate.instructure.com/courses/746/assignments/3110?module_item_id=13262. The page title is "Lab 6 - Introduction to AWS Identity and Access Management (IAM)". The left sidebar has a dark theme with icons for AWS, Account, Modules, Courses, History, Help, and a back arrow. The main content area shows the assignment details: "Due No Due Date", "Points 100", and "Submitting an external tool". A "Submit" button is highlighted in blue. Below this is a language dropdown set to "EN-US". The main content area contains the following sections:

- Lab 6: Introduction to IAM**
- Lab overview**

In this lab, you will explore users, groups, and policies in the AWS Identity and Access Management (IAM) service.
- Objectives**

After completing this lab, you will know how to:

 - Exploring pre-created IAM Users and Groups

On the right side, there is a terminal window titled "bash" with the command "ddd_v1_w_1vu_1834270@runweb67415:~\$". Above the terminal are checkboxes for "Files", "README", "Terminal", and "Source". At the bottom of the page are navigation buttons: "◀ Previous" and "Next ▶".

Lab 6: Introduction to IAM

- ▶ After completing this lab, you will know how to:
 - ▶ Exploring pre-created IAM Users and Groups
 - ▶ Inspecting IAM policies as applied to the pre-created groups
 - ▶ Following a real-world scenario, adding users to groups with specific capabilities enabled
 - ▶ Locating and using the IAM sign-in URL
 - ▶ Experimenting with the effects of policies on service access
- ▶ Duration
 - ▶ This lab requires approximately **40 minutes** to complete.

Accessing the AWS Management Console

The screenshot shows a web browser window with the following details:

- Title Bar:** Lab 6 - Introduction to AWS Id...
- Address Bar:** awseducate.instructure.com/courses/746/assignments/3110?module_item_id=13262
- Toolbar:** Getting Started, Imported From Fir..., Addons, New Tab, Network Research..., IEEE/ACM Internat..., Styles Archives -...
- Header:** aws (with logo), EDC101v... > Assignments, > Lab 6 - Introduction to AWS Identity and Access Management (IAM)
- Left Sidebar (Courses):** Home, Modules, Due No Due Date, Points 100, Submitting an external tool, Dashboard, Courses, History, Help.
- Content Area:**
 - Section Title:** Lab 6 - Introduction to AWS Identity and Access Management (IAM)
 - Due Date:** No Due Date
 - Points:** 100
 - Status:** Submitting an external tool
 - Actions:** Submit, Details ▾, AWS, Start Lab, End Lab, 0:38, Instructions, Grades, Actions ▾
 - Modal Window (Start Lab):**
 - Region: us-east-1
 - Lab ID: arn:aws:cloudformation:us-east-1:127364036184:stack/c35460a48368713246849t1w127364036184/56eac670-7500-11ed-bed8-0a178bb7d901
 - Creation Time: 2022-12-05T16:53:03-0800
 - Start session at: 2022-12-05T16:53:04-0800
 - Remaining session time: 00:40:00(40 minutes)
 - Lab status: ready
 - Text:** After completing this lab, you will know how to:
- Bottom Navigation:** < Previous, Next >



Task 1: Explore the users and groups

Task 1: Explore the users and groups

The screenshot shows the AWS Management Console interface. The left sidebar lists various AWS services under 'Services'. The main content area displays the 'IAM Identity Center' home page, which includes sections for 'AWS Audit Manager', 'Certificate Manager', 'CloudHSM', 'Cognito', 'Detective', 'Directory Service', 'AWS Firewall Manager', 'GuardDuty', and 'IAM'. A 'Welcome to AWS' sidebar on the right provides links to 'Getting started with AWS', 'Training and certification', and 'What's new with AWS?'. The browser address bar shows the URL: <https://us-east-1.console.aws.amazon.com/iam/home?region=us-east-1>.

Lab 6 - Introduction to AWS Identity & Access Management | AWS Management Console

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

Getting Started Imported From Firefox Addons New Tab Network Research IEEE/ACM International Conference on Styles Archives

N. Virginia v vocabs/user2296696=Yoanes_Bandung @ 1273-6403-6184

aws Services Search [Option+S]

Compute
Containers
Customer Enablement
Database
Developer Tools
End User Computing
Front-end Web & Mobile
Game Development
Internet of Things
Machine Learning
Management & Governance
Media Services
Migration & Transfer
Networking & Content Delivery
Quantum Technologies
Robotics
Satellite
Security, Identity, & Compliance
Storage

Security compliance reports and agreements

AWS Audit Manager
Continuously assess controls for risk and compliance

Certificate Manager
Provision, Manage, and Deploy SSL/TLS Certificates

CloudHSM
Managed Hardware Security Modules in the Cloud

Cognito
Consumer Identity Management and AWS Credentials for Federated Identities

Detective
Investigate and analyze potential security issues

Directory Service
Host and Manage Active Directory

AWS Firewall Manager
Central management of firewall rules

GuardDuty
Intelligent Threat Detection to Protect Your AWS Accounts and Workloads

IAM
Manage access to AWS resources

Reset to default layout + Add widgets

Welcome to AWS

Getting started with AWS Learn the fundamentals and find valuable information to get the most out of AWS.

Training and certification Learn from AWS experts and advance your skills and knowledge.

What's new with AWS? Discover new AWS services, features, and Regions.

IAM Identity Center (successor to AWS Single Sign-On)

https://us-east-1.console.aws.amazon.com/iam/home?region=us-east-1 settings

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Lab 6 - Introduction to AWS Identities > IAM Management Console

us-east-1.console.aws.amazon.com/iamv2/home?region=us-east-1#/home

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aws Services Search [Option+S] Global v vocabs/user2296696=Yoanes_Bandung @ 1273-6403-6184 ▾

Identity and Access Management (IAM)

Search IAM

Dashboard

Access management

- User groups
- Users
- Roles
- Policies
- Identity providers
- Account settings

Access reports

- Access analyzer
- Archive rules
- Analyzers
- Settings
- Credential report
- Organization activity
- Service control policies (SCPs)

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.

IAM resources

User groups	Users	Roles	Policies	Identity providers
3	3	14	2	0

What's new

Updates for features in IAM

- IAM Access Analyzer findings now support Amazon SNS topics and five other AWS resource types to help you identify public and cross-account access. 1 month ago
- IAM Access Analyzer now reviews your AWS CloudTrail history to identify actions used across 140 AWS services and generates fine-grained policies. 2 months ago
- IAM Access Analyzer makes it easier to author and validate role trust policies. 2 months ago
- AWS Lambda announces support for a new IAM condition key, lambda:SourceFunctionArn. 5 months ago

[View all](#)

AWS Account

Account ID: 12364036184
Account Alias: 12364036184 [Create](#)
Sign-in URL for IAM users in this account: <https://12364036184.signin.amazonaws.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, and make calls to the Amazon S3 API using the credentials.

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

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Choose the name of user-1

The screenshot shows the AWS IAM Management Console with the URL us-east-1.console.aws.amazon.com/iamv2/home?region=us-east-1#/users. A blue banner at the top says "Introducing the new Users list experience" with a message: "We've redesigned the Users list experience to make it easier to use. [Let us know what you think.](#)". The main area displays a table of users:

User name	Groups	Last activity	MFA	Password a...	Active key age
<input checked="" type="checkbox"/> user-1	None	Never	None	✓ 2 minutes ago	-
<input type="checkbox"/> user-2	None	Never	None	✓ 2 minutes ago	-
<input type="checkbox"/> user-3	None	Never	None	✓ 2 minutes ago	-

The left sidebar shows the navigation menu for IAM management, including "Access management" (selected), "Access reports", and "Service control policies (SCPs)".

Page footer: Feedback, Looking for language selection? Find it in the new Unified Settings, © 2022, Amazon Web Services, Inc. or its affiliates., Privacy, Terms, Cookie preferences

Lab 6 - Introduction to AWS Identities > IAM Management Console

us-east-1.console.aws.amazon.com/iam/home#/users/user-1

Getting Started Imported From Firefox Addons New Tab Network Research... IEEE/ACM International Conference on Styles Archives -...

aws Services Search [Option+S] Global v vocabs/user2296696=Yoanes_Bandung @ 1273-6403-6184 ▾

Identity and Access Management (IAM)

Users > user-1

Summary

Delete user ?

User ARN: arn:aws:iam::127364036184:user/spl66/user-1 [Copy](#)

Path: /spl66/

Creation time: 2022-12-06 07:53 UTC+0700

Permissions Groups Tags (1) Security credentials Access Advisor

▼ Permissions policies

i Get started with permissions
This user doesn't have any permissions yet. Get started by adding the user to a group, copying permissions from another user, or attaching a policy directly.
[Learn more](#)

[Add permissions](#) [+ Add inline policy](#)

▼ Permissions boundary (not set)

You need permissions
You do not have the permission required to perform this operation. Ask your administrator to add permissions.

- User: arn:aws:sts::127364036184:assumed-role/voclabs/user2296696=Yoanes_Bandung is not authorized to perform: access-analyzer>ListPolicyGenerations on resource: arn:aws:access-analyzer:us-east-1:127364036184:*

AWS Account ID: [Edit](#)

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Lab 6 - Introduction to AWS Identity and Access Management (IAM) IAM Management Console

us-east-1.console.aws.amazon.com/iam/home#/users/user-1?section=groups

Getting Started Imported From Firefox Addons New Tab Network Research... IEEE/ACM International Conference on Big Data Styles Archives -...

aws Services Search [Option+S] Global vclabs/user2296696=Yoanes_Bandung @ 1273-6403-6184

Identity and Access Management (IAM)

Dashboard

Access management

- User groups
- Users**
- Roles
- Policies
- Identity providers
- Account settings

Access reports

- Access analyzer
- Archive rules
- Analyzers
- Settings

Credential report

Organization activity

Service control policies (SCPs)

Search IAM

New feature to generate a policy based on CloudTrail events.
AWS uses your CloudTrail events to identify the services and actions used and generate a least privileged policy that you can attach to this user.

Users > user-1

Summary

User ARN: arn:aws:iam::127364036184:user/spl66/user-1 [Copy](#)

Path: /spl66/

Creation time: 2022-12-06 07:53 UTC+0700

Permissions Groups Tags (1) Security credentials Access Advisor

Add user to groups

Group name	Attached permissions
No results	

AWS Account ID: vclabs/user2296696=Yoanes_Bandung @ 1273-6403-6184

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Choose the Security credentials tab

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

- Identity and Access Management (IAM)
- Dashboard
- Access management
 - User groups
 - Users** (selected)
 - Roles
 - Policies
 - Identity providers
 - Account settings
- Access reports
 - Access analyzer
 - Archive rules
 - Analyzers
 - Settings
- Credential report
- Organization activity
- Service control policies (SCPs)

Below the sidebar is a search bar labeled "Search IAM".

The main content area has a title "Summary" and displays the following user details:

- User ARN: arn:aws:iam::127364036184:user/spl66/user-1
- Path: /spl66/
- Creation time: 2022-12-06 07:53 UTC+0700

The "Security credentials" tab is currently selected, indicated by an orange border. Below it, there are two sections:

Sign-in credentials

- Summary**: Contains a link to the console sign-in page: <https://127364036184.signin.aws.amazon.com/console>.
- Console password**: Status: Enabled (never signed in) | [Manage](#)
- Signing certificates**: Status: None [Edit](#)

Multi-factor authentication (MFA)

Use MFA to increase the security of your AWS environment. Signing in with MFA requires an authentication code from an MFA device. You can assign a maximum of 8 MFA devices. [Learn more](#)

Buttons: [Manage](#) | [Assign MFA device](#)

No MFA assigned.

Access keys

Use access keys to make programmatic calls to AWS from the AWS CLI, 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.

For your protection, you should never share your secret keys with anyone. As a best practice, we recommend frequent key rotation.

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

In the navigation pane on the left, choose User groups

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:

- Search IAM
- Dashboard
- User groups** (highlighted in orange)
- Users
- Roles
- Policies
- Identity providers
- Account settings

The main content area is titled "User groups (Selected 1/3) Info". It displays a table of user groups with the following data:

Group name	Users	Permissions	Creation time
EC2-Admin	⚠ 0	Defined	6 minutes ago
EC2-Support	⚠ 0	Defined	6 minutes ago
S3-Support	⚠ 0	Defined	6 minutes ago

At the top right of the main content area, there are buttons for "Delete" and "Create group". The browser address bar shows "us-east-1.console.aws.amazon.com/iamv2/home#/groups".

Choose the name of the EC2-Support group

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) and "Access reports" (Access analyzer, Archive rules, Analyzers, Settings). The main content area shows the "EC2-Support" user group under "User groups". The "Summary" tab is selected, displaying the group's name (EC2-Support), creation time (December 06, 2022, 07:53 (UTC+07:00)), and ARN (arn:aws:iam::123456789012:group/spl66/EC2-Support). Below the summary, the "Permissions" tab is selected, showing one managed policy attached: "AmazonEC2ReadOnlyAccess". This policy provides read-only access to Amazon EC2 resources.

IAM > User groups > EC2-Support

EC2-Support

Summary

User group name: EC2-Support

Creation time: December 06, 2022, 07:53 (UTC+07:00)

ARN: arn:aws:iam::123456789012:group/spl66/EC2-Support

Permissions

Permissions policies (1) [Info](#)

You can attach up to 10 managed policies.

Policy name	Type	Description
AmazonEC2ReadOnlyAccess	AWS managed	Provides read only access to An

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Choose the link for the AmazonEC2ReadOnlyAccess policy

The screenshot shows the AWS IAM Management Console interface. On the left, a sidebar navigation menu includes sections like Identity and Access Management (IAM), Policies, and Access reports. The main content area displays the 'AmazonEC2ReadOnlyAccess' policy under the 'Policies' section. The 'Summary' tab is selected, showing the Policy ARN (arn:aws:iam::aws:policy/AmazonEC2ReadOnlyAccess) and a brief description: 'Provides read only access to Amazon EC2 via the AWS Management Console.' Below this, the 'Permissions' tab is active, showing a table of permissions granted to various services. The table has columns for Service, Access level, Resource, and Request condition. The listed services and their access levels are:

Service	Access level	Resource	Request condition
CloudWatch	Limited: List, Read	All resources	None
EC2	Limited: List	All resources	None
EC2 Auto Scaling	Full: Read Limited: List	All resources	None
ELB	Full: List, Read	All resources	None
ELB v2	Full: Read	All resources	None

At the bottom of the page, there are footer links for Feedback, Language selection, Copyright notice, Privacy, Terms, and Cookie preferences.

Choose the {} JSON tab

The screenshot shows the AWS IAM Management Console interface. On the left, there's a navigation sidebar with links like Dashboard, Access management, Policies, Access reports, and more. The main area shows a policy named "AmazonEC2ReadOnlyAccess". The "Summary" tab is selected, displaying the Policy ARN (arn:aws:iam::aws:policy/AmazonEC2ReadOnlyAccess) and a brief Description (Provides read only access to Amazon EC2 via the AWS Management Console). Below this, the "Permissions" tab is active, showing a "Policy summary" and a "JSON" tab. The JSON tab displays the policy's JSON structure:

```
2 "Version": "2012-10-17",
3 "Statement": [
4     {
5         "Effect": "Allow",
6         "Action": "ec2:Describe*",
7         "Resource": "*"
8     },
9     {
10        "Effect": "Allow",
11        "Action": "elasticloadbalancing:Describe*",
12        "Resource": "*"
13    },
14    {
15        "Effect": "Allow",
16        "Action": [
17            "cloudwatch:ListMetrics",
18            "cloudwatch:GetMetricStatistics",
19            "cloudwatch:Describe*"
        ]
    }
]
```

At the bottom right of the JSON editor, there's a "read-only" status indicator with an info icon.

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

Choose the name of the S3-Support group

The screenshot shows the AWS IAM Management Console with the URL us-east-1.console.aws.amazon.com/iamv2/home#/groups. The left sidebar is titled "Identity and Access Management (IAM)" and includes sections for "Search IAM", "Dashboard", "Access management" (with "User groups" selected), "Users", "Roles", "Policies", "Identity providers", and "Account settings". The "Access reports" section also includes "Access analyzer", "Archive rules", "Analyzers", "Settings", "Credential report", "Organization activity", and "Service control policies (SCPs)". The main content area is titled "User groups (Selected 1/3)" and shows a table with three rows:

Group name	Users	Permissions	Creation time
EC2-Admin	⚠ 0	Defined	10 minutes ago
EC2-Support	⚠ 0	Defined	10 minutes ago
S3-Support	⚠ 0	Defined	10 minutes ago

The "S3-Support" row is highlighted with a blue border. The top right of the main area has buttons for "Create group", "Delete", and "Info". The bottom right of the main area has navigation icons for back, forward, and search.

Choose the Permissions tab

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) and "Access reports" (Access analyzer, Archive rules, Analyzers, Settings). The main content area is titled "S3-Support" and shows the "Summary" of the user group. The "Permissions" tab is currently selected. Under "Permissions policies", there is one entry: "AmazonS3ReadOnlyAccess" (AWS managed, provides read-only access to all S3 buckets).

Policy name	Type	Description
AmazonS3ReadOnlyAccess	AWS managed	Provides read only access to all I

Page footer: https://us-east-1.console.aws.amazon.com/iamv2/home#groups/details/S3-Support?section=permissions

Choose the JSON tab

The screenshot shows the AWS IAM Management Console interface. The left sidebar navigation includes sections like Identity and Access Management (IAM), Policies, and Access reports. The main content area displays a policy named "AmazonS3ReadOnlyAccess". The "Summary" tab is selected, showing the Policy ARN (arn:aws:iam::aws:policy/AmazonS3ReadOnlyAccess) and a brief Description (Provides read only access to all buckets via the AWS Management Console). Below this, the "Permissions" tab is active, showing the JSON representation of the policy's permissions. The JSON code is as follows:

```
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}
```

The JSON tab is highlighted with a red box. At the bottom right of the JSON editor, there is a note "read-only" with a small info icon.

Policies > AmazonS3ReadOnlyAccess

Summary

Policy ARN arn:aws:iam::aws:policy/AmazonS3ReadOnlyAccess

Description Provides read only access to all buckets via the AWS Management Console.

Permissions Policy usage Policy versions Access Advisor

Policy summary {} JSON

```
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}
```

read-only ⓘ

AWS Account ID: [REDACTED]

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Choose the name of the S3-Support group

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' subsection. The main content area displays a summary of an existing user group named 'S3-Support'. The 'Summary' section includes details such as the user group name ('S3-Support'), creation time ('December 06, 2022, 07:53 (UTC+07:00)'), and ARN ('arn:aws:iam::123456789012:group/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 indicates that no users have been added to this group yet. At the bottom of the page, a footer bar contains links for 'Feedback', 'Language selection', '© 2022, Amazon Web Services, Inc. or its affiliates.', 'Privacy', 'Terms', and 'Cookie preferences'.



Task 2: Add users to groups

Add user-1 to the S3-Support group

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) and "Access reports" (Access analyzer, Archive rules, Analyzers, Settings, Credential report, Organization activity, Service control policies (SCPs)). The main content area is titled "Add users to S3-Support" and shows a list of "Other users in this account" (Selected 1/3). The list includes three users: user-1 (selected), user-2, and user-3. The "Add users" button is visible at the bottom right.

IAM > User groups > S3-Support > Add users

Add users to S3-Support Info

Other users in this account (Selected 1/3)

User name	Groups	Last activity	Creation time
<input checked="" type="checkbox"/> user-1	0	None	15 minutes ago
<input type="checkbox"/> user-2	0	None	15 minutes ago
<input type="checkbox"/> user-3	0	None	15 minutes ago

[Cancel](#) [Add users](#)

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

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User-1 has been added to the group

The screenshot shows the AWS IAM Management Console interface. The left sidebar is collapsed, and the main area displays the details of the 'S3-Support' user group. At the top, a green banner indicates that 'Users added to this group.' Below this, the 'Summary' section provides basic information about the group:

User group name	Creation time	ARN
S3-Support	December 06, 2022, 07:53 (UTC+07:00)	arn:aws:iam::123456789012:group/S3-Support

Below the summary, there are three tabs: 'Users' (selected), 'Permissions', and 'Access Advisor'. The 'Users' tab shows a list titled 'Users in this group (1)'. The list contains one item: 'user-1'. The list includes columns for 'User name', 'Groups', 'Last activity', and 'Creation time'. The 'user-1' entry shows the following details:

User name	Groups	Last activity	Creation time
user-1	1	None	15 minutes ago

At the top right of the 'Users' section, there are buttons for 'Remove users' and 'Add users'. The bottom of the page includes standard AWS footer links: Feedback, Looking for language selection? Find it in the new Unified Settings, © 2022, Amazon Web Services, Inc. or its affiliates., Privacy, Terms, and Cookie preferences.

Add user-2 to the EC2-Support group

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) and 'Access reports' (Access analyzer, Archive rules, Analyzers, Settings, Credential report, Organization activity, Service control policies (SCPs)). The main content area is titled 'Add users to EC2-Support' and shows a list of 'Other users in this account' (Selected 1/3). The list includes three users: 'user-1', 'user-2' (which is selected and highlighted with a blue border), and 'user-3'. The columns in the table are 'User name', 'Groups', 'Last activity', and 'Creation time'. At the bottom right of the list are 'Cancel' and 'Add users' buttons.

User name	Groups	Last activity	Creation time
user-1	1	None	20 minutes ago
<input checked="" type="checkbox"/> user-2	1	None	20 minutes ago
user-3	1	None	20 minutes ago

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Add user-2 to the EC2-Support group

The screenshot shows the AWS IAM Management Console interface. The left sidebar has 'User groups' selected under 'Access management'. The main content area displays the 'EC2-Support' user group details. At the top, a green banner says 'Users added to this group.' Below it, the 'Summary' section shows the group name 'EC2-Support', creation time 'December 06, 2022, 07:53 (UTC+07:00)', and ARN 'arn:aws:iam::123456789012:group/spl66/EC2-Support'. There are tabs for 'Users' (selected), 'Permissions', and 'Access Advisor'. The 'Users in this group (1)' section lists 'user-2' with a status of 'None' and '20 minutes ago'. Buttons for 'Add users' and 'Remove users' are visible.

Identity and Access Management (IAM)

IAM > User groups > EC2-Support

EC2-Support

Summary

User group name	Creation time	ARN
EC2-Support	December 06, 2022, 07:53 (UTC+07:00)	arn:aws:iam::123456789012:group/spl66/EC2-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-2	2	None	20 minutes ago

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Add user-3 to the EC2-Admin group

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) and "Access reports" (Access analyzer, Archive rules, Analyzers, Settings, Credential report, Organization activity, Service control policies (SCPs)). The main content area is titled "Add users to EC2-Admin" and shows a list of "Other users in this account" (Selected 1/3). The table has columns for User name, Groups, Last activity, and Creation time. Three users are listed: user-1, user-2, and user-3. User-3 is selected, indicated by a checked checkbox. At the bottom right of the table are "Cancel" and "Add users" buttons.

User name	Groups	Last activity	Creation time
user-1	1	None	18 minutes ago
user-2	1	None	18 minutes ago
user-3	0	None	18 minutes ago

Add users to EC2-Admin Info

Other users in this account (Selected 1/3)

Search

User name Groups Last activity Creation time

user-1 1 None 18 minutes ago

user-2 1 None 18 minutes ago

user-3 0 None 18 minutes ago

Add users

Feedback Looking for language selection? Find it in the new Unified Settings

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Add user-3 to the EC2-Admin group

The screenshot shows the AWS IAM Management Console with the URL us-east-1.console.aws.amazon.com/iamv2/home?region=us-east-1#/groups/details/EC2-Admin?section=users. The page displays the 'EC2-Admin' user group details under the 'User groups' section. A green banner at the top indicates that 'user-3' has been added to the group. The 'Summary' section shows the group name 'EC2-Admin', creation time 'December 06, 2022, 07:53 (UTC+07:00)', and ARN 'arn:aws:iam::123456789012:group/spl66/EC2-Admin'. Below the summary, there are tabs for 'Users', 'Permissions', and 'Access Advisor', with 'Users' selected. The 'Users in this group (1)' section lists 'user-3' with a status of 'None' and '19 minutes ago'. There are buttons for 'Add users' and 'Remove users'.

Identity and Access Management (IAM)

IAM > User groups > EC2-Admin

EC2-Admin

Summary

User group name EC2-Admin	Creation time December 06, 2022, 07:53 (UTC+07:00)	ARN arn:aws:iam::123456789012:group/spl66/EC2-Admin
------------------------------	---	--

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-3	1	None	19 minutes ago

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

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Each group should have a 1 in the Users

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) and "Access reports" (Access analyzer, Archive rules, Analyzers, Settings, Credential report, Organization activity, Service control policies (SCPs)). The main content area is titled "User groups" and displays a table of three groups:

Group name	Users	Permissions	Creation time
EC2-Admin	1	>Loading	21 minutes ago
EC2-Support	1	>Loading	21 minutes ago
S3-Support	1	>Loading	21 minutes ago

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



Task 3: Sign in and test users

In the navigation pane on the left, choose

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 Feedback. The main content area displays the IAM dashboard with sections for Security recommendations, IAM resources, What's new, and Tools. A tooltip indicates that the 'Sign-in URL Copied' message has been copied. The bottom of the page includes footer links for Feedback, Copyright notice, Privacy, Terms, and Cookie preferences.

IAM dashboard

Security recommendations 1

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.

IAM resources

User groups	Users	Roles	Policies	Identity providers
3	3	14	2	0

What's new

Updates for features in IAM

- AWS Lambda announces support for Attribute-Based Access Control (ABAC) in AWS GovCloud (US) Regions.. 2 weeks ago
- AWS IAM Identity Center now supports session management capabilities for AWS Command Line Interface (AWS CLI) and SDKs. 2 weeks ago
- Amazon ElastiCache simplifies password rotations with Secrets Manager. 3 weeks ago
- Amazon ElastiCache now supports IAM Authentication for Redis clusters. 3 weeks ago

AWS Account

Account ID: 127364036184
Account Alias: 127364036184 [Create](#)

Sign-in URL Copied IAM users in this account

<https://127364036184.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, and make calls to the Amazon S3 API using the credentials.

Additional information

Feedback Looking for language selection? Find it in the new Unified Settings

Organization activity

Service control policies (SCPs)

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Feedback Looking for language selection? Find it in the new Unified Settings

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In the navigation pane on the left, choose Dashboard

- ▶ Notice the Sign-in URL for IAM users in this account section at the top of the page. The sign-in URL looks similar to the following:

<https://123456789012signin.aws.amazon.com/console>

- ▶ In different experiments, the URL might be distinct:

<https://127364036184signin.aws.amazon.com/console>

- ▶ This link can be used to sign in to the AWS account that you are currently using.

Copy the sign-in link

<https://127364036184.signin.aws.amazon.com/console>

Open a private or incognito window in your browser

The screenshot shows a web browser window with the following details:

- Title Bar:** Amazon Web Services Sign-In
- Address Bar:** ap-northeast-1.signin.aws.amazon.com/oauth?client_id=arn%3Aaws%3Asignin%3A%3A%3Aconsole%2Fcanvas&code_challenge=wXYIHQji3AfAd0PX0seZ4p3o...
- Toolbar:** Incognito mode is selected.
- Tab Bar:** Getting Started, Imported From Fir..., Addons, New Tab, Network Research..., IEEE/ACM Internat..., Styles Archives -...
- Content Area:**
 - AWS Logo:** The classic orange arrow logo.
 - Form Fields:** Account ID (12 digits) or account alias (input: 127364036184), IAM user name (input: empty), Password (input: empty).
 - Checkboxes:** Remember this account (unchecked).
 - Buttons:** Sign in (blue button), Sign in using root user email, Forgot password?
- Right Sidebar:** An advertisement for AWS re:Invent featuring the text "What's New in Networking" and "Learn about the latest in global infrastructure and how to build, manage, and secure your networks." It also includes a "Explore the announcements" button.
- Bottom Navigation:** Language selection (English) and links to Terms of Use and Privacy Policy.

Sign in with credentials from the manual

The screenshot shows a web browser window with the AWS sign-in URL: ap-northeast-1.signin.aws.amazon.com. The page displays the AWS logo and a form for signing in as an IAM user. The fields filled in are:

- Account ID (12 digits) or account alias: 127364036184
- IAM user name: user-1
- Password: (redacted)

Below the form are links for "Sign in using root user email" and "Forgot password?". To the right of the sign-in form is a promotional banner for AWS re:Invent, featuring the text "AWS re:Invent" and "What's New in Networking". It describes learning about global infrastructure and network management. A button labeled "Explore the announcements" is visible at the bottom of the banner.

At the bottom of the page, there is a language selection dropdown set to "English" and a small link to "Terms of Use Privacy Policy © 1996-2022, Amazon Web Services, Inc. or its affiliates."

The URL bar at the bottom of the browser shows the full URL: https://aws.amazon.com/?awsmdl.product-category=networking&sc_icampaign...

Choose the Services menu, and choose S3

The screenshot shows the AWS S3 Management Console interface. At the top, there's a navigation bar with tabs for 'Getting Started', 'Imported From Fir...', 'Addons', 'New Tab', 'IEEE/ACM Internat...', and 'Styles Archives -...'. Below the navigation bar is a search bar with placeholder text '[Option+S]' and a 'View tutorial' button.

The main content area has a blue header bar with the text 'Replicate data within and between AWS Regions using Amazon S3 Replication.' and a 'View tutorial' button. Below this, the breadcrumb navigation shows 'Amazon S3 > Buckets'.

A section titled 'Account snapshot' is displayed, with a sub-section 'Storage lens provides visibility into storage usage and activity trends.' and a 'View Storage Lens dashboard' button.

The central part of the screen shows a table titled 'Buckets (1) Info'. The table has columns for 'Name', 'AWS Region', 'Access', and 'Creation date'. One bucket is listed:

Name	AWS Region	Access	Creation date
c35460a483687l3246849t1w127364036184-s3bucket-1llarr85oen	US East (N. Virginia) us-east-1	Objects can be public	December 6, 2022, 07:53

On the left side, there's a sidebar with several sections: 'Buckets' (selected), 'Access Points', 'Object Lambda Access Points', 'Multi-Region Access Points', 'Batch Operations', 'Access analyzer for S3', 'Block Public Access settings for this account', 'Storage Lens' (with 'Dashboards' and 'AWS Organizations settings'), 'Feature spotlight' (with a '3' badge), and 'AWS Marketplace for S3'.

At the bottom of the page, there are links for 'Feedback', 'Language selection', '© 2022, Amazon Web Services, Inc. or its affiliates.', 'Privacy', 'Terms', and 'Cookie preferences'.

c35460a483687l3246849t1w127364036184-s3bucket-1lllaarr85oen?region=us-east-1&tab=objects

Getting Started Imported From Fir... Addons New Tab Network Research... IEEE/ACM Internat... Styles Archives -...

aws Services Search [Option+S] View tutorial X ⓘ

Amazon S3

Replicate data within and between AWS Regions using Amazon S3 Replication.

Amazon S3 > Buckets > c35460a483687l3246849t1w127364036184-s3bucket-1lllaarr85oen

c35460a483687l3246849t1w127364036184-s3bucket-1lllaarr85oen [Info](#)

Objects Properties Permissions Metrics Management Access Points

Objects (0)

Objects are the fundamental entities stored in Amazon S3. You can use [Amazon S3 inventory](#) to get a list of all objects in your bucket. For others to access your objects, you'll need to explicitly grant them permissions. [Learn more](#)

[Upload](#)

[Find objects by prefix](#)

Name	Type	Last modified	Size	Storage class
No objects				
You don't have any objects in this bucket.				
Upload				

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

© 2022, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences

Choose the Services menu, and choose EC2

The screenshot shows the AWS EC2 Management Dashboard. On the left, a sidebar lists navigation options: New EC2 Experience (selected), EC2 Dashboard, Instances (with sub-options like Instances, Instance Types, Launch Templates, Spot Requests, Savings Plans, Reserved Instances, Dedicated Hosts, Capacity Reservations), Images (AMIs, AMI Catalog), and Elastic Block Store (Volumes, Snapshots). The main content area has three main sections: Resources, Account attributes, and Service health.

Resources: Displays Amazon EC2 resources in the Asia Pacific (Tokyo) Region. It includes buttons for Instances (running), Dedicated Hosts, Elastic IPs, Instances, Key pairs, Load balancers, Placement groups, Security groups, and Snapshots. A callout box suggests using the AWS Launch Wizard for Microsoft SQL Server Always On availability groups.

Account attributes: Shows supported platforms (An error occurred for both AWS Lambda and AWS Lambda@Edge) and other settings like EBS encryption, Zones, EC2 Serial Console, Default credit specification, and Console experiments.

Service health: Shows the status of the service as operating normally. It also mentions Amazon GuardDuty Malware Protection.

At the bottom, there are links for Feedback, a language selection note, copyright information (© 2022, Amazon Web Services, Inc. or its affiliates.), and links for Privacy, Terms, and Cookie preferences.

In the left navigation pane, choose Instances

The screenshot shows the AWS EC2 Management console interface. The top navigation bar includes tabs for 'Instances | EC2 Management' and '+'. The address bar displays the URL: 'ap-northeast-1.console.aws.amazon.com/ec2/home?region=ap-northeast-1#Instances:'. Below the address bar is a toolbar with icons for 'Getting Started', 'Imported From Fir...', 'Addons', 'New Tab', 'Network Research...', 'IEEE/ACM Internat...', and 'Styles Archives -...'. The AWS logo and 'Services' button are on the left, followed by a search bar with placeholder '[Option+S]'.

The main content area has a header 'Instances Info' with buttons for 'Create' (disabled), 'Connect', 'Instance state', 'Actions', and 'Launch instances'. A search bar below the header contains the placeholder 'Find instance by attribute or tag (case-sensitive)'. The main table has columns for 'Name', 'Instance ID', 'Instance state', 'Instance type', 'Status check', 'Alarm status', and 'Availability Zone'. A message at the bottom of the table says 'You are not authorized to perform this operation.' Below the table is a modal window titled 'Select an instance' with a close button.

The left navigation pane is expanded, showing categories like 'Instances', 'Images', and 'Elastic Block Store'. Under 'Instances', the 'Instances' link is highlighted in orange. Other items in this category include 'Instance Types', 'Launch Templates', 'Spot Requests', 'Savings Plans', 'Reserved Instances', 'Dedicated Hosts', and 'Capacity Reservations'. Under 'Images', there are links for 'AMIs' and 'AMI Catalog'. Under 'Elastic Block Store', there are links for 'Volumes' and 'Snapshots'.

At the bottom of the page, there is a footer with links for 'Feedback', 'Language selection', '© 2022, Amazon Web Services, Inc. or its affiliates.', 'Privacy', 'Terms', and 'Cookie preferences'.

In the left navigation pane, choose Instances

- ▶ You cannot see any instances. Instead, an error message says you are not authorized to perform this operation. This user has not been assigned any permissions to use Amazon EC2.
- ▶ You will now sign in as user-2, who has been hired as your Amazon EC2 support person.

Sign out user-1 from the console

The screenshot shows the AWS EC2 Management console interface. The top navigation bar includes links for Getting Started, Imported From Fir..., Addons, New Tab, Network Research..., IEEE/ACM Internat..., Styles Archives..., and a user profile for user-1 @ 1273-6403-6184. The main content area displays the 'Instances' page with a search bar and a table header for Name, Instance ID, Instance state, Instance type, and Status check. A message states, "You are not authorized to perform this operation." On the left, a sidebar lists categories like EC2 Dashboard, Global View, Events, Tags, Limits, Instances (with 'Instances' selected), Images, and Elastic Block Store. On the right, a sidebar shows account details (Account ID: 1273-6403-6184, IAM user: user-1) and links for Account, Organization, Service Quotas, Billing Dashboard, Security credentials, and Settings. At the bottom right are 'Switch role' and 'Sign out' buttons. The footer contains links for Privacy, Terms, and Cookie preferences.

Instances | EC2 Management

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

Getting Started Imported From Fir... Addons New Tab Network Research... IEEE/ACM Internat... Styles Archives...

AWS Services Search [Option+S]

New EC2 Experience Tell us what you think

EC2 Dashboard

EC2 Global View

Events

Tags

Limits

Instances

Instances New

Instance Types

Launch Templates

Spot Requests

Savings Plans

Reserved Instances New

Dedicated Hosts

Capacity Reservations

Images

AMIs

AMI Catalog

Elastic Block Store

Volumes

Snapshots

Instances Info

Find instance by attribute or tag (case-sensitive)

Name Instance ID Instance state Instance type Status check

You are not authorized to perform this operation.

Select an instance

Switch role Sign out

Account ID: 1273-6403-6184

IAM user: user-1

Account

Organization

Service Quotas

Billing Dashboard

Security credentials

Settings

https://ap-northeast-1.console.aws.amazon.com/ec2/logout!doLogout | Settings

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Test user-2 permissions

Amazon Web Services Sign-In

← → C ap-northeast-1.signin.aws.amazon.com/oauth?client_id=arn%3Aaws%3Asignin%3A%3A%3Aconsole%2Fcanvas&code_challenge=4n57_REGA0HBe-G27RKUjraE... ☆ Incognito

Getting Started Imported From Fir... Addons New Tab Network Research... IEEE IEEE/ACM Internat... Styles Archives -...

aws

Sign in as IAM user

Account ID (12 digits) or account alias
127364036184

IAM user name
user-2

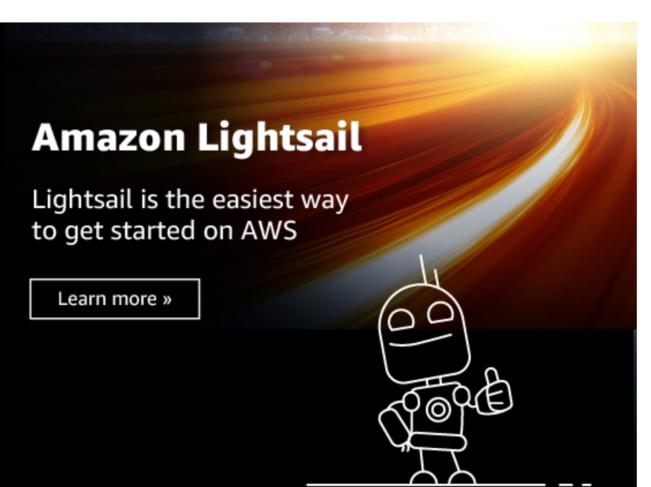
Password
.....

Remember this account

Sign in

Sign in using root user email

Forgot password?



Amazon Lightsail

Lightsail is the easiest way to get started on AWS

Learn more »

A cartoon robot character giving a thumbs up.

English ▾

You are able to see an EC2 instance

The screenshot shows the AWS EC2 Management Dashboard. On the left, a sidebar menu includes options like New EC2 Experience, EC2 Dashboard, Instances, Images, and Elastic Block Store. The main content area displays a summary of resources: 1 running instance, 0 dedicated hosts, 0 elastic IPs, 1 instance, 1 key pair, 0 load balancers, 0 placement groups, 3 security groups, 0 snapshots, and 1 volume. A callout box suggests using the AWS Launch Wizard for Microsoft SQL Server. Below this, there's a 'Launch instance' button and a note about launching instances in the US East (N. Virginia) Region. To the right, the 'Service health' section shows the US East (N. Virginia) region is operating normally. The dashboard also features sections for Account attributes, Explore AWS, and various AWS services.

Dashboard | EC2 Management

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

Getting Started Imported From Fir... Addons New Tab Network Research... IEEE/ACM Internat... Styles Archives -...

aws Services Search [Option+S]

New EC2 Experience Tell us what you think

EC2 Dashboard

- EC2 Global View
- Events
- Tags
- Limits

Instances

- Instances [New](#)
- Instance Types
- Launch Templates
- Spot Requests
- Savings Plans
- Reserved Instances [New](#)
- Dedicated Hosts
- Scheduled Instances
- Capacity Reservations

Images

- AMIs
- AMI Catalog

Elastic Block Store

- Volumes

Resources

You are using the following Amazon EC2 resources in the US East (N. Virginia) Region:

Instances (running)	1	Dedicated Hosts	0	Elastic IPs	0
Instances	1	Key pairs	1	Load balancers	0
Placement groups	0	Security groups	3	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](#)

Launch instance

To get started, launch an Amazon EC2 instance, which is a virtual server in the cloud.

Launch instance ▾

Migrate a server

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

EC2 Global view C G

Account attributes

Supported platforms

- VPC

Default VPC

vpc-0b5542ff8f8a17baa

Settings

EBS encryption

Zones

EC2 Serial Console

Default credit specification

Console experiments

Explore AWS

10 Things You Can Do Today to Reduce AWS Costs

Explore how to effectively manage your AWS costs without compromising on performance or capacity. [Learn more](#)

Save up to 90% on EC2 with Spot Instances

Optimize price-performance by combining EC2 purchase options in a single EC2 ASG. [Learn more](#)

Feedback Looking for language selection? Find it in the new Unified Settings

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You cannot make any changes because you have read-only permissions

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

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

The main content area displays the following information:

Instances (1/1) Info

Find instance by attribute or tag (case-sensitive)

Instance state = running

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Pub...
-	i-04ac7a10f998f307d	Running	t2.micro	2/2 checks passed	No alarms	us-east-1a	ec2...

Instance: i-04ac7a10f998f307d

Details Security Networking Storage Status checks Monitoring Tags

Instance summary Info

Instance ID i-04ac7a10f998f307d	Public IPv4 address 44.200.39.121 open address	Private IPv4 addresses 10.1.11.197
IPv6 address -	Instance state Running	Public IPv4 DNS ec2-44-200-39-121.compute-1.amazonaws.com open address
Hostname type IP name: ip-10-1-11-197.ec2.internal	Private IP DNS name (IPv4 only) ip-10-1-11-197.ec2.internal	Elastic IP addresses
Answer private resource DNS name	Instance type	

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

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Choose the Instance state menu, and then choose Stop instance

The screenshot shows the AWS EC2 Management console with the URL us-east-1.console.aws.amazon.com/ec2/home?region=us-east-1#Instances:instanceState=running. The main pane displays a single instance (i-04ac7a10f998f307d) in the 'Running' state. A context menu is open over this instance, specifically under the 'Actions' dropdown, highlighting the 'Stop instance' option. The left sidebar shows navigation links for EC2 Dashboard, Global View, Events, Tags, Limits, Instances (with 'Instances' selected), Instance Types, Launch Templates, Spot Requests, Savings Plans, Reserved Instances, Dedicated Hosts, Scheduled Instances, Capacity Reservations, Images, AMIs, and AMI Catalog. The bottom navigation bar includes Feedback, language selection, copyright information (© 2022, Amazon Web Services, Inc. or its affiliates.), and links for Privacy, Terms, and Cookie preferences.

Choose Stop to confirm

The screenshot shows the AWS EC2 Management console with the URL us-east-1.console.aws.amazon.com/ec2/home?region=us-east-1#Instances:instanceState=running. The main pane displays a single running instance (i-04ac7a10f998f307d) with details like Name, Instance ID, State, Type, Status check, Alarm status, and Availability Zone. A modal dialog titled "Stop instance?" is overlaid on the page, prompting the user to confirm the action. The dialog contains the instance ID (i-04ac7a10f998f307d), a confirmation message, and "Cancel" and "Stop" buttons. The "Stop" button is highlighted with a red border.

Instances (1/1) Info

Find instance by attribute or tag (case-sensitive)

Instance state = running

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Publ
-	i-04ac7a10f998f307d	Running	t2.micro	2/2 checks passed	No alarms	us-east-1a	ec2...

Stop instance?

Instance IDs
i-04ac7a10f998f307d

To confirm that you want to stop the instance, choose the **Stop** button below.

Cancel **Stop**

Instance: i-04ac7a10f998f307d

Details **Security** **Networking**

Instance summary Info

Instance ID i-04ac7a10f998f307d	Public IPv4 address 44.200.39.121 open address	Private IPv4 addresses 10.1.11.197
IPv6 address -	Instance state Running	Public IPv4 DNS ec2-44-200-39-121.compute-1.amazonaws.com open address
Hostname type IP name: ip-10-1-11-197.ec2.internal	Private IP DNS name (IPv4 only) ip-10-1-11-197.ec2.internal	Elastic IP addresses
Answer private resource DNS name	Instance type	

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

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An error message appears and says that You are not authorized to perform this operation

The screenshot shows the AWS EC2 Management console with a red error overlay. The error message reads: "Failed to stop the instance i-04ac7a10f998f307d. You are not authorized to perform this operation. Encoded authorization failure message: [long hex string]". Below the error, the main EC2 dashboard is visible, showing one instance (i-04ac7a10f998f307d) in the "Instances" section. The instance details page is open, showing the instance summary, security group, networking, storage, status checks, monitoring, and tags. The instance is listed as "Running" with a public IP of 44.200.39.121 and a private IP of 10.1.11.197.

Instances | EC2 Management + ↻

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

Getting Started Imported From Fir... Addons New Tab Network Research... IEEE/ACM Internat... Styles Archives -...

New EC2 Experience Tell us what you think

EC2 Dashboard EC2 Global View Events Tags Limits Instances Instances (1/1) Info Find instance by attribute or tag (case-sensitive)

Launch templates Actions Launch instances

Instance: i-04ac7a10f998f307d

Details Security Networking Storage Status checks Monitoring Tags

Instance summary

Instance ID	Public IPv4 address	Private IPv4 addresses
i-04ac7a10f998f307d	44.200.39.121 open address	10.1.11.197

IPv6 address

Hostname type

IP name: ip-10-1-11-197.ec2.internal

Private IP DNS name (IPv4 only)

ip-10-1-11-197.ec2.internal

Instance type

Elastic IP addresses

Feedback Looking for language selection? Find it in the new Unified Settings ⓘ

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Choose the Services menu, and choose S3

The screenshot shows the AWS S3 Management Console interface. At the top, there's a navigation bar with tabs for 'Services' (selected), 'Search', and a search bar. Below the navigation is a sidebar titled 'Amazon S3' containing sections for 'Buckets', 'Access Points', 'Object Lambda Access Points', 'Multi-Region Access Points', 'Batch Operations', 'Access analyzer for S3', 'Block Public Access settings for this account', 'Storage Lens' (with 'Dashboards' and 'AWS Organizations settings' sub-options), 'Feature spotlight' (with a '3' badge), and 'AWS Marketplace for S3'. The main content area is titled 'Amazon S3 > Buckets' and features an 'Account snapshot' section with a 'View Storage Lens dashboard' button. Below this is a 'Buckets' table with columns for Name, AWS Region, Access, and Creation date. The table displays the message 'No buckets' and includes a 'Create bucket' button. At the bottom of the page, there are links for 'Feedback', 'Language selection', 'Copyright notice', 'Privacy', 'Terms', and 'Cookie preferences'.

Test user-3 permissions

The screenshot shows the AWS EC2 Management Dashboard for the US East (N. Virginia) Region. The user is identified as "user-3 @ 1273-6403-6184".

Resources

You are using the following Amazon EC2 resources in the US East (N. Virginia) Region:

Instances (running)	1	Dedicated Hosts	0	Elastic IPs	0
Instances	1	Key pairs	1	Load balancers	0 API Error
Placement groups	0	Security groups	3	Snapshots	0
Volumes	1				

Account attributes

- Supported platforms
- VPC
- Default VPC
- vpc-0b5542ff8f8a17baa
- Settings
- EBS encryption
- Zones
- EC2 Serial Console
- Default credit specification
- Console experiments

Launch instance

To get started, launch an Amazon EC2 instance, which is a virtual server in the cloud.

Service health

AWS Health Dashboard

Region: US East (N. Virginia)
Status: This service is operating normally

Explore AWS

Enable Best Price-Performance with AWS Graviton2

AWS Graviton2 powered EC2 instances enable up to 40% better price performance for a broad spectrum of cloud workloads. Learn more

Amazon GuardDuty Malware Protection

GuardDuty now provides agentless malware detection in Amazon EC2 & EC2 container

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

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An EC2 instance is listed

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

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

The main content area displays the following information:

Instances (1/1) Info

Find instance by attribute or tag (case-sensitive)

Instance state = running

Clear filters

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Pub...
-	i-04ac7a10f998f307d	Running	t2.micro	2/2 checks passed	User: arn:aws:i...	us-east-1a	ec2...

Instance: i-04ac7a10f998f307d

Details Security Networking Storage Status checks Monitoring Tags

Instance summary

Instance ID i-04ac7a10f998f307d	Public IPv4 address 44.200.39.121 open address	Private IPv4 addresses 10.1.11.197
IPv6 address -	Instance state Running	Public IPv4 DNS ec2-44-200-39-121.compute-1.amazonaws.com open address
Hostname type IP name: ip-10-1-11-197.ec2.internal	Private IP DNS name (IPv4 only) ip-10-1-11-197.ec2.internal	Elastic IP addresses
Answer private resource DNS name	Instance type	

Waiting for us-east-1.console.aws.amazon.com...

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As an Amazon EC2 Administrator, you have permissions to Stop the EC2 instance

The screenshot shows the AWS EC2 Management console interface. On the left, there's a sidebar with navigation links like EC2 Dashboard, EC2 Global View, Events, Tags, Limits, Instances (with sub-links for Instances, Instance Types, Launch Templates, Spot Requests, Savings Plans, Reserved Instances, Dedicated Hosts, Scheduled Instances, Capacity Reservations), Images (AMIs, AMI Catalog), and Elastic Block Store (Volumes). The main content area shows a table of instances with one row selected: "i-04ac7a10f998f307d" (Name), "Running" (Instance state), and "t2.micro" (Instance type). A context menu is open over this instance, with "Stop instance" highlighted. Other options in the menu include Start instance, Reboot instance, Hibernate instance, and Terminate instance. Below the table, a detailed view for the selected instance (i-04ac7a10f998f307d) is shown with tabs for Details, Security, Networking, Storage, Status checks, Monitoring, and Tags. The Details tab is active, displaying information such as Public IPv4 address (44.200.39.121), Instance state (Running), Private IP DNS name (ip-10-1-11-197.ec2.internal), and Instance type (t2.micro). The bottom of the screen includes a footer with links for Feedback, Language selection, Copyright (© 2022, Amazon Web Services, Inc. or its affiliates.), Privacy, Terms, and Cookie preferences.

In this lab, you should choose the Region: N. Virginia

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

- EC2 Dashboard
- EC2 Global View
- Events
- Tags
- Limits
- Instances**
 - Instances** New
 - Instance Types
 - Launch Templates
 - Spot Requests
 - Savings Plans
 - Reserved Instances New
 - Dedicated Hosts
 - Scheduled Instances
 - Capacity Reservations
- Images**
 - AMIs
 - AMI Catalog
- Elastic Block Store**
 - Volumes

The main content area displays a list of instances with one instance selected:

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Publ
-	i-04ac7a10f998f307d	Running	t2.micro	2/2 checks passed	User: arn:aws:ec2:us-east-1:a	ec2-44-200-39-121. compute-1.amazonaws.com	ec2-44-200-39-121. compute-1.amazonaws.com

A modal dialog box titled "Stop instance?" is open over the instance details. It contains the following text and buttons:

Stop instance?

Instance IDs
i-04ac7a10f998f307d

To confirm that you want to stop the instance, choose the Stop button below.

Cancel **Stop**

At the bottom of the page, there are footer links: Feedback, Looking for language selection? Find it in the new Unified Settings, © 2022, Amazon Web Services, Inc. or its affiliates., Privacy, Terms, and Cookie preferences.

The action is successful because user-3 has permissions to stop EC2 instances

The screenshot shows the AWS EC2 Management console interface. The top navigation bar includes tabs for 'Instances | EC2 Management' and '+'. The URL is 'us-east-1.console.aws.amazon.com/ec2/home?region=us-east-1#Instances:instanceState=running'. The top right shows 'Incognito' mode and a user profile for 'user-3 @ 1273-6403-6184'. The left sidebar has sections for 'New EC2 Experience', 'EC2 Dashboard', 'EC2 Global View', 'Events', 'Tags', 'Limits', 'Instances' (selected), 'Images', and 'Elastic Block Store'. The main content area displays a green success message: 'Successfully stopped i-04ac7a10f998f307d'. Below this is a table titled 'Instances (1/1) Info' with one row for the stopped instance. The table columns include Name, Instance ID, Instance state, Instance type, Status check, Alarm status, Availability Zone, and Public IP. The instance details page for 'i-04ac7a10f998f307d' shows tabs for Details, Security, Networking, Storage, Status checks, Monitoring, and Tags. Under the Details tab, the 'Instance summary' section shows the instance ID (i-04ac7a10f998f307d), IPv4 and IPv6 addresses, instance state (Running), private IP DNS name, instance type (t2.micro), and elastic IP addresses.

Successfully stopped i-04ac7a10f998f307d

Instances (1/1) Info

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IP
-	i-04ac7a10f998f307d	Stopping	t2.micro	2/2 checks passed	User: arn:aws:iam::123456789012:root	us-east-1a	ec2-44-200-39-121.compute-1.amazonaws.com

Instance: i-04ac7a10f998f307d

Details Security Networking Storage Status checks Monitoring Tags

Instance summary

Instance ID i-04ac7a10f998f307d	Public IPv4 address 44.200.39.121 open address	Private IPv4 addresses 10.1.11.197
IPv6 address -	Instance state Running	Public IPv4 DNS ec2-44-200-39-121.compute-1.amazonaws.com open address
Hostname type IP name: ip-10-1-11-197.ec2.internal	Private IP DNS name (IPv4 only) ip-10-1-11-197.ec2.internal	Elastic IP addresses
Answer private resource DNS name	Instance type	

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

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Submitting your work

The screenshot shows a web browser window with the URL awseducate.instructure.com/courses/746/assignments/3110?module_item_id=13262. The page is titled "Lab 6 - Introduction to AWS Identity and Access Management (IAM)".

The left sidebar of the AWS Management Console includes:

- aws logo
- Account icon
- Dashboard icon
- Courses icon
- History icon
- Help icon

The main content area displays the assignment details:

- Assignment title: Lab 6 - Introduction to AWS Identity and Access Management (IAM)
- Due: No Due Date
- Points: 100
- Status: Submitting an external tool

Below the assignment details is a form with a dropdown menu set to "EN-US". To the right of the form are several buttons: "Submit", "Details", "AWS", "Start Lab", "End Lab", "0:04", "Instructions", "Grades", and "Actions".

The "Actions" section contains checkboxes for "Files", "README", "Terminal", and "Source".

The "Terminal" section shows a command-line session:

```
ddd_v1_w_lvu_1834270@runweb67415:~$  
ddd_v1_w_lvu_1834270@runweb67415:~$  
ddd_v1_w_lvu_1834270@runweb67415:~$  
  
Submission Report:  
  
[Executed at: Wed Dec 7 9:42:19 PST]  
  
Testing report - SUCCESS: user-1 wa  
Testing report - SUCCESS: user-2 wa  
Testing report - SUCCESS: user-3 wa  
  
gradefile = /mnt/data2/students/sub  
483687_1/tmp/temp_uf_l2072022/.XsEeNH  
reportFile =/mnt/data2/students/sub  
483687_1/tmp/temp_uf_l2072022/.zvW560  
/mnt/data2/students/sub2/ccc_v1_g_5  
/temp_uf_12072022/.XsEeNH  
Present working directory = /mnt/da  
/asn483686_8/asn483687_1/2296696/1/work  
  
Default region: us-east-1  
ddd_v1_w_lvu_1834270@runweb67415:~$  
ddd_v1_w_lvu_1834270@runweb67415:~$
```

The "Total score" is listed as 15/15. Below the score, three tasks are listed with their respective scores:

- [Task 2A] Check user-1 iam group 5/5
- [Task 2B] Check user-2 iam group 5/5
- [Task 2C] Check user-3 iam group 5/5

At the bottom of the page are navigation links: "◀ Previous" and "Next ▶".

THANK
YOU

