

### task0\_codespace\_create\_and\_list.png

```
error fetching codespace information: HTTP 404: Not Found (https://api.github.com/user/codespaces/super-duper-tribble-97g5...)
PS C:\Users\hp> gh codespace list
NAME                                DISPLAY_NAME                REPOSITORY                  BRANCH  STATE      CREATED AT
super-duper-space-system-pj5...    super-duper space sy...    arshiajadoon/LAB_9         main*   Shutdown  about 18 days ago
upgraded-system-vpg6q5747rq3...    upgraded system            arshiajadoon/LAB_9         main    Shutdown  about 18 days ago
solid-space-waffle-jjp7596vx...    solid space waffle        arshiajadoon/CC_014...    main    Shutdown  about 17 days ago
shiny-winner-q754q6rjw9qwhxp9     shiny winner              arshiajadoon/CC_014...    main    Shutdown  about 16 days ago
upgraded-eureka-7vj59wq6g5rv...    upgraded eureka           arshiajadoon/CC_Arsh...    main    Shutdown  about 9 days ago
literate-space-fishstick-q75...    literate space fishs...   arshiajadoon/CC_Arsh...    main*   Shutdown  about 9 days ago
super-duper-tribble-97g59wvr...    super-duper tribble      arshiajadoon/CC_ARSH...    main    Available  about 1 minute ago
glowing-space-giggle-7vj59wq...    glowing space giggle      arshiajadoon/CC_ARSH...    main    Available  about 1 minute ago
PS C:\Users\hp> gh codespace delete -c super-duper-tribble-97g5...
```

### task0\_codespace\_ssh\_connected.png

```
@arshiajadoon → /workspaces/CC_ARSHIA_014_LAB13 (main) $ |
```

### task1\_project\_directory.png

```
@arshiajadoon → ~/Lab13 $ touch main.tf
ls -la
total 12
drwxrwxr-x 2 codespace codespace 4096 Jan 16 14:44 .
drwxr-x--- 1 codespace codespace 4096 Jan 16 14:42 ..
-rw-rw-r-- 1 codespace codespace 0 Jan 16 14:44 main.tf
@arshiajadoon → ~/Lab13 $ |
```

### task1\_main\_tf.png

```
EOF
@arshiajadoon → ~/Lab13 $ cat 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
  }
}
@arshiajadoon → ~/Lab13 $ |
```

### task1\_terraform\_init.png

```
@arshiajadoon → ~/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.
@arshiajadoon → ~/Lab13 $ |
```

task1\_terraform\_apply.png-

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

Outputs:

group_details = {
  "group_arn" = "arn:aws:iam::353695163380:group/groups/developers"
  "group_name" = "developers"
  "unique_id" = "AGPAVEW074P2IKMTVRUZN"
}
@arshiajadoon → ~/Lab13 $
```

task1\_terraform\_output.png

```
@arshiajadoon → ~/Lab13 $ terraform output
group_details = {
  "group_arn" = "arn:aws:iam::353695163380:group/groups/developers"
  "group_name" = "developers"
  "unique_id" = "AGPAVEW074P2IKMTVRUZN"
}
@arshiajadoon → ~/Lab13 $ |
```

task1\_aws\_console\_group.png

<input type="checkbox"/>	Group name	Users	Permissions	Creation time
<input type="checkbox"/>	<a href="#">developers</a>	0	Not defined	4 minutes ago

task2\_main\_tf\_user.png

```
@arshiajadoon → ~/Lab13 $ cat 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"
```

```
    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
  }
}
@arshiajadoon → ~/Lab13 $ |
```

task2\_terraform\_apply.png

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

Outputs:

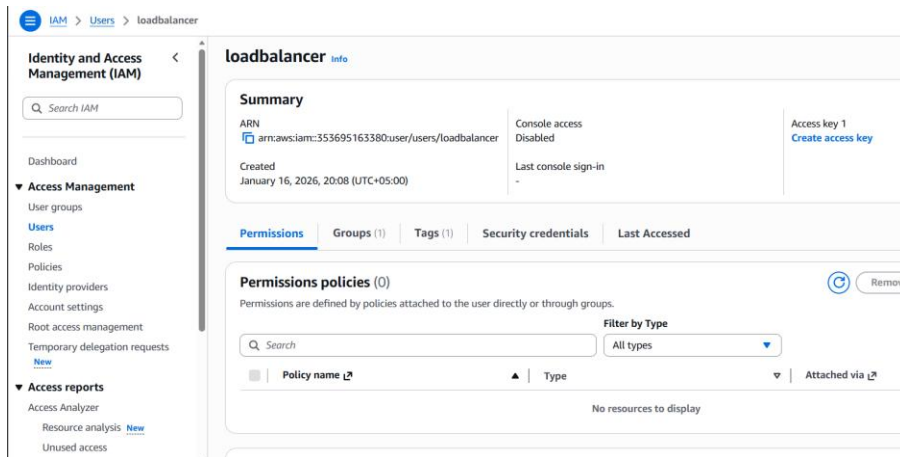
```
group_details = {
  "group_arn" = "arn:aws:iam::353695163380:group/groups/developers"
  "group_name" = "developers"
  "unique_id" = "AGPAVEW074P2IKMTVRUZN"
}
user_details = {
  "unique_id" = "AIDAVEW074P2G36QCQ2EM"
  "user_arn" = "arn:aws:iam::353695163380:user/users/loadbalancer"
  "user_name" = "loadbalancer"
}
@arshiajadoon → ~/Lab13 $ |
```

task2\_terraform\_output.png

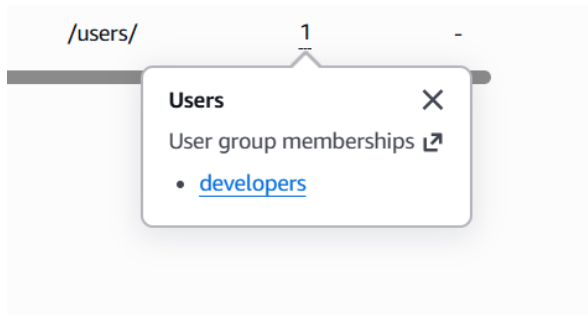
Outputs:

```
group_details = {
  "group_arn" = "arn:aws:iam::353695163380:group/groups/developers"
  "group_name" = "developers"
  "unique_id" = "AGPAVEW074P2IKMTVRUZN"
}
user_details = {
  "unique_id" = "AIDAVEW074P2G36QCQ2EM"
  "user_arn" = "arn:aws:iam::353695163380:user/users/loadbalancer"
  "user_name" = "loadbalancer"
}
@arshiajadoon → ~/Lab13 $ terraform output
group_details = {
  "group_arn" = "arn:aws:iam::353695163380:group/groups/developers"
  "group_name" = "developers"
  "unique_id" = "AGPAVEW074P2IKMTVRUZN"
}
user_details = {
  "unique_id" = "AIDAVEW074P2G36QCQ2EM"
  "user_arn" = "arn:aws:iam::353695163380:user/users/loadbalancer"
  "user_name" = "loadbalancer"
}
@arshiajadoon → ~/Lab13 $ |
```

task2\_aws\_console\_user.png



task2\_aws\_console\_user\_groups.png



task3\_main\_tf\_policies.png

```

    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"
}

```

### task3\_terraform\_apply.png

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

Outputs:

```
group_details = {
  "group_arn" = "arn:aws:iam::353695163380:group/groups/developers"
  "group_name" = "developers"
  "unique_id" = "AGPAVEW074P2IKMTVRUZN"
}
user_details = {
  "unique_id" = "AIDAVEW074P2G36QCQ2EM"
  "user_arn" = "arn:aws:iam::353695163380:user/users/loadbalancer"
  "user_name" = "loadbalancer"
}
@arshiajadoon → ~/Lab13 $ |
```



### task3\_aws\_console\_policies.png

Users (1) **Permissions** Access Advisor

**Permissions policies (2)** [Info](#) [Refresh](#) [Simulate](#) [Remove](#) [Add permissions](#)

You can attach up to 10 managed policies.

Q Search Filter by Type All types < 1 > ⚙

<input type="checkbox"/>	Policy name ↗	Type	Attached entities
<input type="checkbox"/>	 <a href="#">AmazonEC2FullAccess</a>	AWS managed	1
<input type="checkbox"/>	 <a href="#">IAMUserChangePassword</a>	AWS managed	1

### task4\_variables\_tf.png

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

Outputs:

```
group_details = {
  "group_arn" = "arn:aws:iam::353695163380:group/groups/developer
  "group_name" = "developers"
  "unique_id" = "AGPAVEW074P2IKMTVRUZN"
}
user_details = {
  "unique_id" = "AIDAVEW074P2G36QCQ2EM"
  "user_arn" = "arn:aws:iam::353695163380:user/users/loadbalancer
  "user_name" = "loadbalancer"
}
@arshiajadoon → ~/Lab13 $ cat > variables.tf << 'EOF'
variable "iam_password" {
  description = "Temporary password for the IAM user"
  type        = string
  sensitive   = true
  default     = "IdontKnow"
}
EOF
@arshiajadoon → ~/Lab13 $ cat variables.tf
variable "iam_password" {
  description = "Temporary password for the IAM user"
  type        = string
  sensitive   = true
  default     = "IdontKnow"
}
@arshiajadoon → ~/Lab13 $ |
```

#### task4\_create\_login\_script.png

```
# 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
EOF
@arshiajadoon → ~/Lab13 $ cat 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
@arshiajadoon → ~/Lab13 $ |
```

#### task4\_chmod\_script.png

```
@arshiajadoon → ~/Lab13 $ chmod +x create-login-profile.sh
ls -la create-login-profile.sh
-rwxrwxr-x 1 codespace codespace 440 Jan 16 15:41 create-login-profile.sh
@arshiajadoon → ~/Lab13 $ |
```

#### task4\_main\_tf\_login\_profile.png

```
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_password}'"
  }
}
@arshiajadoon → ~/Lab13 $ |
```

#### task4\_terraform\_apply.png

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

Outputs:

```
group_details = {
  "group_arn" = "arn:aws:iam::353695163380:group/groups/developers"
  "group_name" = "developers"
  "unique_id" = "AGPAVEW074P2IKMTVRUZN"
}
user_details = {
  "unique_id" = "AIDAVEW074P2G36QCQ2EM"
  "user_arn" = "arn:aws:iam::353695163380:user/users/loadbalancer"
  "user_name" = "loadbalancer"
}
@arshiajadoon → ~/Lab13 $ |
```

task4\_aws\_cli\_verify.png

```
}
@arshiajadoon → ~/Lab13 $ aws iam get-login-profile --user-name loadbalancer
{
  "LoginProfile": {
    "UserName": "loadbalancer",
    "CreateDate": "2026-01-16T15:46:42+00:00",
    "PasswordResetRequired": true
  }
}
@arshiajadoon → ~/Lab13 $ |
```

task5\_main\_tf\_access\_keys.png

```
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_password}'"
  }
}

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
}
@arshiajadoon → ~/Lab13 $ |
```

task5\_terraform\_apply.png



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

Outputs:

```
access_key_id = "AKIAVEW074P2CRRANLMB"
access_key_secret = <sensitive>
group_details = {
  "group_arn" = "arn:aws:iam::353695163380:group/groups/developers"
  "group_name" = "developers"
  "unique_id" = "AGPAVEW074P2IKMTVRUZN"
}
user_details = {
  "unique_id" = "AIDAVEW074P2G36QCQ2EM"
  "user_arn" = "arn:aws:iam::353695163380:user/users/loadbalancer"
  "user_name" = "loadbalancer"
}
@arshiajadoon → ~/Lab13 $
```

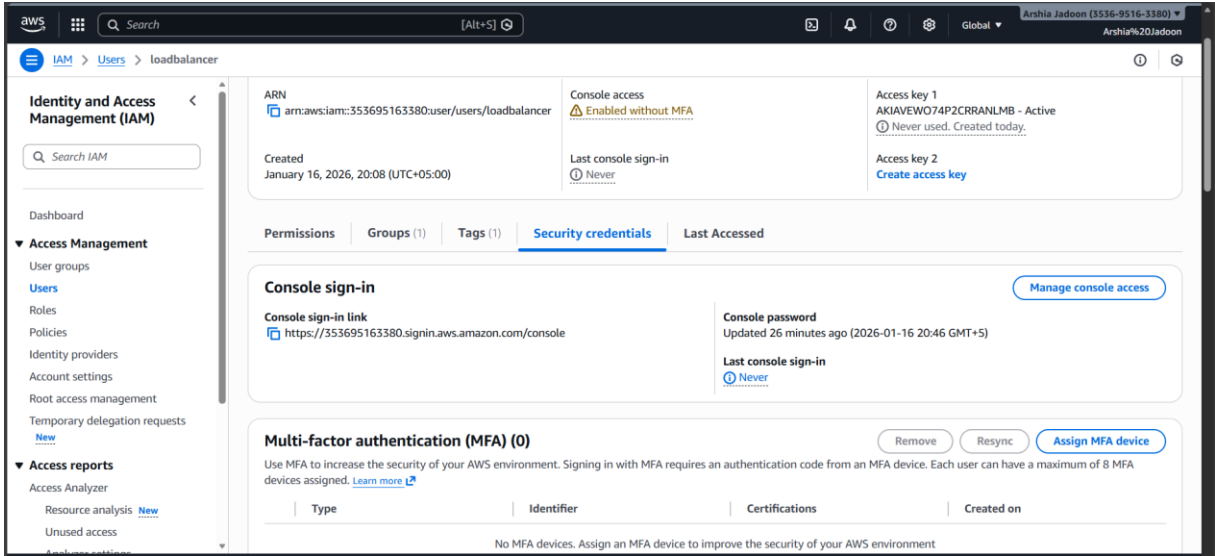
task5\_terraform\_output.png

```
@arshiajadoon → ~/Lab13 $ terraform output
access_key_id = "AKIAVEW074P2CRRANLMB"
access_key_secret = <sensitive>
group_details = {
  "group_arn" = "arn:aws:iam::353695163380:group/groups/developers"
  "group_name" = "developers"
  "unique_id" = "AGPAVEW074P2IKMTVRUZN"
}
user_details = {
  "unique_id" = "AIDAVEW074P2G36QCQ2EM"
  "user_arn" = "arn:aws:iam::353695163380:user/users/loadbalancer"
  "user_name" = "loadbalancer"
}
@arshiajadoon → ~/Lab13 $ |
```

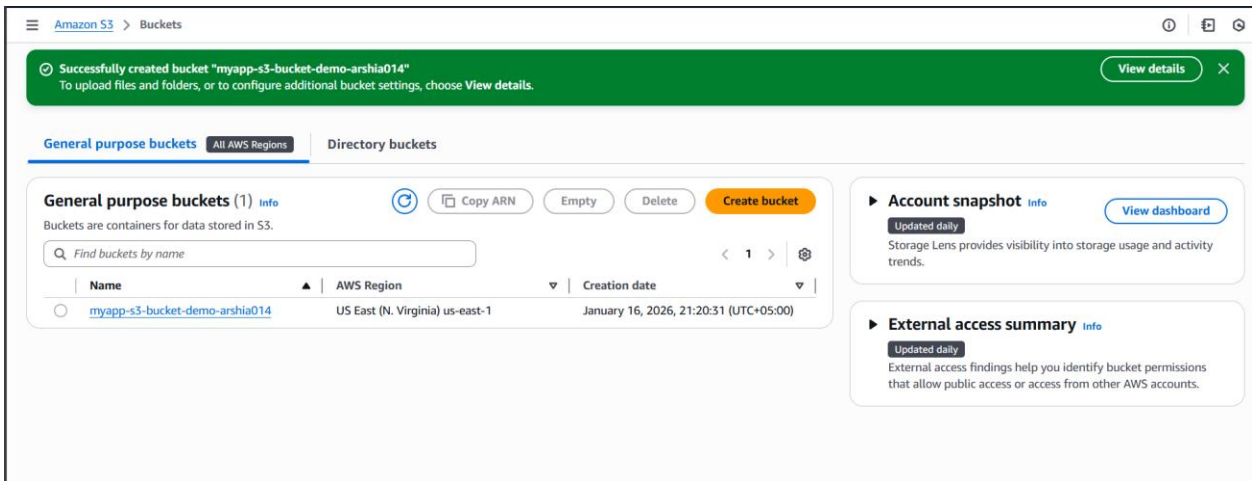
task5\_tfstate\_secret. Png

```
@arshiajadoon → ~/Lab13 $ cat terraform.tfstate | grep -A 10 "access_key_secret"
  "access_key_secret": {
    "value": "G+FWmEYmKeND0d9VGRvMo/e0l0AU8p5rLJAHgRE7",
    "type": "string",
    "sensitive": true
  },
  "group_details": {
    "value": {
      "group_arn": "arn:aws:iam::353695163380:group/groups/developers",
      "group_name": "developers",
      "unique_id": "AGPAVEW074P2IKMTVRUZN"
    }
  },
@arshiajadoon → ~/Lab13 $ |
```

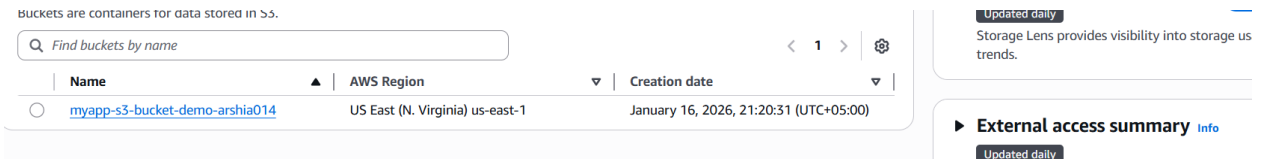
task5\_aws\_console\_access\_keys. png



task6\_s3\_bucket\_create.png



task6\_s3\_bucket\_versioning.png



task6\_main\_tf\_backend.png

```

Windows PowerShell
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_password}'"
  }
}

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
}
@arshiajadoon → ~/Lab13 $ |

```

## task6\_terraform\_init\_migrate.png

```

@arshiajadoon → ~/Lab13 $ terraform init -migrate-state
Initializing the backend...
Do you want to copy existing state to the new backend?
  Pre-existing state was found while migrating the previous "local" backend to the
  newly configured "s3" backend. No existing state was found in the newly
  configured "s3" backend. Do you want to copy this state to the new "s3"
  backend? Enter "yes" to copy and "no" to start with an empty state.

  Enter a value: yes

Successfully configured the backend "s3"! Terraform will automatically
use this backend unless the backend configuration changes.
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.
@arshiajadoon → ~/Lab13 $ |

```

## task6\_terraform\_apply.png

```

aws_iam_access_key_id.access_key_id: Refreshing state... [id=AKIAVEW074P2CRRANLMB]
aws_iam_user_group_membership.lb_membership: Refreshing state... [id=ter

No changes. Your infrastructure matches the configuration.

Terraform has compared your real infrastructure against your configuration and found no changes needed.

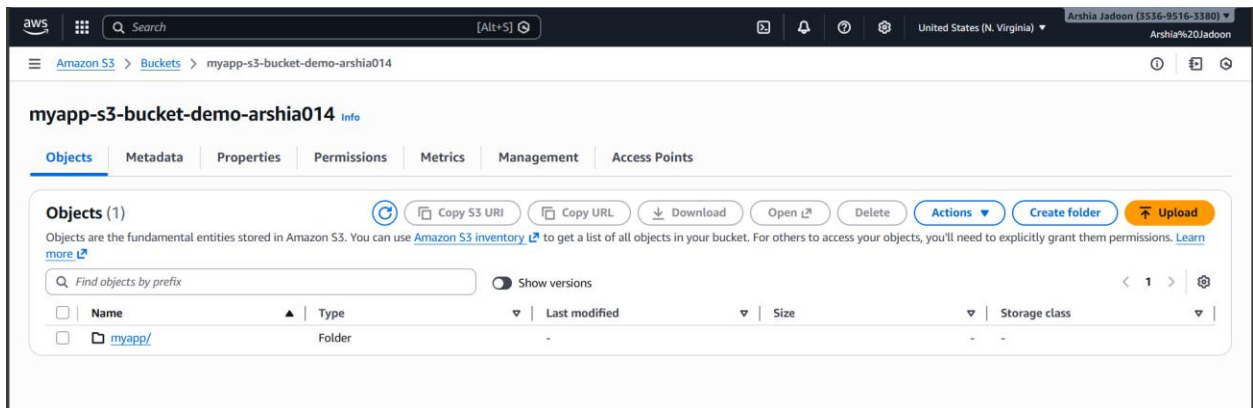
Apply complete! Resources: 0 added, 0 changed, 0 destroyed.

Outputs:

access_key_id = "AKIAVEW074P2CRRANLMB"
access_key_secret = <sensitive>
group_details = {
  "group_arn" = "arn:aws:iam::353695163380:group/groups/developers"
  "group_name" = "developers"
  "unique_id" = "AGPAVEW074P2IKMTVRUZN"
}
user_details = {
  "unique_id" = "AIDAVEW074P2G36QCQ2EM"
  "user_arn" = "arn:aws:iam::353695163380:user/users/loadbalancer"
  "user_name" = "loadbalancer"
}
@arshiajadoon → ~/Lab13 $ |

```

task6\_s3\_tfstate\_file.png



task6\_local\_state\_backup.png

```

@arshiajadoon → ~/Lab13 $ ls -la terraform.tfstate*
-rw-rw-r-- 1 codespace codespace 0 Jan 16 16:31 terraform.tfstate
-rw-rw-r-- 1 codespace codespace 6882 Jan 16 16:31 terraform.tfstate.backup
@arshiajadoon → ~/Lab13 $ |

```

task6\_terraform\_destroy.png

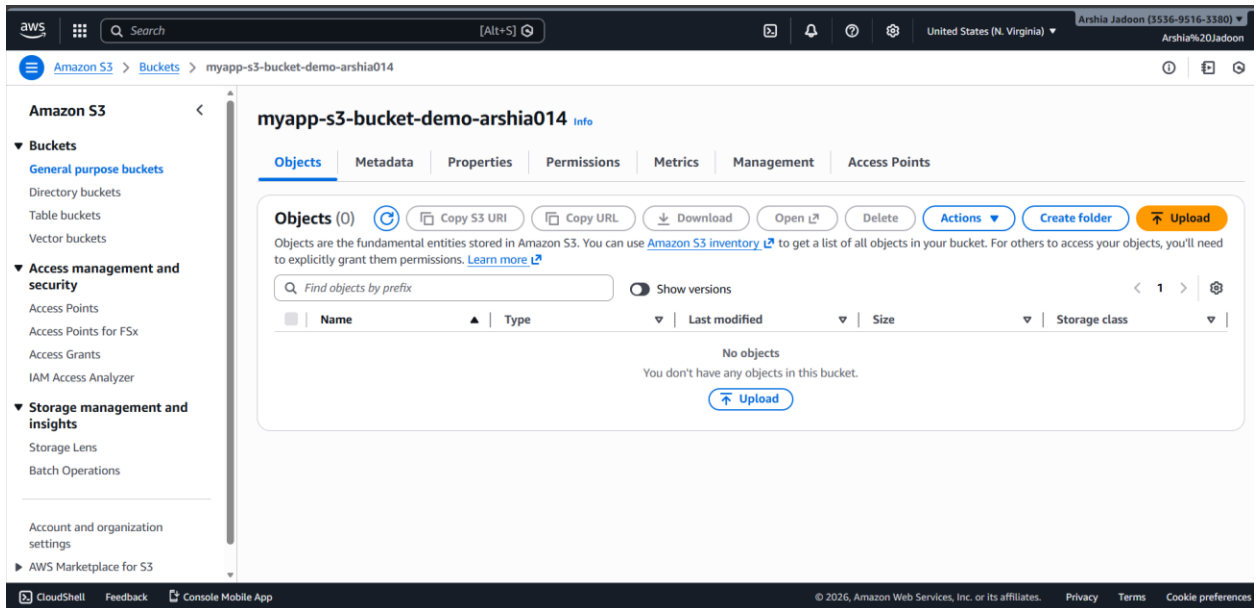
```

null_resource.create_login_profile: Destroying... [id=6647801183677904328]
null_resource.create_login_profile: Destruction complete after 0s
aws_iam_user_group_membership.lb_membership: Destroying... [id=terraform-202601161508195470000000001]
aws_iam_group_policy_attachment.change_password: Destroying... [id=developers-202601161538261726000000002]
aws_iam_access_key.lb_access_key: Destroying... [id=AKIAVEW074P2CRRANLMB]
aws_iam_group_policy_attachment.developer_ec2_fullaccess: Destroying... [id=developers-202601161538261361000000001]
aws_iam_user_group_membership.lb_membership: Destruction complete after 1s
aws_iam_access_key.lb_access_key: Destruction complete after 1s
aws_iam_user.lb: Destroying... [id=loadbalancer]
aws_iam_group_policy_attachment.developer_ec2_fullaccess: Destruction complete after 1s
aws_iam_group_policy_attachment.change_password: Destruction complete after 1s
aws_iam_group.developers: Destroying... [id=developers]
aws_iam_group.developers: Destruction complete after 0s
aws_iam_user.lb: Destruction complete after 3s

Destroy complete! Resources: 7 destroyed.
@arshiajadoon → ~/Lab13 $ |

```

task6\_s3\_tfstate\_destroyed. Png



task7\_locals\_tf.png

```

@arshiajadoon → ~/Lab13 $ cat > locals.tf << 'EOF'
locals {
  users = csvdecode(file("users.csv"))
}
EOF

cat locals.tf
locals {
  users = csvdecode(file("users.csv"))
}
@arshiajadoon → ~/Lab13 $ |

```

task7\_users\_csv.png

```

cat users.csv
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
@arshiajadoon → ~/Lab13 $ |

```

### task7\_main\_tf\_multiple\_users.png

```

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

# 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
}
@arshiajadoon → ~/Lab13 $ |

```

### task7\_terraform\_init.png

```
@arshiajadoon ~/Lab13 $ terraform init -reconfigure
Initializing the backend...

Successfully configured the backend "s3"! Terraform will automatically
use this backend unless the backend configuration changes.
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.
@arshiajadoon → ~/Lab13 $ |
```

## task7\_terraform\_apply.png

```
"user_arn" = "arn:aws:iam::353695163380:user/users/Robert"
"user_unique_id" = "AIDAVEW074P2EFOXUTY6I"
}
"Ryan" = {
  "access_key_id" = "AKIAVEW074P2GILD7SOY"
  "user_arn" = "arn:aws:iam::353695163380:user/users/Ryan"
  "user_unique_id" = "AIDAVEW074P2DA0ZHBIJ4"
}
"Stanley" = {
  "access_key_id" = "AKIAVEW074P2E7YFYIN3"
  "user_arn" = "arn:aws:iam::353695163380:user/users/Stanley"
  "user_unique_id" = "AIDAVEW074P2FESFZ3XX4"
}
"Toby" = {
  "access_key_id" = "AKIAVEW074P2AXHLQEXW"
  "user_arn" = "arn:aws:iam::353695163380:user/users/Toby"
  "user_unique_id" = "AIDAVEW074P2M650GBUH6"
}
}
group_details = {
  "group_arn" = "arn:aws:iam::353695163380:group/groups/developers"
  "group_name" = "developers"
  "unique_id" = "AGPAVEW074P2NJUGZCFUY"
}
@arshiajadoon → ~/Lab13 $ |
```

## task7\_terraform\_output.png

```
@arshiajadoon → ~/Lab13 $ terraform output
all_access_key_secrets = <sensitive>
all_users_details = {
  "Andy" = {
    "access_key_id" = "AKIAVEW074P20AW646KU"
    "user_arn" = "arn:aws:iam::353695163380:user/users/Andy"
    "user_unique_id" = "AIDAVEW074P2G5I0IR4IU"
  }
  "Angela" = {
    "access_key_id" = "AKIAVEW074P2M6DNBVSS"
    "user_arn" = "arn:aws:iam::353695163380:user/users/Angela"
    "user_unique_id" = "AIDAVEW074P20BHOVDBH7"
  }
  "Charles" = {
    "access_key_id" = "AKIAVEW074P20023Q7OR"
    "user_arn" = "arn:aws:iam::353695163380:user/users/Charles"
    "user_unique_id" = "AIDAVEW074P2DDVEIJL6Z"
  }
  "Clark" = {
    "access_key_id" = "AKIAVEW074P2F43SAWUQ"
    "user_arn" = "arn:aws:iam::353695163380:user/users/Clark"
    "user_unique_id" = "AIDAVEW074P2HMNNFKNIN"
  }
  "Creed" = {
    "access_key_id" = "AKIAVEW074P2MUZEFUGC"
    "user_arn" = "arn:aws:iam::353695163380:user/users/Creed"
  }
}
```

```

}
"Charles" = {
  "access_key_id" = "AKIAVEW074P20023Q70R"
  "user_arn" = "arn:aws:iam::353695163380:user/users/Charles"
  "user_unique_id" = "AIDAVEW074P2DDVEIJL6Z"
}
"Clark" = {
  "access_key_id" = "AKIAVEW074P2F43SAWUQ"
  "user_arn" = "arn:aws:iam::353695163380:user/users/Clark"
  "user_unique_id" = "AIDAVEW074P2HMNNFKNIN"
}
"Creed" = {
  "access_key_id" = "AKIAVEW074P2MUZEFUGC"
  "user_arn" = "arn:aws:iam::353695163380:user/users/Creed"
  "user_unique_id" = "AIDAVEW074P2EHCQAZSD"
}
"Darryl" = {
  "access_key_id" = "AKIAVEW074P2HSBIBISJ"
  "user_arn" = "arn:aws:iam::353695163380:user/users/Darryl"
  "user_unique_id" = "AIDAVEW074P2HYWQEWZS"
}
"David" = {
  "access_key_id" = "AKIAVEW074P2NIZYRJP6"
  "user_arn" = "arn:aws:iam::353695163380:user/users/David"
  "user_unique_id" = "AIDAVEW074P2AWFFS2ANV"
}

```

```

  "user_arn" = "arn:aws:iam::353695163380:user/users/Phyllis"
  "user_unique_id" = "AIDAVEW074P2EQXORKJIG"
}
"Robert" = {
  "access_key_id" = "AKIAVEW074P2PQQGQ54T"
  "user_arn" = "arn:aws:iam::353695163380:user/users/Robert"
  "user_unique_id" = "AIDAVEW074P2EFOXUTY6I"
}
"Ryan" = {
  "access_key_id" = "AKIAVEW074P2GILD7SOY"
  "user_arn" = "arn:aws:iam::353695163380:user/users/Ryan"
  "user_unique_id" = "AIDAVEW074P2DAOZHBIJ4"
}
"Stanley" = {
  "access_key_id" = "AKIAVEW074P2E7YFYIN3"
  "user_arn" = "arn:aws:iam::353695163380:user/users/Stanley"
  "user_unique_id" = "AIDAVEW074P2FESFZ3XX4"
}
"Toby" = {
  "access_key_id" = "AKIAVEW074P2AXHLQEXW"
  "user_arn" = "arn:aws:iam::353695163380:user/users/Toby"
  "user_unique_id" = "AIDAVEW074P2M650GBUH6"
}
}
group_details = {
  "group_arn" = "arn:aws:iam::353695163380:group/groups/developers"
  "group_name" = "developers"
  "unique_id" = "AGPAVEW074P2NJUGZCFUY"
}
@arshiajadoon → ~/Lab13 $ |

```

task7\_tfstate\_secrets. Png

```

@arshiajadoon → ~/Lab13 $ cat terraform.tfstate | grep -A 5 "all_access_key_secrets"
@arshiajadoon → ~/Lab13 $ |

```

task7\_aws\_console\_all\_users. Png



<input type="checkbox"/>	<a href="#">Holly</a>	/users/	<u>1</u>	-	-	✔ 2 minutes	-
<input type="checkbox"/>	<a href="#">Jan</a>	/users/	<u>1</u>	-	-	✔ 2 minutes	-
<input type="checkbox"/>	<a href="#">Jim</a>	/users/	<u>1</u>	-	-	✔ 3 minutes	-
<input type="checkbox"/>	<a href="#">Jo</a>	/users/	<u>1</u>	-	-	✔ 3 minutes	-
<input type="checkbox"/>	<a href="#">Kelly</a>	/users/	<u>1</u>	-	-	✔ 3 minutes	-
<input type="checkbox"/>	<a href="#">Kevin</a>	/users/	<u>1</u>	-	-	✔ 3 minutes	-
<input type="checkbox"/>	<a href="#">Meredith</a>	/users/	<u>1</u>	-	-	✔ 2 minutes	-
<input type="checkbox"/>	<a href="#">Michael</a>	/users/	<u>1</u>	-	-	✔ 2 minutes	-
<input type="checkbox"/>	<a href="#">Oscar</a>	/users/	<u>1</u>	-	-	✔ 3 minutes	-
<input type="checkbox"/>	<a href="#">Pam</a>	/users/	<u>1</u>	-	-	✔ 3 minutes	-

IAM
>
User groups
>
developers

Dashboard

Access Management

Users groups
Users
Roles
Policies
Identity providers
Account settings
Root access management
Temporary delegation requests

Access reports

Access Analyzer
Resource analysis
Unused access

Identity and Access Management (IAM)

Q Search IAM

Users (26)

Permissions

Access Advisor

Users in this group (26)

An IAM user is an entity that you create in AWS to represent the person or application that uses it to interact with AWS.

Q Search

Remove

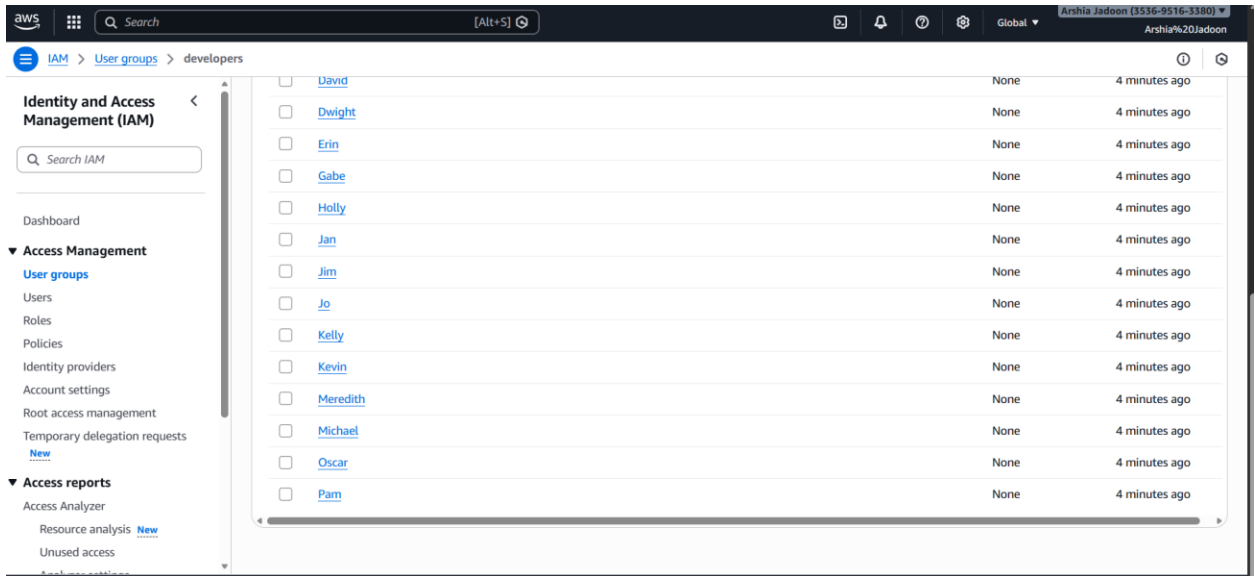
Add users

1

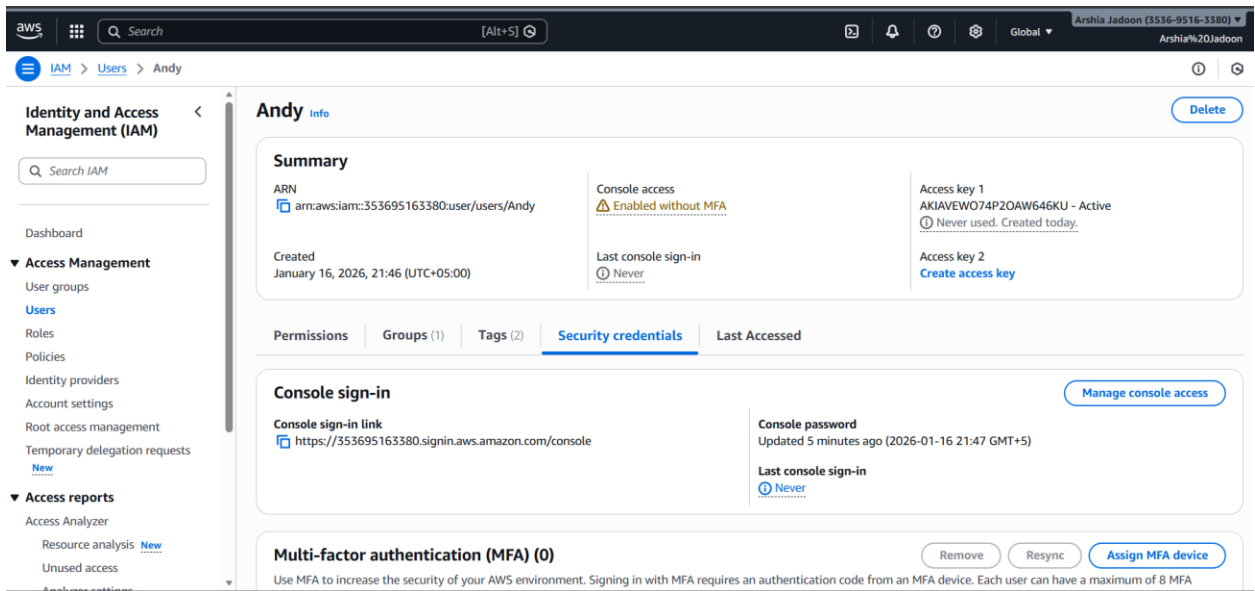
2

⚙

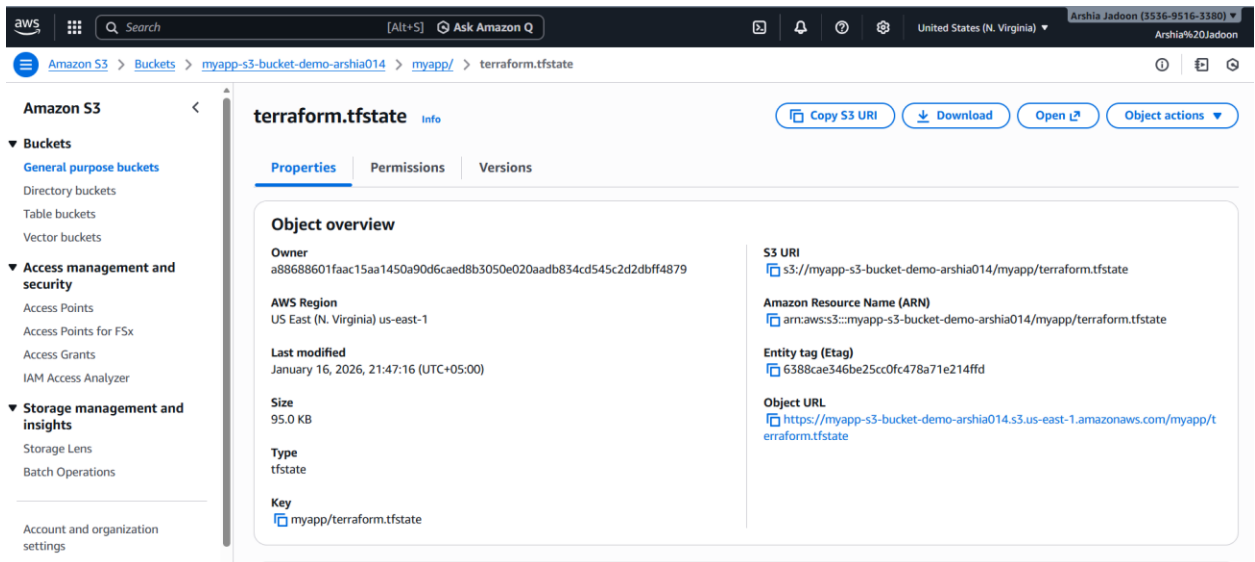
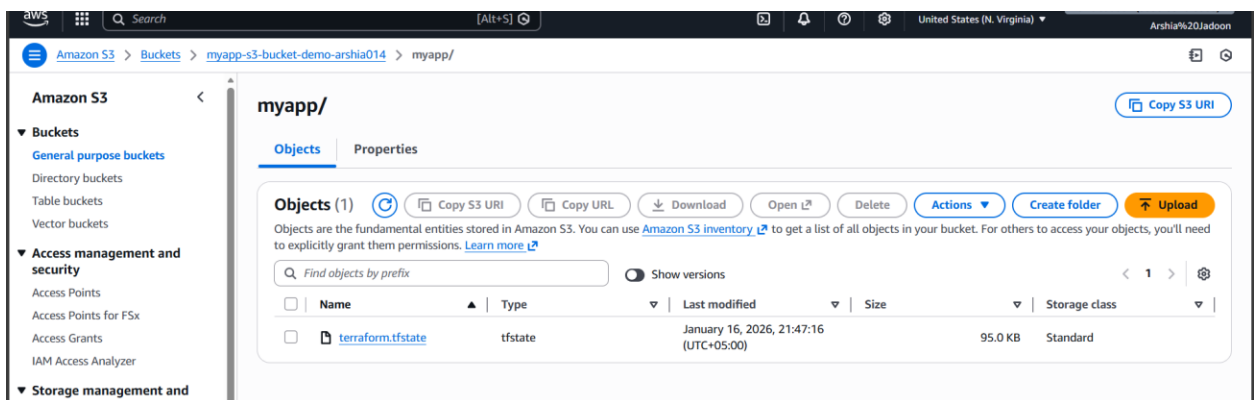
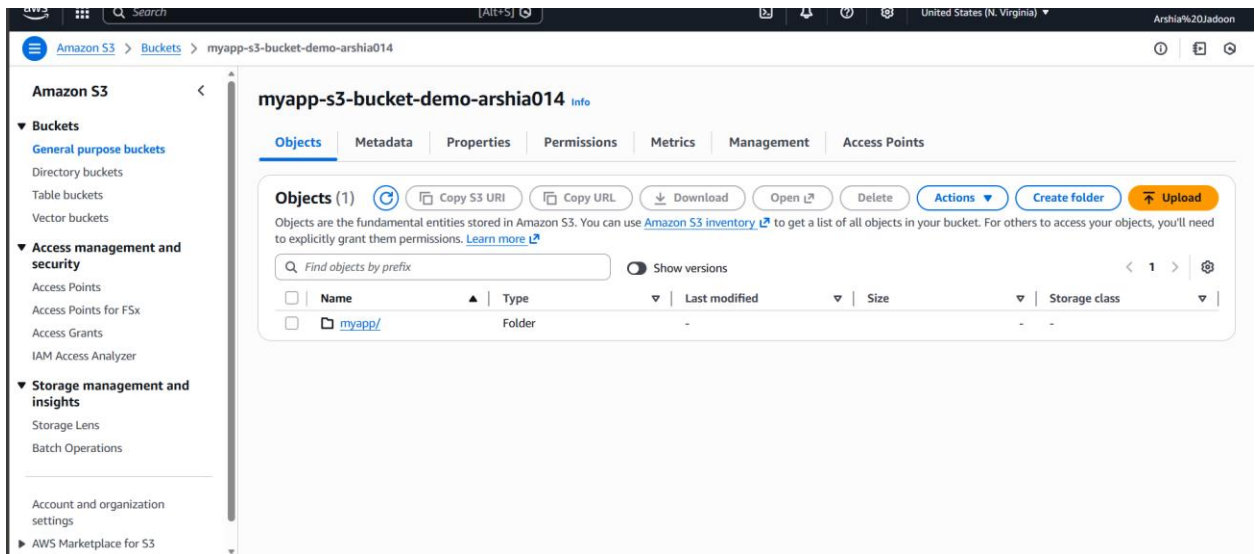
<input type="checkbox"/>	User name ↗	Groups	Last activity	Creation time
<input type="checkbox"/>	<a href="#">Andy</a>		None	4 minutes ago
<input type="checkbox"/>	<a href="#">Angela</a>		None	4 minutes ago
<input type="checkbox"/>	<a href="#">Charles</a>		None	4 minutes ago
<input type="checkbox"/>	<a href="#">Clark</a>		None	4 minutes ago
<input type="checkbox"/>	<a href="#">Creed</a>		None	4 minutes ago
<input type="checkbox"/>	<a href="#">Darryl</a>		None	4 minutes ago
<input type="checkbox"/>	<a href="#">David</a>		None	4 minutes ago
<input type="checkbox"/>	<a href="#">Dwight</a>		None	4 minutes ago
<input type="checkbox"/>	<a href="#">Erin</a>		None	4 minutes ago



task7\_aws\_console\_user\_access\_key.png



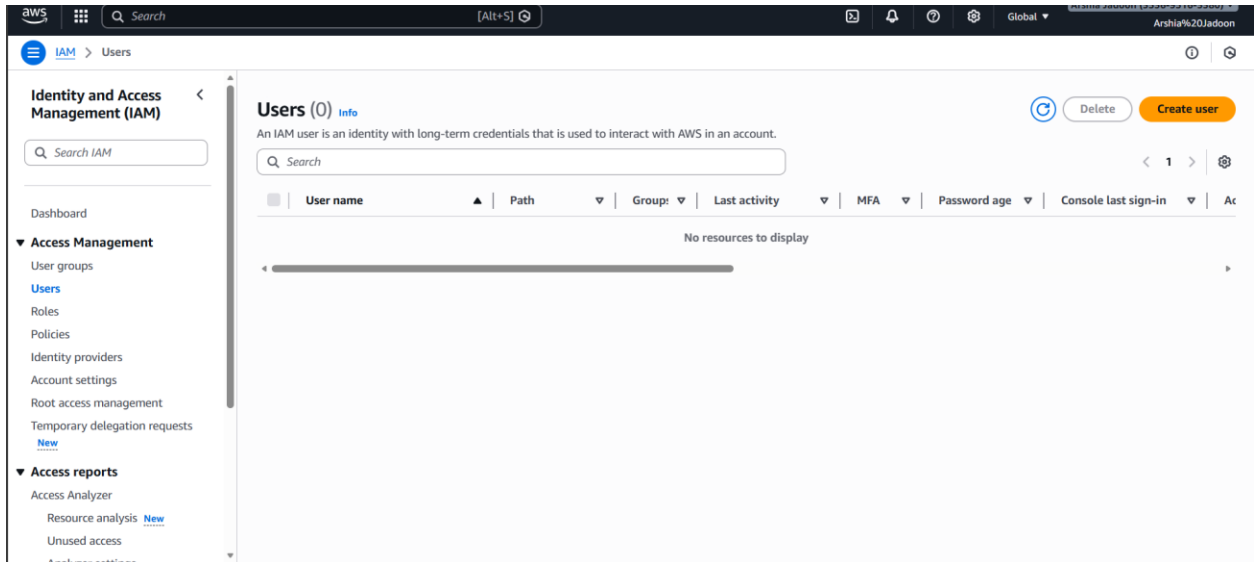
task7\_s3\_tfstate\_multiple\_users.png



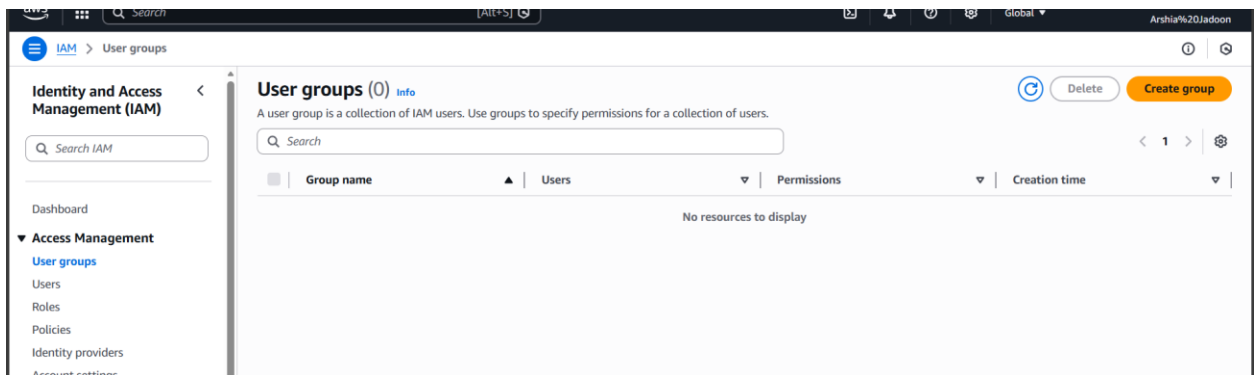
cleanup\_destroy\_complete.png

```
Destroy complete! Resources: 107 destroyed.  
@arshiajadoon → ~/Lab13 $ |
```

cleanup\_aws\_console\_users\_deleted.png









cleanup\_aws\_console\_group\_deleted.png




cleanup\_s3\_empty\_state.png







**myapp-s3-bucket-demo-arshia014** [Info](#)

[Objects](#) | [Metadata](#) | [Properties](#) | [Permissions](#) | [Metrics](#) | [Management](#) | [Access Points](#)

**Objects (0)**   Copy S3 URI  Copy URL  Download  Open  Delete [Actions](#) [Create folder](#) [Upload](#)

Objects are the fundamental entities stored in Amazon S3. You can use [Amazon S3 inventory](#) to get a list of all objects in your bucket. For others to access your objects, you'll need to explicitly grant them permissions. [Learn more](#)

☐ Show versions < 1 > 

	Name		Type		Last modified		Size		Storage class	
No objects										
You don't have any objects in this bucket.										
<a href="#">Upload</a>										

cleanup\_final\_files.png

```
Destroy complete! Resources: 107 destroyed.
@arshiajadoon → ~/Lab13 $ ls -la
total 65360
drwxrwxr-x 4 codespace codespace 4096 Jan 16 16:44 .
drwxr-x--- 1 codespace codespace 4096 Jan 16 15:48 ..
drwxr-xr-x 3 codespace codespace 4096 Jan 16 16:45 .terraform
-rw-r--r-- 1 codespace codespace 2422 Jan 16 15:46 .terraform.lock.hcl
drwxr-xr-x 3 codespace codespace 4096 Jan 15 19:17 aws
-rw-rw-r-- 1 codespace codespace 66872783 Jan 16 14:59 awscli2.zip
-rwxrwxr-x 1 codespace codespace 440 Jan 16 15:41 create-login-profile.sh
-rw-rw-r-- 1 codespace codespace 50 Jan 16 16:41 locals.tf
-rw-rw-r-- 1 codespace codespace 2474 Jan 16 16:44 main.tf
-rw-rw-r-- 1 codespace codespace 0 Jan 16 16:31 terraform.tfstate
-rw-rw-r-- 1 codespace codespace 6882 Jan 16 16:31 terraform.tfstate.backup
-rw-rw-r-- 1 codespace codespace 167 Jan 16 16:41 users.csv
-rw-rw-r-- 1 codespace codespace 154 Jan 16 15:39 variables.tf
```

cleanup\_s3\_bucket\_deleted.png (optional)

aws

Search

[Alt+S]

United States (N. Virginia)

Arshia Jadoon (3536-9516-3380)

Arshia%20Jadoon

Amazon S3

Successfully deleted bucket "myapp-s3-bucket-demo-arshia014"

Storage

# Amazon S3

## Store and retrieve any amount of data from anywhere

Amazon S3 is an object storage service that offers industry-leading scalability, data availability, security, and performance.

### Create a bucket

Every object in S3 is stored in a bucket. To upload files and folders to S3, you'll need to create a bucket where the objects will be stored.

Create bucket

### Pricing

With S3, there are no minimum fees. You only pay for what you use. Prices are based on the location of your S3 bucket.

Estimate your monthly bill using the [AWS Simple Monthly Calculator](#)

[View pricing details](#)

### How it works

aws

Introduction to Amazon S3 | Amazon Web Services

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