



**SYSTEM PROVISIONING AND CONFIGURATION
MANAGEMENT LAB**

**Lab File
(2023-2024)**

for

6th Semester

Submitted To

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Exercise 7– Creating Multiple IAM Users in Terraform

Objective:

Learn how to use Terraform to create multiple IAM users with unique settings.

Prerequisites:

- Terraform installed on your machine.
- AWS CLI configured with the necessary credentials.

Steps:

1. Create a Terraform Directory:

Create Terraform Configuration Files:

- Create a file named main.tf:

```
Exp7 > main.tf
1 terraform {
2   required_providers {
3     aws = {
4       source = "hashicorp/aws"
5       version = "5.31.0"
6     }
7   }
8 }
9
10 provider "aws" {
11   region = var.region
12   access_key = var.access_key
13   secret_key = var.secret_key
14 }
15
16 resource "aws_iam_user" "iam_users" {
17   count = length(var.iam_users)
18   name = var.iam_users[count.index]
19
20   tags = {
21     Name = "${var.iam_users[count.index]}-user"
22   }
23 }
24
```

```
Exp7 > variables.tf
1 variable "iam_users" {
2   type = list(string)
3   default = ["user1", "user2", "user3"]
4 }
5
6 variable region {
7   type = string
8   default = "ap-south-1"
9   description = "AWS Region"
10 }
11
```

2. Initialize and Apply:

```
Exp7 terraform init

Initializing the backend...

Initializing provider plugins...
- Finding hashicorp/aws versions matching "5.31.0"...
- Installing hashicorp/aws v5.31.0...
- Installed hashicorp/aws v5.31.0 (signed by HashiCorp)

Exp7 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
```

3. Verify Users in AWS Console:

<input type="checkbox"/>	User name	Path	Group	Last activity	MFA
<input type="checkbox"/>	Ayush	/	0	🔄	-
<input type="checkbox"/>	user1	/	0	🔄	-
<input type="checkbox"/>	user2	/	0	🔄	-
<input type="checkbox"/>	user3	/	0	🔄	-

4. Update IAM Users:

- If you want to add or remove IAM users, modify the iam_users list in the main.tf file.
- Rerun the terraform apply command to apply the changes:

```
Exp7 > variables.tf
1 variable "iam_users"{
2   type = list(string)
3   default = ["ayroid", "user1"]
4 }
5
```

<input type="checkbox"/>	User name	Path	Group	Last activity	MFA
<input type="checkbox"/>	ayroid	/	0	-	-
<input type="checkbox"/>	Ayush	/	0	✅ 5 minutes ago	-
<input type="checkbox"/>	user1	/	0	-	-

5. Clean Up:

```
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[0]: Destroying... [id=ayroid]
aws_iam_user.iam_users[1]: Destroying... [id=user1]
aws_iam_user.iam_users[1]: Destruction complete after 7s
aws_iam_user.iam_users[0]: Destruction complete after 7s

Destroy complete! Resources: 2 destroyed.
Exp7
```