

# **IDENTITY AND ACCESS MANAGEMENT (IAM)**

IAM stands for Identity and Access Management. It is a framework of policies and technologies that ensures that the right individuals or systems have the appropriate access to resources within a computing environment. The primary goal of IAM is to help organizations manage and control access to their systems and data securely.

Key components of IAM typically include:

1. **Identification:** This involves uniquely identifying individuals, systems, or services accessing the resources.
  2. **Authentication:** The process of verifying the identity of users, systems, or services. This is commonly achieved through the use of passwords, multi-factor authentication (MFA), biometrics, or other authentication methods.
  3. **Authorization:** Once a user or system is authenticated, IAM determines what resources they are allowed to access and what actions they can perform. This is often defined through policies and permissions.
  4. **Accounting/Auditing:** IAM systems often log and monitor activities related to user access and changes in permissions. This helps in auditing and maintaining a record of who accessed what resources and when.

IAM is crucial in various contexts, including network security, cloud computing, and enterprise IT environments. It helps organizations enforce security policies, manage user accounts, and ensure that only authorized individuals or systems have access to sensitive information and resources. In cloud computing, popular services like AWS (Amazon Web Services) and Azure provide IAM solutions to control access to their respective cloud resources.

## TO BEGIN WITH THE LAB

1. Login to AWS console.
  2. Then search for IAM. Choose this service accordingly.

## Services

See all 11 results ►

3. On IAM you need to navigate to users.

## ▼ Access management

User groups

**Users**

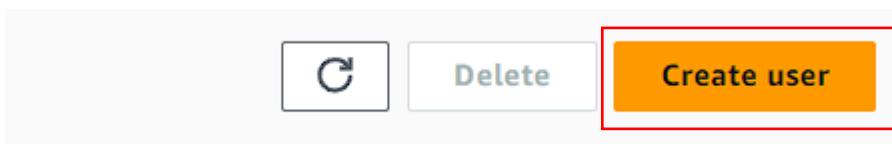
Roles

Policies

Identity providers

Account settings

4. On the user's section you need to click on Create user.



5. First you need to give it a name, then you need to check on I want to create an IAM user.

User details

User name  
s5-usr01  
The user name can have up to 64 characters. Valid characters: A-Z, a-z, 0-9, and + = , . @ \_ - (hyphen)

Provide user access to the AWS Management Console - *optional*  
If you're providing console access to a person, it's a [best practice](#) to manage their access in IAM Identity Center.

**Are you providing console access to a person?**

User type

Specify a user in Identity Center - Recommended  
We recommend that you use Identity Center to provide console access to a person. With Identity Center, you can centrally manage user access to their AWS accounts and cloud applications.

I want to create an IAM user  
We recommend that you create IAM users only if you need to enable programmatic access through access keys, service-specific credentials for AWS CodeCommit or Amazon Keyspaces, or a backup credential for emergency account access.

6. Now you need to give it a password. It could be auto generated or custom. It totally depends on you.
7. With you have an option to create a new password on your first login.
8. But if you want to follow the same steps then use the settings shown below.
9. Now click on next and move forward.

Console password

Autogenerated password  
You can view the password after you create the user.

Custom password  
Enter a custom password for the user.  
\*\*\*\*\*  
• Must be at least 8 characters long  
• Must include at least three of the following mix of character types: uppercase letters (A-Z), lowercase letters (a-z), numbers (0-9), and symbols ! @ # \$ % ^ & \* ( ) \_ + - { } [ ] | '.

Show password

Users must create a new password at next sign-in - Recommended  
Users automatically get the [IAMUserChangePassword](#) policy to allow them to change their own password.

**Info** If you are creating programmatic access through access keys or service-specific credentials for AWS CodeCommit or Amazon Keyspaces, you can generate them after you create this IAM user. [Learn more](#)

Cancel **Next**

10. Now you have options to choose from, but for now let it be and move to next page.

## Set permissions

Add user to an existing group or create a new one. Using groups is a best-practice way to manage user's permissions by job functions. [Learn more](#)

### Permissions options

Add user to group  
Add user to an existing group, or create a new group. We recommend using groups to manage user permissions by job function.

Copy permissions  
Copy all group memberships, attached managed policies, and inline policies from an existing user.

Attach policies directly  
Attach a managed policy directly to a user. As a best practice, we recommend attaching policies to a group instead. Then, add the user to the appropriate group.

11. On the next page review your user and then create it.

## Review and create

Review your choices. After you create the user, you can view and download the autogenerated password, if enabled.

### User details

User name s3-usr01	Console password type Custom password	Require password reset No
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### Permissions summary

Name	Type	Used as
No resources		

### Tags - optional

Tags are key-value pairs you can add to AWS resources to help identify, organize, or search for resources. Choose any tags you want to associate with this user.

No tags associated with the resource.

**Add new tag**

You can add up to 50 more tags.

Cancel **Previous** **Create user**

12. Now you will see that you got a console sign in URL and your user's name and password.

13. What you need to do is copy this URL and paste it in a new browser, because you cannot use AWS Console in the same browser.

14. So, the reason to copy this URL is that this URL has your account ID and this particular URL can take you directly to the console login page.

## Retrieve password

You can view and download the user's password below or email users instructions for signing in to the AWS Management Console. This is the only time you can view and download this password.

Console sign-in details	
<a href="#">Email sign-in instructions</a>	
Console sign-in URL	<a href="https://[REDACTED].signin.aws.amazon.com/console">https://[REDACTED].signin.aws.amazon.com/console</a>
User name	s3-usr01
Console password	***** <a href="#">Show</a>
<a href="#">Cancel</a> <a href="#">Download .csv file</a> <a href="#">Return to users list</a>	

15. Now paste this URL in the new browser and login as an IAM user.
16. You will see that it is asking you to sign in as an IAM user and it your account ID already entered.
17. You just need to enter your user's name and password.
18. Then log in to Console as an IAM user.



### Sign in as IAM user

Account ID (12 digits) or account alias

IAM user name

Password

Remember this account

[Sign in](#)

[Sign in using root user email](#)

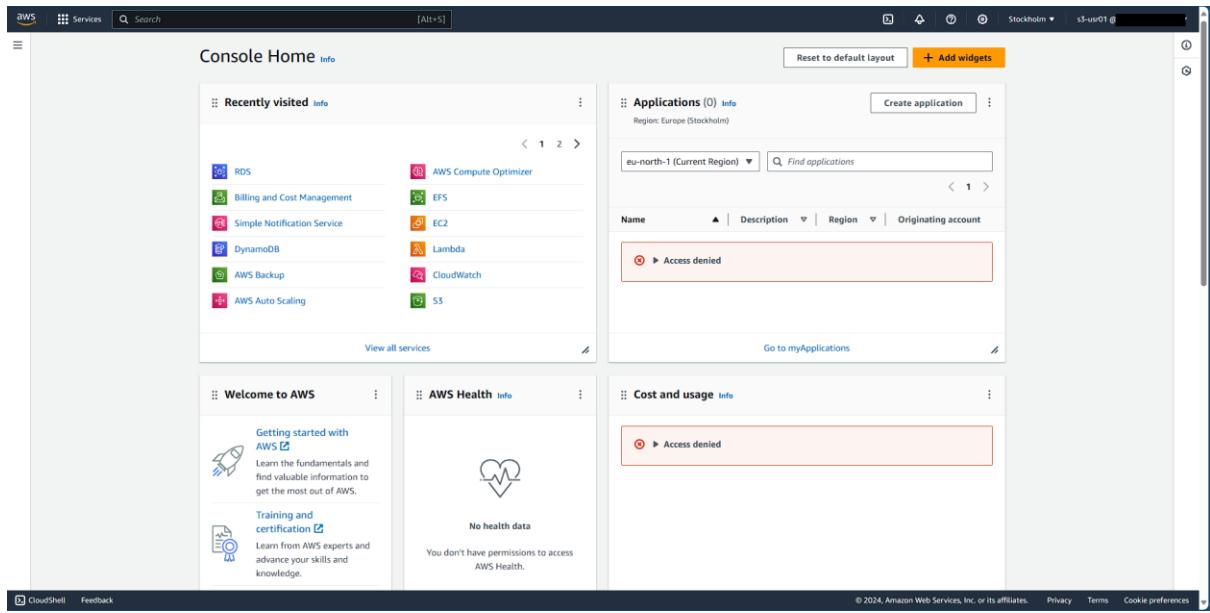
[Forgot password?](#)



English ▾

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19. This is how your dashboard will look in the console.
20. You might see nothing in your recently visited section.



21. What you need to do is change your location to where you were working on your main account.