CloudWolf

GETTING STARTED
WITH AWS
HANDBOOK v3.6

aws

CONTENTS

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
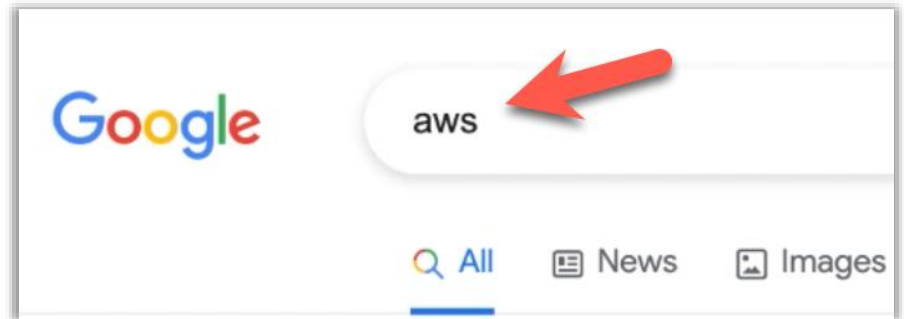
Part 1:
Creating Your AWS Account
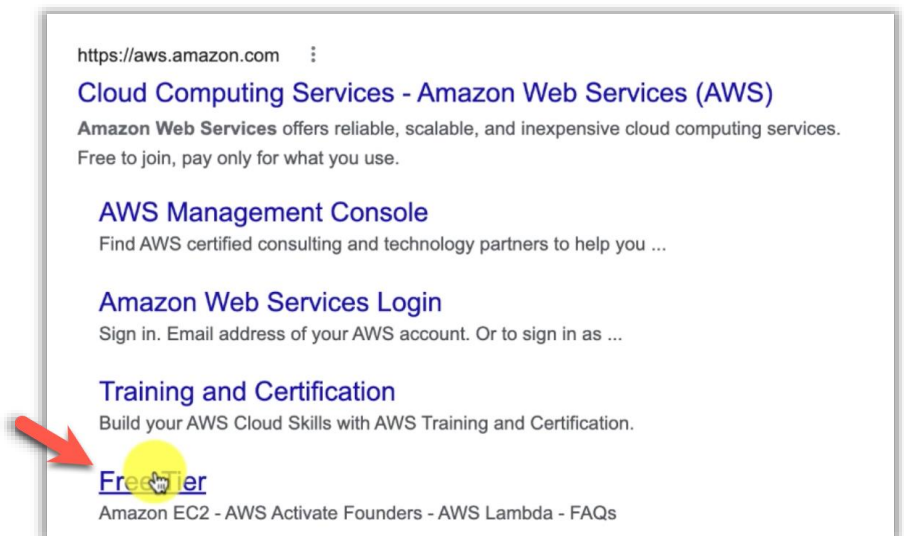
CREATING YOUR AWS ACCOUNT

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).

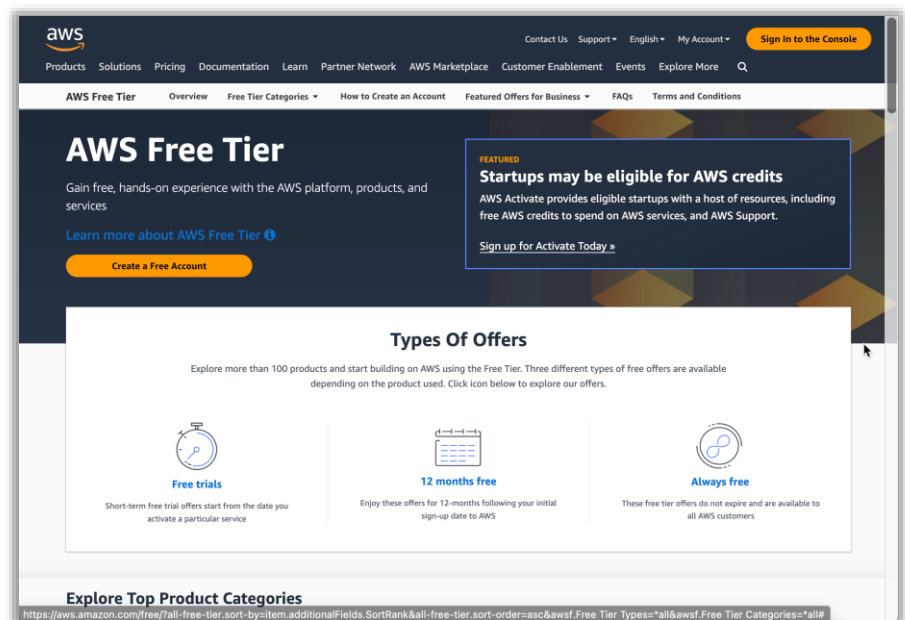To open your AWS account search for "AWS" on google.

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.

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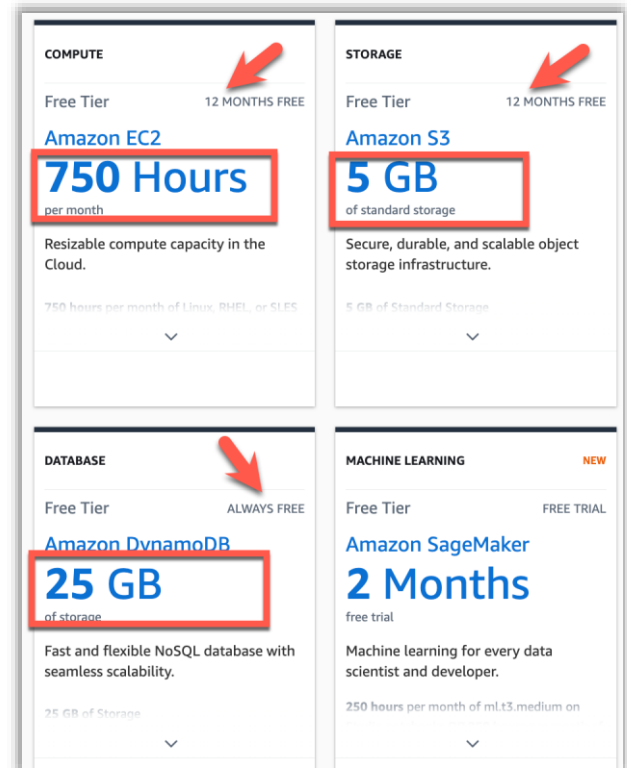
Once you are familiar with the Free Tier offering, go ahead and click the "Create a Free Account".

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.

5
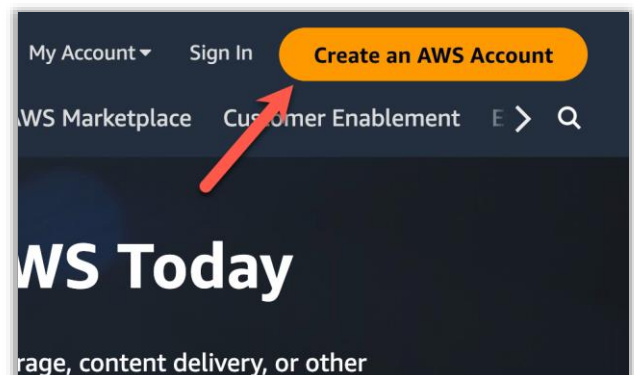
From here please follow the steps as illustrated below:

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

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

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)

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

6

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 <u>your responsibility</u> to stay under the free tier limits if you don't want to be charged**.

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

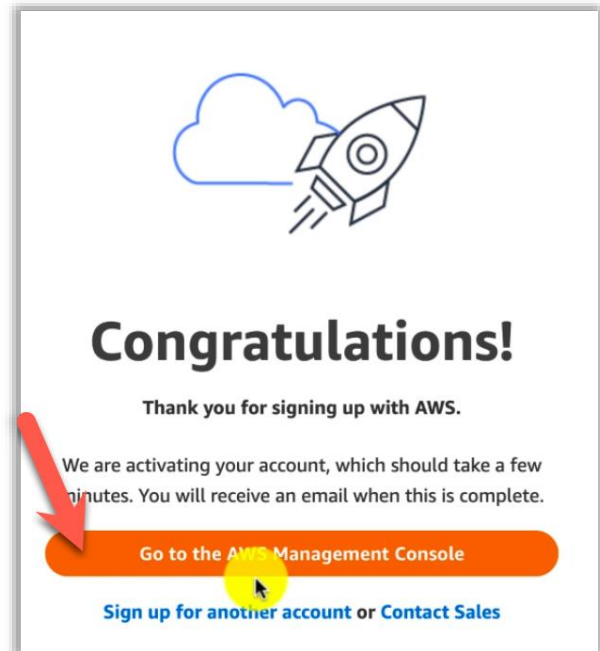On the following screen select the "Basic support" plan:

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:

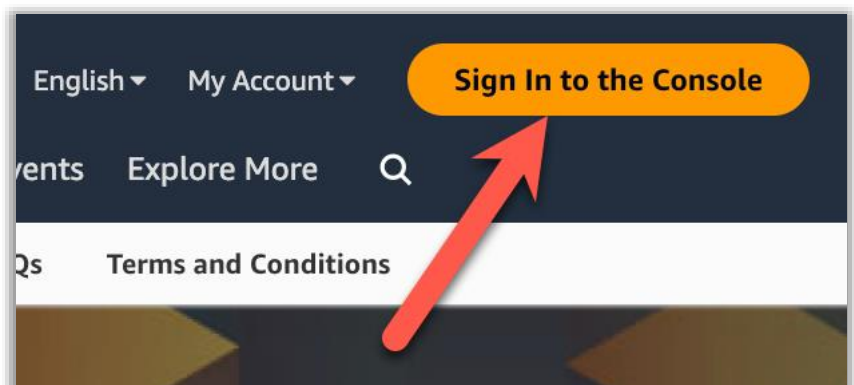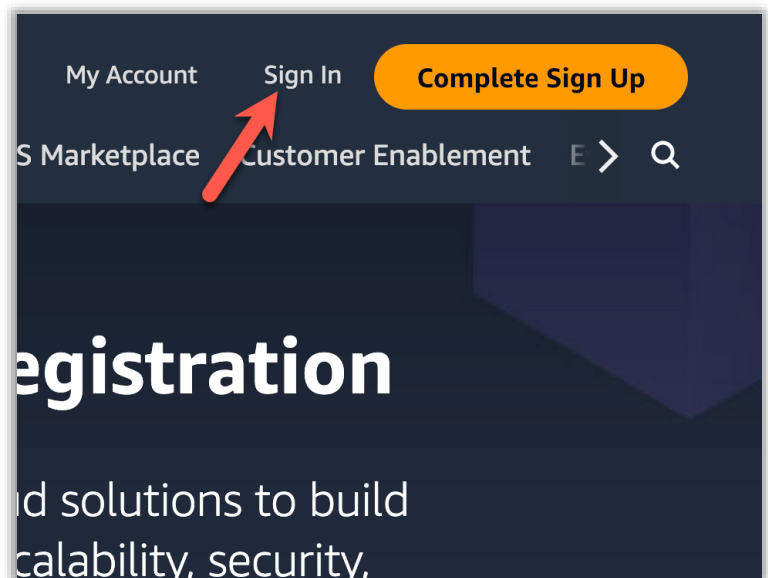https://us-east-1.console.aws.amazon.com/billing/home?region=us-east-1#/paymentpreferences/paymentmethod/add

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

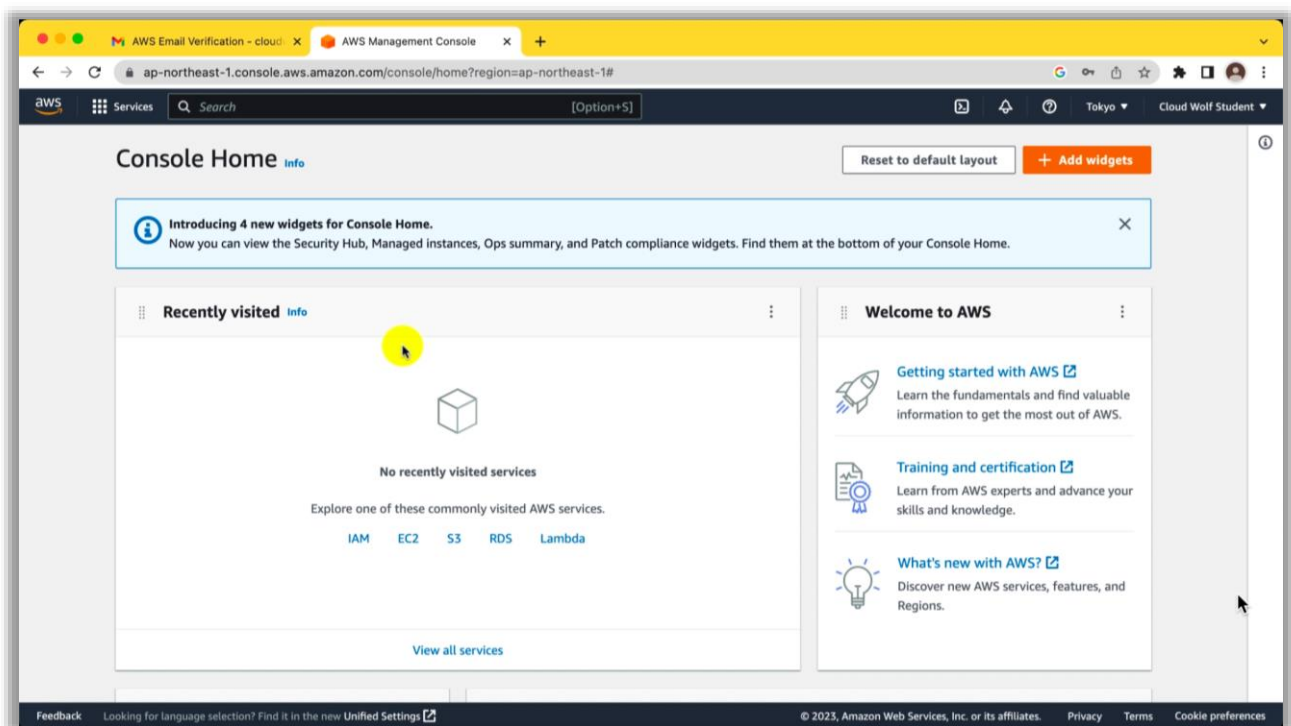Also, you can click the "Sign In" button located in the top right corner of almost any AWS page.

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

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:

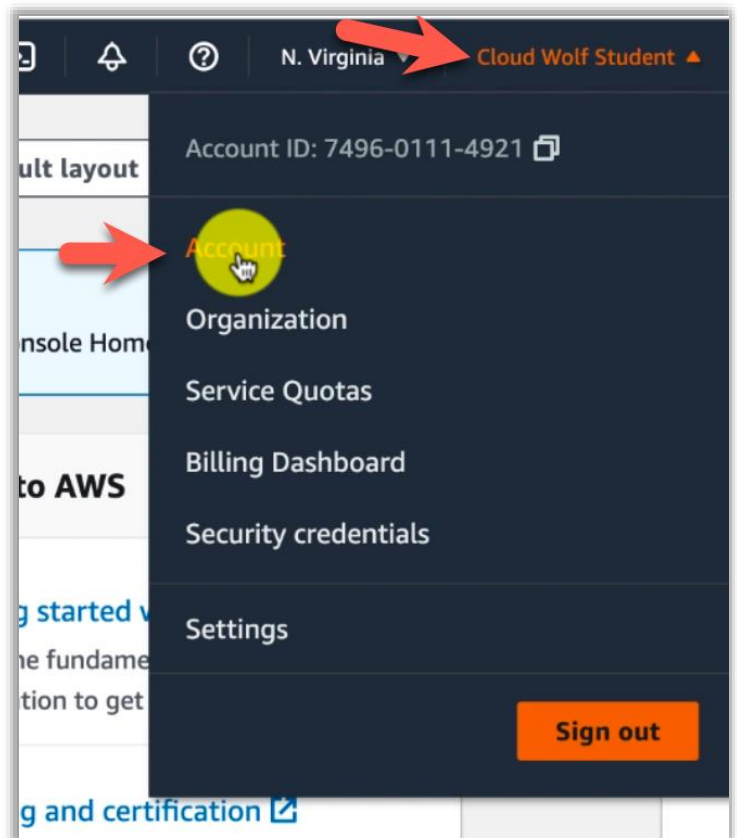# Setting up a Billing Alarm

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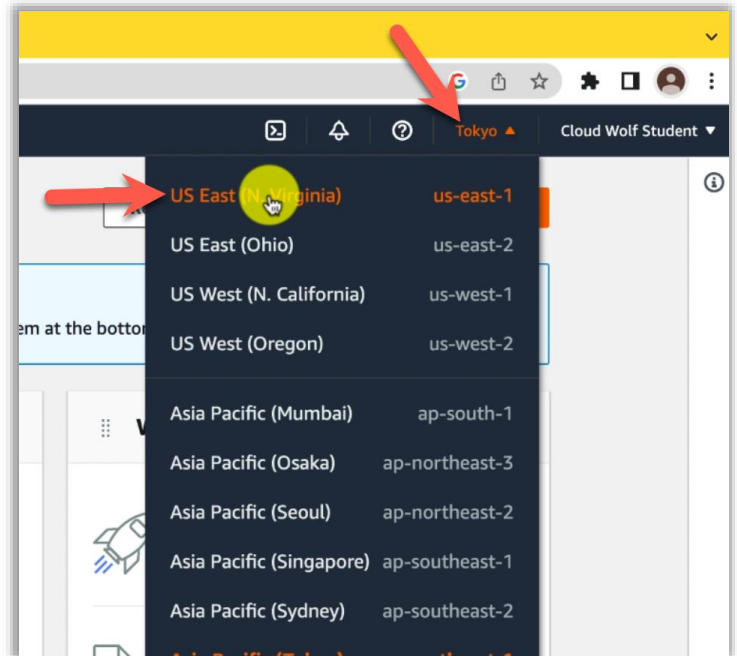
Then click on the account name in the top right corner and from the dropdown select "Account".

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

Click the Edit button

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.
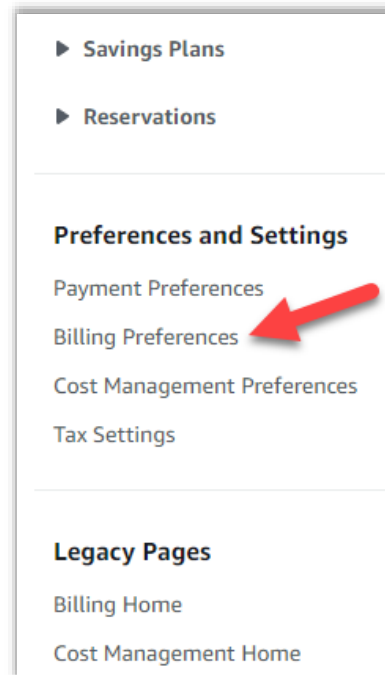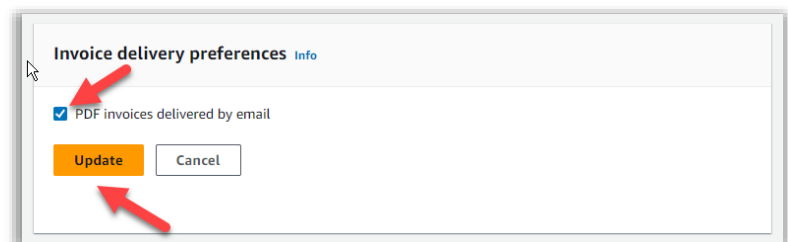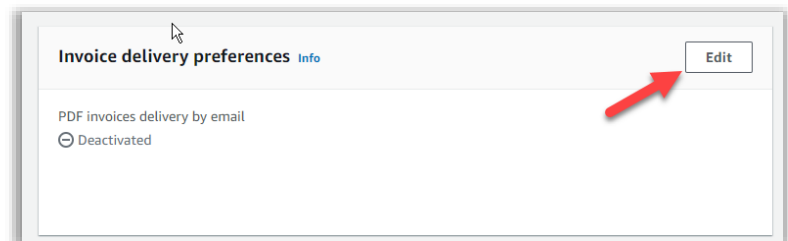
Click Update.

Ensure that "IAM user/role access to billing information" is now Activated.
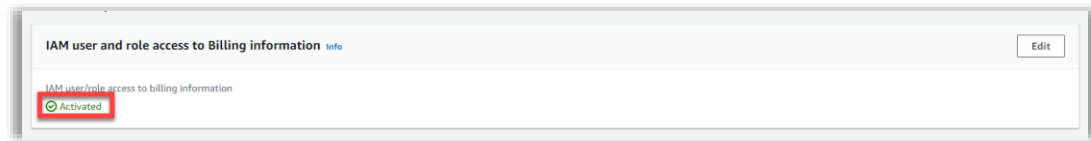
In the menu on the left, scroll down and click "Billing Preferences".

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

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.

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

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.
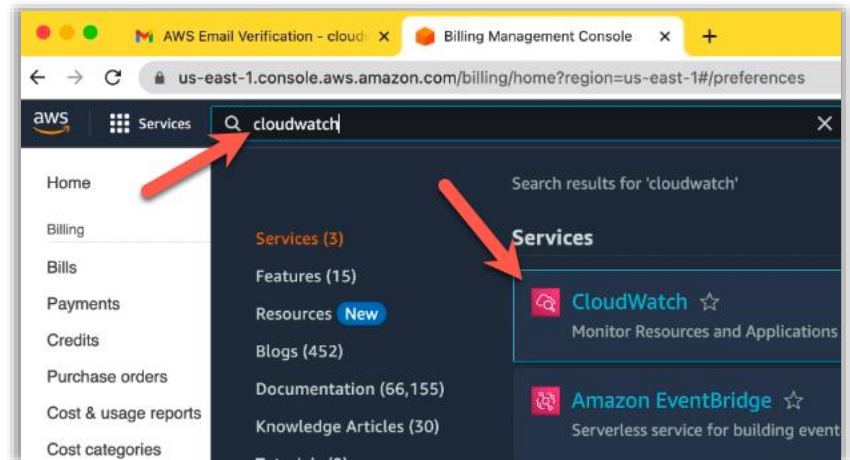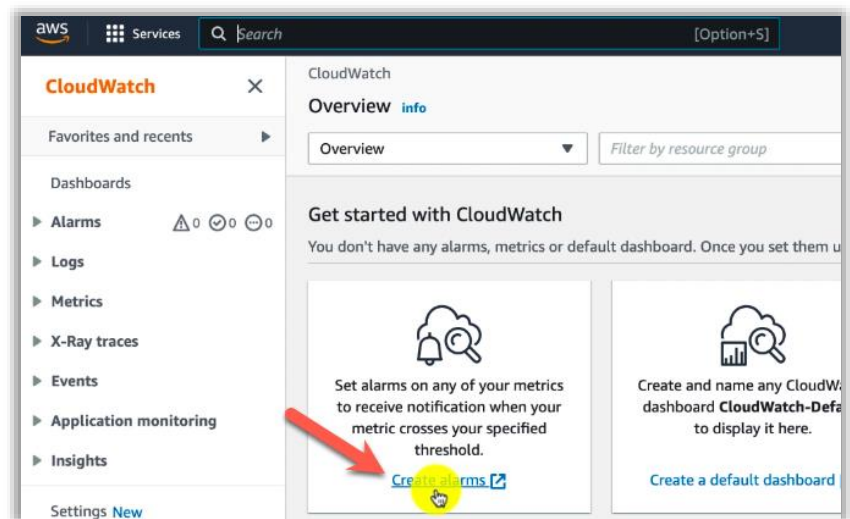
SETTING UP A BILLING ALARM

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.

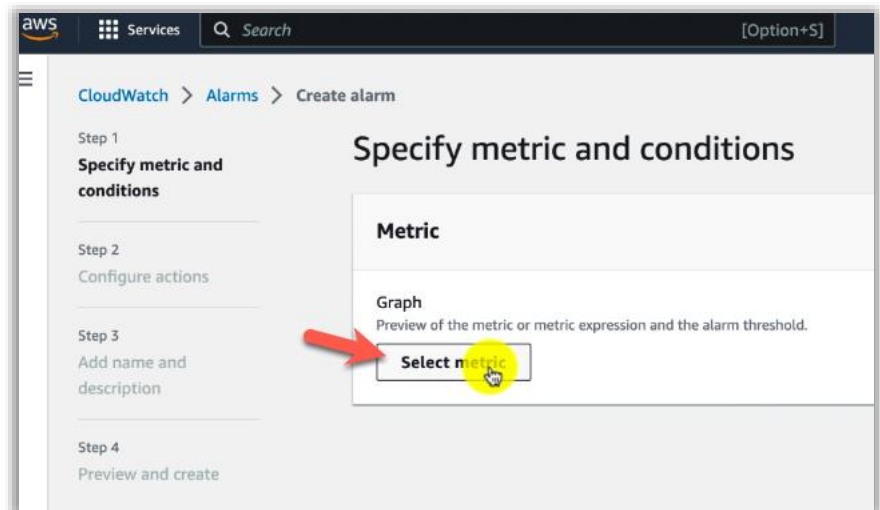On the CloudWatch homepage select "Create alarms".
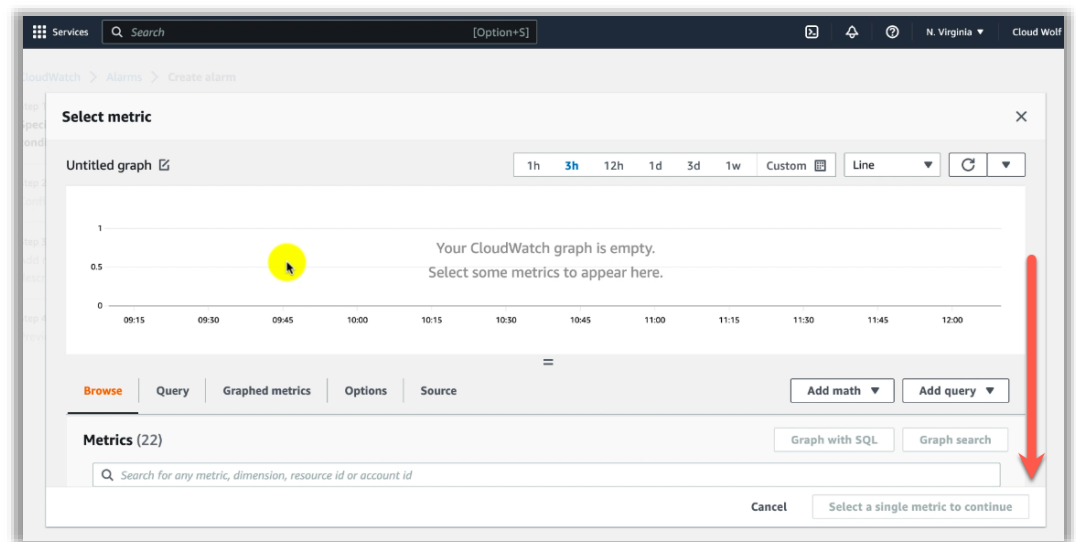
Then select "Create alarm":
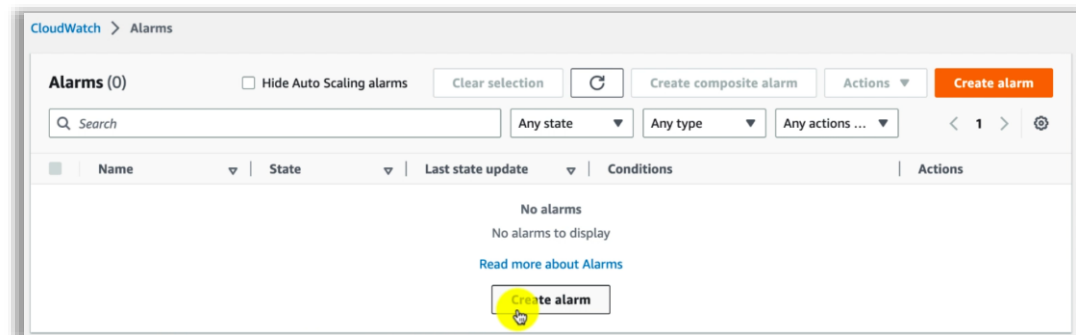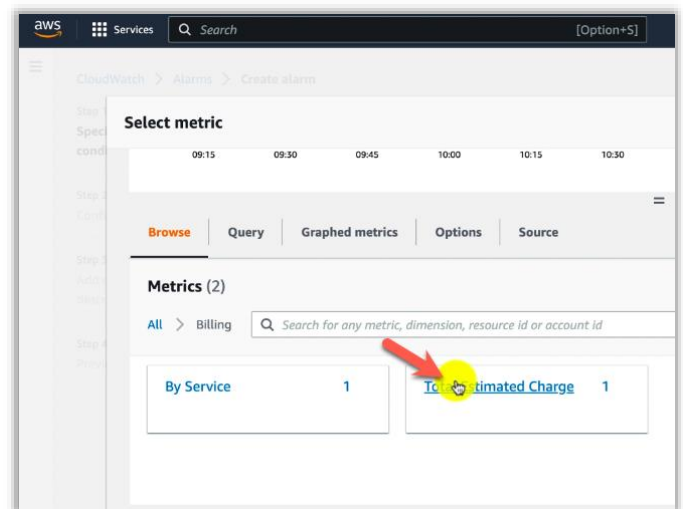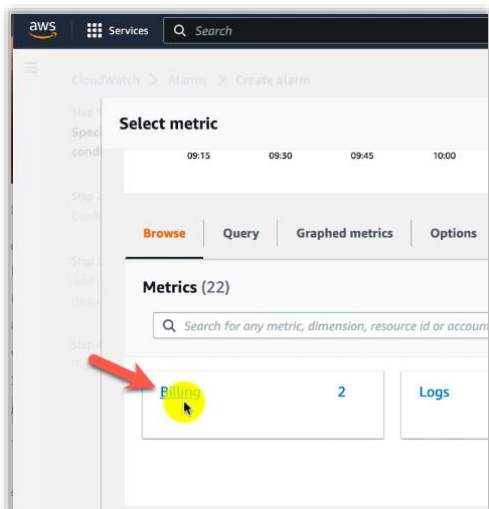
SETTING UP A BILLING ALARM

Click "Select metric"
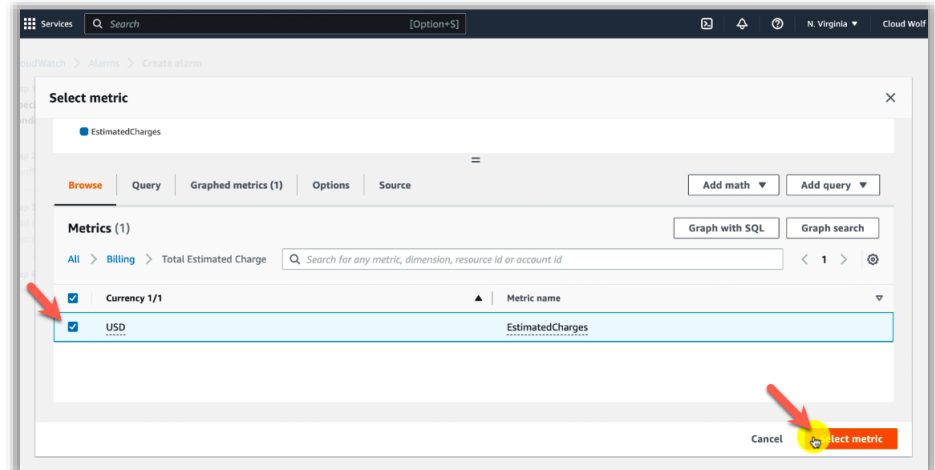
Scroll down to the bottom of the next popup window

Select "Billing", then select "Total Estimated Charge":

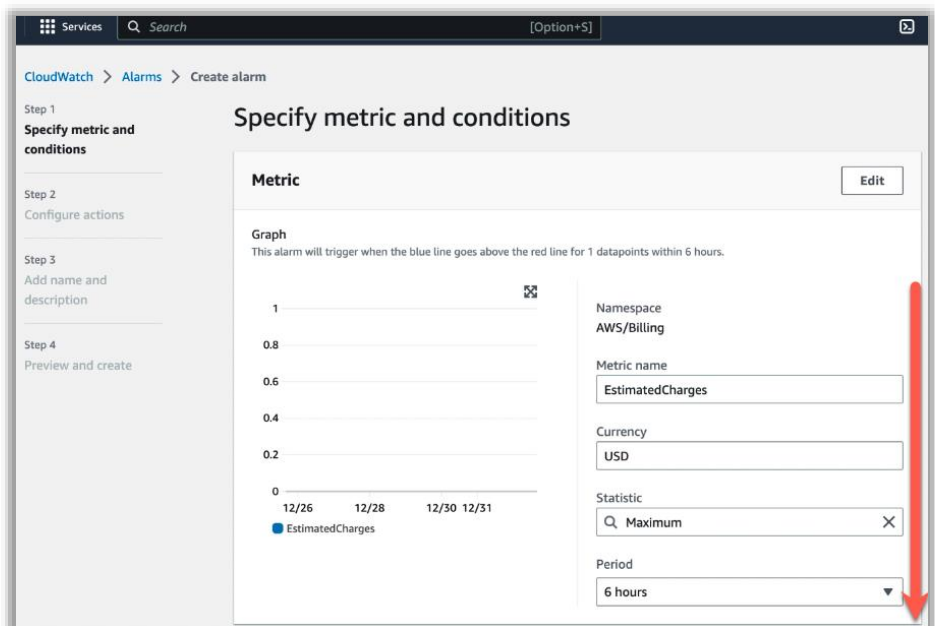Check the box "USD" and then click "Select Metric" on the right

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.**
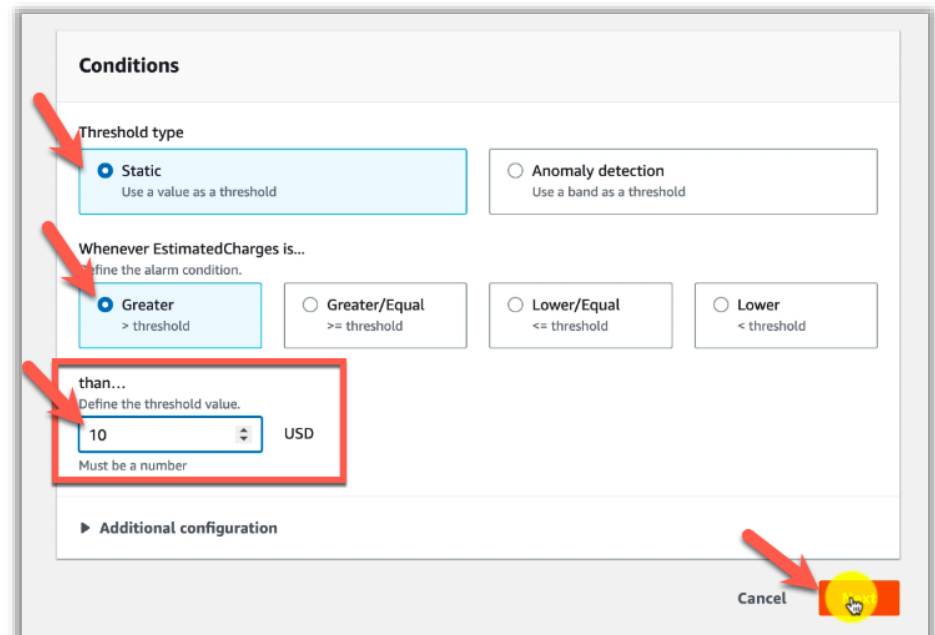
SETTING UP A BILLING ALARM

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

Click "Create topic".

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

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

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

...and click "Create Alarm".

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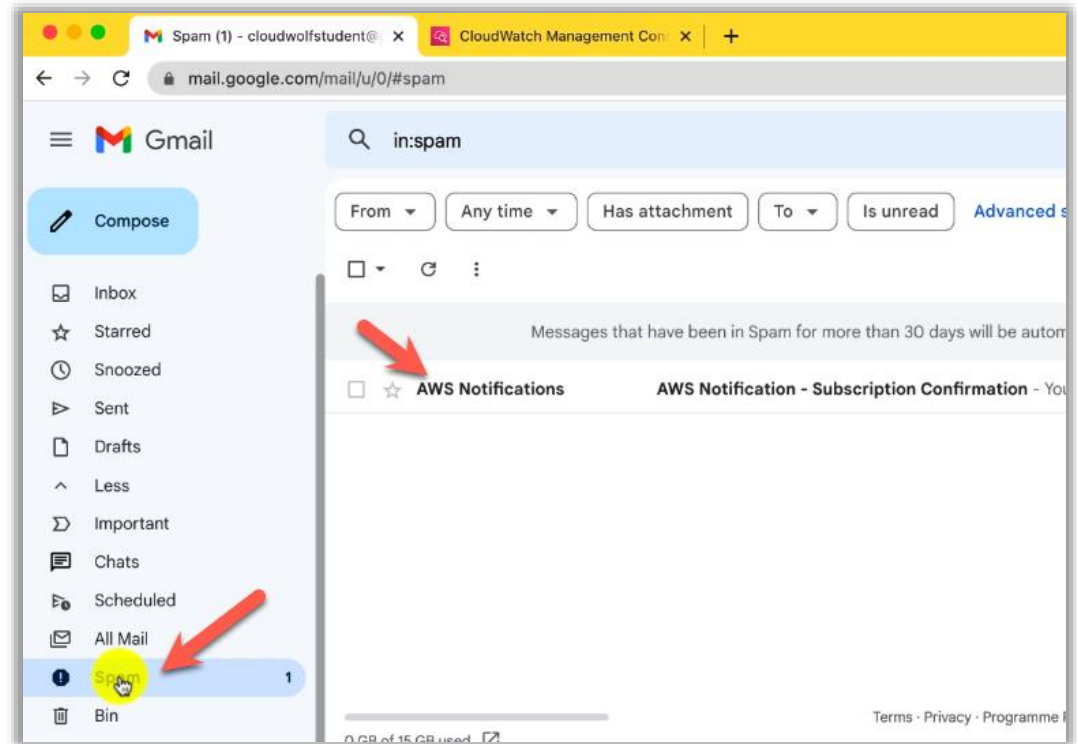
Proceed to your inbox in a new tab (keep the CloudWatch tab open for now).

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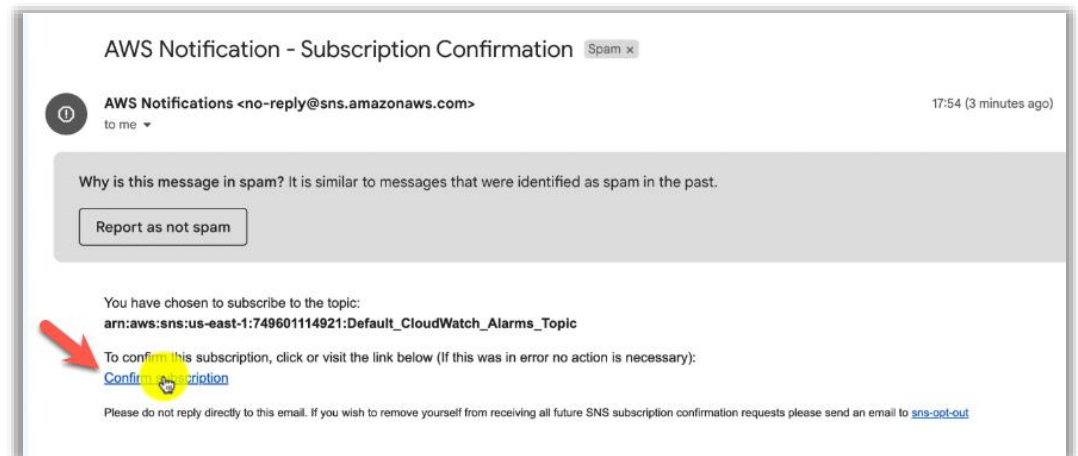
You should see an email confirmation window which looks like this.

22
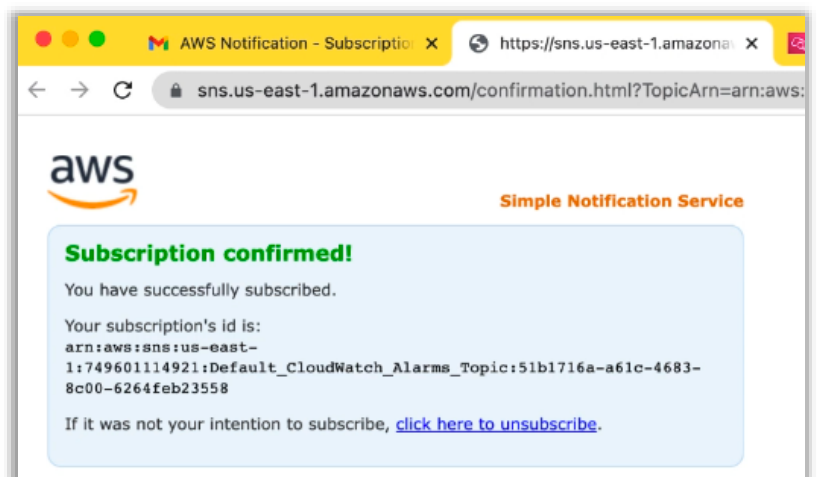
If you go back to your CloudWatch window. You will see that there is a "Warning" in Actions.
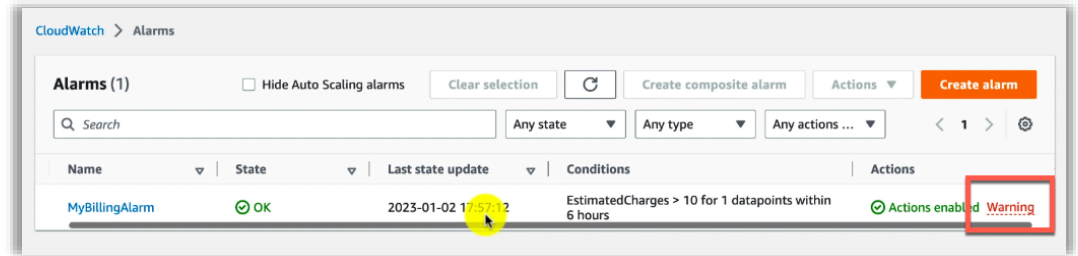
If you click the "Refresh" button, the warning should disappear since you've confirmed your subscription.
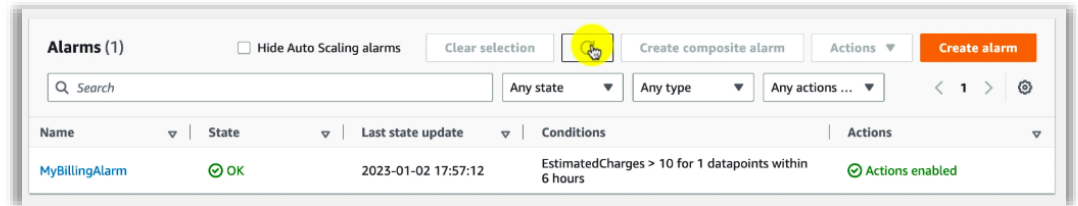
Now if you click on "View SNS Subscriptions", you will see...
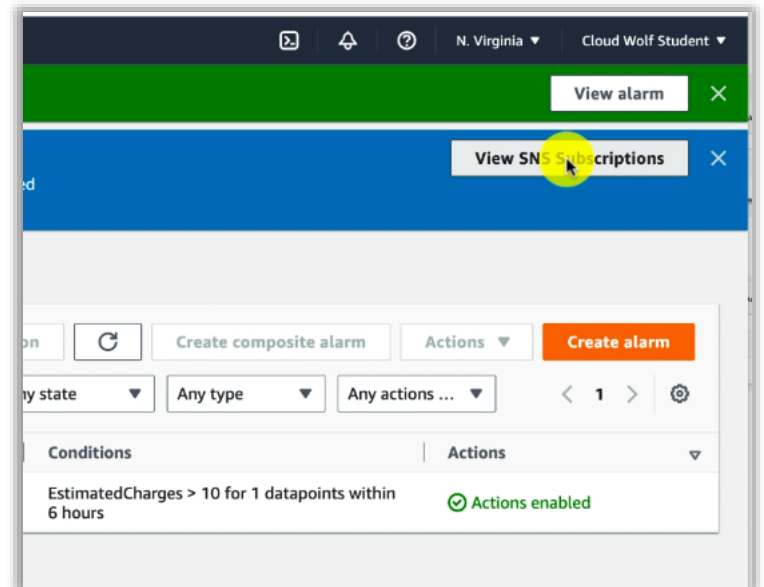
...that your subscription to this topic is all set.
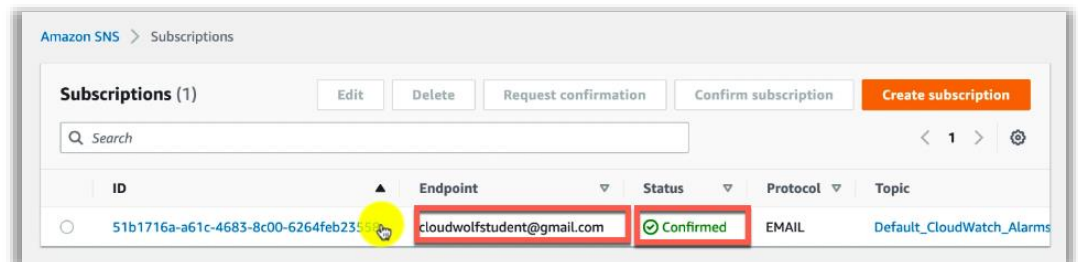
Congratulations! You've set up your billing alarm. If your charge for the month exceeds the $USD threshold you have set, you will be notified. Looking forward to seeing you in the next section of the handbook. Until then, enjoy the cloud!

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".

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
+ - (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".

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:
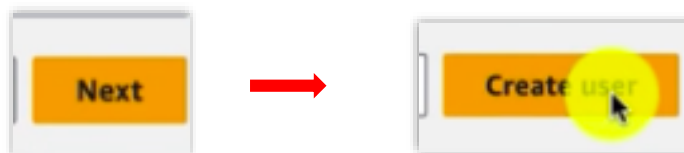
Check "Attach policies directly"
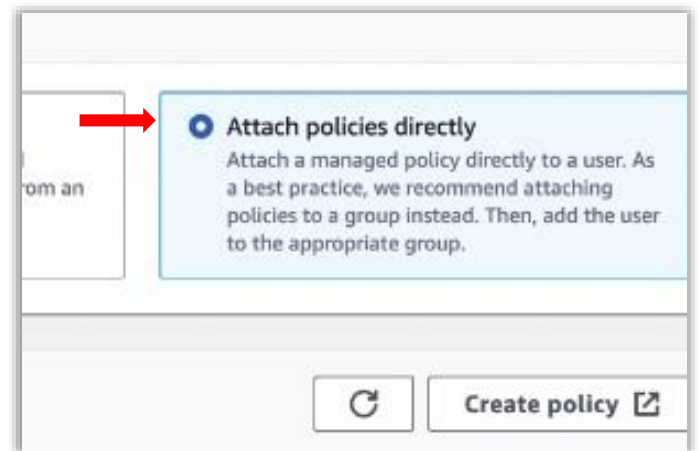
Search for "Administrator access" and select it.
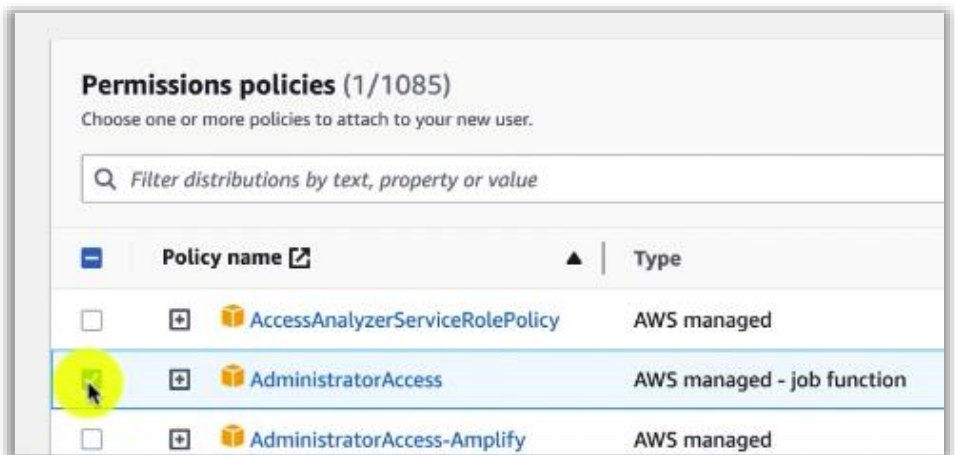
Click Next, review your settings and if you're happy with everything, press on "Create user".

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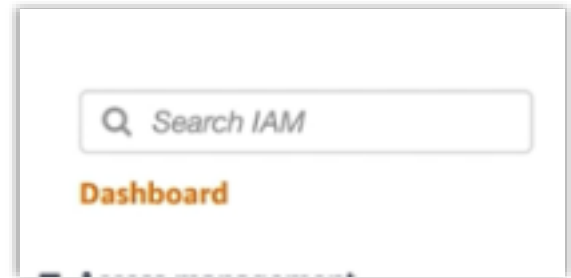
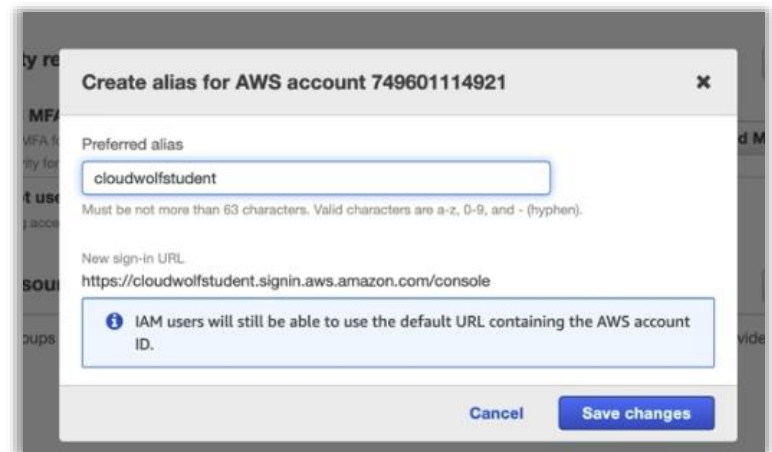To make our life easier, we will now create an Account Alias.

In the left menu, go to "Dashboard"

Click on "Create" on the right side of the screen.

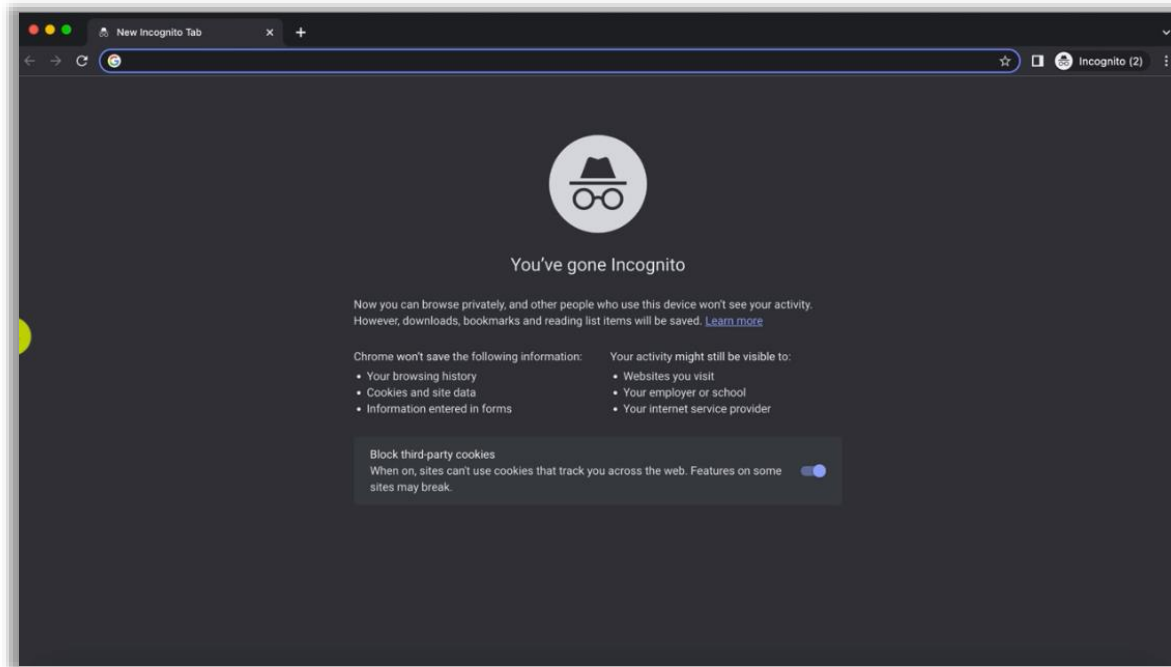Write a memorable and suggestive name and Save the changes.

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

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.

AWS Account

Account ID
749601114921

Account Alias
cloudwolfstudent Edit | Delete

Sign-in URL for IAM users in this account
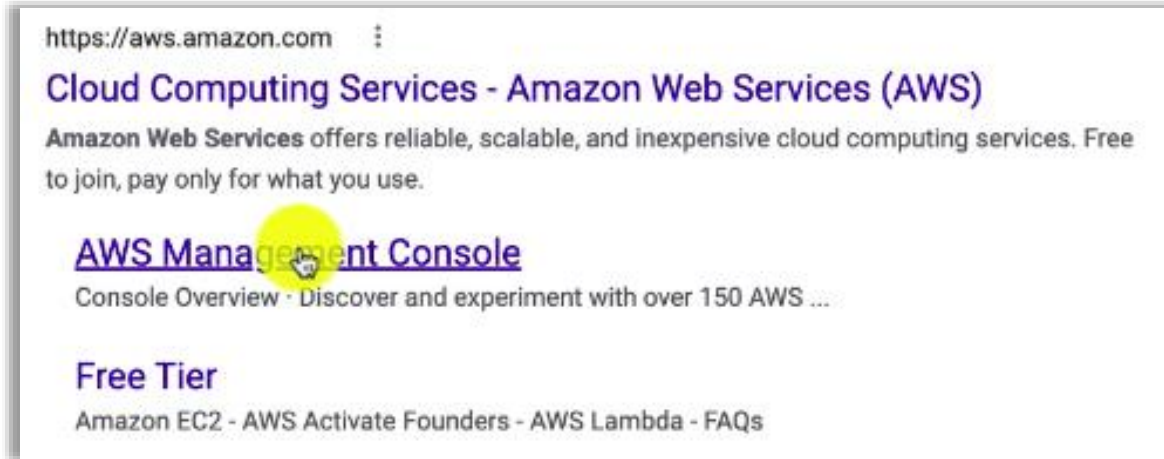https://cloudwolfstudent.signi
n.aws.amazon.com/console

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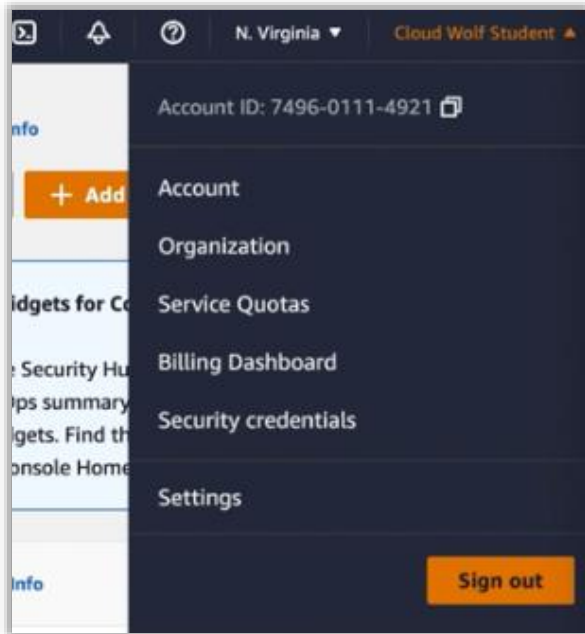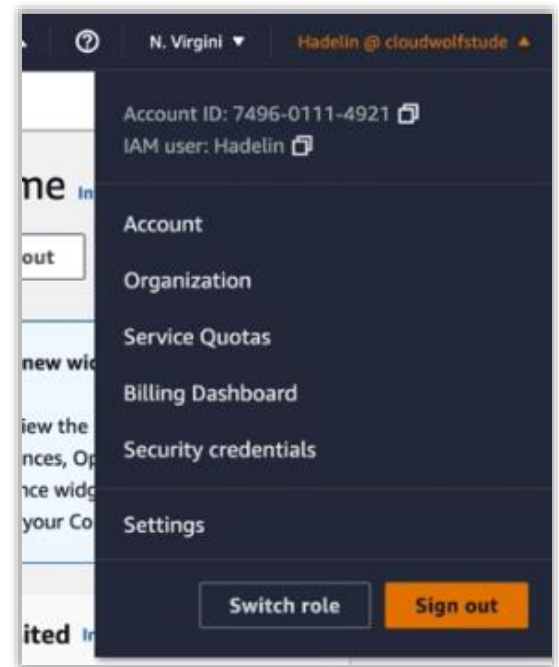
A difference you can notice is that on the **root user** account, if you click in the top right corner you will see **only the account ID**.

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 ☺

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