



# GETTING STARTED **WITH AWS**

HANDBOOK v3.6





Hello! Getting started with AWS can be daunting. The main two questions most beginners face are:

- How do I open an account and set it up the right way?
- How can I ensure that I don't get charged for using AWS?

Both questions are valid. Especially the second one: while AWS has a Free Tier, if you accidentally go over it's limits (e.g. forget to turn off an EC2 compute instance), then you could be faced with a huge bill. Nobody wants that.

Because of these two concerns many beginners might never end up venturing into AWS and learning the powerful tools that it has to offer. Thereby limiting their career growth.

That's why Hadelin and I had decided to create this first *CloudWolf Handbook: "Getting Started with AWS"*. Our goal is to help anybody, who wants to get started with AWS, to set up their AWS account the right way and put in place best practice security measures as well as appropriate financial guardrails such as billing alarms to minimize the chances of going far above the Free Tier limits.

You will find the following sections in this Handbook:

- Part 1: Creating Your AWS Account
- Part 2: Setting up a Billing Alarm
- Part 3: Creating an IAM User

We hope you get lots of value out of this Handbook,

Enjoy the Cloud!

Kirill & Hadelin

PS: if you spot any inaccuracies in the Handbook or have any suggestions or feedback, please email us at [support@cloudwolf.com](mailto:support@cloudwolf.com)





Part 1:

# Creating Your AWS Account

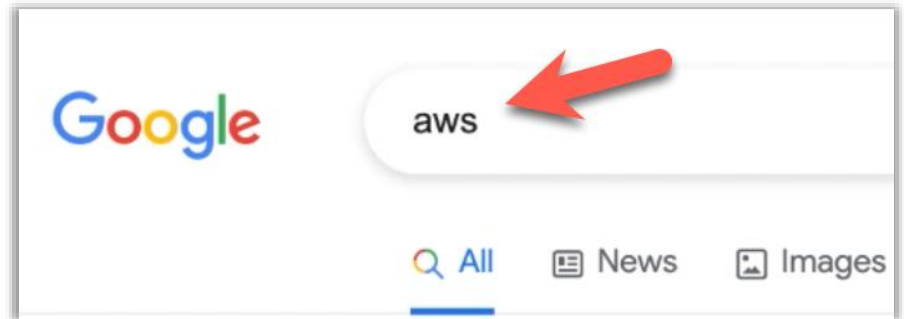


# CREATING YOUR AWS ACCOUNT



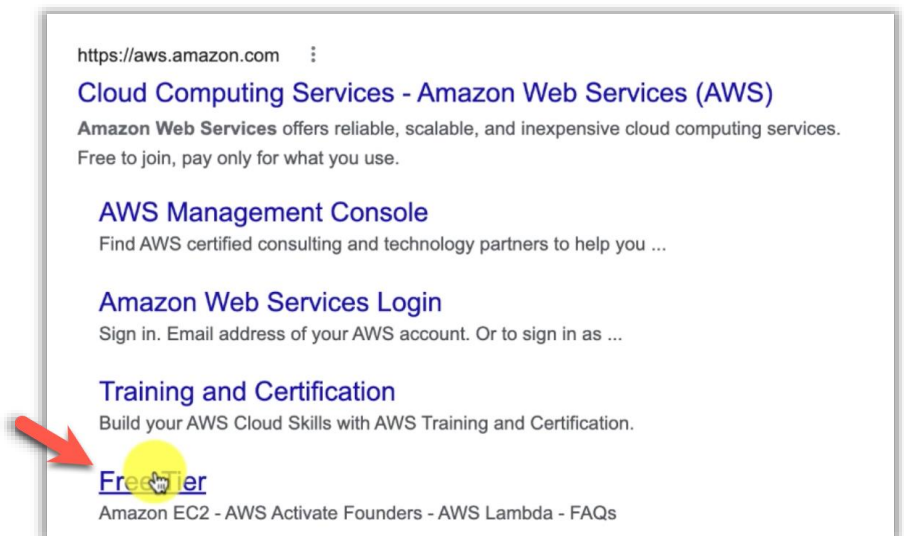
The first step to getting started with AWS is opening your account. AWS offers a free tier where you can get access to lots of different services up to a certain limit of usage for free (more than enough for practice).

To open your AWS account search for “AWS” on google.

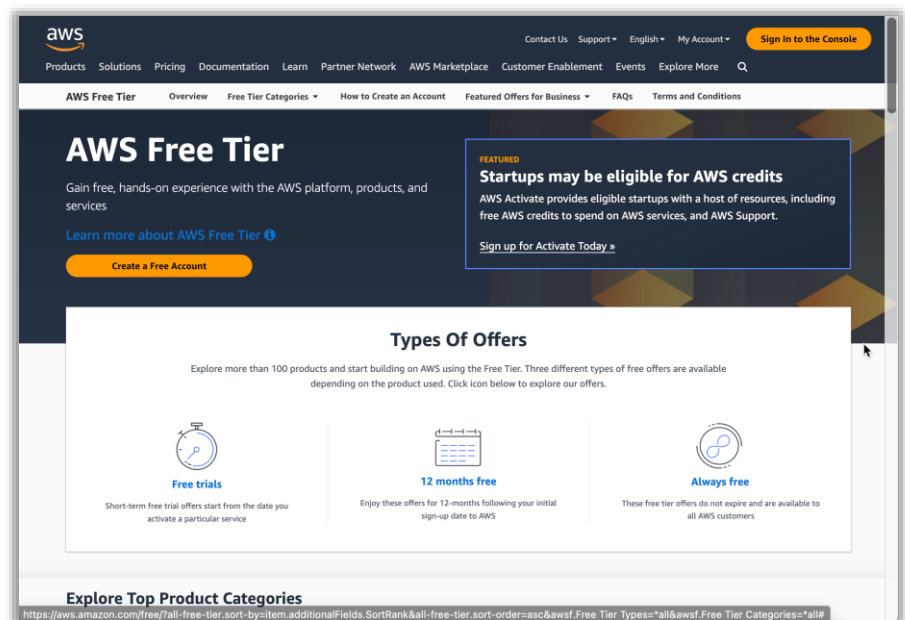


Next, click on the “Free Tier” option. Or just click this link:

<https://aws.amazon.com/free/>



We recommend browsing around this page for a few minutes to familiarize yourself with the options available to you in the free tier.



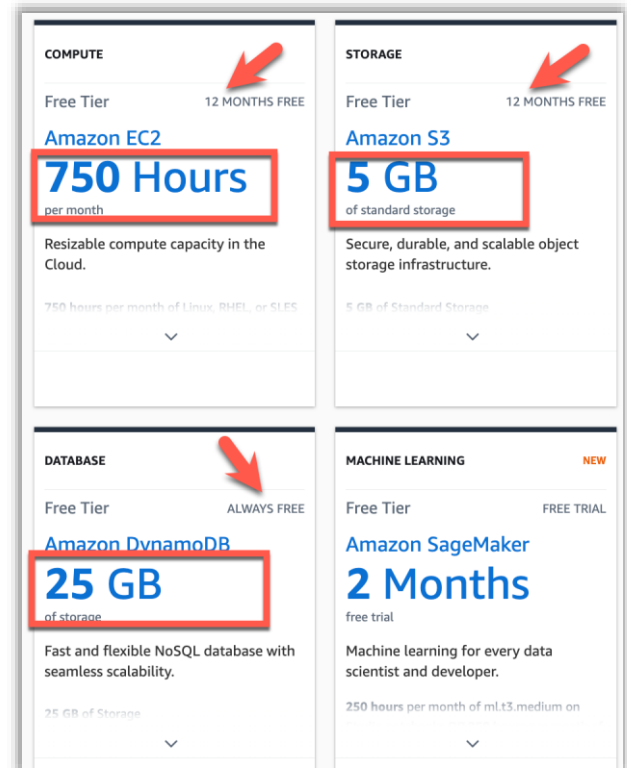
# CREATING YOUR AWS ACCOUNT



Note that in addition to usage limits, some services also have a time limit when the free tier is available.

For example, EC2 offers 750 hours of free compute capacity per month. However, that is only available in the first 12 months after you sign up. Also note that applies to only certain types of instances (t2.micro or t3.micro at the time of writing this report)

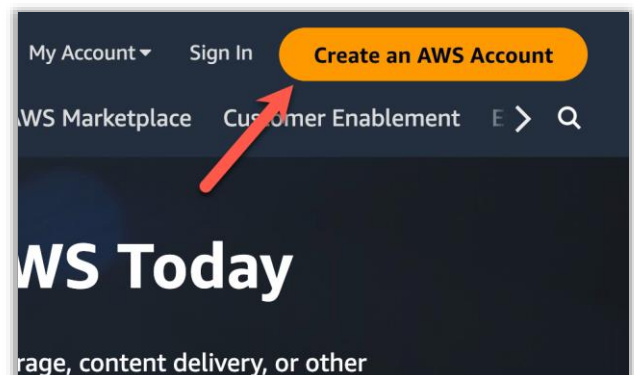
Another important example is S3 which offers 5 GB of free standard storage. However, after the first 12 months that storage will no longer be free and standard S3 pay-as-you-go service rates will apply.



Once you are familiar with the Free Tier offering, go ahead and click the “Create a Free Account”.



By the way, you can also click the “Create an AWS Account” which is in the top right corner of almost all AWS pages. It will take you to the same exact menu as the “Create a Free Account” button.



# CREATING YOUR AWS ACCOUNT



From here please follow the steps as illustrated below:

**Step 1: Sign up for AWS**

Root user email address  
Used for account recovery and some administrative functions

cloudwolfstudent@gmail.com

AWS account name  
Choose a name for your account. You can change this name in your account settings after you sign up.

Cloud Wolf Student

Verify email address

OR

Sign in to an existing AWS account

**Step 2: Sign up for AWS**

**Confirm you are you**

Making sure you are secure -- it's what we do.

We sent an email with a verification code to cloudwolfstudent@gmail.com. (not you?)

Enter it below to confirm your email.

Verification code

672413

Verify

Resend code

**Step 3: Sign up for AWS**

**Create your password**

It's you! Your email address has been successfully verified.

Your password provides you with sign in access to AWS, so it's important we get it right.

Root user password

Confirm root user password

Continue (step 1 of 5)

**Step 4: Sign up for AWS**

**Contact Information**

How do you plan to use AWS?

☐ Business - for your work, school, or organization

☒ Personal - for your own projects

Who should we contact about this account?

Full Name

Cloud Wolf Student

Phone Number

Country or Region

Address

Wolf Pack

Number 1


City

Cloud Wolf City







Next, AWS will ask for your CR card details. This is in case you go over the free tier limits. However, if you stay below the free tier limits, then everything will be free. And don't worry, if you follow this guide (and/or our courses) we always show you how to put the appropriate safeguards in place so that you are notified if you do go over the limits. **Nonetheless, it is important to point out that it is your responsibility to stay under the free tier limits if you don't want to be charged.**



### Secure verification





 We will not charge you for usage below AWS Free Tier limits. We may temporarily hold up to \$1 USD (or an equivalent amount in local currency) as a pending transaction for 3-5 days to verify your identity.



## Sign up for AWS

### Billing Information

Credit or Debit card number



AWS accepts all major credit and debit cards. To learn more about payment options, review our [FAQ](#)

Expiration date

Month ▼

Year ▼

Cardholder's name

Billing address

☒ Use my contact address

Wolf Pack  
Cloud Wolf City Cloud 00000  
AE







Next, you will be asked to verify your mobile number:

The diagram illustrates the two-step process for verifying a mobile number during AWS account creation. On the left, the 'Sign up for AWS' page shows the 'Confirm your identity' section. It includes a text box for the country or region (with a yellow circle highlighting the 'code' label), a dropdown menu for the country (currently showing 'United States (+1)'), a text box for the mobile phone number, and a security check image. A blue arrow points to the right, where the 'Verify code' page is shown. This page features a text box for the verification code (with a yellow circle highlighting the input field), an orange 'Continue (step 4 of 5)' button, and a note about the 10-minute timeout for the verification code.

**Sign up for AWS**

**Confirm your identity**

Before you can use your AWS account, you must verify your phone number. When you continue, the AWS automated system will contact you with a verification code.

Country or region code

United States (+1)

Mobile phone number

Security check

**Sign up for AWS**

**Confirm your identity**

Verify code

**Continue (step 4 of 5)**

Having trouble? Sometimes it takes up to 10 minutes to retrieve a verification code. If it's been longer than that, [return to the previous page](#) and try again.

On the following screen select the “Basic support” plan:

The screenshot shows the 'Sign up for AWS' page with the 'Select a support plan' section. A red arrow points to the 'Basic support - Free' option, which is selected. The 'Compare plans and pricing examples' link is highlighted with a yellow circle. The 'Basic support - Free' plan is recommended for new users and includes 24x7 self-service access to AWS resources, account and billing issues support, and access to the Personal Health Dashboard & Trusted Advisor. The 'Developer support - From \$29/month' plan is recommended for developers and includes 24x7 tech support via email, phone, and chat, 1-hour response times, and a full set of Trusted Advisor best-practice recommendations. The 'Business support - From \$100/month' plan is recommended for production workloads and includes 24x7 tech support via email, phone, and chat, 1-hour response times, and a full set of Trusted Advisor best-practice recommendations.

**Sign up for AWS**

**Select a support plan**

Choose a support plan for your business or personal account. [Compare plans and pricing examples](#). You can change your plan anytime in the AWS Management Console.

☒ **Basic support - Free**

- Recommended for new users just getting started with AWS
- 24x7 self-service access to AWS resources
- For account and billing issues only
- Access to Personal Health Dashboard & Trusted Advisor

☐ **Developer support - From \$29/month**

- Recommended for developers experimenting with AWS
- Email access to AWS Support during business hours
- 12 (business)-hour response times

☐ **Business support - From \$100/month**

- Recommended for running production workloads on AWS
- 24x7 tech support via email, phone, and chat
- 1-hour response times
- Full set of Trusted Advisor best-practice recommendations







⊗ There was a problem with your payment information. To continue, [sign in to your account](#) and update your payment information. Then you can continue signing up. If this problem persists, contact [AWS Customer Support](#).

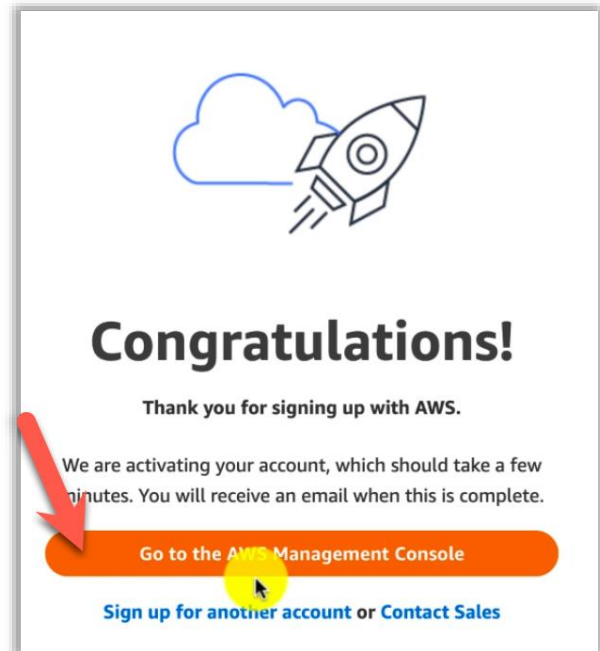
Note that you may get an error which looks like this if Amazon is not able to verify your CR card. If this happens, don't worry, continue with the account set up. Then once you are logged into your account, you can update your CR card details via the following link:

<https://us-east-1.console.aws.amazon.com/billing/home?region=us-east-1#/paymentpreferences/paymentmethod/add>

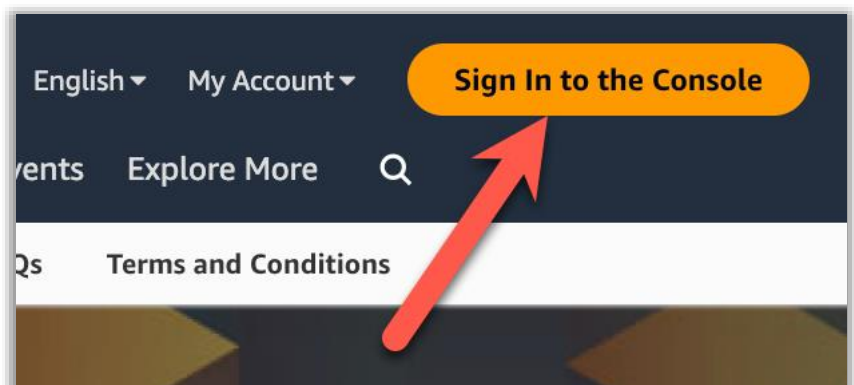
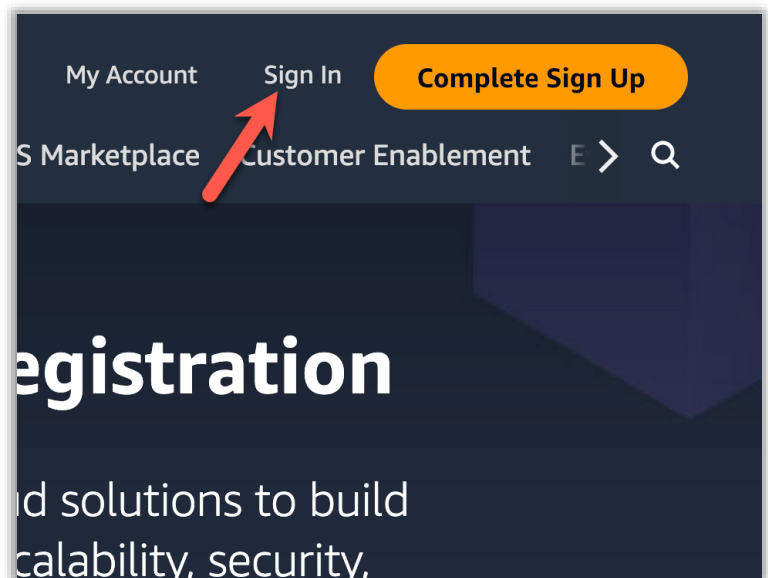




Congratulations! Your account has been created. Click the orange button to sign in.



Also, you can click the "Sign In" button located in the top right corner of almost any AWS page.



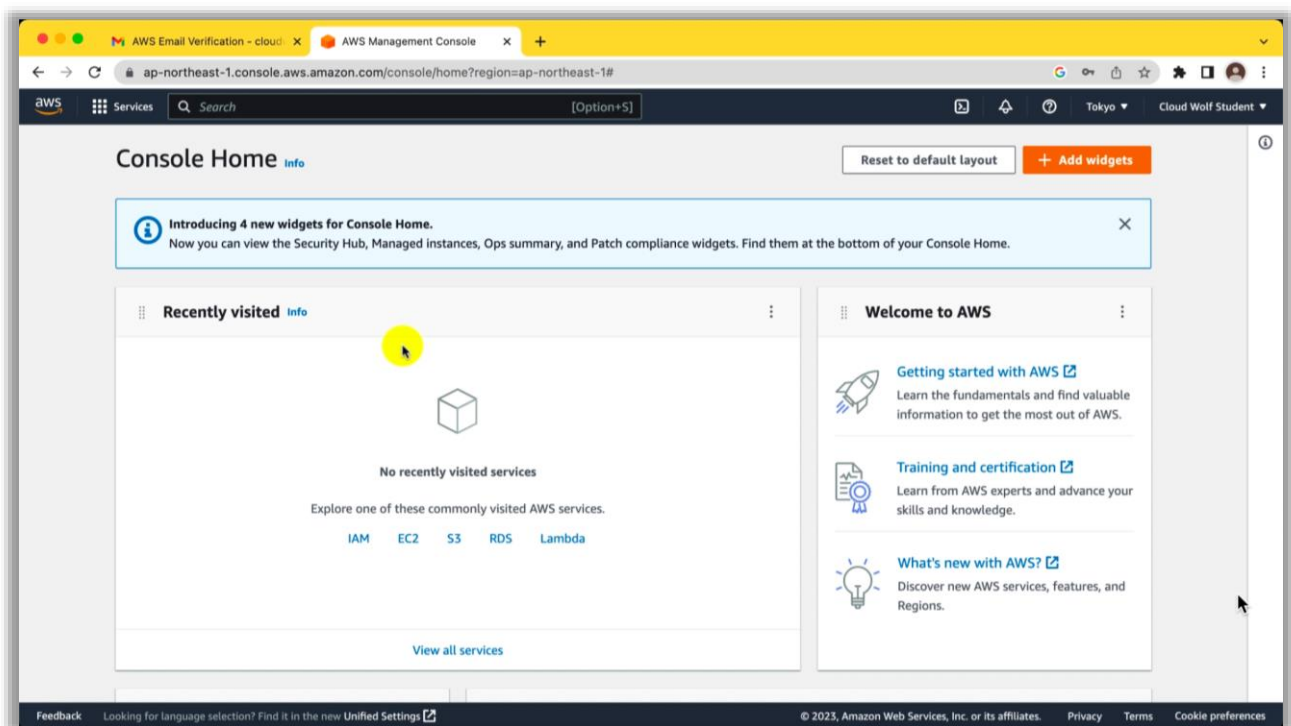
# CREATING YOUR AWS ACCOUNT



On the sign in screen select “Root user” and enter your email. On the next screen enter your password:

The diagram illustrates the two-step process of creating an AWS account. On the left, the 'Sign in' screen shows the 'Root user' option selected, with the email 'cloudwolfstudent@gmail.com' entered. A blue arrow points to the right, where the 'Root user sign in' screen is shown. This screen prompts for a password and features a 'Sign in' button highlighted with a yellow circle and a cursor.

Congratulations! You’re in your account. Have a look around and we will continue in the next section. Until then, enjoy the cloud!





## Part 2:

# Setting up a Billing Alarm



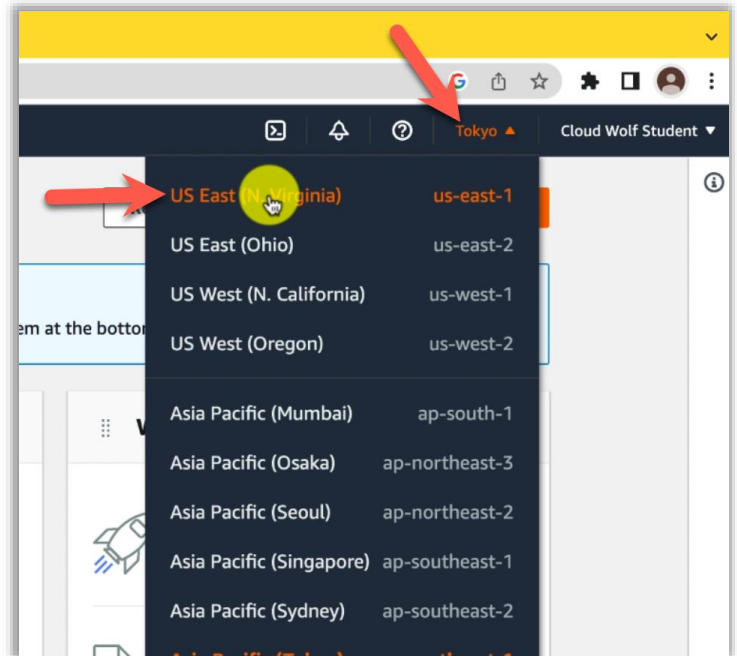
# SETTING UP A BILLING ALARM



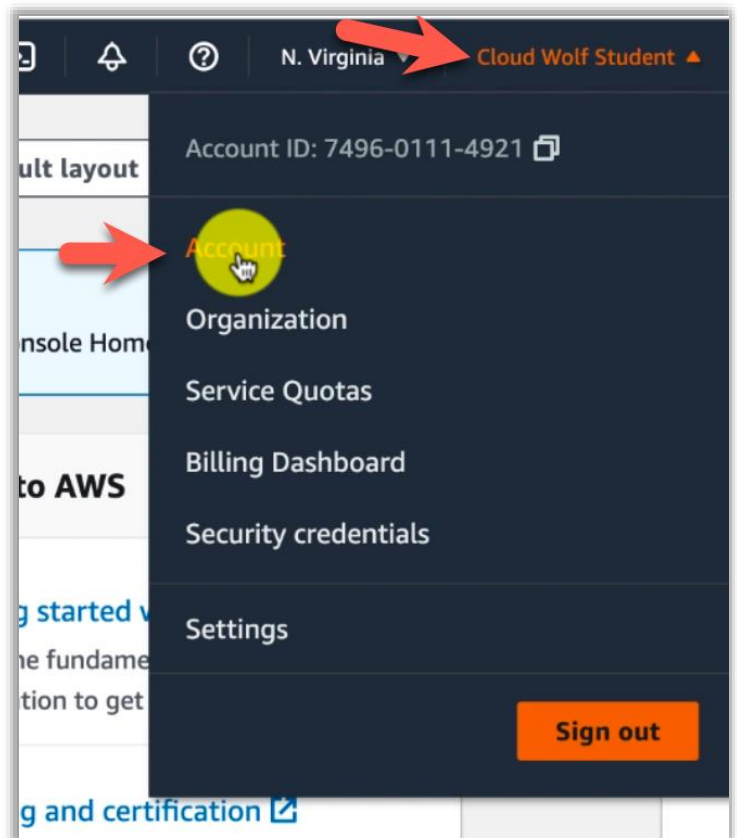
This next step is going to take a bit of time, but it's important and we don't recommend skipping it. In this step we will show you how to set up a billing alarm which will notify you via email if you ever exceed a \$USD threshold you select. This can be very helpful to catch any over-spending early and avoid a large bill from AWS at the end of any given month.

Ready? Here we go!

Sign into your console and select the "us-east-1 region" using the dropdown menu in the top right corner.



Then click on the account name in the top right corner and from the dropdown select "Account".



# SETTING UP A BILLING ALARM



Scroll down on the following screen until you see the section titled “IAM User and Role Access to Billing Information”

Billing and Cost Management > Account

**Account info**

**Account settings** [Edit](#)

Account ID 590183866830	Service provider Amazon Web Services EMEA SARL
Account name Kirills Assistant	Password *****

**Contact information** [Info](#) [Edit](#)

Full name Mitja	Company name None	Address Ilirska Ljubljana, na 1000 SI
Phone number +386 41737794	Website URL None	

Click the Edit button

**IAM user and role access to Billing information** [Info](#) [Edit](#)

IAM user/role access to billing information

☐ Deactivated

Check the box “Activate IAM Access”. We will need this later in the course when we are working with the Identity & Access Management (IAM) service.

**IAM user and role access to Billing information** [Info](#)

☒ Activate IAM Access

[Cancel](#) [Update](#)

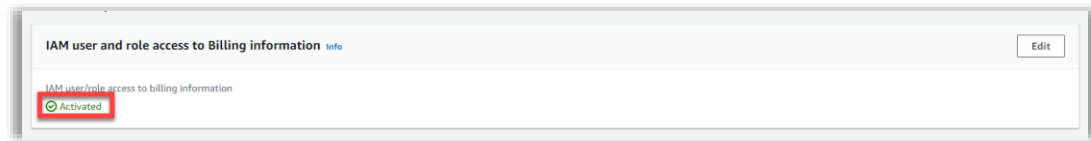
Click Update.



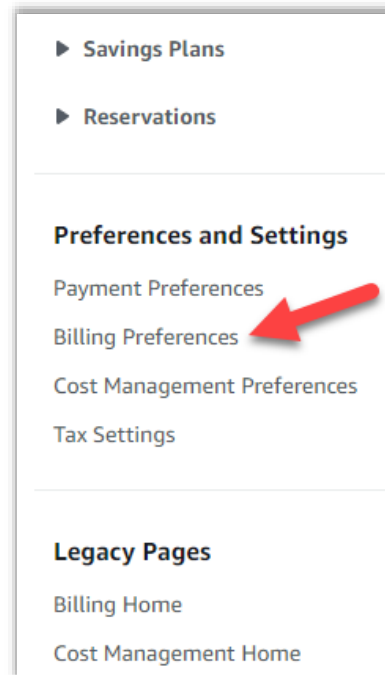
# SETTING UP A BILLING ALARM



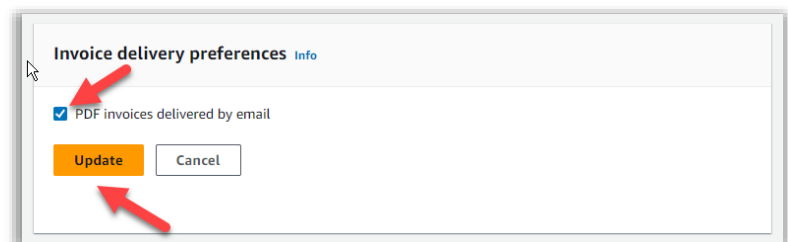
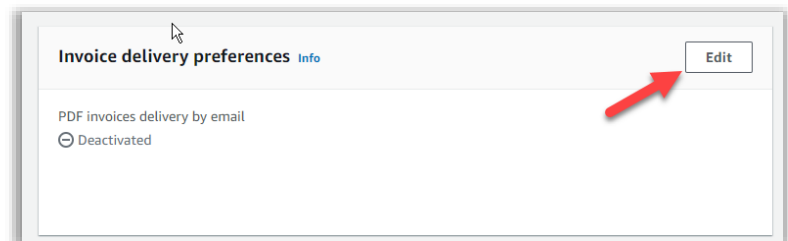
Ensure that “IAM user/role access to billing information” is now Activated.



In the menu on the left, scroll down and click “Billing Preferences”.



Edit your Invoice delivery preferences, check the checkbox and click Update.





# SETTING UP A BILLING ALARM



Edit your Alert preferences, check both checkboxes, the click Update. You can also enter an email address if you would like to deliver these alerts to another address than the one you registered with.

**Alert preferences** Info Edit

AWS Free Tier alerts  
☐ Not delivered

CloudWatch billing alerts  
☐ Not delivered

---

**Alert preferences** Info

☒ Receive AWS Free Tier alerts  
If this option is selected, your AWS Free Tier usage alerts will be sent to the email address that you used to create your account. To send these alerts to a different email address, specify it below.

Email address to receive Free Tier usage alerts - optional  
Email address (optional)

☒ Receive CloudWatch billing alerts  
Once enabled, this preference cannot be disabled.

Update Cancel

Once you are done, the page should look like this.

Billing and Cost Management > Billing Preferences

**Billing preferences** Info

**Invoice delivery preferences** Info Edit

PDF invoices delivery by email  
Activated

**Alert preferences** Info Edit

AWS Free Tier alerts  
Delivered to  
Root user email address

CloudWatch billing alerts  
Delivered

Phew! That was a lot. Congratulations, you are done with the first part of the billing safeguards setup. If you followed these steps carefully, you will now receive an alert from AWS whenever you are approaching or have exceeded the AWS Free Tier usage limits.

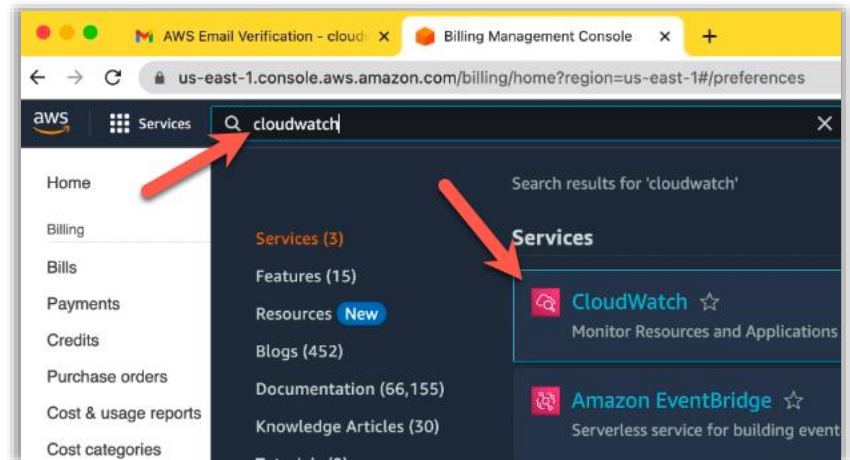


# SETTING UP A BILLING ALARM

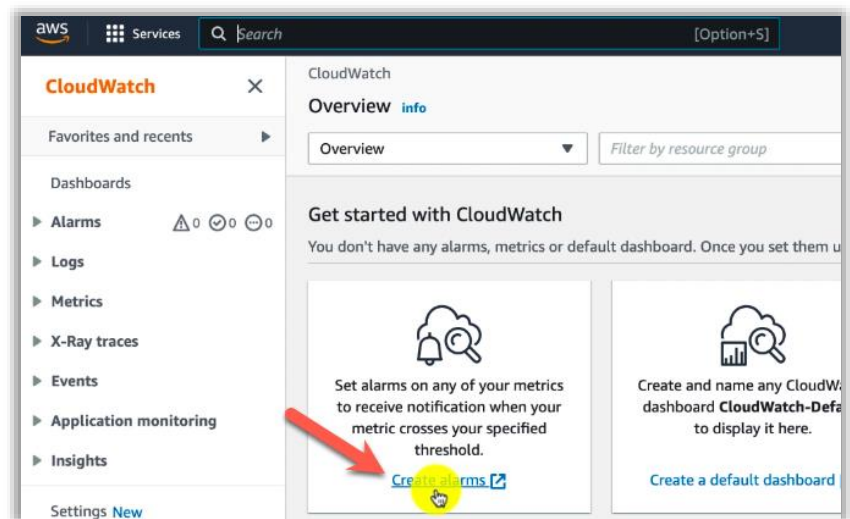


Now we move onto Part 2 of the billing safeguards setup where we will set up an alarm. Some services in AWS have both free tiers and paid tiers and it can be easy to slip into the paid tier (e.g. if you forget to switch an EC2 instance off and use a few too many compute hours). The alarm, which we will set up, will notify you via email if this happens and your bill for the month exceeds a **threshold X USD\$** which you select. This can be very handy. Let's do it!

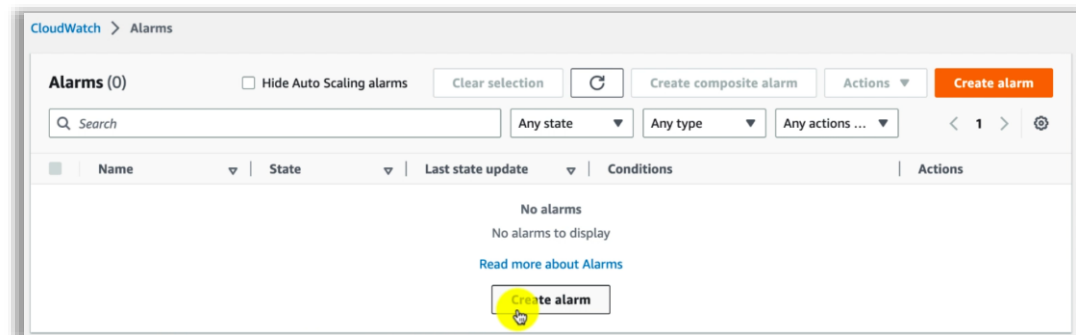
In the search bar at the top type in "CloudWatch". Don't worry if in the following steps you feel that you don't really understand what is going on. You will learn all about "CloudWatch" (as well as many other services) inside our courses. However, for now we need to follow the steps to setup the billing alarm to ensure the safety of our funds.



On the CloudWatch homepage select "Create alarms".



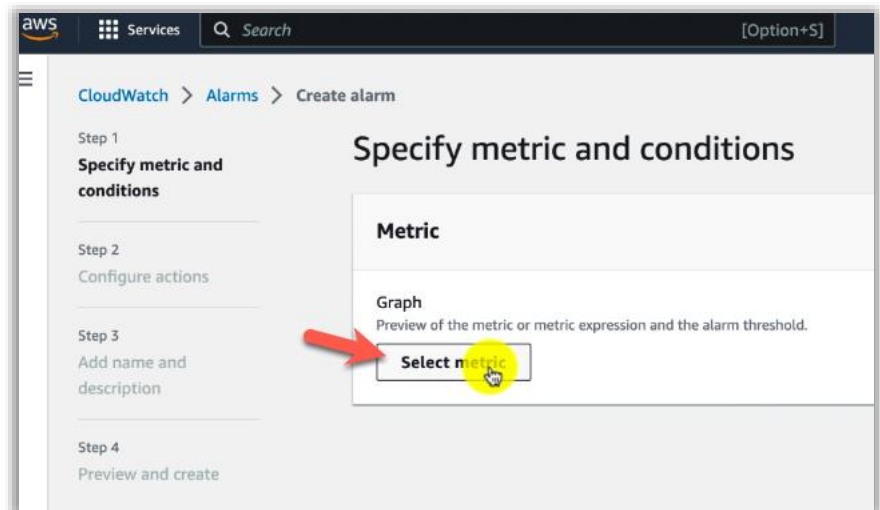
Then select "Create alarm":



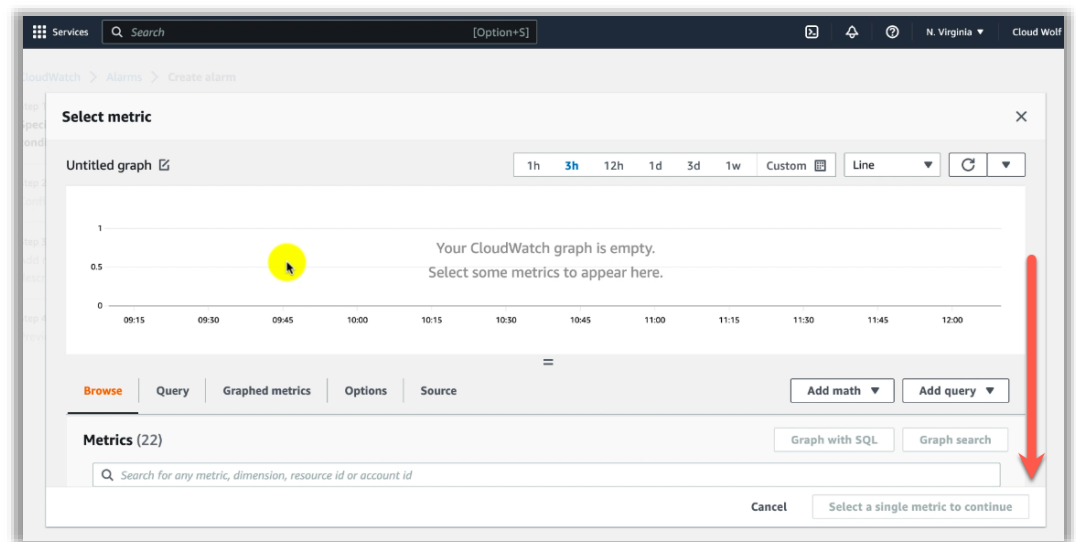
# SETTING UP A BILLING ALARM



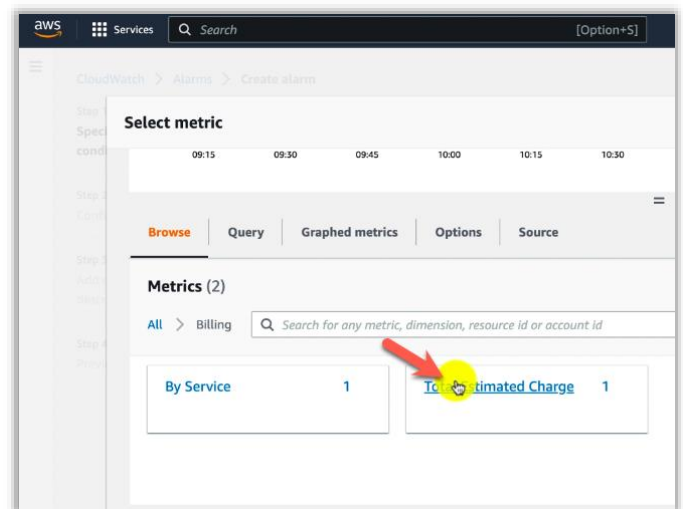
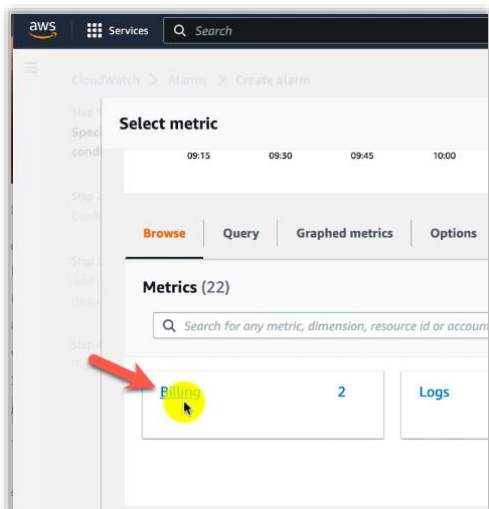
Click “Select metric”



Scroll down to the bottom of the next popup window



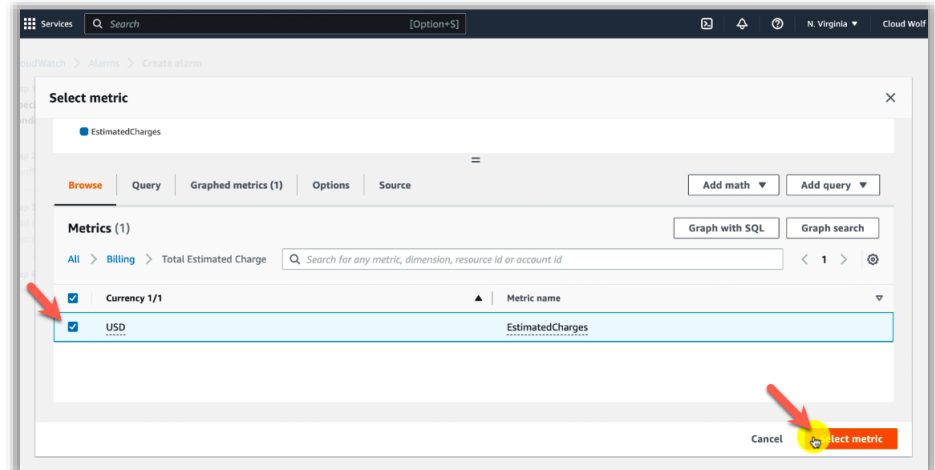
Select “Billing”, then select “Total Estimated Charge”:



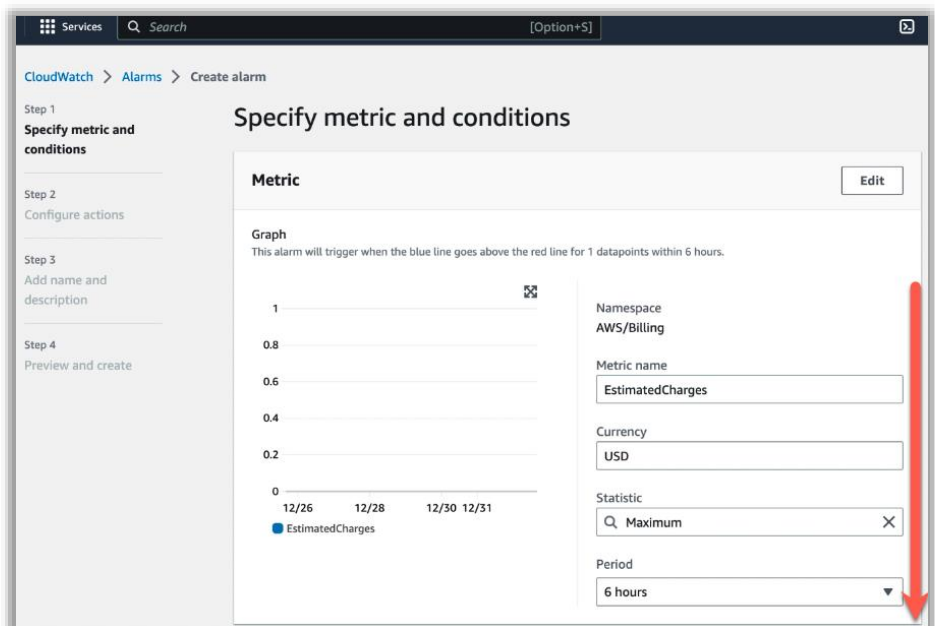
# SETTING UP A BILLING ALARM



Check the box “USD” and then click “Select Metric” on the right

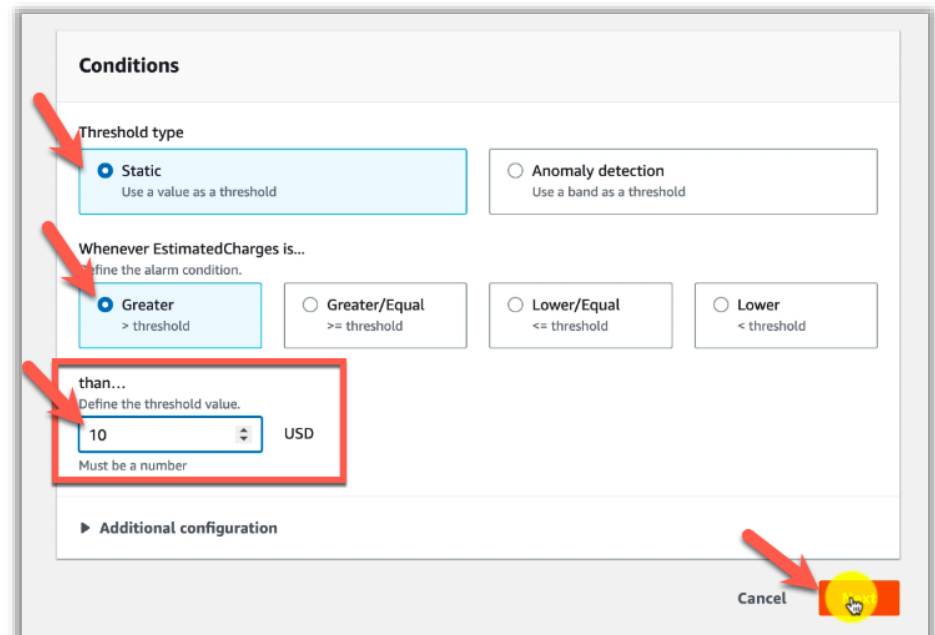


Scroll down on the following screen



Ensure that “Static” and “Greater” are selected and then specify a \$USD amount you would like to set as a threshold. Whenever your total charge for the month exceeds this threshold, you will be notified.

We recommend setting it to \$10 USD. However, please set whatever amount **you are comfortable with**.



# SETTING UP A BILLING ALARM



On this next screen ensure that “In alarm” is selected. Then select “Create new topic” and enter **your email address**.

Click “Create topic”.

The screenshot shows the 'Notification' configuration step in the AWS IAM console. On the left, a sidebar lists steps: Step 2 (Configure actions), Step 3 (Add name and description), and Step 4 (Preview and create). The main area is titled 'Notification' and contains three sections: 'Alarm state trigger' with radio buttons for 'In alarm' (selected), 'OK', and 'Insufficient data'; 'Send a notification to the following SNS topic' with radio buttons for 'Select an existing SNS topic' and 'Create new topic' (selected); and 'Create a new topic...' with a text field containing 'Default\_CloudWatch\_Alarms\_Topic'. Below this is a section for 'Email endpoints that will receive the notification...' with a text field containing 'cloudwolfstudent@gmail.com'. A red box highlights this email address. At the bottom right is a 'Create topic' button. Red arrows point to the 'In alarm' radio button, the 'Create new topic' radio button, the 'Default\_CloudWatch\_Alarms\_Topic' text field, the 'cloudwolfstudent@gmail.com' email address, and the 'Create topic' button.

Wait for the topic to be created, then scroll down to the bottom and click “Next”.

The screenshot shows the 'Add notification' step in the AWS IAM console. It features three sections: 'Auto Scaling action' with an 'Add Auto Scaling action' button, 'EC2 action' with an 'Add EC2 action' button, and 'Systems Manager action' with an 'Add Systems Manager action' button. At the bottom right are 'Cancel', 'Previous', and 'Next' buttons. A red arrow points down the right side of the page, indicating scrolling.

Give a name to your billing alarm, for example “MyBillingAlarm”, and click Next.

The screenshot shows the 'Add name and description' step in the AWS IAM console. On the left, a sidebar lists steps: Step 1 (Specify metric and conditions), Step 2 (Configure actions), Step 3 (Add name and description), and Step 4 (Preview and create). The main area is titled 'Add name and description' and contains a 'Name and description' section with an 'Alarm name' text field containing 'MyBillingAlarm'. Below this is an 'Alarm description - optional' section with a text area containing '# This is an H1' and '\*\*double asterisks will produce strong character\*\*'. At the bottom right are 'Cancel', 'Previous', and 'Next' buttons. Red arrows point to the 'MyBillingAlarm' text field and the 'Next' button.



# SETTING UP A BILLING ALARM



On this next screen scroll down to the bottom...

Services Search [Option+S]

CloudWatch > Alarms > Create alarm

Step 1: Specify metric and conditions

**Metric**

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

No unit  
10  
5  
0  
12/26 12/28 12/30 12/31  
EstimatedCharges

Namespace  
AWS/Billing

Metric name  
EstimatedCharges

Currency  
USD

Statistic  
Maximum

Period  
6 hours

Edit

...and click "Create Alarm".

Services Search [Option+S]

Additional configuration

Step 2: Configure actions

**Actions**

Notification  
When in alarm, send a notification to "Default\_CloudWatch\_Alarms\_Topic"

Step 3: Add name and description

**Name and description**

Name  
MyBillingAlarm

Description  
-

Cancel Previous Create

Voila! Your alarm has been created... However, there is one final thing left to do. You need to confirm the subscription in your email inbox.

aws Services Search [Option+S]

CloudWatch

Successfully created alarm MyBillingAlarm. View alarm

Some subscriptions are pending confirmation  
Amazon SNS doesn't send messages to an endpoint until the subscription is confirmed. View SNS Subscriptions

CloudWatch > Alarms

Alarms (1) Hide Auto Scaling alarms Clear selection Create composite alarm Actions Create alarm

Search Any state Any type Any actions ... < 1 >

	Name	State	Last state update	Conditions	Actions
<input type="checkbox"/>	MyBillingAlarm	Insufficient data	2023-01-02 17:56:42	EstimatedCharges > 10 for 1 datapoints within 6 hours	Actions enabled Warni



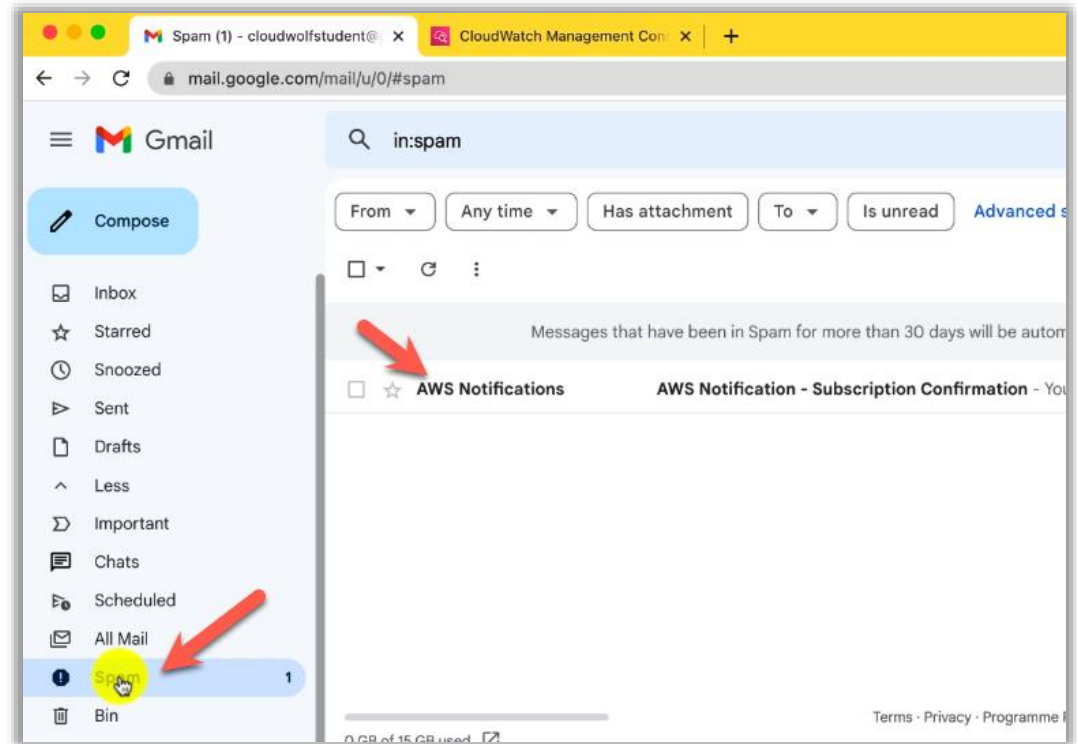


# SETTING UP A BILLING ALARM

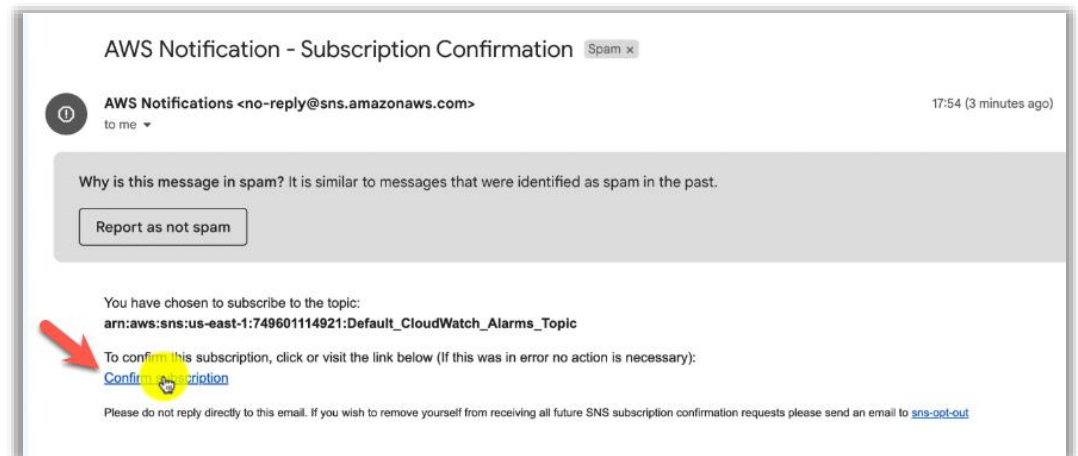


Proceed to your inbox in a new tab (keep the CloudWatch tab open for now).

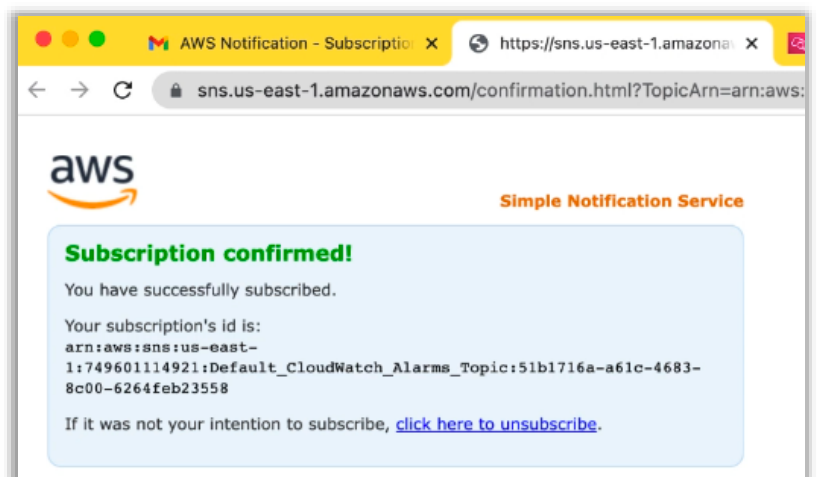
If you don't see an "AWS Notification" email there, then check your spam folder.



Confirm your subscription to the SNS topic which you created by clicking the link.



You should see an email confirmation window which looks like this.

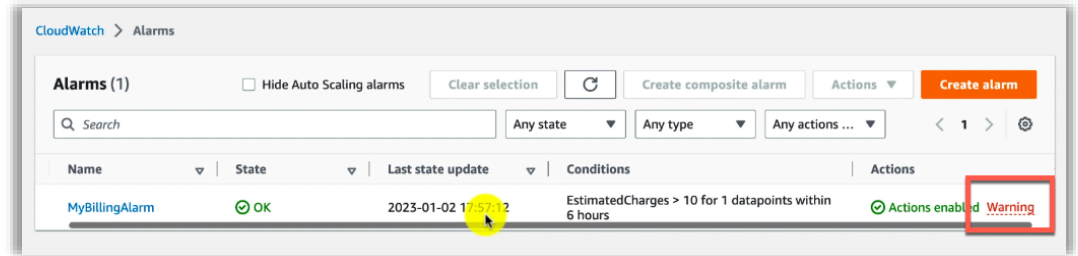




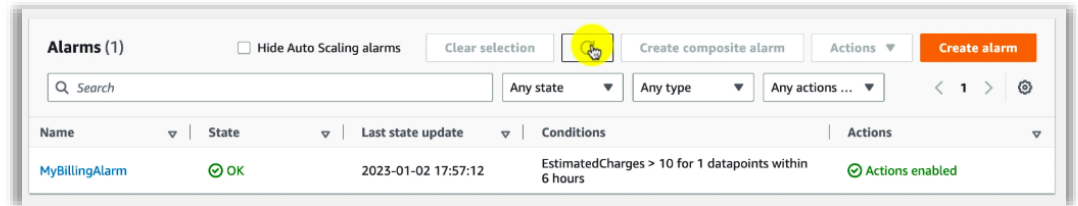
# SETTING UP A BILLING ALARM



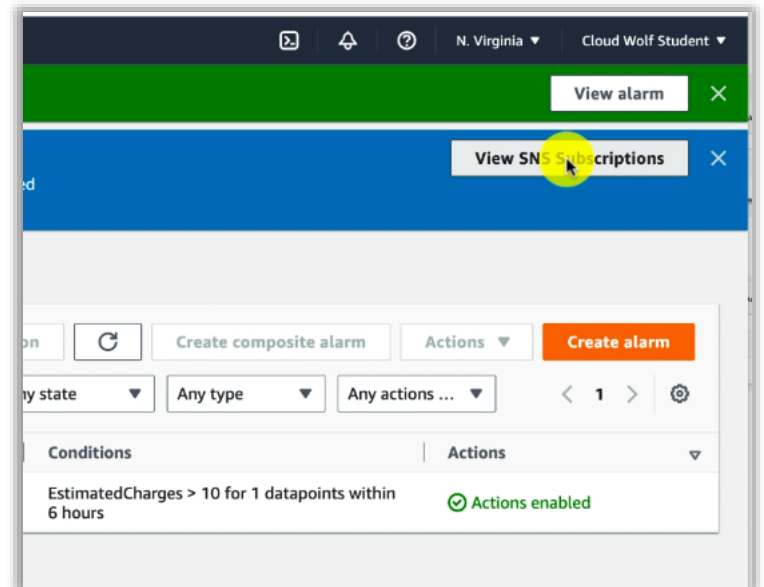
If you go back to your CloudWatch window. You will see that there is a “Warning” in Actions.



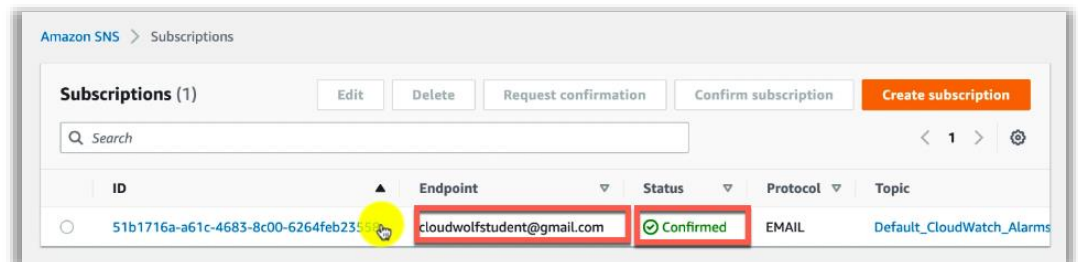
If you click the “Refresh” button, the warning should disappear since you’ve confirmed your subscription.



Now if you click on “View SNS Subscriptions”, you will see...



...that your subscription to this topic is all set.



Congratulations! You’ve set up your billing alarm. If your charge for the month exceeds the \$USD threshold you have set, you will be notified. Looking forward to seeing you in the next section of the handbook. Until then, enjoy the cloud!





## Part 3: **Creating an IAM User**



# CREATING AN IAM USER



**Note: It is an AWS best practice to use an IAM User with limited access to operate an account, instead of using the root user.**

First, we will search “IAM” in the search bar



Using the left panel, select “Users”, followed by clicking on “Add users”.



In the configuration menu, write a desired name for your account. Check the “Provide user access to the AWS console” option. Click on “I want to create an IAM user”.

**User details**

User name  
Hadelin  
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.





We can now choose a password. Tick “Custom password” and enter one of your choice. (make sure to remember it or note it down)

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 hyphen = [ ] { } ' + -

☐ Show password

Uncheck the following option:



☐ 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.

**Note:** You can use that option if you set up the account for someone else and want to let them choose their password.

Click on “Next”.



# CREATING AN IAM USER



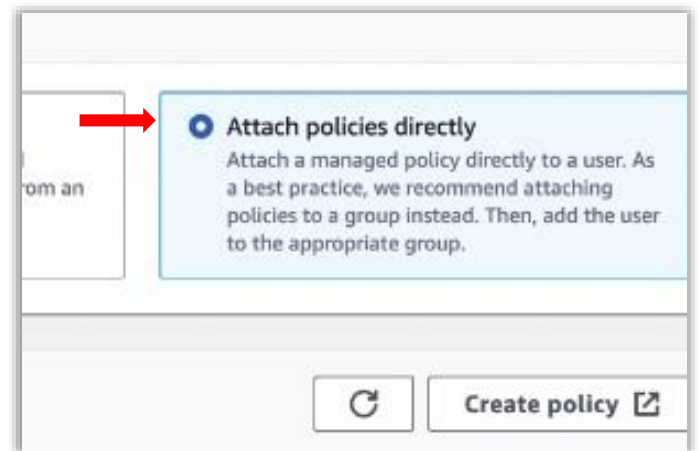
We got to the “Set permissions” screen.

Here we decide what will our user be allowed to do.

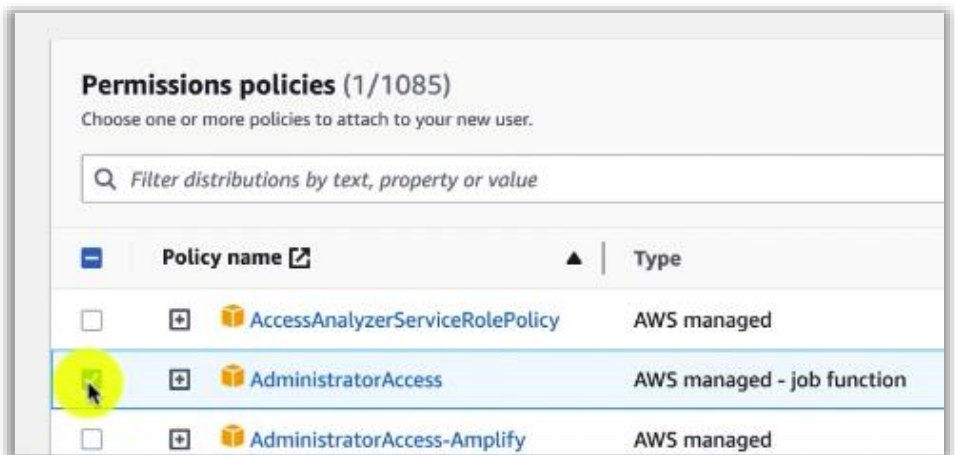
**It is an AWS best practice to create a group, add the user to the group, and assign permissions for the entire group. (this helps when we have a bigger company with many people using the account)**

For now, we will directly attach a policy to our user:

Check “Attach policies directly”

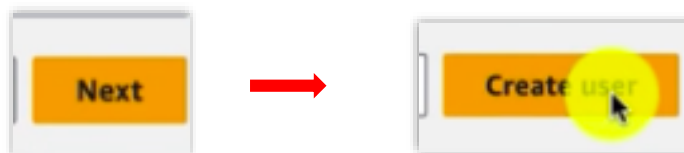


Search for “Administrator access” and select it.



Click Next, review your settings and if you’re happy with everything, press on “Create user”.

Congratulations!

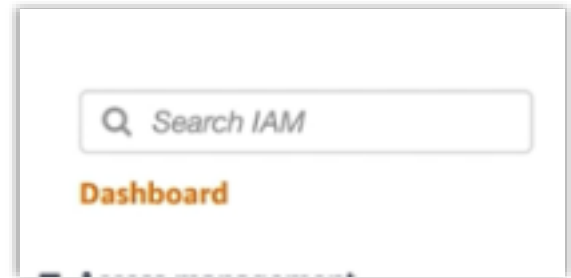


# CREATING AN IAM USER



To make our life easier, we will now create an Account Alias.

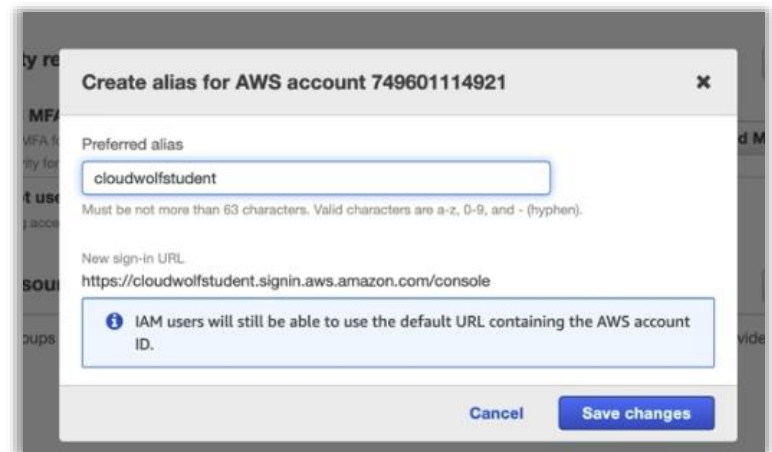
In the left menu, go to “Dashboard”



Click on “Create” on the right side of the screen.



Write a memorable and suggestive name and Save the changes.



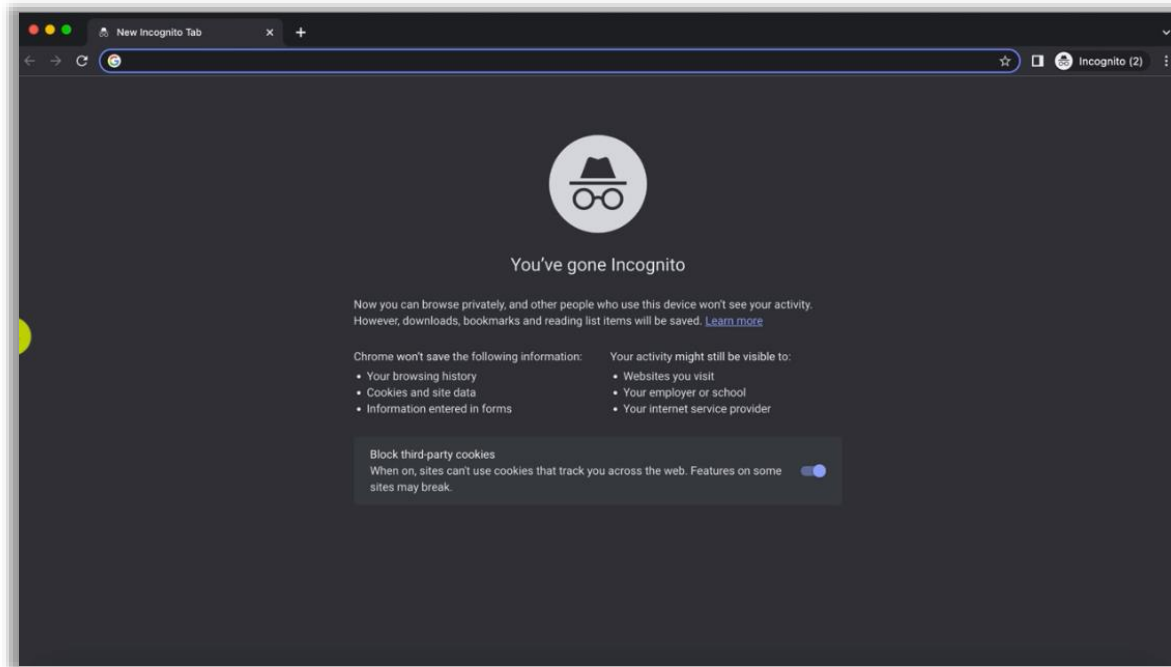
Now it will be much easier for you to login using the name of your choice instead of remembering a set of random numbers.



# CREATING AN IAM USER



Let's open a new incognito window and try to login as our new user!



## First way to connect:

Press the Copy icon on your IAM Dashboard and paste it in the incognito window.

for the account ID, make sure your Alias is shown.

For the User, enter the Username you have just created and for the password, the custom password chosen in the configurator.





# CREATING AN IAM USER



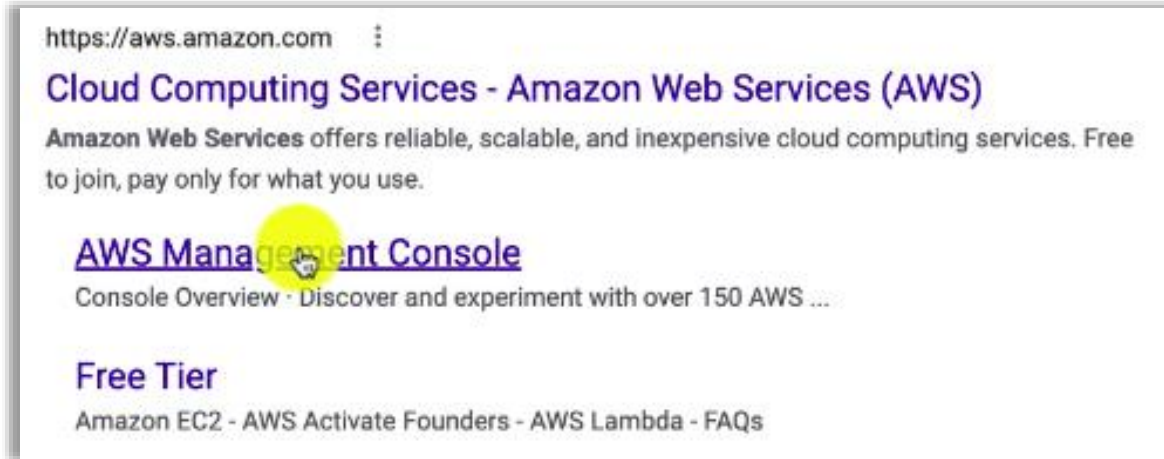
## Second method:

If you don't know the link for the AWS Console, do the following:

Go on google.

Search "aws".

Skip the ads, find "AWS Management Console" and click it.



Click "Log back in".

Select "IAM User" and write your Account Alias. Click Next.

Now write your user and password and Sign in.

Congrats! You are now logged in as the new user 😊

**Sign in**

☐ Root user  
Account owner that performs tasks requiring unrestricted access. [Learn more](#)

☒ IAM user  
User within an account that performs daily tasks. [Learn more](#)

Account ID (12 digits) or account alias  
cloudwolfstudent

[Next](#)

By continuing, you agree to the [AWS Customer](#)



**Sign in as IAM user**

Account ID (12 digits) or account alias  
cloudwolfstudent

IAM user name  
Hadelin

Password  
.....

☐ Remember this account

[Sign in](#)

[Sign in using root user email](#)

[Forgot password?](#)

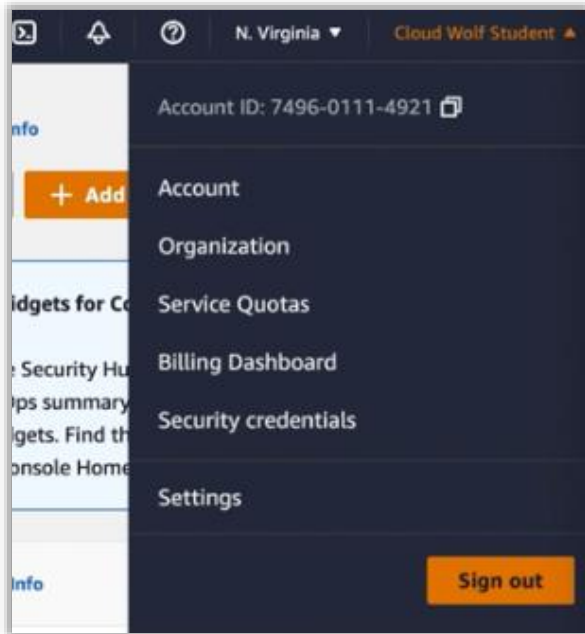


# CREATING AN IAM USER



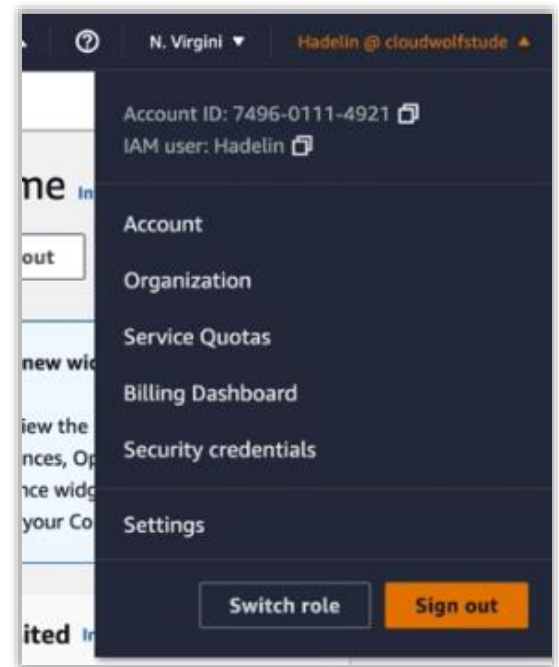
A difference you can notice is that on the **root user** account, if you click in the top right corner you will see **only the account ID**.

While using the **IAM User**, you can see both the **account ID and the Username**.



**ROOT**

VS



**IAM User**

Your AWS account is ready ☺

Congratulations for this, we are now ready to dive into the course!





Thank you for using this Handbook  
“Getting Started with AWS”.  
We hope you enjoyed it 😊

**Learn AWS with CloudWolf.** Get  
access to Additional Handbooks,  
Courses, Exam Study Guides, Labs,  
Practice Exams, Webinars, Quizzes,  
Community and more!

[www.cloudwolf.com](http://www.cloudwolf.com)

