

Introduction to AWS IAM

CMIT 326 7387 Cloud Technologies

Task 1: Explore the Users and Groups

The screenshot displays the AWS IAM console interface. The top navigation bar includes the AWS logo, 'Services', a search bar, and the user's profile 'voclabs/user2267937=Tri_Ho @ 1213-5982-4155'. The left sidebar shows the 'Identity and Access Management (IAM)' menu with options like 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, and Service control policies (SCPs). A search bar for IAM is also present.

The main content area shows the 'Summary' page for 'user-1'. It includes a 'New feature' notification about generating a policy based on CloudTrail events. The 'Summary' section displays the User ARN (arn:aws:iam::121359824155:user/spl66/user-1), Path (/spl66/), and Creation time (2022-11-28 11:17 UTC+0100). Below this, there are tabs for Permissions, Groups, Tags (1), Security credentials, and Access Advisor. The 'Permissions' tab is active, showing 'Permissions policies' and a 'Get started with permissions' section with an 'Add permissions' button. A 'Permissions boundary (not set)' section is also visible. At the bottom, a red error message states: 'You need permissions. You do not have the permission required to perform this operation. Ask your administrator to add permissions. User: arn:aws:sts::121359824155:assumed-role/voclabs/user2267937=Tri_Ho is not authorized to perform: access-analyzer:ListPolicyGenerations on resource: arn:aws:access-analyzer:us-east-1:121359824155:*'.

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Identity and Access Management (IAM)

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Service control policies (SCPs)

Search IAM

AWS account ID:
121359824155

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

Delete user

User ARN

arn:aws:iam::121359824155:user/spl66/user-1

Path

/spl66/

Creation time

2022-11-28 11:17 UTC+0100

Permissions

Groups

Tags (1)

Security credentials

Access Advisor

Add user to groups

Group name	Attached permissions
No results	

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Search IAM

AWS account ID: 121359824155

Users > user-1

Summary

Delete user

Summary

User ARN: arn:aws:iam::121359824155:user/spl66/user-1

Path: /spl66/

Creation time: 2022-11-28 11:17 UTC+0100

PermissionsGroupsTags (1)Security credentialsAccess Advisor

Sign-in credentials

Summary

- Console sign-in link: <https://121359824155.signin.aws.amazon.com/console>

Console password: Enabled (never signed in) | Manage

Assigned MFA device: Not assigned | Manage

Signing certificates: None

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. If you lose or forget your secret key, you cannot retrieve it. Instead, create a new access key and make the old key inactive. [Learn more](#)

Create access key

Access key ID	Created	Last used	Status	
AKIARYQM36UNTB3YO24A	2022-11-28 11:17 UTC+0100	N/A	Active	Make inactive ✕

SSH keys for AWS CodeCommit

Use SSH public keys to authenticate access to AWS CodeCommit repositories. [Learn more](#)

Upload SSH public key

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Identity and Access Management (IAM)

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Related consoles

- IAM Identity Center New

Permissions policies (1) Info

You can attach up to 10 managed policies.

Filter policies by property or policy name and press enter.

Policy name

Type

Description

AmazonEC2ReadOnlyAccess

AWS managed

Provides read only acc

AmazonEC2ReadOnlyAccess

Provides read only access to Amazon EC2 via the AWS Management Console.

Copy

```
1 {
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*"
20      ],
21      "Resource": "*"
22    },
23    {
24      "Effect": "Allow",
25      "Action": "autoscaling:Describe*",
26      "Resource": "*"
27    }
28  ]
29 }
```

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Identity and Access Management (IAM)

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Related consoles

- IAM Identity Center New

Permissions policies (1) Info

You can attach up to 10 managed policies.

Filter policies by property or policy name and press enter.

Policy name

Type

Description

AmazonS3ReadOnlyAccess

AWS managed

Provides read only acc

AmazonS3ReadOnlyAccess

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

Copy

```
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 }
```

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The screenshot displays the AWS IAM console interface. The top navigation bar includes the AWS logo, a search bar, and the user profile 'voclabs/user2267937=Tri_Ho @ 1213-5982-4155'. The left sidebar is titled 'Identity and Access Management (IAM)' and contains a search bar and a navigation menu with 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 'Permissions policies (1)' and shows a list of policies. The 'EC2-Admin-Policy' is selected, displaying its JSON policy document in a code editor. The policy document grants actions 'ec2:Describe*', 'ec2:StartInstances', and 'ec2:StopInstances' on the resource '*' with an effect of 'Allow'. The bottom footer contains links for Feedback, language selection, Unified Settings, and copyright information for Amazon Web Services, Inc. (© 2022).

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Identity and Access Management (IAM)

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Related consoles

IAM Identity Center [New](#)

Users Permissions Access Advisor

Permissions policies (1) Info

You can attach up to 10 managed policies.

Simulate Remove

Add permissions

Filter policies by property or policy name and press enter.

Policy name Policy name Type Description

EC2-Admin-Policy Customer inline

Copy Edit

```
1 {
2   "Version": "2012-10-17",
3   "Statement": [
4     {
5       "Action": [
6         "ec2:Describe*",
7         "ec2:StartInstances",
8         "ec2:StopInstances"
9       ],
10      "Resource": [
11        "*"
12      ],
13      "Effect": "Allow"
14    }
15  ]
16 }
```

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Task 2: Add Users to Groups

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Related consoles

- IAM Identity Center

Users added to this group.

IAM > User groups > S3-Support

S3-Support

Summary

User group name

Creation time

ARN

S3-Support

November 28, 2022, 11:17 (UTC+01:00)

arn:aws:iam::121359824155: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.

Search

< 1 >

☐

User name

Groups

Last activity

Creation time

☐

user-1

1

None

26 minutes ago

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Related consoles

- IAM Identity Center

Users added to this group.

IAM > User groups > EC2-Support

EC2-Support

Summary

User group name

Creation time

ARN

EC2-Support

November 28, 2022, 11:17 (UTC+01:00)

arn:aws:iam::121359824155: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.

Search

< 1 >

☐

User name

Groups

Last activity

Creation time

☐

user-2

1

None

27 minutes ago

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Related consoles

- IAM Identity Center

Users added to this group.

IAM > User groups > EC2-Admin

EC2-Admin

Summary

User group name

Creation time

ARN

EC2-Admin

November 28, 2022, 11:17 (UTC+01:00)

arn:aws:iam::121359824155:group/spl6/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.

Search

< 1 >

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

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Related consoles

- IAM Identity Center

IAM > User groups

User groups (3) Info

A user group is a collection of IAM users. Use groups to specify permissions for a collection of users.

Filter User groups by property or group name and press enter

< 1 >

	Group name	Users	Permissions	Creation time
<input type="checkbox"/>	EC2-Admin	1 ..	Defined	28 minutes ago
<input type="checkbox"/>	EC2-Support	1 ..	Defined	28 minutes ago
<input type="checkbox"/>	S3-Support	1 ..	Defined	28 minutes ago

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Task 3: Sign-In and Test Users

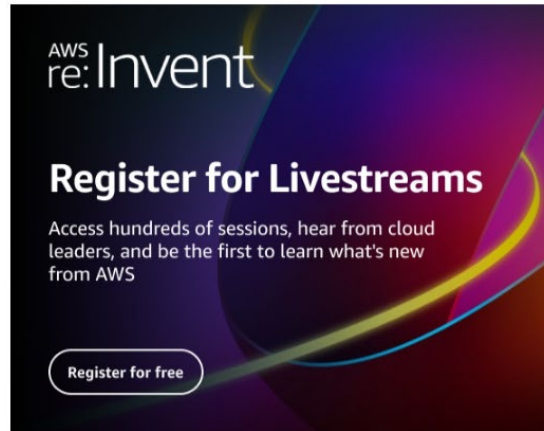


Sign in as IAM user

Account ID (12 digits) or account alias

IAM user name

Password

☐ Remember this account[Sign in using root user email](#)[Forgot password?](#)

English ▼

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Amazon S3

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

Dashboards

AWS Organizations settings

Feature spotlight

AWS Marketplace for S3

We're continuing to improve the S3 console to make it faster and easier to use. If you have feedback on the updated experience, choose [Provide feedback](#).

Follow security best practices for S3. [Learn more](#)

Amazon S3 > Buckets > samplebucket--d338d470

samplebucket--d338d470 [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](#)

Refresh

Copy S3 URI

Copy URL

Download

Open

Delete

Actions

Create folder

Upload

Find objects by prefix

< 1 >

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

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N. Virginia

user-2 @ 1213-5982-4155

New EC2 Experience

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EC2 Global View

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Instances

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Scheduled Instances

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AMIs

AMI Catalog

Elastic Block Store

Volumes

Snapshots

Lifecycle Manager

Network & Security

Security Groups

Elastic IPs

Failed to stop the instance i-0d53304ec34662164

You are not authorized to perform this operation. Encoded authorization failure message: xK7ffGfGuXNHxYO4ZfiISDUxbvliRuCr4kOjC6WWU-ADcJ3JbaXoJ87VutCI7R06cXzJnLJ_ctql3Z4uQ3fRcke0OpzAV6s2sm-Til_3b_8BgQ0284reXgedz-8LPEyfk1Q531cNsi17J3Omolf-SykSRicP845YkrbiX3R2yitUx1Xu4eS8Sfhha2xLUOioTgyhoacWmQFvbAdKF7_y0u4waqCDzLp6yD3NG3_4OmoKzqRHDwXBjFepCLYkHP6PcHHLx3B8pb2ormSLiY9MHvjWSCFpTKJ-Qo7L3ANXTOfnfooZRmhsWVenZ4jvy4kri2bQ1TrRJ3m7LbuEQBlq4Wx9Z5J6y-6OuUoZ5x_WDxitq_xioY8wVnnlpLJWBnxaKsfChPiayl9Vy42k17TgwEBKvGkeb25ysgJ5TLVffP0VZfXz2G7Q9riS57XG12nDJRyUg6gXd_YdSGc3DRDeaxOhKyTYb9ROs9vykHoEHrtT2sbX41sJzUsWlyXzbqAY5WQwsda1OJrwu6OYSExtuO0vsbqVbCOjWhehDpNXkAA9kBg6aeMIZL_a_f6LOXkHbCAOa6r8LGU4zT7Fna3NXcXB3ivSizRvKPybxBdilizZmZNRGKZRI1epam0alTnROI_bFMBkzVR9VJRtKV6mR_BoZQsGXXzEJM9JL7QeNll8oQbvcBonDjagYT6nYHX51n9MHPj6anQA9kEGAYZsCZm1nMegWFBUAwSXTeUotlgDvFlszEzhOcn672AEgICKZehmtGsfKWTJlLebv8J6jWgH5D5U7EPDUCsnoW1TZyB8WVAQsOurl.O5B56d-mmbxV9fMedc1M6iDmmcyu_EMWU5iO33gu9zFkG4vKa8fPBr5eIRAlfhpX6vas4dRrCkIs4uO3EWvTqmi7Wpw1z4v_lowP1MC4etDJzTQNjW5RXSYcuMc mwz9hn9fyEI7B9FPLWCLcO3p38y76tMdCoq6AxXZM2X4K_v7OagiWhU

Instances (1/2) Info

Find instance by attribute or tag (case-sensitive)

	Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availabil
<input type="checkbox"/>	Bastion Host	i-097ee71d1e2dbb6bf	Running	t2.micro	2/2 checks passed	No alarms	us-east-1
<input checked="" type="checkbox"/>	LabHost	i-0d53304ec34662164	Running	t2.micro	2/2 checks passed	No alarms	us-east-1

Instance: i-0d53304ec34662164 (LabHost)

Details

Security

Networking

Storage

Status checks

Monitoring

Tags

Instance summary Info

Instance ID

i-0d53304ec34662164 (LabHost)

Public IPv4 address

54.91.142.83 | open address

Private IPv4 addresses

10.1.11.249

IPv6 address

-

Instance state

Running

Public IPv4 DNS

ec2-54-91-142-83.compute-1.amazonaws.com | open address

Hostname type

Private IP DNS name (IPv4 only)

IP name: ip-10-1-11-249.ec2.internal

ip-10-1-11-249.ec2.internal

Answer private resource DNS name

Instance type

-

t2.micro

Elastic IP addresses

-

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EC2 Dashboard
EC2 Global View
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Instances **New**
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Successfully stopped i-0d53304ec34662164

Instances (1/2) Info Refresh Connect Instance state Actions Launch instances

Find instance by attribute or tag (case-sensitive)

	Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability
<input type="checkbox"/>	Bastion Host	i-097ee71d1e2dbb6bf	Running	t2.micro	2/2 checks passed	User: arn:aws:i	us-east-1
<input checked="" type="checkbox"/>	LabHost	i-0d53304ec34662164	Running	t2.micro	2/2 checks passed	User: arn:aws:i	us-east-1

Instance: i-0d53304ec34662164 (LabHost)

Details Security Networking Storage Status checks Monitoring Tags

▼ Instance summary Info

Instance ID i-0d53304ec34662164 (LabHost)	Public IPv4 address 54.91.142.83 open address	Private IPv4 addresses 10.1.11.249
IPv6 address -	Instance state Running	Public IPv4 DNS ec2-54-91-142-83.compute-1.amazonaws.com open address
Hostname type IP name: ip-10-1-11-249.ec2.internal	Private IP DNS name (IPv4 only) ip-10-1-11-249.ec2.internal	Elastic IP addresses -
Answer private resource DNS name -	Instance type t2.micro	AWS Compute Optimizer finding User: arn:aws:iam::121359824155:user/spl66/user-3 is not authorized to perform: compute-optimizer:GetEnrollmentStatus on resource: * because no identity-based policy allows the compute-optimizer:GetEnrollmentStatus action Retry
Auto-assigned IP address 54.91.142.83 [Public IP]	VPC ID vpc-03a2fb8328967689e (Lab VPC) open address	Auto Scaling Group name
IAM Role	Subnet ID subnet-02d683a6510242309 (Public Subnet)	

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Successfully stopped i-0d53304ec34662164

Instances (2) Info

Find instance by attribute or tag (case-sensitive)

<input type="checkbox"/>	Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability
<input type="checkbox"/>	Bastion Host	i-097ee71d1e2dbb6bf	Running	t2.micro	2/2 checks passed	User: arm:aws:i	us-east-1
<input type="checkbox"/>	LabHost	i-0d53304ec34662164	Stopped	t2.micro	-	User: arm:aws:i	us-east-1

Select an instance

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Lab Complete