

## Task 1 – Enable MFA for the root user

The screenshot shows the AWS IAM Dashboard in the us-east-1 region. A blue banner at the top states: "New access analyzers available. Access Analyzer now analyzes internal access patterns to your critical resources within a single account or across your entire organization." Below this, the "IAM Dashboard" section displays "Security recommendations":

- Root user has MFA: Having multi-factor authentication (MFA) for the root user improves security for this account.
- Root user has no active access keys: Using access keys attached to an IAM user instead of the root user improves security.

The "IAM resources" section shows a summary of resources in the AWS Account:

User groups	Users	Roles	Policies	Identity providers
1	1	8	1	0

Other sections include "AWS Account" (Account ID: 865837236264, Account Alias, Sign-in URL), "Quick Links" (My security credentials), and "Tools". The left sidebar shows the navigation menu for Identity and Access Management (IAM).

## Task 2 – Create an admin group with an administrator policy

The screenshot shows the AWS IAM console page for the "admin" user group. The "Permissions" tab is selected, showing a table of attached policies:

Policy name	Type	Attached entities
<input type="checkbox"/> AdministratorAccess	AWS managed - job function	1

Buttons for "Simulate", "Remove", and "Add permissions" are visible. The left sidebar shows the navigation menu for Identity and Access Management (IAM).

## Create a user for that group

The screenshot shows the AWS IAM console in the 'us-east-1' region. The left sidebar displays the 'Identity and Access Management (IAM)' menu with options like Dashboard, Access management, and Access reports. The main content area shows the 'admin' user group details. The 'Summary' section includes the user group name 'admin', creation time 'March 24, 2025, 14:17 (UTC-05:00)', and ARN 'arn:aws:iam::865837236264:group/admin'. Below this, the 'Users' tab shows one user, 'nht-1', with a creation time of '3 months ago'.

admin Info [Delete](#) [Edit](#)

**Summary**

User group name: admin Creation time: March 24, 2025, 14:17 (UTC-05:00) ARN: arn:aws:iam::865837236264:group/admin

**Users** (1) [Permissions](#) [Access Advisor](#)

**Users in this group (1)** [Remove](#) [Add users](#)

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

<input type="checkbox"/>	User name	Groups	Last activity	Creation time
<input type="checkbox"/>	nht-1	1	17 minutes ago	3 months ago

## Task 3 – Set up a billing alarm

The screenshot shows the AWS CloudWatch console in the 'us-east-1' region. The left sidebar displays the 'CloudWatch' menu with options like Alarms, Logs, and Metrics. The main content area shows the 'Specify metric and conditions' step for creating a new alarm. The 'Metric' section includes a graph showing 'EstimatedCharges' over time, with a threshold line at 1. The 'Conditions' section shows the alarm configuration: Namespace 'AWS/Billing', Metric name 'EstimatedCharges', Currency 'USD', Statistic 'Maximum', and Period '6 hours'.

Create alarm | Alarms | CloudWatch

Step 1: Specify metric and conditions Step 2: Configure actions Step 3: Add alarm details Step 4: Preview and create

**Specify metric and conditions**

**Metric** [Edit](#)

Graph: This alarm will trigger when the blue line goes above the red line for 1 datapoints within 6 hours.

No unit: 1

0.5

0

06/26 06/27 06/28 06/29 06/30 07/01 07/02

EstimatedCharges

**Conditions**

Namespace: AWS/Billing

Metric name: EstimatedCharges

Currency: USD

Statistic: Maximum

Period: 6 hours

Create alarm | Alarms | CloudWatch

us-east-1.console.aws.amazon.com/cloudwatch/home?region=us-east-1#alarmsV2:create?~(Page~'Actions-AlarmType~'MetricAlarm-AlarmData~(Namespace~'AWS'2fBil...

Step 1 Specify metric and conditions

Step 2 **Configure actions**

Step 3 Add alarm details

Step 4 Preview and create

### Configure actions

**Notification**

**Alarm state trigger**  
Define the alarm state that will trigger this action.

☒ **In alarm**  
The metric or expression is outside of the defined threshold.

☐ **OK**  
The metric or expression is within the defined threshold.

☐ **Insufficient data**  
The alarm has just started or not enough data is available.

**Send a notification to the following SNS topic**  
Define the SNS (Simple Notification Service) topic that will receive the notification.

☒ **Select an existing SNS topic**

☐ Create new topic

☐ Use topic ARN to notify other accounts

**Send a notification to...**

CloudWatch\_Alarms\_Topic2

Only topics belonging to this account are listed here. All persons and applications subscribed to the selected topic will receive notifications.

**Email (endpoints)**  
venturousman@gmail.com - [View in SNS Console](#)

[Add notification](#)

CloudShell Feedback

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80°F Mostly cloudy

Search

10:10 PM 7/2/2025

Alarms | CloudWatch | us-east-1

us-east-1.console.aws.amazon.com/cloudwatch/home?region=us-east-1#alarmsV2~(Page~'MetricSelection-AlarmType~'MetricAlarm-AlarmData~(Metrics~(~)-AlarmN...

CloudWatch > Alarms

**CloudWatch**

Favorites and recents

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Alarms [1](#)

In alarm

All alarms

Billing

Logs

Metrics

Application Signals (APM) [New](#)

Network Monitoring

Insights

Settings

Telemetry config [New](#)

Getting Started

What's new

**Successfully created alarm alarm2.** [View alarm](#)

**Some subscriptions are pending confirmation**  
Amazon SNS doesn't send messages to an endpoint until the subscription is confirmed. [View SNS Subscriptions](#)

### Billing alarms (2)

☐ Hide Auto Scaling alarms

[Clear selection](#) [Create composite alarm](#) [Actions](#) [Create alarm](#)

Search Alarm state: Any Alarm type: Any Actions status: Any

<input type="checkbox"/>	Name	State	Last state update (Local)	Conditions	Actions
<input type="checkbox"/>	<a href="#">alarm2</a>	Insufficient data	2025-07-02 22:10:52	EstimatedCharges > 200 for 1 datapoints within 6 hours	<a href="#">Actions enabled</a> <a href="#">Warnin</a>
<input type="checkbox"/>	<a href="#">alarm1</a>	OK	2025-03-24 14:55:47	EstimatedCharges > 5 for 1 datapoints within 6 hours	<a href="#">Actions enabled</a>

CloudShell Feedback

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10:10 PM 7/2/2025