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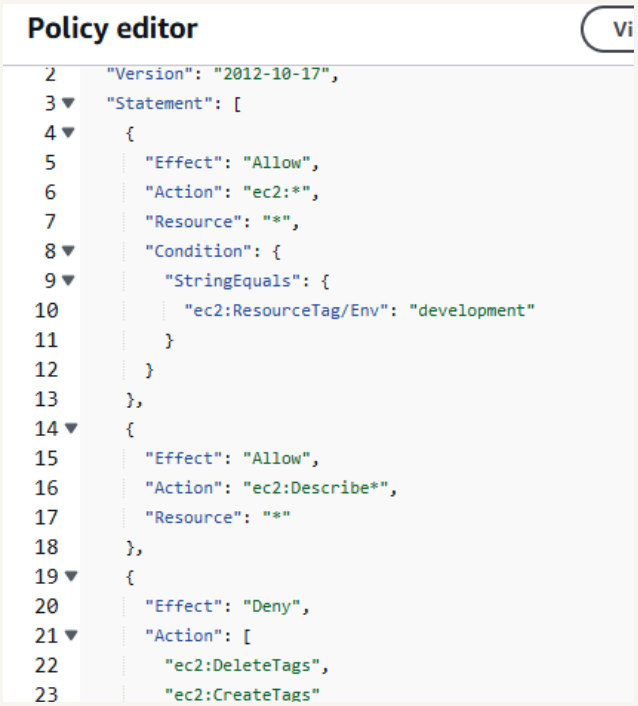
Cloud Security with AWS IAM

R Russell Geisler



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Introducing Today's Project!

In this project, I will demonstrate... I'm doing this project to learn...in this project I will learn and demonstrate knowledge of IAM concepts and group policies.

Tools and concepts

Services I used were... Key concepts I learnt include...I learned how to add users and groups and assign group policies based on roles.

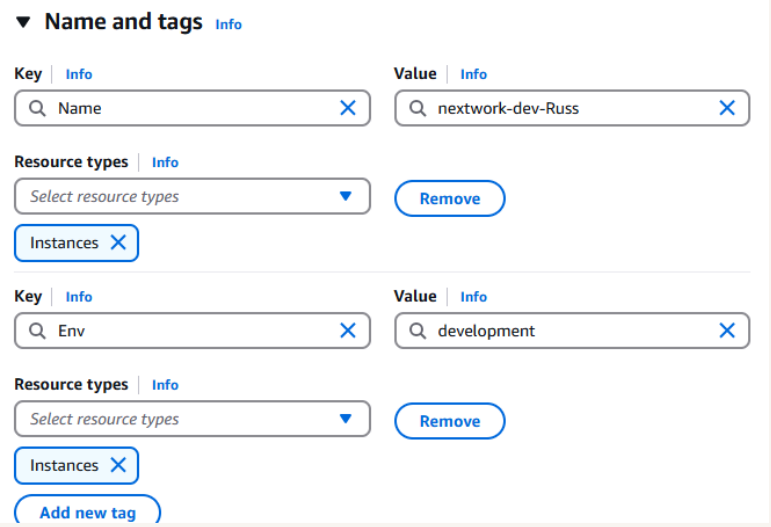
Project reflection

This project took me approximately... The most challenging part was... It was most rewarding to...This project took me a little over an hour to complete.

Tags

Tags are...used to help categorize what part of the environment it is

The tag I've used on my EC2 instances is called... The value I've assigned for my instances are...The tags are prod:production and Env:development



IAM Policies

IAM Policies are...used to enforce RBAC or role base access controls

The policy I set up

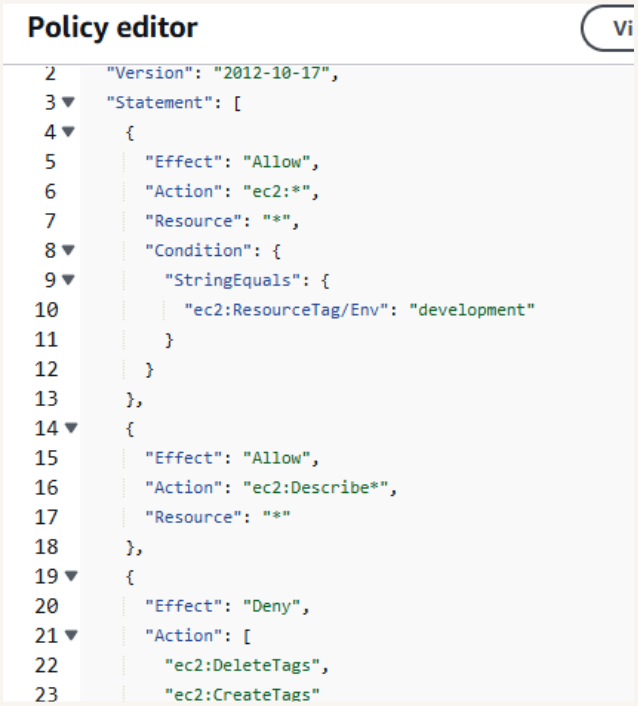
For this project, I've set up a policy using...JSON

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...Effect can either allow or deny an action. The resouce specifies what thepolcu applies to

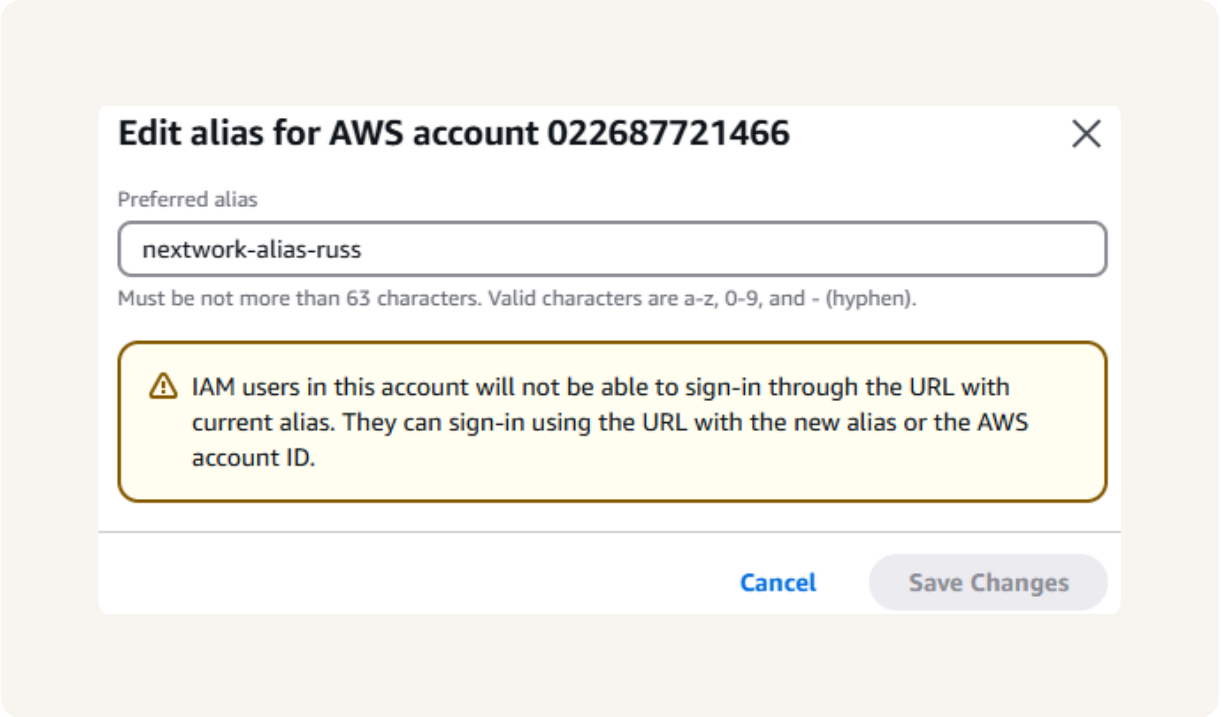
My JSON Policy



Account Alias

An account alias is...a way to sign into an AWS account by an alias username versus account number

Creating an account alias took me... Now, my new AWS console sign-in URL is...I creatd the alias in about 5 min



IAM Users and User Groups

Users

IAM users are...accounts that can be put in user groups that have permissions to access resources

User Groups

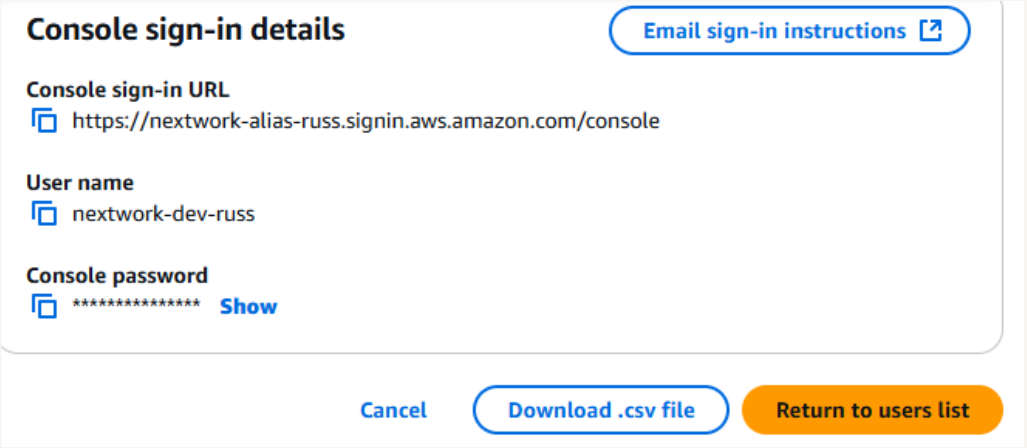
IAM user groups are...used to groups users based upon permissions and access allowed

I attached the policy I created to this user group, which means...this allows everyone in the group to have the same permissions instead of doing it user by user

Logging in as an IAM User

The first way is..copy the link or send an email

Once I logged in as my IAM user, I noticed... This was because...some of the panels are disabled due to permissions set on the account



Testing IAM Policies

I tested my JSON IAM policy by...trying to stop the production instance which failed due to permissions. I was able to stop the development

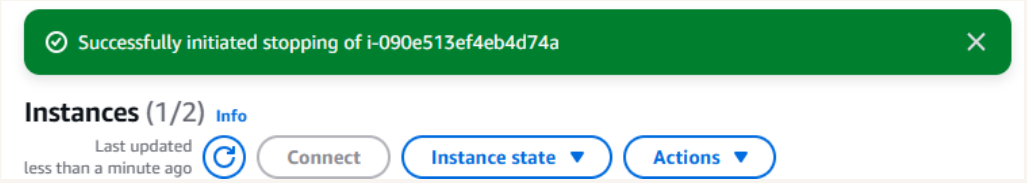
Stopping the production instance

When I tried to stop the production instance... This was because...the process was denied due to permissions

Testing IAM Policies

Stopping the development instance

Next, when I tried to stop the development instance... This was because...i was able to stop the development instance because I had permissions on the intern account



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