

Configure AWS Identity and Access Management (IAM) Service.

Task-1:

The screenshot shows two stacked screenshots of the AWS Billing and Cost Management console.

Top Screenshot (Overview Page):

- URL: us-east-1.console.aws.amazon.com/billing/home?region=us-east-1#/budgets/overview
- Message: "Your budget My Zero-Spend Budget has been created successfully. After creating a budget, it can take up to 24 hours to populate all of your spend data."
- Breadcrumbs: Billing and Cost Management > Budgets > Overview
- Section: Overview
- Table: Budgets (1)

Name	Status	Budget	Amount ...	Forecast...	Current vs. b...
My Zero-Spend Budget	OK	\$1.00	\$0.00		

Bottom Screenshot (Budget Details Page):

- URL: us-east-1.console.aws.amazon.com/billing/home?region=us-east-1#/budgets/details?name=My%20Zero-Spend%20Budget
- Message: "Your budget My Zero-Spend Budget has been created successfully. After creating a budget, it can take up to 24 hours to populate all of your spend data."
- Breadcrumbs: Billing and Cost Management > Budgets > Budget details
- Section: My Zero-Spend Budget
- Alerts: Info
- Budget health: Info

Current vs. budgeted	0.00%
Amount spent: \$0.00 of \$1.00	
Forecasted vs budgeted (MTD)	0.00%
Amount spent: - of \$1.00	

- Actions: Delete, Edit
- Alerts: Info
- Thresholds: OK
- Actions
- View all alerts

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us-east-1.console.aws.amazon.com/iam/home?region=eu-north-1#/users/create

User created successfully
You can view and download the user's password and email instructions for signing in to the AWS Management Console.

Step 1 Specify user details

Step 2 Set permissions

Step 3 Review and create

Step 4 Retrieve password

Retrieve password

You can view and download the user's password below or email users instructions for signing in to the AWS Management Console. This is the only time you can view and download this password.

Console sign-in details	
Console sign-in URL	https://905418234336.signin.aws.amazon.com/console
User name	sharvari
Console password	***** Show

Cancel Download .csv file Return to users list

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us-east-1.console.aws.amazon.com/iam/home?region=eu-north-1#/users/details/sharvari/add-permissions

SharvariGroup user group created.

Step 2 Review

Permissions options

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

User groups (1)

Group name	Users	Attached policies	Created
SharvariGroup	0	AdministratorAccess	2024-02-09 (Now)

There are no permissions selected.

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us-east-1.console.aws.amazon.com/iam/home?region=eu-north-1#/groups/details/SharvariGroup?section=users

Identity and Access Management (IAM)

Search IAM

Dashboard

Access management

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

Access reports

- Access Analyzer
- External access
- Unused access
- Analyzer settings
- Credential report
- Organization activity
- Service control policies (SCPs)

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SharvariGroup Info

1 user added to this group.

IAM > User groups > SharvariGroup

SharvariGroup Info

Summary

User group name: SharvariGroup Creation time: February 09, 2024, 14:38 (UTC+05:30) ARN: arn:aws:iam::905418234336:group/SharvariGroup

Users (1) 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
sharvari	1	None	9 minutes ago

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us-east-1.console.aws.amazon.com/iam/home?region=eu-north-1#/users/create

Identity and Access Management (IAM)

Services Search [Alt+S]

EmergencyAccessGroup user group created.

IAM > Users > Create user

Step 1 Specify user details

Step 2 Set permissions

Step 3 Review and create

Step 4 Retrieve password

Set permissions

Add user to an existing group or create a new one. Using groups is a best-practice way to manage user's permissions by job functions. [Learn more](#)

Permissions options

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

User groups (2)

Group name	Users	Attached policies	Created
EmergencyAccessGroup	0	AdministratorAccess, Administ...	2024-02-09 (Now)
SharvariGroup	1	AdministratorAccess	2024-02-09 (10 minutes ago)

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us-east-1.console.aws.amazon.com/iam/home?region=eu-north-1#/users/create

User created successfully
You can view and download the user's password and email instructions for signing in to the AWS Management Console.

IAM > Users > Create user

Step 1
Specify user details

Step 2
Set permissions

Step 3
Review and create

Step 4
Retrieve password

Retrieve password

You can view and download the user's password below or email users instructions for signing in to the AWS Management Console. This is the only time you can view and download this password.

Console sign-in details

Console sign-in URL: <https://905418234336.signin.aws.amazon.com/console>

User name: EmergencyAccess

Console password: ***** [Show](#)

Email sign-in instructions [Email sign-in instructions](#)

Cancel [Download .csv file](#) [Return to users list](#)

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us-east-1.console.aws.amazon.com/iam/home?region=eu-north-1#/users/details/EmergencyAccess?section=permissions

Identity and Access Management (IAM)

Search IAM

Dashboard

Access management

Users

Roles

Policies

Identity providers

Account settings

Access reports

Access Analyzer

External access

Unused access

Analyzer settings

Credential report

EmergencyAccess

Info Delete

Summary

ARN: arn:aws:iam::905418234336:user/EmergencyAccess	Console access: Enabled without MFA	Access key 1: Create access key
Created: February 09, 2024, 15:02 (UTC+05:30)	Last console sign-in: Never	

Permissions Groups (1) Tags Security credentials Access Advisor

Permissions policies (4)

Permissions are defined by policies attached to the user directly or through groups.

Filter by Type: All types

Policy name	Type	Attached via
Policy 1	Type 1	Attached via 1
Policy 2	Type 2	Attached via 2
Policy 3	Type 3	Attached via 3
Policy 4	Type 4	Attached via 4

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us-east-1.console.aws.amazon.com/iam/home?region=eu-north-1#/roles

aws Services Search [Alt+S]

Identity and Access Management (IAM)

Role SupportUserRole created.

IAM > Roles

Roles (5) Info

An IAM role is an identity you can create that has specific permissions with credentials that are valid for short durations. Roles can be assumed by entities that you trust.

Search

Role name Trusted entities Last activity

AWSServiceRoleForOrganizations	AWS Service: organizations (Service-Linked Role)	-
AWSServiceRoleForSSO	AWS Service: sso (Service-Linked Role)	45 minutes ago
AWSServiceRoleForSupport	AWS Service: support (Service-Linked Role)	-
AWSServiceRoleForTrustedAdvisor	AWS Service: trustedadvisor (Service-Linked Role)	-
SupportUserRole	Account: 905418234336	-

Roles Anywhere Info

Authenticate your non AWS workloads and securely provide access to AWS services.

Manage

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us-east-1.console.aws.amazon.com/iam/home?region=eu-north-1#/policies

aws Services Search [Alt+S]

Identity and Access Management (IAM)

Policy PowerUserExamplePolicy created.

IAM > Policies

Policies (1174) Info

A policy is an object in AWS that defines permissions.

Filter by Type

Search All types

Policy name Type Used as Description

AccessAnalyzerService...	AWS managed	None	Allow Access Analyzer to analyze reso...
AdministratorAccess	AWS managed - job function	Permissions policy (2)	Provides full access to AWS services an...
AdministratorAccess...	AWS managed	Permissions policy (1)	Grants account administrative permis...
AdministratorAccess...	AWS managed	Permissions policy (1)	Grants account administrative permis...
AlexaForBusinessDev...	AWS managed	None	Provide device setup access to AlexaFo...
AlexaForBusinessFull...	AWS managed	None	Grants full access to AlexaForBusiness ...
AlexaForBusinessGat...	AWS managed	None	Provide gateway execution access to A...
AlexaForBusinessLife...	AWS managed	None	Provide access to Lifesize AVS devices

Actions Delete Create policy

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Task 2: -

a)

The screenshot shows the AWS Billing and Cost Management console. On the left, a sidebar lists various services: Home, Getting Started, Billing and Payments, Cost Analysis, Cost Explorer, Cost Organization, and Cost Allocation Tags. The main content area displays a blue banner at the top stating "Introducing the new AWS account page experience" and "We've redesigned the AWS account page. Let us know what you think." Below this, a green banner says "Your IAM Access setting was updated successfully." A section titled "IAM user and role access to Billing information" is shown, with an "Edit" button. Further down, there's a section for "Reserved instance marketplace settings". At the bottom of the page, there's a footer with links for CloudShell, Feedback, and various system icons.

The screenshot shows the AWS IAM "Create user" wizard. Step 1, "Specify user details", has a success message: "User created successfully. You can view and download the user's password and email instructions for signing in to the AWS Management Console." Step 2, "Set permissions", is partially visible. Step 3, "Review and create", is also partially visible. Step 4, "Retrieve password", is the active step. It displays "Console sign-in details" including a "Console sign-in URL" (https://905418234336.siginin.aws.amazon.com/console), a "User name" (pcandella), and a "Console password" (represented by a series of asterisks). There are "Email sign-in instructions" and "Show" buttons. At the bottom, there are "Cancel", "Download .csv file", and "Return to users list" buttons. The footer includes CloudShell, Feedback, and system status icons.

The screenshot shows the 'Create user' process in the AWS IAM console. Step 4, 'Retrieve password', is selected. A green success message at the top states: 'User created successfully. You can view and download the user's password and email instructions for signing in to the AWS Management Console.' Below this, the 'Console sign-in details' section displays the generated credentials:

Console sign-in URL	Action
https://905418234336.signin.aws.amazon.com/console	Email sign-in instructions

User name: twhitlock
Console password: ***** [Show](#)

At the bottom are 'Cancel', 'Download .csv file', and 'Return to users list' buttons.

b)

The screenshot shows the 'Roles' page in the AWS IAM console. A green success message at the top states: 'Role TempBillingAccess created.' The 'Roles (8) Info' section lists the roles:

Role name	Trusted entities	Last activity
AWSServiceRoleForOrganizations	AWS Service: organizations (Service-Linked Role)	-
AWSServiceRoleForRDS	AWS Service: rds (Service-Linked Role)	57 minutes ago
AWSServiceRoleForSSO	AWS Service: sso (Service-Linked Role)	3 days ago
AWSServiceRoleForSupport	AWS Service: support (Service-Linked Role)	-
AWSServiceRoleForTrustedAdvisor	AWS Service: trustedadvisor (Service-Linked Role)	-
rds-monitoring-role	AWS Service: monitoring.rds	13 days ago
SupportUserRole	Account: 905418234336	-
TempBillingAccess	Account: 905418234336	-

At the bottom are 'View role', 'Delete', and 'Create role' buttons.

Screenshot of the AWS IAM Dashboard showing security recommendations.

Security recommendations

- Access denied**

You don't have permission to `iam:GetAccountSummary`. To request access, copy the following text and send it to your AWS administrator. [Learn more about troubleshooting access denied errors.](#)

User: arn:aws:iam::905418234336:user/pcandella
Service: iam
Action: GetAccountSummary
On resource(s): *

Copy
- Access denied**

You don't have permission to `iam>ListMFADevices`. To request access, copy the following text and send it to your AWS administrator. [Learn more about troubleshooting access denied errors.](#)

User: arn:aws:iam::905418234336:user/pcandella
Service: iam
Action: ListAccountAliases
On resource(s): *

AWS Account

- Access denied**

You don't have permission to `iam>ListAccountAliases`. To request access, copy the following text and send it to your AWS administrator. [Learn more about troubleshooting access denied errors.](#)

User: arn:aws:iam::905418234336:user/pcandella
Service: iam
Action: ListAccountAliases
On resource(s): *

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Screenshot of the AWS Billing and Cost Management Account page showing account settings.

Billing and Cost Management

Home [New](#)
Getting Started [New](#)

Billing and Payments

Bills
Payments
Credits
Purchase Orders

Cost Analysis

Cost Explorer [New](#)
Cost Explorer Saved Reports
Cost Anomaly Detection
Free Tier
Data Exports [New](#)

Account Info

Account settings

ⓘ You don't have the account:GetAccountInformation and billing:GetSellerOfRecord permission required to view your account settings. Ask your administrator to add these permissions. [Learn more](#)

Contact information [Info](#)

ⓘ You don't have the account:GetContactInformation permission required to view your account's contact information. Ask your administrator to add permission. [Learn more](#)

Alternate contacts

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Screenshot of the AWS Billing and Cost Management console showing Account Info.

Billing and Cost Management

Account Info

Account settings

Account ID 905418234336	Password *****
Account name assumed-role/TempBillingAccess/twhitlock	

Contact information

Info

? You don't have the account:GetContactInformation permission required to view your account's contact information.
Ask your administrator to add permission. [Learn more](#)

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Screenshot of the AWS Identity and Access Management (IAM) console showing Policies.

Identity and Access Management (IAM)

Policies

Policy read-write-app-bucket created.

Policies (1177) Info

A policy is an object in AWS that defines permissions.

Filter by Type

Policy name	Type	Used as	Description
AlexaForBusinessRead...	AWS managed	None	Provide read only access to AlexaForB...
AmazonAPIGatewayA...	AWS managed	None	Provides full access to create/edit/delete...
AmazonAPIGatewayIn...	AWS managed	None	Provides full access to invoke APIs in A...
AmazonAPIGatewayP...	AWS managed	None	Allows API Gateway to push logs to us...
AmazonAppFlowFullA...	AWS managed	None	Provides full access to Amazon AppFlo...
AmazonAppFlowRead...	AWS managed	None	Provides read only access to Amazon A...
AmazonAppStreamFu...	AWS managed	None	Provides full access to Amazon AppStr...
AmazonAppStreamPC...	AWS managed	None	Amazon AppStream 2.0 access to AWS...
AmazonAppStreamRe...	AWS managed	None	Provides read only access to Amazon A...
AmazonAppStreamSe...	AWS managed	None	Default policy for Amazon AppStream ...

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c)

The screenshot shows the AWS IAM Roles page. A green success message at the top states "Role role_sharvari created." The main section, titled "Roles (9) Info", lists three roles: "role_sharvari", "SupportUserRole", and "TempBillingAccess". The "role_sharvari" entry includes account information: Account: 905418234336 and Last activity: 22 minutes ago. Below this, there's a section titled "Roles Anywhere Info" with options for "Access AWS from your non AWS workloads" (X.509 Standard), "Use your own existing PKI infrastructure or", "Temporary credentials" (Use temporary credentials with ease and), and "Manage". The left sidebar shows navigation links for Identity and Access Management (IAM), including Access management (User groups, Users, Roles, Policies, Identity providers, Account settings) and Access reports (Access Analyzer, External access, Unused access, Analyzer settings). The bottom of the screen shows the Windows taskbar with various pinned icons.

The screenshot shows the AWS IAM Create User page. A green success message at the top states "User created successfully". The main section, titled "Step 4 Retrieve password", provides instructions for viewing or downloading the user's password. It includes a "Console sign-in details" section with a "Console sign-in URL" (https://905418234336.signin.aws.amazon.com/console), "User name" (PolicyUser), and "Console password" (*****). There are buttons for "Email sign-in instructions" and "Download .csv file". The left sidebar shows navigation links for IAM > Users > Create user, with steps: Step 1 Specify user details, Step 2 Set permissions, Step 3 Review and create, and Step 4 Retrieve password. The bottom of the screen shows the Windows taskbar with various pinned icons.

d)

The screenshot shows the AWS IAM Policies page. A green header bar at the top indicates that a new policy named "UsersReadOnlyAccessToIAMConsole" has been created. The main content area displays a table of policies, with the first few rows visible:

Policy name	Type	Used as	Description
AccessAnalyzerSer...	AWS managed	None	Allow Access Analyzer to analyze resource metadata
AdministratorAccess	AWS managed - job fun...	Permissions policy (2)	Provides full access to AWS services and resources.
AdministratorAcce...	AWS managed	Permissions policy (1)	Grants account administrative permissions while explicitly all...
AdministratorAcce...	AWS managed	Permissions policy (1)	Grants account administrative permissions. Explicitly allows d...
AlexaForBusinessD...	AWS managed	None	Provide device setup access to AlexaForBusiness services
AlexaForBusinessF...	AWS managed	None	Grants full access to AlexaForBusiness resources and access t...
AlexaForBusinessG...	AWS managed	None	Provide gateway execution access to AlexaForBusiness services

e)

The screenshot shows the AWS IAM Policies page. A green header bar at the top indicates that a policy has been attached to an entity named "PolicyUser". The main content area displays a table of policies, with the first few rows visible:

Policy name	Type	Used as	Description
AccessAnalyzerSer...	AWS managed	None	Allow Access Analyzer to analyze resou...
AdministratorAccess	AWS managed - job fun...	Permissions policy (2)	Provides full access to AWS services an...
AdministratorAcce...	AWS managed	Permissions policy (1)	Grants account administrative permisi...
AdministratorAcce...	AWS managed	Permissions policy (1)	Grants account administrative permisi...
AlexaForBusinessD...	AWS managed	None	Provide device setup access to AlexaFo...
AlexaForBusinessF...	AWS managed	None	Grants full access to AlexaForBusiness ...
AlexaForBusinessG...	AWS managed	None	Provide gateway execution access to A...