Fatima Jinnah Women University

Subject: Cloud Computing

Lab 13

Name:

Tehreem khan(5-B)

Registration number:

2023-BSE-064

Submitted To:

Sir Shoaib

Task 0:

```
PS C:\Users\tehre> gh codespace create --repo tehreem-0514/CC_TehreemKhan_064_Lab13
  ⓘ Codespaces usage for this repository is paid for by tehreem-0514
? Choose Machine Type: 2 cores, 8 GB RAM, 32 GB storage
expert-palm-tree-r45g9x7x7vr6h5rx9
PS C:\Users\tehre> gh codespace list
```

```
PS C:\Users\tehre> gh codespace list
NAME                                 DISPLAY NAME        REPOSITORY                                    BRANCH  STATE     CREATED AT
symmetrical-cod-9664p55vpjph95gv     symmetrical cod     tehreem-0514/CC_TehreemKhan_064               main*   Shutdown  about 6 days ago
didactic-waddle-9664p55vpx4c7r56     didactic waddle     tehreem-0514/CC_TehreemKhan_064_Lab11         main*   Shutdown  about 6 days ago
refactored-goggles-wrq764v4v54vf9vrp refactored goggles  tehreem-0514/CC_TehreemKhan_064_Lab12         main*   Shutdown  about 5 days ago
expert-palm-tree-r45g9x7x7vr6h5rx9   expert palm-tree    tehreem-0514/CC_TehreemKhan_064_Lab13         main    Available less than a minute ago
PS C:\Users\tehre>
```

Task 1:

```
@tehreem-0514 ➜ /workspaces/CC_TehreemKhan_064_Lab13 (main) $ mkdir -p ~/Lab13
@tehreem-0514 ➜ /workspaces/CC_TehreemKhan_064_Lab13 (main) $ cd ~/Lab13
@tehreem-0514 ➜ ~/Lab13 $
```

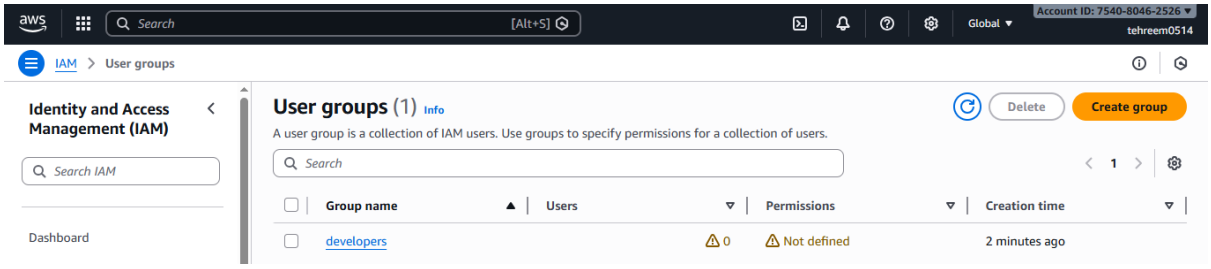
```
@tehreem-0514 ➜ ~/Lab13 $ touch main.tf
@tehreem-0514 ➜ ~/Lab13 $
```

```
  GNU nano 7.2                                  main.tf *
provider "aws" {
  shared_config_files      = ["~/.aws/config"]
  shared_credentials_files = ["~/.aws/credentials"]
}

resource "aws_iam_group" "developers" {
  name = "developers"
  path = "/groups/"
}

output "group_details" {
  value = {
    group_name = aws_iam_group.developers.name
    group_arn  = aws_iam_group.developers.arn
    unique_id  = aws_iam_group.developers.unique_id
  }
}
```

```
@tehreem-0514 ➜ ~/Lab13 $ @tehreem-0514 ➜ ~/Lab13 $ terraform init
Initializing the backend...
Initializing provider plugins...
- Finding latest version of hashicorp/aws...
- Installing hashicorp/aws v6.28.0...
- Installed hashicorp/aws v6.28.0 (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.
@tehreem-0514 ➜ ~/Lab13 $
```

```
@tehreem-0514 ~/Lab13 $ terraform apply -auto-approve

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_group.developers will be created
  + resource "aws_iam_group" "developers" {
      + arn       = (known after apply)
      + id        = (known after apply)
      + name      = "developers"
      + path      = "/groups/"
      + unique_id = (known after apply)
    }

Plan: 1 to add, 0 to change, 0 to destroy.

Changes to Outputs:
  + group_details = {
      + group_arn  = (known after apply)
      + group_name = "developers"
      + unique_id  = (known after apply)
    }
aws_iam_group.developers: Creating...
aws_iam_group.developers: Creation complete after 1s [id=developers]

Apply complete! Resources: 1 added, 0 changed, 0 destroyed.

Outputs:

group_details = {
  "group_arn" = "arn:aws:iam::754080462526:group/groups/developers"
  "group_name" = "developers"
  "unique_id" = "AGPA27EVSW27IO5KQPCYS"
}
@tehreem-0514 ~/Lab13 $
```

```
@tehreem-0514 ~/Lab13 $ @tehreem-0514 ~/Lab13 $ terraform output
group_details = {
  "group_arn" = "arn:aws:iam::754080462526:group/groups/developers"
  "group_name" = "developers"
  "unique_id" = "AGPA27EVSW27IO5KQPCYS"
}
@tehreem-0514 ~/Lab13 $
```

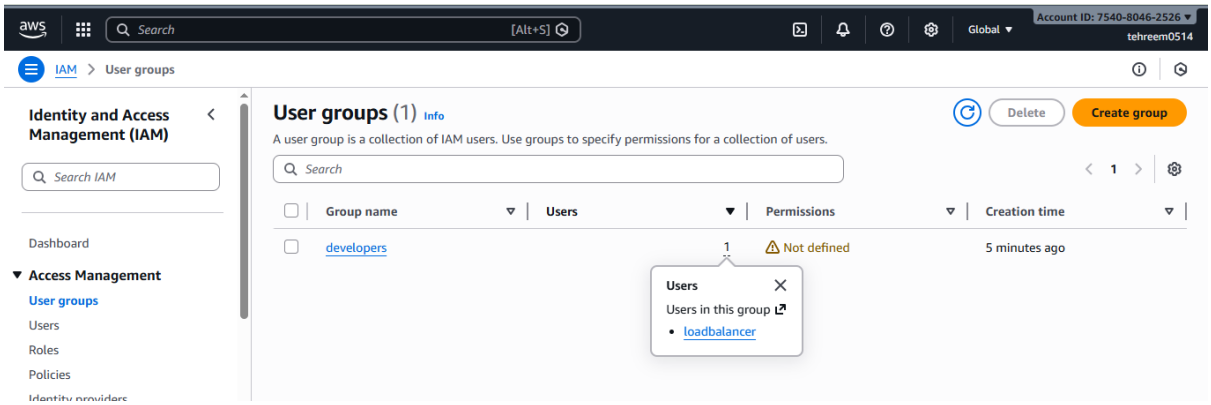


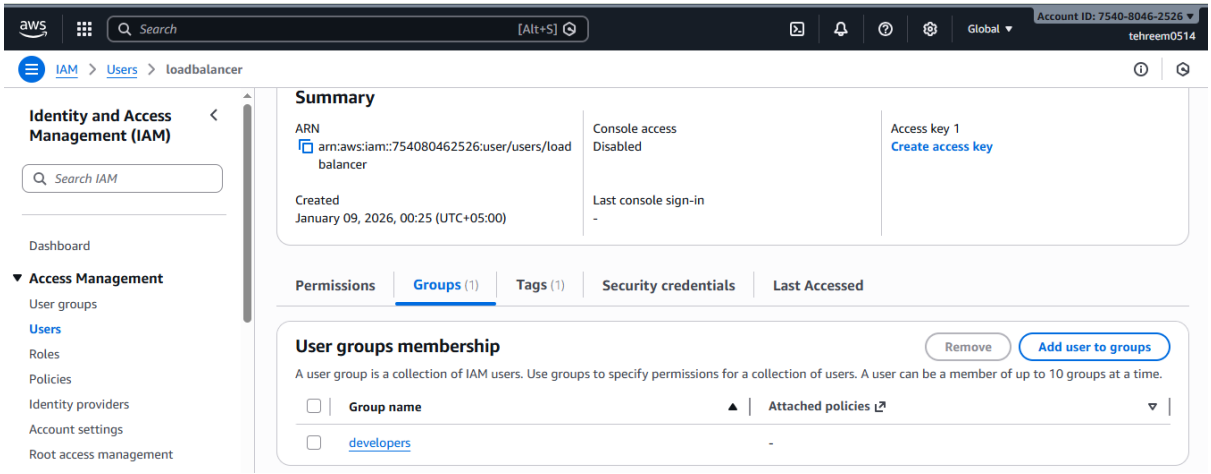
Task 2:

```
  GNU nano 7.2                                  main.tf *
provider "aws" {
  shared_config_files      = ["~/.aws/config"]
  shared_credentials_files = ["~/.aws/credentials"]
}

resource "aws_iam_group" "developers" {
  name = "developers"
  path = "/groups/"
}

output "group_details" {
  value = {
    group_name = aws_iam_group.developers. name
    group_arn  = aws_iam_group. developers.arn
    unique_id  = aws_iam_group.developers.unique_id
  }
}

resource "aws_iam_user" "lb" {
  name = "loadbalancer"
  path = "/users/"
  force_destroy = true
  tags = {
    DisplayName = "Load Balancer"
  }
}

resource "aws_iam_user_group_membership" "lb_membership" {
  user = aws_iam_user.lb.name
  groups = [
    aws_iam_group. developers.name
  ]
}

output "user_details" {
  value = {
    user_name = aws_iam_user.lb.name
    user_arn  = aws_iam_user.lb.arn
    unique_id = aws_iam_user.lb.unique_id
  }
}
```

```
      + name          = "loadbalancer"
      + path          = "/users/"
      + tags          = {
          + "DisplayName" = "Load Balancer"
        }
      + tags_all      = {
          + "DisplayName" = "Load Balancer"
        }
      + unique_id     = (known after apply)
    }

  # aws_iam_user_group_membership.lb_membership will be created
  + resource "aws_iam_user_group_membership" "lb_membership" {
      + groups = [
          + "developers",
        ]
      + id     = (known after apply)
      + user   = "loadbalancer"
    }

Plan: 2 to add, 0 to change, 0 to destroy.

Changes to Outputs:
  + user_details  = {
      + unique_id = (known after apply)
      + user_arn  = (known after apply)
      + user_name = "loadbalancer"
    }
aws_iam_user.lb: Creating...
aws_iam_user.lb: Creation complete after 1s [id=loadbalancer]
aws_iam_user_group_membership.lb_membership: Creating...
aws_iam_user_group_membership.lb_membership: Creation complete after 1s [id=terraform-20260108
192525387700000001]

Apply complete! Resources: 2 added, 0 changed, 0 destroyed.

Outputs:

group_details = {
  "group_arn" = "arn:aws:iam::754080462526:group/groups/developers"
  "group_name" = "developers"
  "unique_id" = "AGPA27EVSW27IO5KQPCYS"
}
user_details = {
  "unique_id" = "AIDA27EVSW27KTWHMHE5V"
  "user_arn" = "arn:aws:iam::754080462526:user/users/loadbalancer"
  "user_name" = "loadbalancer"
}
@tehreem-0514 ▨ ~/Lab13 $
```

```
@tehreem-0514 ▨ ~/Lab13 $ terraform output
group_details = {
  "group_arn" = "arn:aws:iam::754080462526:group/groups/developers"
  "group_name" = "developers"
  "unique_id" = "AGPA27EVSW27IO5KQPCYS"
}
user_details = {
  "unique_id" = "AIDA27EVSW27KTWHMHE5V"
  "user_arn" = "arn:aws:iam::754080462526:user/users/loadbalancer"
  "user_name" = "loadbalancer"
}
@tehreem-0514 ▨ ~/Lab13 $
```

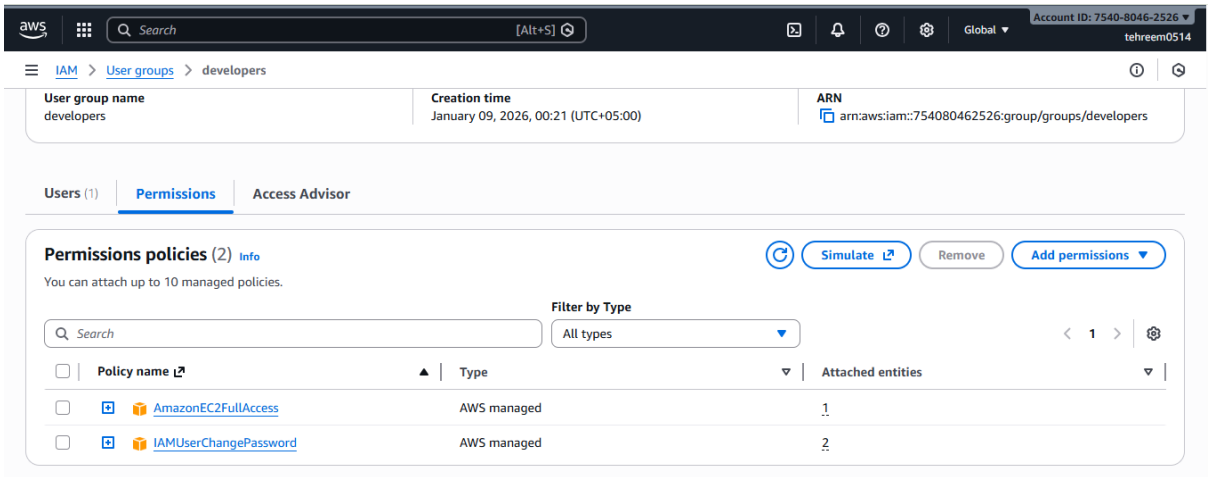

Search
[Alt+S]
Global
Account ID: 7540-8046-2526
tehreem0514
IAM > User groups
Identity and Access Management (IAM)
Search IAM
Dashboard
Access Management
User groups
Users
Roles
Policies
User groups (1) Info
A user group is a collection of IAM users. Use groups to specify permissions for a collection of users.
Search
Delete
Create group
Group name
Users
Permissions
Creation time
developers
1
Not defined
5 minutes ago
Users
Users in this group
loadbalancer


Search
[Alt+S]
Global
Account ID: 7540-8046-2526
tehreem0514
IAM > Users > loadbalancer
Identity and Access Management (IAM)
Search IAM
Dashboard
Access Management
User groups
Users
Roles
Policies
Identity providers
Account settings
Root access management
Summary
ARN
arn:aws:iam::754080462526:user/users/loadbalancer
Console access
Disabled
Access key 1
Create access key
Created
January 09, 2026, 00:25 (UTC+05:00)
Last console sign-in
-
Permissions
Groups (1)
Tags (1)
Security credentials
Last Accessed
User groups membership
Remove
Add user to groups
A user group is a collection of IAM users. Use groups to specify permissions for a collection of users. A user can be a member of up to 10 groups at a time.
Group name
Attached policies
developers
-

Task 3:

```
  GNU nano 7.2                                  main.tf *
resource "aws_iam_group" "developers" {
  name = "developers"
  path = "/groups/"
}

output "group_details" {
  value = {
    group_name = aws_iam_group.developers. name
    group_arn  = aws_iam_group. developers.arn
    unique_id  = aws_iam_group.developers.unique_id
  }
}

resource "aws_iam_user" "lb" {
  name = "loadbalancer"
  path = "/users/"
  force_destroy = true
  tags = {
    DisplayName = "Load Balancer"
  }
}

resource "aws_iam_user_group_membership" "lb_membership" {
  user = aws_iam_user.lb.name
  groups = [
    aws_iam_group. developers.name
  ]
}

output "user_details" {
  value = {
    user_name = aws_iam_user.lb.name
    user_arn  = aws_iam_user.lb.arn
    unique_id = aws_iam_user.lb.unique_id
  }
}
resource "aws_iam_group_policy_attachment" "developer_ec2_fullaccess" {
    group = aws_iam_group.developers.name
    policy_arn = "arn:aws:iam::aws:policy/AmazonEC2FullAccess"
}

resource "aws_iam_group_policy_attachment" "change_password" {
     group = aws_iam_group.developers.name
     policy_arn = "arn:aws:iam::aws:policy/IAMUserChangePassword"
}
```

```
@tehreem-0514 ~/Lab13 $ @tehreem-0514 ~/Lab13 $ terraform apply -auto-approve
aws_iam_group.developers: Refreshing state... [id=developers]
aws_iam_user.lb: Refreshing state... [id=loadbalancer]
aws_iam_user_group_membership.lb_membership: Refreshing state... [id=terraform-202601081925253
87700000001]

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_group_policy_attachment.change_password will be created
  + resource "aws_iam_group_policy_attachment" "change_password" {
      + group      = "developers"
      + id         = (known after apply)
      + policy_arn = "arn:aws:iam::aws:policy/IAMUserChangePassword"
    }

  # aws_iam_group_policy_attachment.developer_ec2_fullaccess will be created
  + resource "aws_iam_group_policy_attachment" "developer_ec2_fullaccess" {
      + group      = "developers"
      + id         = (known after apply)
      + policy_arn = "arn:aws:iam::aws:policy/AmazonEC2FullAccess"
    }

Plan: 2 to add, 0 to change, 0 to destroy.
aws_iam_group_policy_attachment.change_password: Creating...
aws_iam_group_policy_attachment.developer_ec2_fullaccess: Creating...
aws_iam_group_policy_attachment.change_password: Creation complete after 1s [id=developers-202
601081928462l4100000001]
aws_iam_group_policy_attachment.developer_ec2_fullaccess: Creation complete after 1s [id=devel
opers-20260108192846236000000002]

Apply complete! Resources: 2 added, 0 changed, 0 destroyed.

Outputs:

group_details = {
  "group_arn" = "arn:aws:iam::754080462526:group/groups/developers"
  "group_name" = "developers"
  "unique_id" = "AGPA27EVSW27IO5KQPCYS"
}
user_details = {
  "unique_id" = "AIDA27EVSW27KTWHMHE5V"
  "user_arn" = "arn:aws:iam::754080462526:user/users/loadbalancer"
  "user_name" = "loadbalancer"
}
@tehreem-0514 ~/Lab13 $
```



Task 4:

```
  GNU nano 7.2                                variables.tf *
variable "iam_password" {
  description = "Temporary password for the IAM user"
  type        = string
  sensitive   = true
  default = "1dontKnow"
}
```

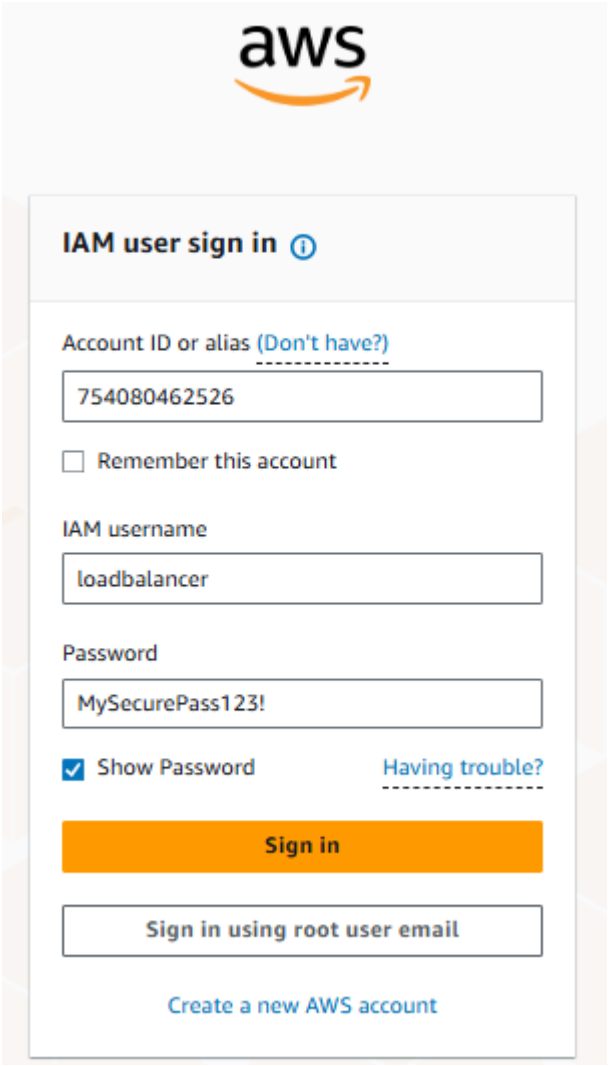
```
  GNU nano 7.2                          create-login-profile.sh *
#!/usr/bin/env bash
set -euo pipefail

USERNAME="$1"
PASSWORD="$2"

# Check if login profile already exists
if aws iam get-login-profile --user-name "$USERNAME" >/dev/null 2>&1; then
  echo "Login profile already exists for $USERNAME.  Skipping."
else
  echo "Creating login profile for $USERNAME"
  aws iam create-login-profile \
    --user-name "$USERNAME" \
    --password "$PASSWORD" \
    --password-reset-required
fi
```

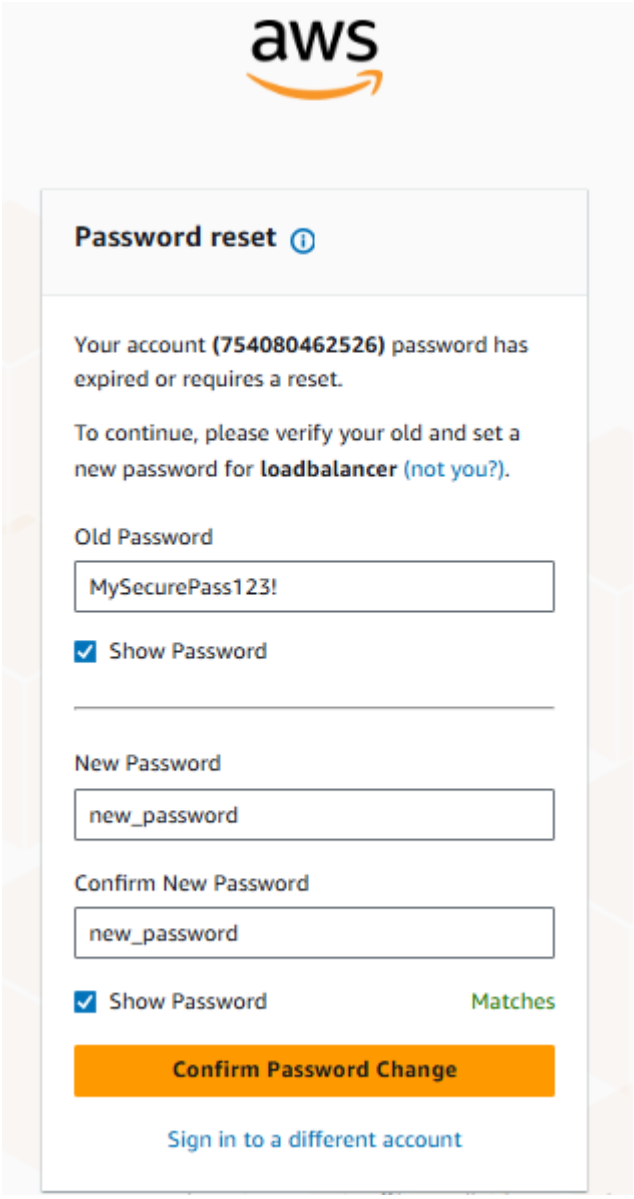
```
@tehreem-0514 ~/Lab13 $ chmod +x create-login-profile.sh
@tehreem-0514 ~/Lab13 $
```

```
  GNU nano 7.2                                  main.tf *

resource "aws_iam_user" "lb" {
  name = "loadbalancer"
  path = "/users/"
  force_destroy = true
  tags = {
    DisplayName = "Load Balancer"
  }
}

resource "aws_iam_user_group_membership" "lb_membership" {
  user = aws_iam_user.lb.name
  groups = [
    aws_iam_group. developers.name
  ]
}

output "user_details" {
  value = {
    user_name = aws_iam_user.lb.name
    user_arn  = aws_iam_user.lb.arn
    unique_id = aws_iam_user.lb.unique_id
  }
}
resource "aws_iam_group_policy_attachment" "developer_ec2_fullaccess" {
    group = aws_iam_group.developers.name
    policy_arn = "arn:aws:iam::aws:policy/AmazonEC2FullAccess"
}

resource "aws_iam_group_policy_attachment" "change_password" {
     group = aws_iam_group.developers.name
     policy_arn = "arn:aws:iam::aws:policy/IAMUserChangePassword"
}
resource "null_resource" "create_login_profile" {
  triggers = {
    password_hash = sha256(var.iam_password)
    user          = aws_iam_user.lb.name
  }

  depends_on = [aws_iam_user. lb]

  provisioner "local-exec" {
    command = "${path.module}/create-login-profile.sh ${aws_iam_user.lb.name} '${var.iam_pass>
  }
}
```

```
Terraform will perform the following actions:

  # null_resource.create_login_profile will be created
  + resource "null_resource" "create_login_profile" {
      + id       = (known after apply)
      + triggers = {
          + "password_hash" = (sensitive value)
          + "user"          = "loadbalancer"
        }
    }

Plan: 1 to add, 0 to change, 0 to destroy.
null_resource.create_login_profile: Creating...
null_resource.create_login_profile: Provisioning with 'local-exec'...
null_resource.create_login_profile (local-exec): (output suppressed due to sensitive value in
config)
null_resource.create_login_profile (local-exec): (output suppressed due to sensitive value in
config)
null_resource.create_login_profile (local-exec): (output suppressed due to sensitive value in
config)
null_resource.create_login_profile (local-exec): (output suppressed due to sensitive value in
config)
null_resource.create_login_profile (local-exec): (output suppressed due to sensitive value in
config)
null_resource.create_login_profile (local-exec): (output suppressed due to sensitive value in
config)
null_resource.create_login_profile (local-exec): (output suppressed due to sensitive value in
config)
null_resource.create_login_profile (local-exec): (output suppressed due to sensitive value in
config)
null_resource.create_login_profile: Creation complete after 3s [id=7283792120899687562]

Apply complete! Resources: 1 added, 0 changed, 0 destroyed.

Outputs:

group_details = {
  "group_arn" = "arn:aws:iam::754080462526:group/groups/developers"
  "group_name" = "developers"
  "unique_id" = "AGPA27EVSW27IO5KQPCYS"
}
user_details = {
  "unique_id" = "AIDA27EVSW27KTWHMHE5V"
  "user_arn" = "arn:aws:iam::754080462526:user/users/loadbalancer"
  "user_name" = "loadbalancer"
}
```

```
@tehreem-0514 ~/Lab13 $ aws iam get-login-profile --user-name loadbalancer
{
    "LoginProfile": {
        "UserName": "loadbalancer",
        "CreateDate": "2026-01-08T19:33:25+00:00",
        "PasswordResetRequired": true
    }
}
@tehreem-0514 ~/Lab13 $
```


aws
IAM user sign in
Account ID or alias (Don't have?)
754080462526
Remember this account
IAM username
loadbalancer
Password
MySecurePass123!
Show Password
Having trouble?
Sign in
Sign in using root user email
Create a new AWS account


aws
Password reset
Your account (754080462526) password has expired or requires a reset.
To continue, please verify your old and set a new password for loadbalancer (not you?).
Old Password
MySecurePass123!
Show Password
New Password
new_password
Confirm New Password
new_password
Show Password
Matches
Confirm Password Change
Sign in to a different account

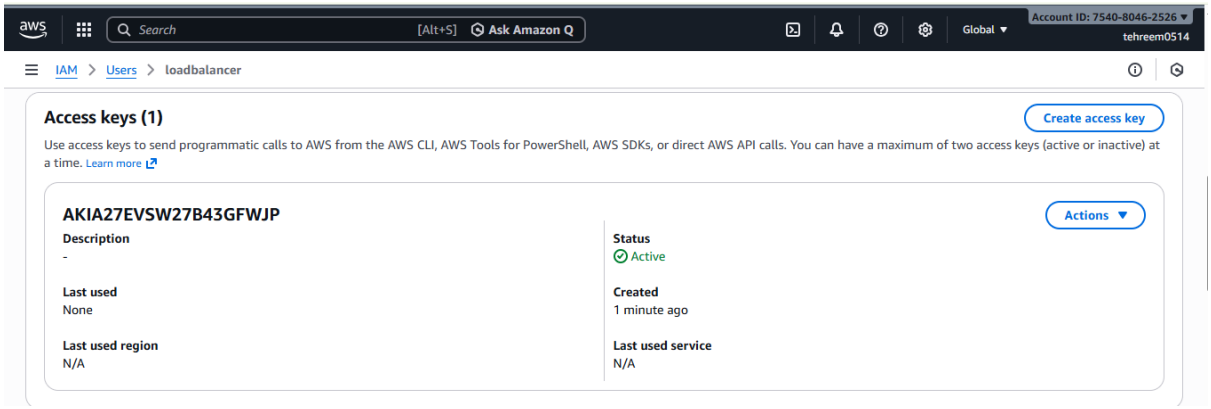
Task 5:

```
resource "aws_iam_access_key" "lb_access_key" {
  user = aws_iam_user.lb.name
}

output "access_key_id" {
  value = aws_iam_access_key.lb_access_key.id
}

output "access_key_secret" {
  value     = aws_iam_access_key.lb_access_key.secret
  sensitive = true
}
```

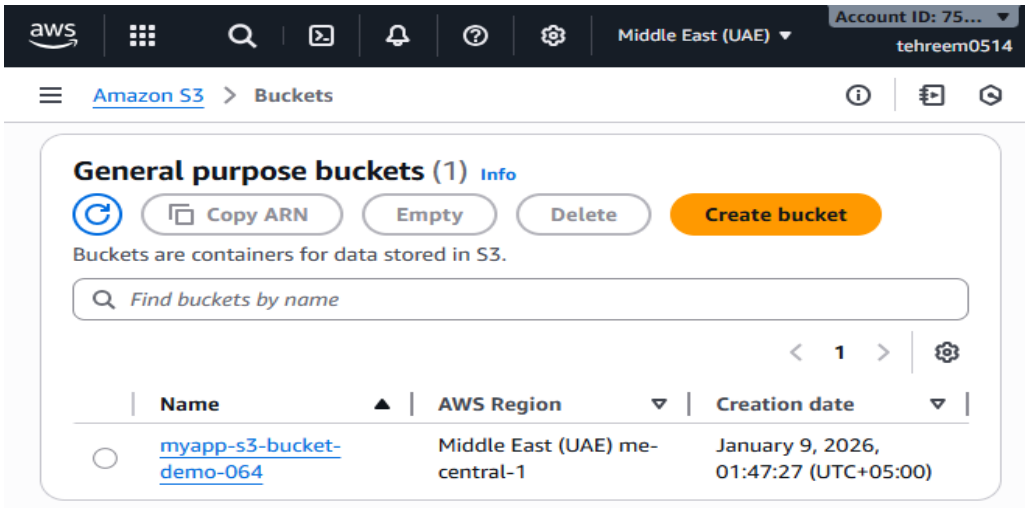
```
026010819284623600000000 2]
aws_iam_user_group_membership.lb_membership: Refreshing state... [id=terraform-202601081925253
87700000001]
null_resource.create_login_profile: Refreshing state... [id=3980999670864814577]

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_access_key.lb_access_key will be created
  + resource "aws_iam_access_key" "lb_access_key" {
      + create_date                    = (known after apply)
      + encrypted_secret               = (known after apply)
      + encrypted_ses_smtp_password_v4 = (known after apply)
      + id                             = (known after apply)
      + key_fingerprint                = (known after apply)
      + secret                         = (sensitive value)
      + ses_smtp_password_v4           = (sensitive value)
      + status                         = "Active"
      + user                           = "loadbalancer"
    }

Plan: 1 to add, 0 to change, 0 to destroy.

Changes to Outputs:
  + access_key_id     = (known after apply)
  + access_key_secret = (sensitive value)
aws_iam_access_key.lb_access_key: Creating...
aws_iam_access_key.lb_access_key: Creation complete after 1s [id=AKIA27EVSW27B43GFWJP]

Apply complete! Resources: 1 added, 0 changed, 0 destroyed.

Outputs:

access_key_id = "AKIA27EVSW27B43GFWJP"
access_key_secret = <sensitive>
group_details = {
  "group_arn" = "arn:aws:iam::754080462526:group/groups/developers"
  "group_name" = "developers"
  "unique_id" = "AGPA27EVSW27IO5KQPCYS"
}
user_details = {
  "unique_id" = "AIDA27EVSW27KTWHMHE5V"
  "user_arn" = "arn:aws:iam::754080462526:user/users/loadbalancer"
  "user_name" = "loadbalancer"
}
@tehreem-0514 ~/Lab13 $
```

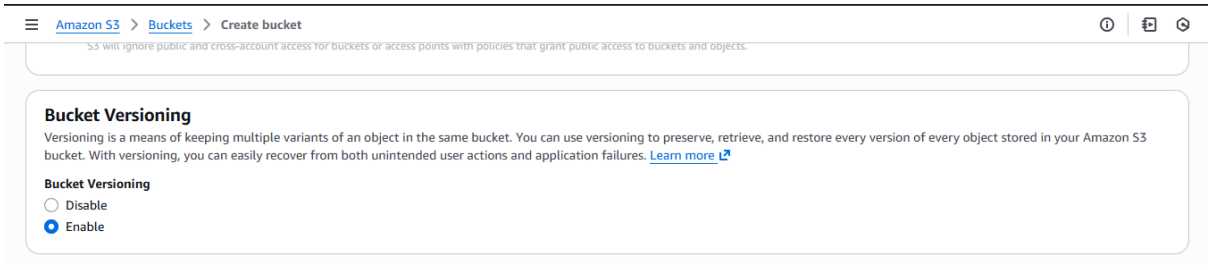
```
@tehreem-0514 ~/Lab13 $ terraform output
access_key_id = "AKIA27EVSW27B43GFWJP"
access_key_secret = <sensitive>
group_details = {
  "group_arn" = "arn:aws:iam::754080462526:group/groups/developers"
  "group_name" = "developers"
  "unique_id" = "AGPA27EVSW27IO5KQPCYS"
}
user_details = {
  "unique_id" = "AIDA27EVSW27KTWHMHE5V"
  "user_arn" = "arn:aws:iam::754080462526:user/users/loadbalancer"
  "user_name" = "loadbalancer"
}
@tehreem-0514 ~/Lab13 $
```

```
@tehreem-0514 ~/Lab13 $ cat terraform.tfstate | grep -A 10 "access_key_secret"
    "access_key_secret": {
      "value": "tzSzGYCkJDItqys0uq1fJqh3sTa3rrlqIUgdTQro",
      "type": "string",
      "sensitive": true
    },
    "group_details": {
      "value": {
        "group_arn": "arn:aws:iam::754080462526:group/groups/developers",
        "group_name": "developers",
        "unique_id": "AGPA27EVSW27IO5KQPCYS"
      },
@tehreem-0514 ~/Lab13 $
```



Task 6:

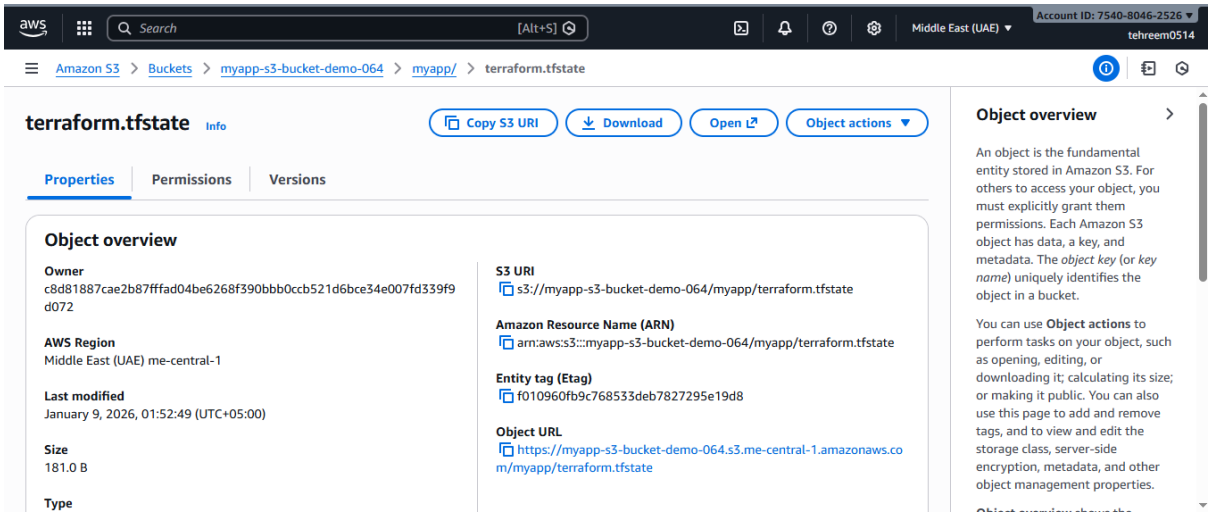





```
terraform {
  backend "s3" {
    bucket = "myapp-s3-bucket-demo-064"
    key    = "myapp/terraform.tfstate"
    region = "me-central-1"
    encrypt = true
    use_lockfile = true
  }
}

^G Help          ^O Write Out     ^W Where Is      ^K Cut           ^T Execute       ^C Location
^X Exit          ^R Read File     ^\ Replace       ^U Paste         ^J Justify       ^/ Go To Line
```

```
@tehreem-0514 ~/Lab13 $ @tehreem-0514 ~/Lab13 $ terraform init -migrate-state
Initializing the backend...
Initializing provider plugins...
- Reusing previous version of hashicorp/aws from the dependency lock file
- Reusing previous version of hashicorp/null from the dependency lock file
- Using previously-installed hashicorp/aws v6.28.0
- Using previously-installed hashicorp/null v3.2.4

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.
```

```
  # aws_iam_user.lb will be created
  + resource "aws_iam_user" "lb" {
      + arn           = (known after apply)
      + force_destroy = true
      + id            = (known after apply)
      + name          = "loadbalancer"
      + path          = "/users/"
      + tags          = {
          + "DisplayName" = "Load Balancer"
        }
      + tags_all      = {
          + "DisplayName" = "Load Balancer"
        }
      + unique_id     = (known after apply)
    }

  # aws_iam_user_group_membership.lb_membership will be created
  + resource "aws_iam_user_group_membership" "lb_membership" {
      + groups = [
          + "developers",
        ]
      + id     = (known after apply)
      + user   = "loadbalancer"
    }

  # null_resource.create_login_profile will be created
  + resource "null_resource" "create_login_profile" {
      + id       = (known after apply)
      + triggers = {
          + "password_hash" = (sensitive value)
          + "user"          = "loadbalancer"
        }
    }

Plan: 7 to add, 0 to change, 0 to destroy.

Changes to Outputs:
  + access_key_id     = (known after apply)
  + access_key_secret = (sensitive value)
  + group_details     = {
      + group_arn  = (known after apply)
      + group_name = "developers"
      + unique_id  = (known after apply)
    }
  + user_details      = {
      + unique_id = (known after apply)
      + user_arn  = (known after apply)
      + user_name = "loadbalancer"
    }
```




```
@tehreem-0514 ~/Lab13 $ ls -la terraform.tfstate*
-rw-rw-r-- 1 codespace codespace    0 Jan  8 20:52 terraform.tfstate
-rw-rw-r-- 1 codespace codespace 6882 Jan  8 20:52 terraform.tfstate.backup
@tehreem-0514 ~/Lab13 $
```

Pretty print ☐

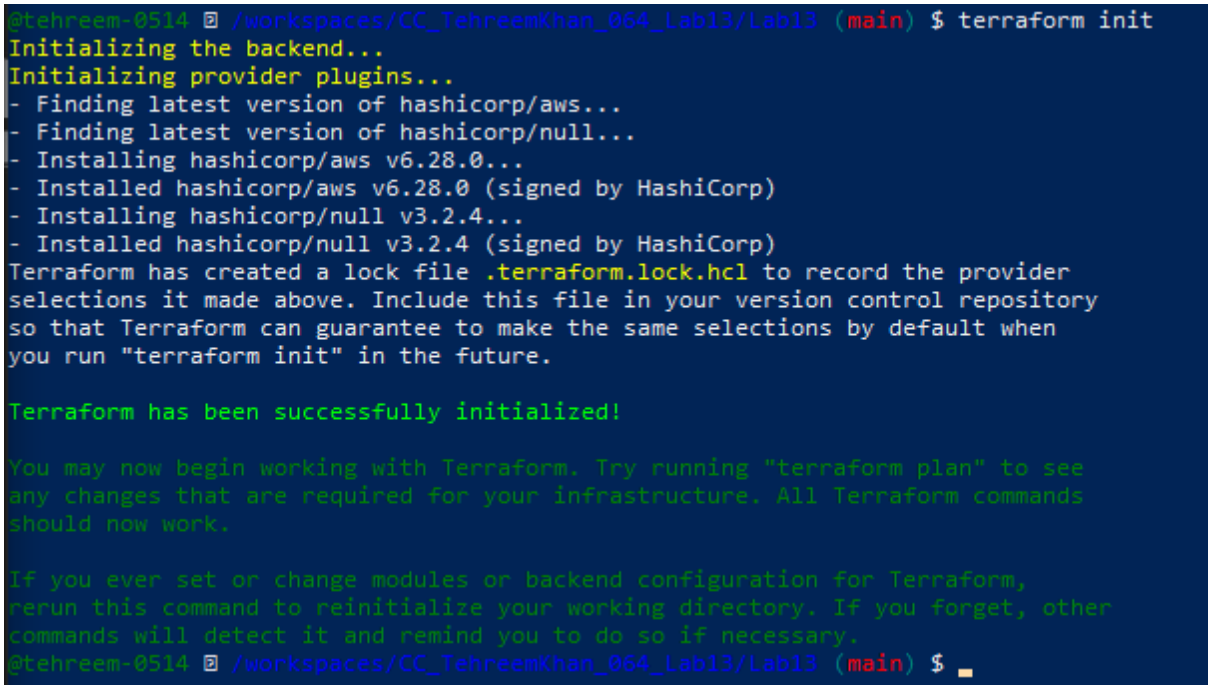

```
{
  "version": 4,
  "terraform_version": "1.14.3",
  "serial": 1,
  "lineage": "e79d5cd0-ad15-c4b7-e020-78f9ccb7e88f",
  "outputs": {},
  "resources": [],
  "check_results": null
}
```


Task 7:

```
@tehreem-0514 /workspaces/CC_TehreemKhan_064_Lab13/Lab13 (main) $ cat locals.tf
locals {
  users = csvdecode(file("users.csv"))
}

@tehreem-0514 /workspaces/CC_TehreemKhan_064_Lab13/Lab13 (main) $
```

```
@tehreem-0514 /workspaces/CC_TehreemKhan_064_Lab13/Lab13 (main) $ cat users.csv
user_name
Michael
Dwight
Jim
Pam
Ryan
Andy
Robert
Stanley
Kevin
Angela
Oscar
Phyllis
Toby
Kelly
Darryl
Creed
Meredith
Erin
Gabe
Jan
David
Holly
Charles
Jo
Clark
Peter
@tehreem-0514 /workspaces/CC_TehreemKhan_064_Lab13/Lab13 (main) $
```

```
  GNU nano 7.2                                  main.tf *
    aws_iam_group.developers.name
  ]
}

# Create login profiles for all users
resource "null_resource" "create_login_profiles" {
  for_each = aws_iam_user.users

  triggers = {
    password_hash = sha256(var. iam_password)
    user          = each.value.name
  }

  depends_on = [aws_iam_user. users]

  provisioner "local-exec" {
    command = "${path. module}/create-login-profile. sh ${each.value.name} '${var.iam_passwor
  }
}

# Create access keys for all users
resource "aws_iam_access_key" "users_access_keys" {
  for_each = aws_iam_user. users

  user = each.value.name
}

# Output all user details
output "all_users_details" {
  value = {
    for user_name, user in aws_iam_user.users : user_name => {
      user_arn         = user.arn
      user_unique_id   = user.unique_id
      access_key_id    = aws_iam_access_key.users_access_keys[user_name].id
    }
  }
}

# Output all access key secrets (sensitive)
output "all_access_key_secrets" {
  value = {
    for user_name, key in aws_iam_access_key.users_access_keys :  user_name => key.secret
  }
  sensitive = true
}
```


@tehreem-0514 /workspaces/CC_TehreemKhan_064_Lab13/Lab13 (main) $ terraform init
Initializing the backend...
Initializing provider plugins...
- Finding latest version of hashicorp/aws...
- Finding latest version of hashicorp/null...
- Installing hashicorp/aws v6.28.0...
- Installed hashicorp/aws v6.28.0 (signed by HashiCorp)
- Installing hashicorp/null v3.2.4...
- Installed hashicorp/null v3.2.4 (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.
@tehreem-0514 /workspaces/CC_TehreemKhan_064_Lab13/Lab13 (main) $