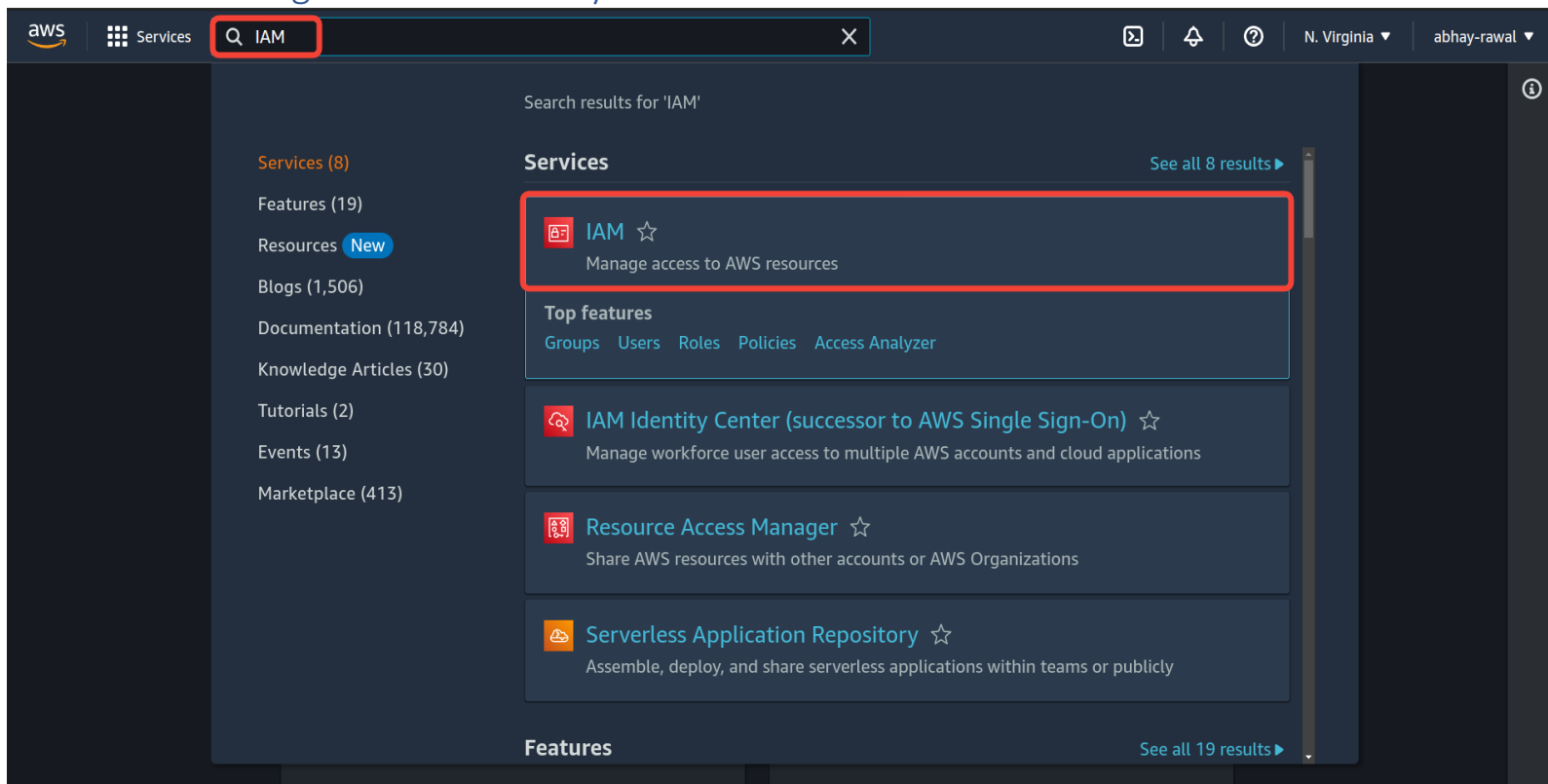


Assignment 2 - Setup your personal AWS account - Reference

You should follow the specs only. If you get stuck, try to figure it out yourself by putting some efforts and time and referring the official AWS docs.

Don't blindly follow these step by step screenshots. They are tend to outdated.

Creating an IAM user for yourself



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Service control policies (SCPs)

IAM > User groups

User groups (2) 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 >

Delete

Create group

<input type="checkbox"/>	Group name	Users	Permissions	Creation time
<input type="checkbox"/>	Admin	3	Defined	4 months ago
<input type="checkbox"/>	DevOps	2	Defined	24 hours ago

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Service control policies (SCPs)

IAM > User groups > Create user group

Create user group

Name the group

User group name

Enter a meaningful name to identify this group.

Administrator

Maximum 128 characters. Use alphanumeric and '+', '=', '@', '-', '_' characters.

Add users to the group - Optional (7) Info

An IAM user is an entity that you create in AWS to represent the person or application that uses it to interact with AWS. A user can belong to up to 10 groups.

Search

< 1 >

<input type="checkbox"/>	User name	Groups	Last activity	Creation time
<input type="checkbox"/>	abhay-admin1	1	18 days ago	4 months ago
<input type="checkbox"/>	abhay-admin2	1	None	4 months ago
<input type="checkbox"/>	abhay-cloud	1	24 hours ago	24 hours ago
<input type="checkbox"/>	abhay-devops	1	20 hours ago	24 hours ago

The screenshot shows the AWS IAM console interface. On the left is the navigation pane with sections for Identity and Access Management (IAM), Access management, and Access reports. The main content area is titled 'Attach permissions policies - Optional (Selected 1/816)'. It includes a search bar with 'AdministratorAccess' and a table of policies. The 'AdministratorAccess' policy is selected. At the bottom right, the 'Create group' button is highlighted.

	Policy name	Type	Description
<input checked="" type="checkbox"/>	AdministratorAccess	AWS managed - job function	Provides full access to AWS
<input type="checkbox"/>	AdministratorAccess-Amplify	AWS managed	Grants account administrative permissions
<input type="checkbox"/>	AdministratorAccess-AWSElasticBeanstalk	AWS managed	Grants account administrative permissions
<input type="checkbox"/>	AWSAuditManagerAdministratorAccess	AWS managed	Provides administrative permissions

Creating IAM users and adding to a group

1. Sign into the AWS Management Console and open the IAM console
2. In the navigation pane, choose **Users** and then select **Add users**.

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Organization activity

Service control policies (SCPs)

IAM > Users

Users (7) Info

An IAM user is an identity with long-term credentials that is used to interact with AWS in an account.

Find users by username or access key

< 1 >

User name

Groups

Last activity

MFA

Password age

Active key age

abhay-admin1

Admin

⌵

Virtual

⚠ 133 days ago

⌵

abhay-admin2

Admin

⌵

None

⚠ 133 days ago

⌵

abhay-cloud

Admin

⌵

None

✓ Yesterday

⌵

abhay-devops

DevOps

⌵

None

✓ 24 hours ago

⌵

abhay-devops1

DevOps

⌵

None

✓ 24 hours ago

⌵

abhay-iam-assume

None

⌵

None

✓ 18 days ago

⌵

TestAdmin

None

⌵

None

✓ 32 minutes ago

⌵

Cancel

Delete

Add users

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IAM > Users > Create user

Step 1

Specify user details

Step 2

Set permissions

Step 3

Review and create

Specify user details

User details

User name

AdminOne

The user name can have up to 64 characters. Valid characters: A-Z, a-z, 0-9, and + = , . @ _ - (hyphen)

☐

Provide user access to the AWS Management Console - *optional*

If you're providing console access to a person, it's a [best practice](#) to manage their access in IAM Identity Center.

ⓘ

If you are creating programmatic access through access keys or service-specific credentials for AWS CodeCommit or Amazon Keyspaces, you can generate them after you create this IAM user. [Learn more](#)

Cancel

Next

Note: If you are creating programmatic access through access keys or service-specific credentials for AWS CodeCommit or Amazon Keyspaces, you can generate them after you create this IAM user.

- a. Now we need to select if we want to Specify a user in Identity Center or Create an IAM user. **Choose "I want to create an IAM user"**.
 - After selecting **I want to create an IAM user**, you can choose one of the Password:
 - a. **Autogenerated password.** Each user gets a randomly generated password that meets the account password policy. You can view or download the passwords when you get to the **Final** page.
 - b. **Custom password.** Each user is assigned the password that you type in the box.
 - For this demo uncheck **Users must create a new password at next sign-in**.
 - Click Next

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Step 3

Review and create

Step 4

Retrieve password

User name

The user name can have up to 64 characters. Valid characters: A-Z, a-z, 0-9, and * . _ , @ _ - (hyphen)

☒ Provide user access to the AWS Management Console - optional

If you're providing console access to a person, it's a best practice [to](#) manage their access in IAM Identity Center.

Are you providing console access to a person?

☐ Specify a user in Identity Center - Recommended

We recommend that you use Identity Center to provide console access to a person. With Identity Center, you can centrally manage user access to their AWS accounts and cloud applications.

☒ I want to create an IAM user

We recommend that you create IAM users only if you need to enable programmatic access through access keys, service-specific credentials for AWS CodeCommit or Amazon Keyspaces, or a backup credential for emergency account access.

Console password

☐ Autogenerated password

You can view the password after you create the user.

☒ Custom password

Enter a custom password for the user.

• Must be at least 8 characters long

• Must include at least three of the following mix of character types: uppercase letters (A-Z), lowercase letters (a-z), numbers (0-9), and symbols ! @ # \$ % ^ & * () _ + - (hyphen) = [] { } ' " , . / ; : < > [bracket]

☐ Show password

☐ Users must create a new password at next sign-in (recommended).

Users automatically get the [IAMUserChangePassword](#) policy to allow them to change their own password.

• If you are creating programmatic access through access keys or service-specific credentials for AWS CodeCommit or Amazon Keyspaces, you can generate them after you create this IAM user. [Learn more](#)

Cancel

Next

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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 (1/3)

Group name

Users

Attached policies

Created

☐

Admin

3

AdministratorAccess

2022-10-19 (4 months ago)

☒

Administrator

0

AdministratorAccess

2023-03-01 (2 minutes ago)

☐

DevOps

2

None

2023-02-28 (Yesterday)

Permissions boundary - optional

Set a permissions boundary to control the maximum permissions for this user. Use this advanced feature used to delegate permission management to others. [Learn more](#)

Cancel

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IAM > Users > Create user

Step 1
Specify user details

Step 2
Set permissions

Step 3
Review and create

Step 4
Retrieve password

Review and create

Review your choices. After you create the user, you can view and download the autogenerated password, if enabled.

User details

User name
AdminOne

Console password type
Custom password

Require password reset
No

Permissions summary

1

Name	Type	Used as
Administrator	Group	Permissions group

Tags - optional

Tags are key-value pairs you can add to AWS resources to help identify, organize, or search for resources. Choose any tags you want to associate with this user.

No tags associated with the resource.

Add new tag

You can add up to 50 more tags.

Cancel

Previous

Create user

User created successfully

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

View user

[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

Email sign-in instructions

Console sign-in URL

https://abhay-root-aws.signin.aws.amazon.com/console

User name

AdminOne

Console password

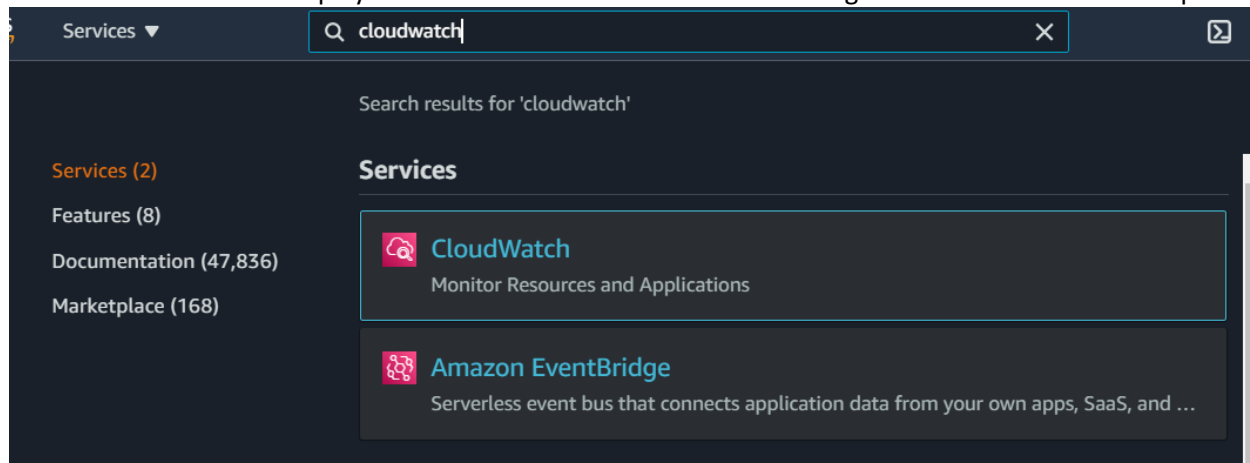
***** Show

Download .csv file

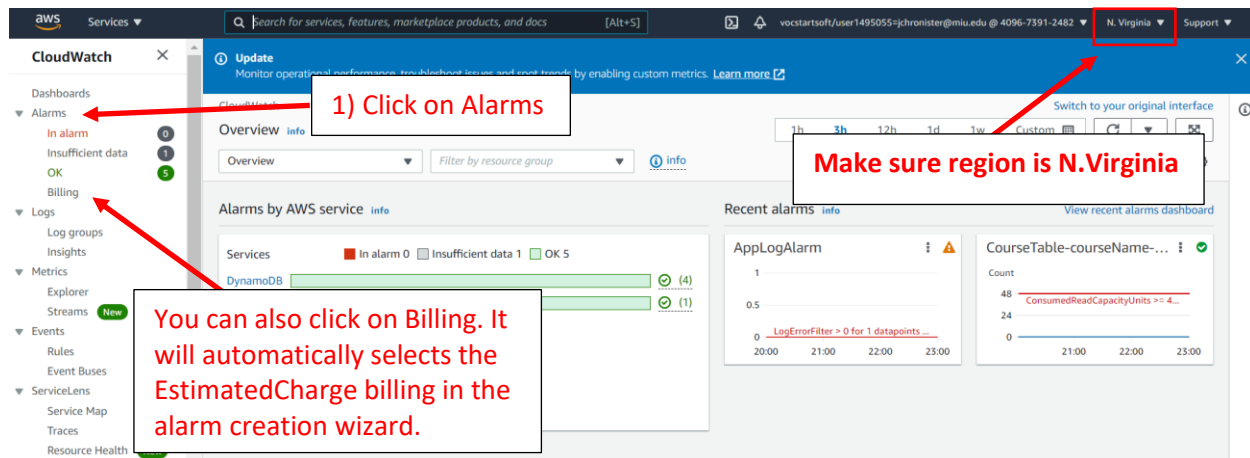
Return to users list

Setting up a billing alarm on CloudWatch

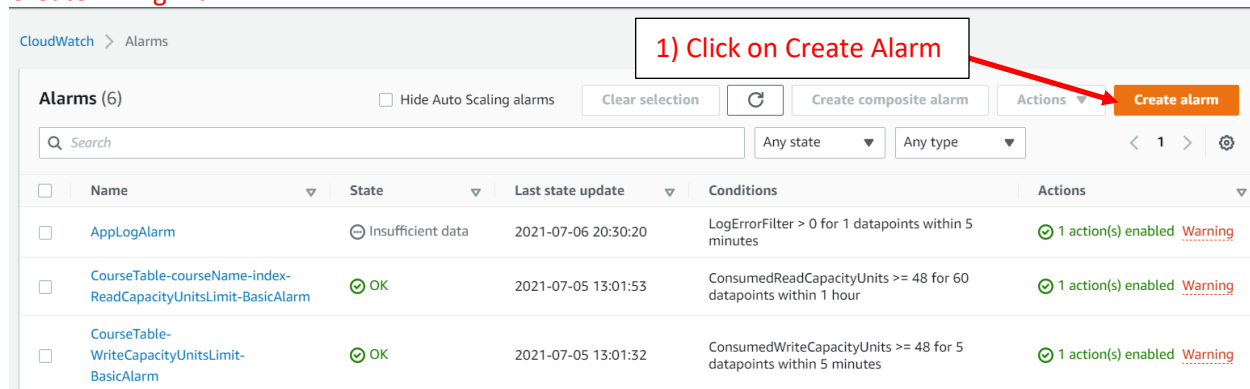
Go to the CloudWatch Display. Search or Find under All Services Management & Governance Group



Go to the Alarms Display. You must select us-east-1 **N.Virginia** region. Otherwise, billing metric is not there.



Create Billing Alarm



Step 1

Specify metric and conditions

Step 2

Configure actions

Step 3

Add name and description

Step 4

Preview and create

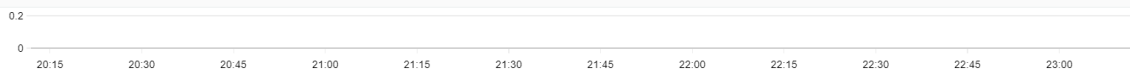
Specify metric and conditions

Metric**Graph**

Preview of the metric or metric expression and the alarm threshold.

Select metric**2) Click Select Metric**

Cancel

Next**Select metric**

▼ AWS Namespaces

ApiGateway

11

ApplicationELB

177

Billing

14

DynamoDB

23

EBS

189

EC2

392

Events

5

Lambda

26

Cancel

Select a single metric to continue

Select metric**Metrics (14)**All > Billing

Graph search

View graphed metrics

By Service

13

Total Estimated Charge

1

4) Click Total Estimated Charge

Cancel

Select a single metric to continue

Metrics (1)

Graph searchView graphed metrics (1)

All > Billing > Total Estimated Charge

Search for any metric, dimension or resource id

Currency (1)

Metric Name

USD

EstimatedCharges

5) Select USD Currency

6) Click Select Metric

CancelSelect metric

CloudWatch > Alarms > Create alarm

Step 1
Specify metric and conditions

Step 2
Configure actions

Step 3
Add name and description

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

0.8

0.6

0.4

0.2

0

07/0107/0307/0507/07

EstimatedCharges

Namespace

AWS/Billing

Metric name

EstimatedCharges

Currency

USD

Statistic

Maximum

Period

6 hours

...

Conditions

Threshold type

☒ Static
Use a value as a threshold

☐ Anomaly detection
Use a band as a threshold

Whenever EstimatedCharges is...

Define the alarm condition.

☐ Greater
> threshold

☒ Greater/Equal
≥ threshold

☐ Lower/Equal
≤ threshold

☐ Lower
< threshold

than...

Define the threshold value.

1

USD

Must be a number

7) Pick Some Conditions

8) Click Next

► Additional configuration

Cancel

Next

Step 1

Specify metric and
conditions

Step 2

Configure actions

Step 3

Add name and
description

Step 4

Preview and create

Configure actions

Notification

Alarm state trigger

Define the alarm state that will trigger this action.

Remove

☒ **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.

Select an 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

9) Select Create New SNS Topic

Create a new topic...

The topic name must be unique.

MyBillingAlarm

10) Name Topic

SNS topic names can contain only alphanumeric characters, hyphens (-) and underscores (_).

Email endpoints that will receive the notification...

Add a comma-separated list of email addresses. Each address will be added as a subscription to the topic above.

jc@miu.edu

user1@example.com, user2@example.com

11) Enter Email

Create topic

Add notification

12) Click Create Topic

...

Send a notification to...

🔍 MyBillingAlarm ✕

Only email lists for this account are available.

Email (endpoints)

jc@miu.edu - [View in SNS Console](#) 🔗

Add notification

Auto Scaling action

Add Auto Scaling action

EC2 action

This action is only available for EC2 Per-Instance Metrics.

Add EC2 action

Systems Manager action [Info](#) 🔗

This action will create an Incident or OpsItem in Systems Manager when the alarm is **In alarm** state.

Add Systems Manager action

13) Click Next

Cancel

Previous

Next

Add name and description

Name and description

Alarm name

MyBillingAlarm

14) Name Alarm

Alarm description - *optional*

Alarm description

Up to 1024 characters (0/1024)

15) Click Next

Cancel Previous Next

...

Step 3: Add name and description

Edit

Name and description

Name

MyBillingAlarm

Description

-

16) Preview Alarm and Click Create Alarm

Cancel Previous Create alarm