

## AWS – IAM

1. Create user group and attach the policies to the group name. This is automated with bash scripts and Input has been provided through csv file.

```
Package dos2unix-6.0.3-7.amzn2.0.3.x86_64 already installed and latest version
Nothing to do
dos2unix: converting file CreateGroupsPolicies.csv to Unix format ...
Creating User-Group - CloudAdmin
{
  "Group": {
    "Path": "/",
    "GroupName": "CloudAdmin",
    "GroupId": "AGPAW54PSV2WF4EYG56TR",
    "Arn": "arn:aws:iam:476505616044:group/CloudAdmin",
    "CreateDate": "2022-09-11T05:46:29+00:00"
  }
}
echo Attaching policies...!
UserGroup- CloudAdmin -Created & Policies- arn:aws:iam::aws:policy/AWSAccountManagementFullAccess & arn:aws:iam::aws:policy/IAMUserChangePassword - attach
Creating User-Group - DBA
{
  "Group": {
    "Path": "/",
    "GroupName": "DBA",
    "GroupId": "AGPAW54PSV2WF4EYG56TR",
    "Arn": "arn:aws:iam:476505616044:group/DBA",
    "CreateDate": "2022-09-11T05:46:31+00:00"
  }
}
echo Attaching policies...!
UserGroup- DBA -Created & Policies- arn:aws:iam::aws:policy/AmazonRDSFullAccess & arn:aws:iam::aws:policy/IAMUserChangePassword - attached.
Creating User-Group - UnixAdmin
{
  "Group": {
    "Path": "/",
    "GroupName": "UnixAdmin",
    "GroupId": "AGPAW54PSV2WJ0USUZLDY",
    "Arn": "arn:aws:iam:476505616044:group/UnixAdmin",
    "CreateDate": "2022-09-11T05:46:34+00:00"
  }
}
echo Attaching policies...!
UserGroup- UnixAdmin -Created & Policies- arn:aws:iam::aws:policy/AmazonEC2FullAccess & arn:aws:iam::aws:policy/IAMUserChangePassword - attached.
Creating User-Group - NetworkAdmin
{
  "Group": {
    "Path": "/",
    "GroupName": "NetworkAdmin",
    "GroupId": "AGPAW54PSV2WJHAE4TDV",
    "Arn": "arn:aws:iam:476505616044:group/NetworkAdmin",
    "CreateDate": "2022-09-11T05:46:36+00:00"
  }
}
echo Attaching policies...!
UserGroup- NetworkAdmin -Created & Policies- arn:aws:iam::aws:policy/AmazonVPCFullAccess & arn:aws:iam::aws:policy/IAMUserChangePassword - attached.
Creating User-Group - Trainees
{
  "Group": {
    "Path": "/",
    "GroupName": "Trainees",
    "GroupId": "AGPAW54PSV2WJF7FSCJ2PD",
    "Arn": "arn:aws:iam:476505616044:group/Trainees",
    "CreateDate": "2022-09-11T05:46:39+00:00"
  }
}
echo Attaching policies...!
UserGroup- Trainees -Created & Policies- arn:aws:iam::aws:policy/job-function/ViewOnlyAccess & arn:aws:iam::aws:policy/IAMUserChangePassword - attached.
[ccloudshell-user@ip-10-0-165-185 ~]$
```

2. User groups with Policies has been created.

IAM > User groups

**User groups (5)** [Info](#)

A user group is a collection of IAM users. Use groups to specify permissions for a collection of users.

[Refresh](#) [Delete](#) [Create group](#)

<input type="checkbox"/>	Group name	Users	Permissions	Creation time
<input type="checkbox"/>	CloudAdmin	0	Defined	2 minutes ago
<input type="checkbox"/>	DBA	0	Defined	2 minutes ago
<input type="checkbox"/>	NetworkAdmin	0	Defined	2 minutes ago
<input type="checkbox"/>	Trainees	0	Defined	2 minutes ago
<input type="checkbox"/>	UnixAdmin	0	Defined	2 minutes ago

User group name

CloudAdmin

Creation time

September 11, 2022, 11:16 (UTC+05:30)

ARN

arn:aws:iam::476505:group/CloudAdmin

Users

Permissions

Access Advisor

Permissions policies (2) [Info](#)

You can attach up to 10 managed policies.

↺

Simulate

Remove

Add permissions ▾

Q

Filter policies by property or policy name and press enter

<

1

>

⚙

<input type="checkbox"/>	Policy name ↗	Type	Description
<input type="checkbox"/>	IAMUserChangePassword	AWS managed	Provides the ability for an IAM user to c...
<input type="checkbox"/>	AWSAccountManagementFullAccess	AWS managed	Provides full access to AWS Account M...

```

total 20
-rwxr-xr-x 1 cloudshell-user cloudshell-user 1168 Sep 11 05:38 CreateGroup.sh
-rwxr-xr-x 1 cloudshell-user cloudshell-user 1130 Sep 11 05:45 aws-iam-creategroup-attachpolicy.sh
-rwxr-xr-x 1 cloudshell-user cloudshell-user 307 Sep 11 05:46 CreateGroupsPolicies.csv
-rwxr-xr-x 1 cloudshell-user cloudshell-user 1045 Sep 11 06:06 aws-create-users.sh
-rwxr-xr-x 1 cloudshell-user cloudshell-user 205 Sep 11 06:11 users.csv
[cloudshell-user@ip-10-0-165-105 ~]$

```

3. Creating users and assign a group name, user-id and password using automated scripts and csv file.

```

dos2unix: converting file users.csv to Unix format ...
Creating User - thulasi.ram
{
  "User": {
    "Path": "/",
    "UserName": "thulasi.ram",
    "UserId": "AIDAW54PSV2WHIX7KQ5ZL",
    "Arn": "arn:aws:iam::476505616044:user/thulasi.ram",
    "CreateDate": "2022-09-11T06:12:33+00:00"
  }
}
Attaching password reset condition...!
{
  "LoginProfile": {
    "UserName": "thulasi.ram",
    "CreateDate": "2022-09-11T06:12:33+00:00",
    "PasswordResetRequired": true
  }
}
Attaching User- thulasi.ram -to Group- DBA
User- thulasi.ram Created and Attached to Group- DBA
Creating User - lara.ram
{
  "User": {
    "Path": "/",
    "UserName": "lara.ram",
    "UserId": "AIDAW54PSV2WHDL4UKFYG",
    "Arn": "arn:aws:iam::476505616044:user/lara.ram",
    "CreateDate": "2022-09-11T06:12:35+00:00"
  }
}
Attaching password reset condition...!
{
  "LoginProfile": {
    "UserName": "lara.ram",
    "CreateDate": "2022-09-11T06:12:35+00:00",
    "PasswordResetRequired": true
  }
}
Attaching User- lara.ram -to Group- NetworkAdmin
User- lara.ram Created and Attached to Group- NetworkAdmin
Creating User - jesh.vik
{
  "User": {
    "Path": "/",
    "UserName": "jesh.vik",
    "UserId": "AIDAW54PSV2WPNFZUSO3F",
    "Arn": "arn:aws:iam::476505616044:user/jesh.vik",
    "CreateDate": "2022-09-11T06:12:38+00:00"
  }
}
}

```

```

}
Attaching password reset condition...!
{
  "LoginProfile": {
    "UserName": "jesh.vik",
    "CreateDate": "2022-09-11T06:12:38+00:00",
    "PasswordResetRequired": true
  }
}
Attaching User- jesh.vik -to Group- CloudAdmin
User- jesh.vik Created and Attached to Group- CloudAdmin
Creating User - vtr.ram
{
  "User": {
    "Path": "/",
    "UserName": "vtr.ram",
    "UserId": "AIDAW54PSV2WEOKNPMGKG",
    "Arn": "arn:aws:iam::476505616044:user/vtr.ram",
    "CreateDate": "2022-09-11T06:12:40+00:00"
  }
}
Attaching password reset condition...!
{
  "LoginProfile": {
    "UserName": "vtr.ram",
    "CreateDate": "2022-09-11T06:12:40+00:00",
    "PasswordResetRequired": true
  }
}
Attaching User- vtr.ram -to Group- UnixAdmin
User- vtr.ram Created and Attached to Group- UnixAdmin
Creating User - john.doe
{
  "User": {
    "Path": "/",
    "UserName": "john.doe",
    "UserId": "AIDAW54PSV2WHH4GLBEJ5",
    "Arn": "arn:aws:iam::476505616044:user/john.doe",
    "CreateDate": "2022-09-11T06:12:42+00:00"
  }
}
Attaching password reset condition...!
{
  "LoginProfile": {
    "UserName": "john.doe",
    "CreateDate": "2022-09-11T06:12:43+00:00",
    "PasswordResetRequired": true
  }
}
Attaching User- john.doe -to Group- Trainees
User- john.doe Created and Attached to Group- Trainees
[cloudshell-user@ip-10-0-165-105 ~]$

```

Users created.

<input type="checkbox"/>	User name	Groups	Last activity	MFA	Password age	Active key age
<input type="checkbox"/>	jesh.vik	CloudAdmin	19 minutes ago	None	18 minutes ago	12 minutes ago
<input type="checkbox"/>	john.doe	Trainees	1 hour ago	None	1 hour ago	-
<input type="checkbox"/>	lara.ram	NetworkAdmin	Never	None	1 hour ago	-
<input type="checkbox"/>	thulasi.admin	None	Never	None	Now	Now
<input type="checkbox"/>	thulasi.ram	DBA	Never	None	1 hour ago	-
<input type="checkbox"/>	vtr.ram	UnixAdmin	Never	None	1 hour ago	-

Users > john.doe

### Summary

User ARN: `arn:aws:iam::476005616044:user:john.doe`  
 Path: `/`  
 Creation time: 2022-09-11 11:42 UTC+0830


[Permissions](#) | [Groups \(1\)](#) | [Tags](#) | [Security credentials](#) | [Access Advisor](#)

[Add user to groups](#)

Group name	Attached permissions
Trainers	ViewOnlyAccess and IAMUserChangePassword

[Delete user](#) ⓘ

4. Changing password on the first login (enforced this policy to all the users acquired from user group)



## Sign in as IAM user

Account ID (12 digits) or account alias

476 16044

IAM user name

john.doe

Password

.....

☐ Remember this account

[Sign in](#)

[Sign in using root user email](#)

[Forgot password?](#)

AWS account 4761 16044

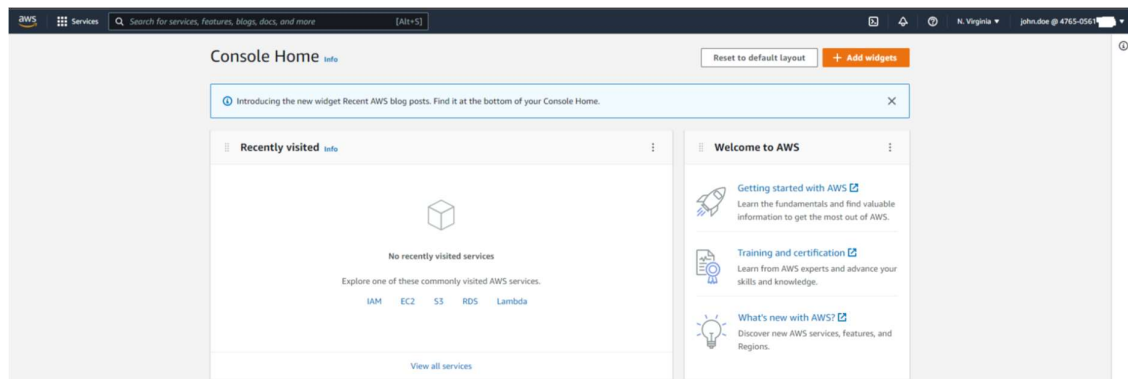
IAM user name john.doe

Old password

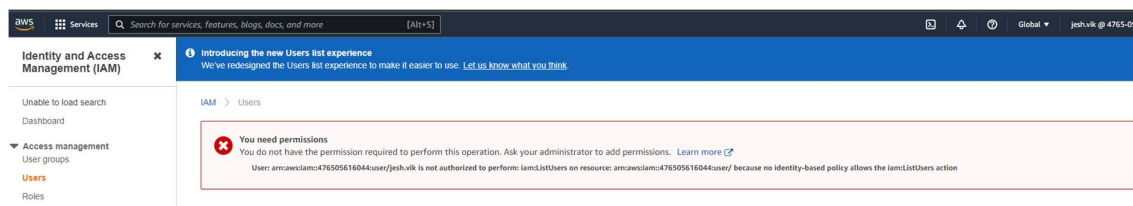
New password

Retype new password

Confirm password change



<input type="checkbox"/>	User name	Groups	Last activity	MFA	Password age
<input type="checkbox"/>	jesh.vik	CloudAdmin	Never	None	✓ 13 minutes ago
<input type="checkbox"/>	john.doe	Trainees	✓ 4 minutes ago	None	✓ 3 minutes ago



5. Create user-managed policy – EnforceMFAPolicy and assign to each group to enable MFA.

Policy name	Type	Used as	Description
<input type="radio"/> <input checked="" type="checkbox"/> EnforceMFAPolicy	Customer managed	None	

# CloudAdmin

Delete

## Summary

Edit

User group name CloudAdmin	Creation time September 11, 2022, 11:16 (UTC+05:30)	ARN <a href="#">arn:aws:iam::476505616044:group/CloudAdmin</a>
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Users | **Permissions** | Access Advisor

### Permissions policies (3) [Info](#)

You can attach up to 10 managed policies.

[Refresh](#) [Simulate](#) [Remove](#) [Add permissions](#) ▼

<input type="checkbox"/>	Policy name <a href="#">↗</a>	Type	Description
<input type="checkbox"/>	<a href="#">EnforceMFAPolicy</a>	Customer managed	
<input type="checkbox"/>	<a href="#">IAMUserChangePassword</a>	AWS managed	Provides the ability for an IAM user to change their own password.
<input type="checkbox"/>	<a href="#">AWSAccountManagementFullAccess</a>	AWS managed	Provides full access to AWS Account Management.

## 6. DBA-MFA ( DBA user logging into AWS console using MFA)



Services
[Alt+S]

**We listened to your feedback!**  
Now, create a database with a single click using our pre-built configurations! Or choose your own configurations.

RDS > Create database

## Create database

### Choose a database creation method [Info](#)

☒ **Standard create**  
You set all of the configuration options, including ones for availability, security, backups, and maintenance.

☐ **Easy create**  
Use recommended best-practice configurations. Some configuration options can be changed after the database is created.

### Engine options

Engine type [Info](#)

☐ Amazon Aurora

☐ MySQL

☐ MariaDB

☒ **PostgreSQL**

☐ Oracle

☐ Microsoft SQL Server

Version  
PostgreSQL 13.7-R1

## 7. Admin user Dashboard

Identity and Access Management (IAM)

Dashboard
Access management
User groups
Users
Roles
Policies
Identity providers
Account settings
Access reports
Access analyzer
Archive rules
Analyzers
Settings
Credential report
Organization activity
Service control policies (SCPs)

**There is a better way to connect your existing directory and give your users access across AWS**  
AWS IAM Identity Center (successor to AWS Single Sign-On) offers a better way to connect or create a workforce directory, and to manage users' access to multiple AWS accounts, AWS services, and SAML 2.0-based cloud applications. [Learn more](#)

### IAM dashboard

**Security recommendations**

☒ **Root user has MFA**  
Having multi-factor authentication (MFA) for the root user improves security for this account.

☒ **You have MFA**  
Having multi-factor authentication (MFA) for the root user improves security for this account.

☒ **Your user, thulasi.admin, does not have any active access keys that have been unused for more than a year.**  
Deactivating or deleting unused access keys improves security.

**IAM resources**

User groups	Users	Roles	Policies	Identity providers
5	6	2	1	0

**What's new**   
Updates for features in IAM

[View all](#)



## 8. User list

Users (6) Info

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

Find users by username or access key

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<input type="checkbox"/>	User name	Groups	Last activity	MFA	Password age	Active key age
<input type="checkbox"/>	jesh.vik	CloudAdmin	✓ 3 hours ago	None	✓ 3 hours ago	✓ 3 hours ago
<input type="checkbox"/>	john.doe	Trainees	✓ 4 hours ago	None	✓ 4 hours ago	-
<input type="checkbox"/>	lara.ram	NetworkAdmin	Never	None	✓ 4 hours ago	-
<input type="checkbox"/>	thulasi.admin	None	✓ Now	Virtual	✓ 2 hours ago	✓ 2 hours ago
<input type="checkbox"/>	thulasi.ram	DBA	✓ 3 minutes ago	Virtual	✓ 8 minutes ago	-
<input type="checkbox"/>	vtr.ram	UnixAdmin	Never	None	✓ 4 hours ago	-