

## Lab-7

### Creating Multiple IAM users in Terraform

Step 1: Create a Terraform Directory

```
Command Prompt - terraform x + v
Microsoft Windows [Version 10.0.22621.3007]
(c) Microsoft Corporation. All rights reserved.

C:\Users\hp>mkdir terraform-iam-users

C:\Users\hp>cd terraform-iam-users

C:\Users\hp\terraform-iam-users>terraform init'
```

Step 2: Create a file name main.tf

```
main.tf x .terraform.tfstate.lock.info
main.tf
1 provider "aws" {
2   region = "ap-south-1"
3   access_key = "AKIAV2D7UZ5ZAAX5TMVG"
4   secret_key = "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"
5 }
6 variable "iam_users" {
7   type = list(string)
8   default = ["user1", "user2", "user3"]
9 }
10 resource "aws_iam_user" "iam_users" {
11   count = length(var.iam_users)
12   name = var.iam_users[count.index]
13   tags = {
14     Name = "${var.iam_users[count.index]}-user"
15   }
16 }
```

### Step 3: Run the following commands in terraform

```
C:\Users\hp\terraform-iam-users>terraform init'
Terraform has no command named "init'". Did you mean "init"?

To see all of Terraform's top-level commands, run:
  terraform -help

C:\Users\hp\terraform-iam-users>terraform init

Initializing the backend...

Initializing provider plugins...
- Finding latest version of hashicorp/aws...
- Installing hashicorp/aws v5.36.0...
- Installed hashicorp/aws v5.36.0 (signed by HashiCorp)

Terraform has created a lock file .terraform.lock.hcl to record the provider selections it made above. Include this file in your version control repository so that Terraform can guarantee to make the same selections by default when you run "terraform init" in the future.

Terraform has been successfully initialized!

You may now begin working with Terraform. Try running "terraform plan" to see any changes that are required for your infrastructure. All Terraform commands should now work.

If you ever set or change modules or backend configuration for Terraform, rerun this command to reinitialize your working directory. If you forget, other commands will detect it and remind you to do so if necessary.
```

```
Command Prompt
C:\Users\hp\terraform-iam-users>terraform apply

Terraform used the selected providers to generate the following execution plan. Resource actions are indicated with the following symbols:
+ create

Terraform will perform the following actions:

# aws_iam_user.iam_users[0] will be created
+ resource "aws_iam_user" "iam_users" {
+   arn                = (known after apply)
+   force_destroy      = false
+   id                 = (known after apply)
+   name               = "user1"
+   path               = "/"
+   tags               = {
+     "Name" = "user1-user"
+   }
+   tags_all           = {
+     "Name" = "user1-user"
+   }
+   unique_id          = (known after apply)
}

# aws_iam_user.iam_users[1] will be created
+ resource "aws_iam_user" "iam_users" {
+   arn                = (known after apply)
+   force_destroy      = false
+   id                 = (known after apply)
+   name               = "user2"
+   path               = "/"
+   tags               = {
+     "Name" = "user2-user"
+   }
+   tags_all           = {
+     "Name" = "user2-user"
+   }
+   unique_id          = (known after apply)
}
```

```
Command Prompt
+ "Name" = "user2-user"
}
+ unique_id = (known after apply)
}

# aws_iam_user.iam_users[2] will be created
+ resource "aws_iam_user" "iam_users" {
+   arn = (known after apply)
+   force_destroy = false
+   id = (known after apply)
+   name = "user3"
+   path = "/"
+   tags = {
+     "Name" = "user3-user"
+   }
+   tags_all = {
+     "Name" = "user3-user"
+   }
+   unique_id = (known after apply)
}

Plan: 3 to add, 0 to change, 0 to destroy.

Do you want to perform these actions?
  Terraform will perform the actions described above.
  Only 'yes' will be accepted to approve.

Enter a value: yes

aws_iam_user.iam_users[0]: Creating...
aws_iam_user.iam_users[1]: Creating...
aws_iam_user.iam_users[2]: Creating...
aws_iam_user.iam_users[0]: Creation complete after 2s [id=user1]
aws_iam_user.iam_users[2]: Creation complete after 2s [id=user3]
aws_iam_user.iam_users[1]: Creation complete after 2s [id=user2]

Apply complete! Resources: 3 added, 0 changed, 0 destroyed.

C:\Users\hp\terraform-iam-users>
```

## Step 4: Verify users in Aws Console

IAM > Users

Users (5) Info

An IAM user is an identity with long-term credentials that is used to interact with AWS in an account.

< 1 >

⚙

| <input type="checkbox"/> | User name                           | Path | Group | Last activity | MFA | Password age | Console last sign-in |
|--------------------------|-------------------------------------|------|-------|---------------|-----|--------------|----------------------|
| <input type="checkbox"/> | <a href="#">lab2</a>                | /    | 0     | ✓ 5 days ago  | -   | ✓ 9 days     | -                    |
| <input type="checkbox"/> | <a href="#">terraform-iam-users</a> | /    | 0     | -             | -   | -            | -                    |
| <input type="checkbox"/> | <a href="#">user1</a>               | /    | 0     | -             | -   | -            | -                    |
| <input type="checkbox"/> | <a href="#">user2</a>               | /    | 0     | -             | -   | -            | -                    |
| <input type="checkbox"/> | <a href="#">user3</a>               | /    | 0     | -             | -   | -            | -                    |

## Step 5: Cleanup

```
Command Prompt
C:\Users\hpb\terraform-iam-users>terraform destroy
aws_iam_user.iam_users[0]: Refreshing state... [id=user1]
aws_iam_user.iam_users[1]: Refreshing state... [id=user2]
aws_iam_user.iam_users[2]: Refreshing state... [id=user3]

Terraform used the selected providers to generate the following execution
plan. Resource actions are indicated with the following symbols:
- destroy

Terraform will perform the following actions:

# aws_iam_user.iam_users[0] will be destroyed
- resource "aws_iam_user" "iam_users" {
  - arn          = "arn:aws:iam::399699660658:user/user1" -> null
  - force_destroy = false -> null
  - id           = "user1" -> null
  - name         = "user1" -> null
  - path         = "/" -> null
  - tags         = {
    - "Name" = "user1-user"
  } -> null
  - tags_all     = {
    - "Name" = "user1-user"
  } -> null
  - unique_id    = "AIDAV2D7UZ5ZNDPNBDSNP" -> null
}

# aws_iam_user.iam_users[1] will be destroyed
- resource "aws_iam_user" "iam_users" {
  - arn          = "arn:aws:iam::399699660658:user/user2" -> null
  - force_destroy = false -> null
  - id           = "user2" -> null
  - name         = "user2" -> null
  - path         = "/" -> null
  - tags         = {
    - "Name" = "user2-user"
  } -> null
  - tags_all     = {
    - "Name" = "user2-user"
  }
```

```
Command Prompt
- tags_all = {
  - "Name" = "user2-user"
} -> null
- unique_id = "AIDAV2D7UZ5ZLVG7SJAVJ" -> null
}

# aws_iam_user.iam_users[2] will be destroyed
- resource "aws_iam_user" "iam_users" {
  - arn = "arn:aws:iam::399699660658:user/user3" -> null
  - force_destroy = false -> null
  - id = "user3" -> null
  - name = "user3" -> null
  - path = "/" -> null
  - tags = {
    - "Name" = "user3-user"
  } -> null
  - tags_all = {
    - "Name" = "user3-user"
  } -> null
  - unique_id = "AIDAV2D7UZ5ZEXOG5HIZ" -> null
}

Plan: 0 to add, 0 to change, 3 to destroy.

Do you really want to destroy all resources?
Terraform will destroy all your managed infrastructure, as shown above.
There is no undo. Only 'yes' will be accepted to confirm.

Enter a value: yes

aws_iam_user.iam_users[2]: Destroying... [id=user3]
aws_iam_user.iam_users[1]: Destroying... [id=user2]
aws_iam_user.iam_users[0]: Destroying... [id=user1]
aws_iam_user.iam_users[2]: Destruction complete after 1s
aws_iam_user.iam_users[1]: Destruction complete after 1s
aws_iam_user.iam_users[0]: Destruction complete after 1s

Destroy complete! Resources: 3 destroyed.

C:\Users\hp\terraform-iam-users>
```

IAM > Users

Users (2) Info

Refresh

Delete

Create user

An IAM user is an identity with long-term credentials that is used to interact with AWS in an account.

Search

< 1 > ⚙

| <input type="checkbox"/> | User name           | Path | Group | Last activity | MFA | Password age | Console last sign-in |
|--------------------------|---------------------|------|-------|---------------|-----|--------------|----------------------|
| <input type="checkbox"/> | lab2                | /    | 0     | 🔄             | -   | 🟢 9 days     | -                    |
| <input type="checkbox"/> | terraform-iam-users | /    | 0     | 🔄             | -   | -            | -                    |