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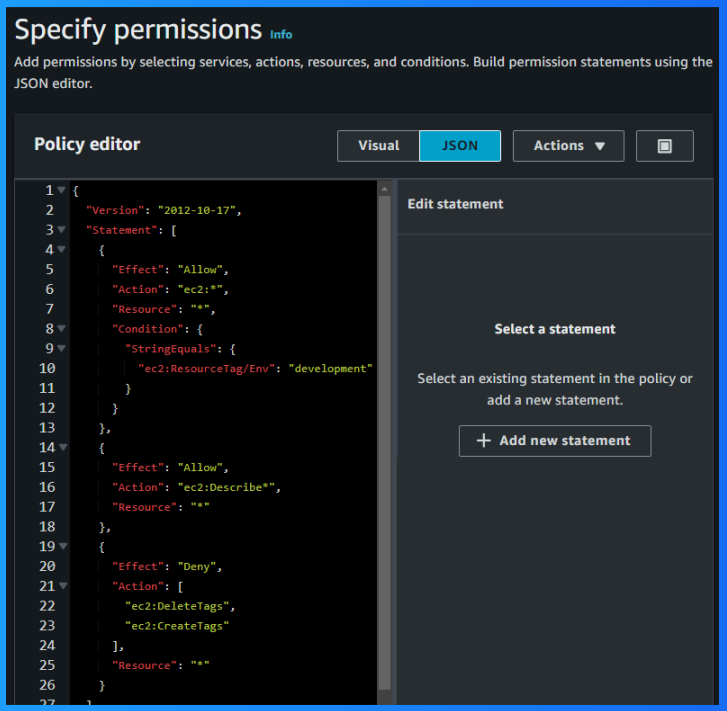
Cloud Security with AWS IAM

Ivan Delgadillo Fernandez



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Introducing today's project!

What is AWS IAM?

AWS Identity and Access Management (IAM) is a web service for securely controlling access to AWS resources

How I'm using AWS IAM in this project

I've created a policy to access two environments.

One thing I didn't expect...

I didn't expect use a policy editor

This project took me...

60 minutes

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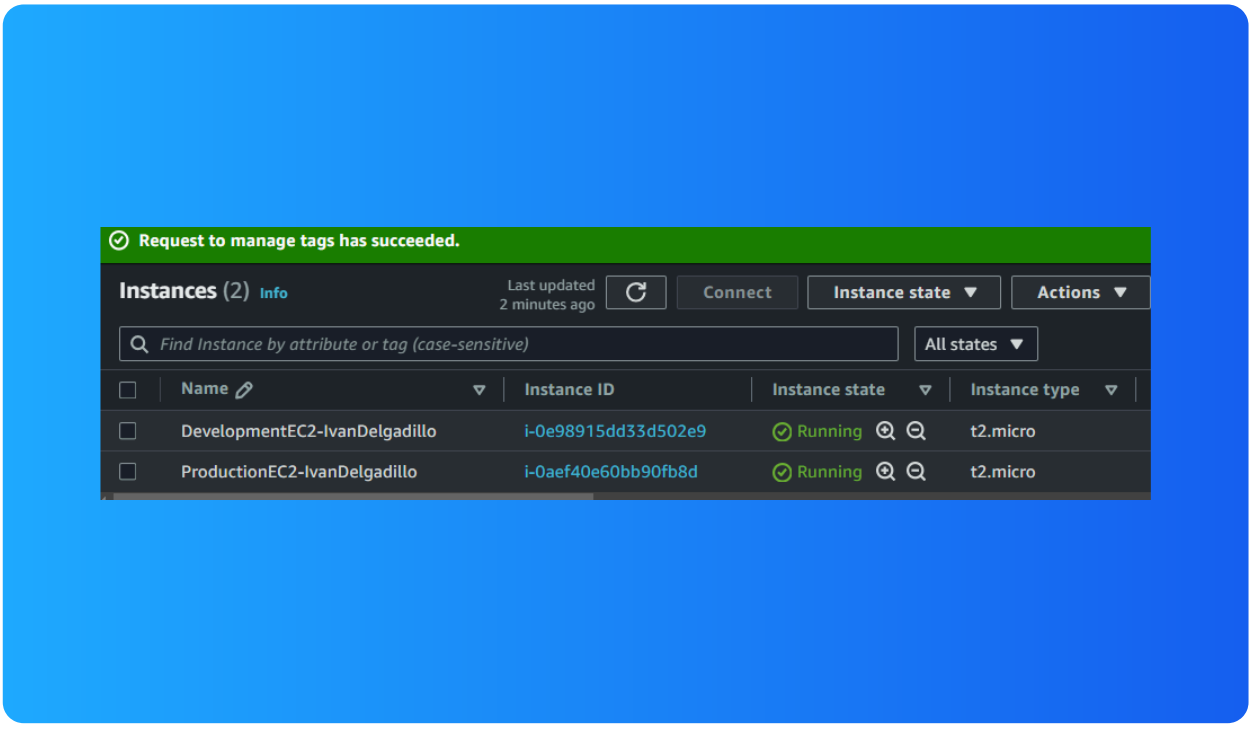
Tags

Tags are like labels you can attach to AWS resources for organization.

The tag I've used on my EC2 instances is called "Env" the value I've assigned for my instances are "production and development"



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IAM Policies

IAM stands for Identity and Access Management. You'll use AWS IAM to manage the access level that other users and services have to your resources.

The policy I set up

For this project, I've set up a policy using JSON editor

I've created a policy that allows some actions (like starting, stopping, and describing EC2 instances) for instances tagged with "Env = development" while denying the ability to create or delete tags for all instances

When creating a JSON policy, you have to define its Effect, Action and Resource.

The Effect, Action, and Resource attributes of a JSON policy means to indicate whether the policy allows or denies a certain action

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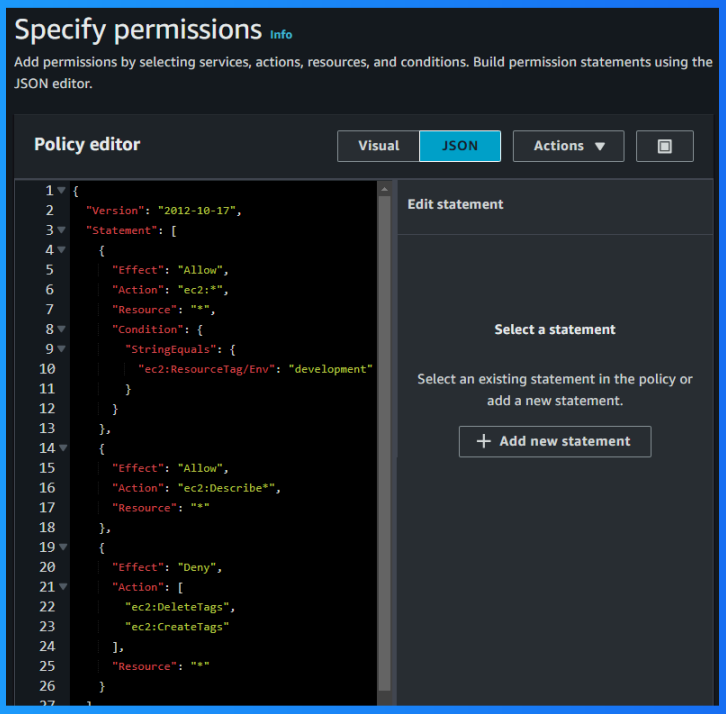
My JSON Policy



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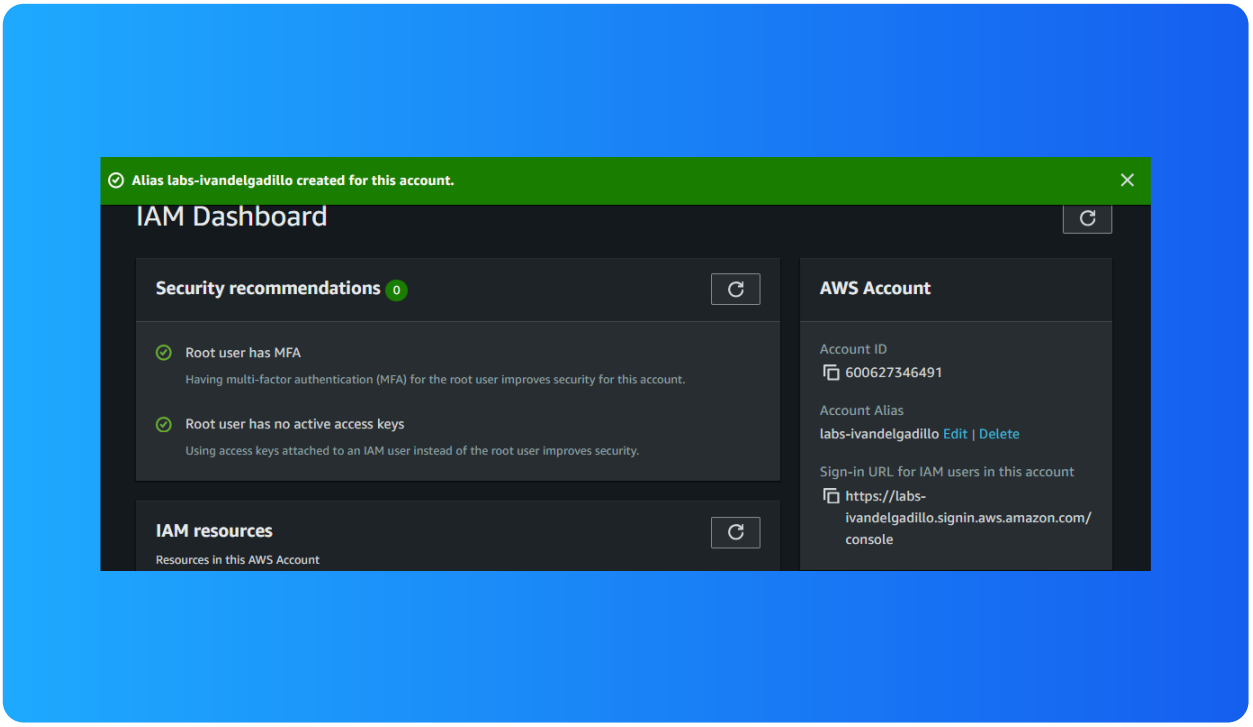
Account Alias

An Account Alias is a friendly name for your AWS account that you can use instead of your account ID (which is usually a bunch of digits) to sign in to the AWS Management Console.

Creating an account alias took me 2 minutes

Now, my new AWS console sign-in URL is labs-ivandelgadillo



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IAM Users and User Groups

Users

user is an entity that you create in AWS.

User Groups

An IAM user group is a collection/folder of IAM users.

I attached the policy I created to this user group, which means the user has access to resources on AWS.

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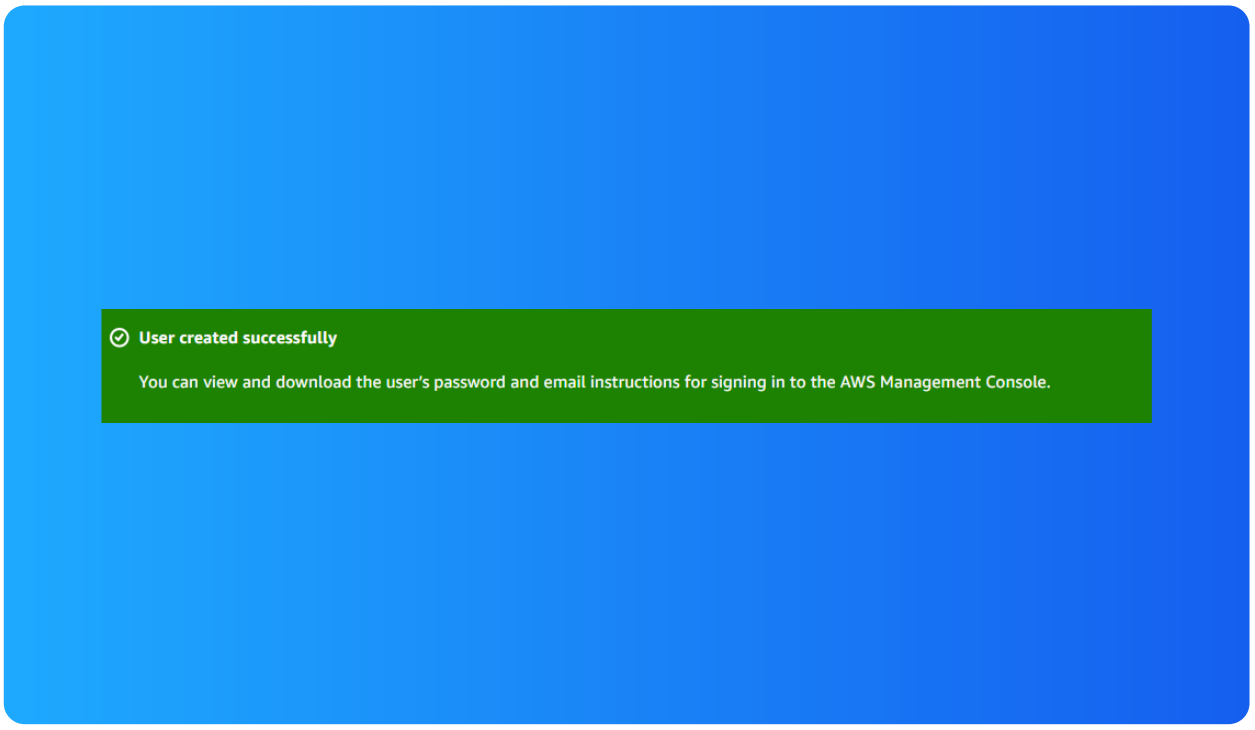
Logging in as an IAM User

The first way is specify with Identity Center and second way is create user and password.

Once I logged in as my IAM user, I noticed that I can't access different sections



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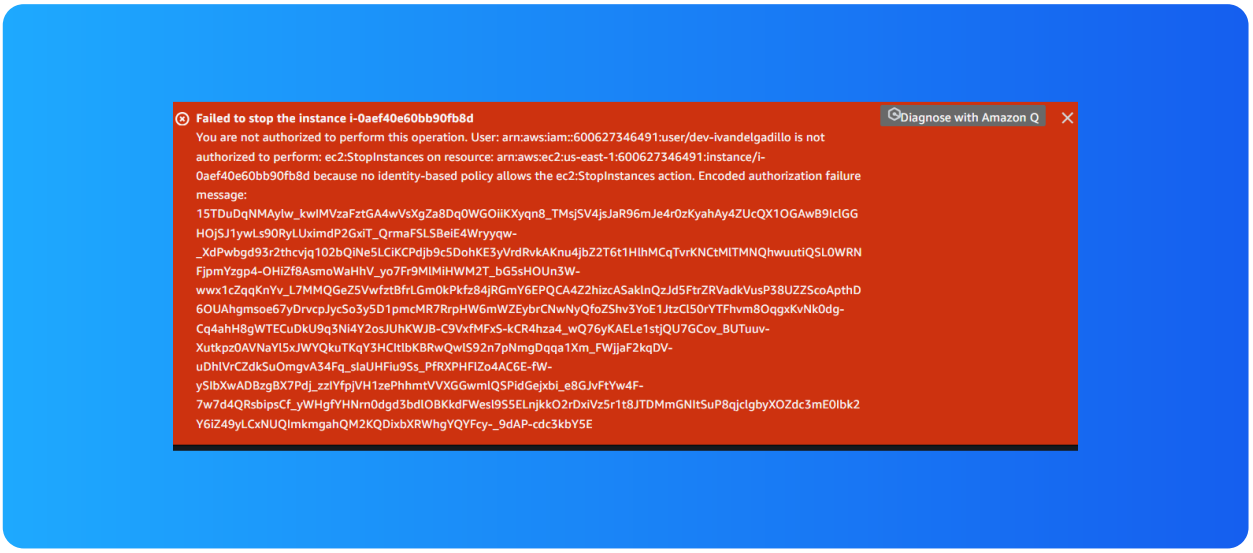
Testing IAM Policies

I tested my JSON IAM policy by stop production instance and development instance

Stopping the production instance

When I tried to stop the production instance, show the error message



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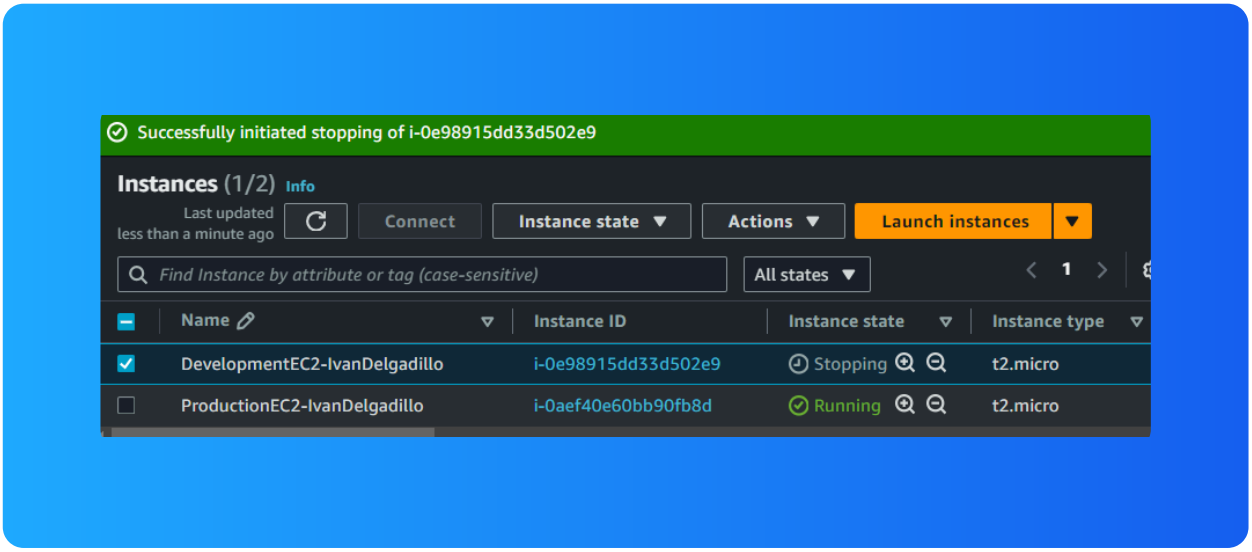
Testing IAM Policies

Stopping the development instance

Next, when I tried to stop the development instance, the show message has Successfully



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