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AWS IAM

AWS Identity & Access Management

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IAM is a service that helps you securely control access to AWS resources.

It allows you to manage users, roles, and permissions to define who can access what within your AWS environment.

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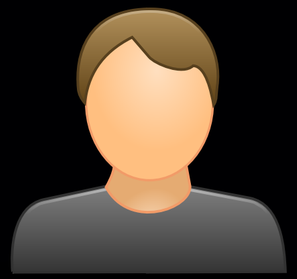

root

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- Free Service: IAM is offered at no additional cost
- Global Service
- Root account created by default, shouldn’t be used or shared

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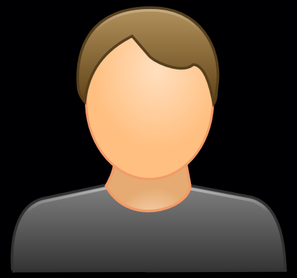
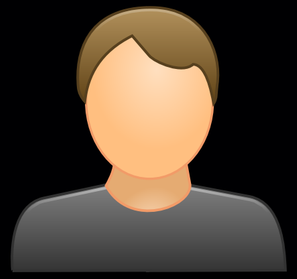
- **Create Users**: You can create individual user accounts for people who need access to your AWS resources.
- **Assign Permissions**: You can assign specific permissions to users, groups, or roles to control what actions they can perform on AWS services.
- **Create Groups**: You can group users together and assign permissions to the group, making management easier for multiple users.

Users

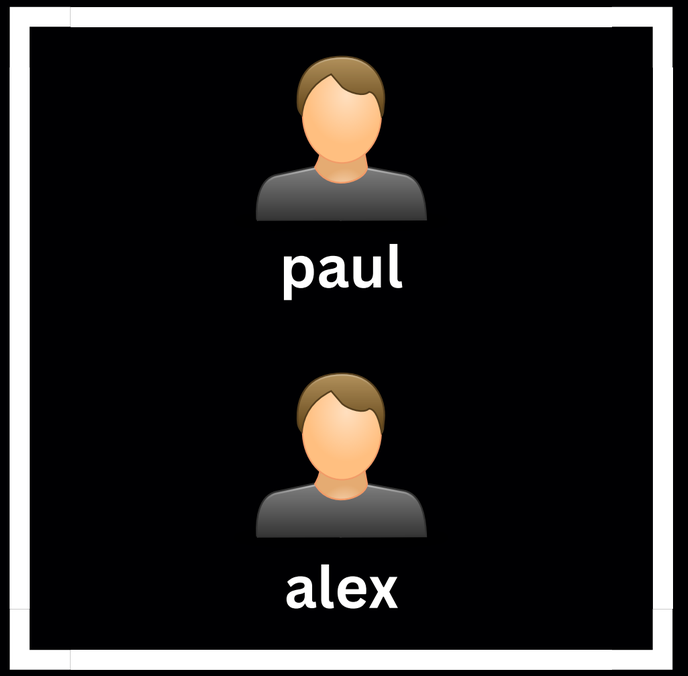


paul



alex

Group



operations

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- **Create Roles:** You can create roles to assign temporary permissions to AWS services or users, especially useful for securely managing permissions across different AWS resources.
- **Define Policies**: You can create and attach custom policies to define fine-grained permissions for controlling access to AWS resources.
- **Manage Federated Access:** IAM allows integrating with external identity providers (like Active Directory) for centralized management of user access across AWS.

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MFA

MFA (Multi-Factor Authentication) is an extra layer of security that requires users to provide two or more forms of verification, like a password and a code from their phone, to access their accounts.

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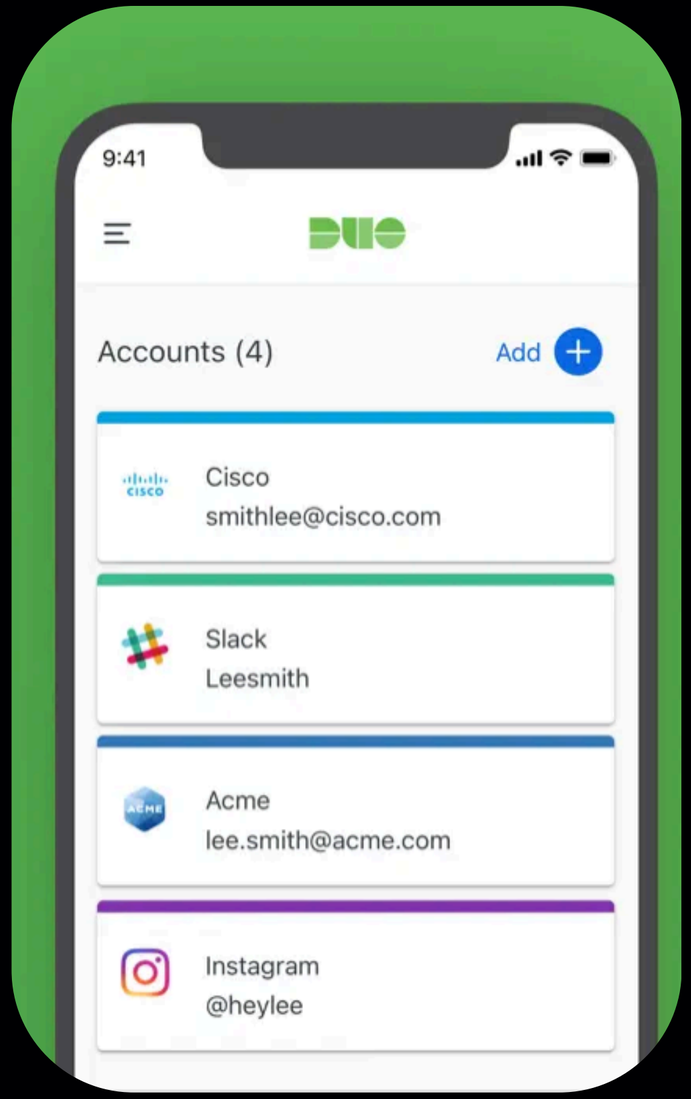
MFA

username + password + security code


9:41
Accounts (4)
Add
Cisco
smithlee@cisco.com
Slack
Leesmith
Acme
lee.smith@acme.com
Instagram
@heylee

DUO Mobile

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Ways of accessing AWS

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- The **AWS Management Console** provides a graphical, web-based approach.
- The **AWS CLI** provides a command-line, scripting approach.
- **AWS SDKs and APIs** offer programmatic, code-based access, allowing users to integrate AWS directly into their applications.

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AWS IAM Best Practices

- Avoid using root account except of account setup.
- Add user to a group and assign permission to group
- Use password policy or MFA
- Use ACCESS KEYS for CLI/SDK
- Never share ACCESS KEYS or Password
- Audit the permission using IAM credential report.