**Creating and Assuming an Administrator AWS IAM Role**

**Hands-on Lab**

In this Hands-on Lab we are going to work through creating a brand-new IAM Role. This IAM Role will be granted Administrator Access permissions within the same account.

**Objectives**

* Create IAM Role
* Assume the IAM Role
* Create & Deploy CloudFormation Template of IAM Role

**Architecture**

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We are going to create and test an IAM Role and then we are going to create and CloudFormation template and added to a new stack called AdministratorAccessRole to automatically deploy it in the future. This template it’s going to deploy an IAM Role called CSAA\_AdministratorTest for us, this role is going to have the AdministratorAccess policy attached. And then, this role is going to have a custom trust policy in place where we only going to allow the cloud user to assume this role.

1.- First we are going to create the new role CSAA\_AdministratorTest.

The step 1 is select the entity type in this case custom trust policy and add the policy

{

"Version":"2012-10-17",

"Statement": [

{

"Effect":"Allow",

"Principal": {

"AWS": "arn:aws:iam::%REPLACE\_WITH\_ACCOUNT\_ID%:user/cloud\_user"

},

"Action": "sts:AssumeRole",

"Condition": {}

} ]

}

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Then we attach the policy AdministratorAccess

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Finally, we add the name and review the settings.

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Now we are going to test and assume the role, there is a link in the role that we only need to copy and paste the URL to switch to the role, the other way is to logout and sing in with the role

With this role we have administrator access

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The final step is to create the cloud formation template, we go to cloud formation/create stack and create new resources

We are going to create this template form scratch so we choose the third option and create template (Application Composer)

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We are going to have 2 view Canva/Template in this case we going to choose Template and add the next JSON code

{

"AWSTemplateFormatVersion": "2010-09-09",

"Description": "CloudFormation template to create an IAM role with Administrator access",

"Resources": {

"CSAAAdministratorRole": {

"Type": "AWS::IAM::Role",

"Properties": {

"RoleName": "CSAA\_Administrator",

"AssumeRolePolicyDocument": {

"Version": "2012-10-17",

"Statement": [

{

"Effect": "Allow",

"Principal": {

"AWS": {

"Fn::Sub": "arn:aws:iam::${AWS::AccountId}:user/cloud\_user". 🡪 ${AWS::AccountId} is a parameter

}

},

"Action": "sts:AssumeRole"

}

]

},

"ManagedPolicyArns": [

"arn:aws:iam::aws:policy/AdministratorAccess"

],

"Description": "IAM role with Administrator access"

}

}

}

}

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Description automatically generatedWe can validate the template and create the template

This template is stored in S3 bucket

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Finally, we add a stack name and the step 3 we are going to left the default settings and next we save the stack

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Always that we create a code that create a new IAM resource (user,role, …) we need to check the blue box to allow cloudformation to create IAM resource

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We can check the result of the IAM resource created from the template

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