



Terraform: AWS IAM

Terraform : Deployment Automation

- **IAM** - Access and Identity Management.
- IAM enables you to manage access to AWS services and resources in a very secure manner.
- AWS Identity and Access Management (IAM) is a web service for securely controlling access to AWS resources.

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- **How Does IAM Work? -**
- Principal is an entity that can perform actions on an AWS resource. A user, a role or an application can be a principal.
- Authentication is the process of confirming the identity of the principal trying to access an AWS product. The principal must provide its credentials or required keys for authentication.
- **Request:** A principal sends a request to AWS specifying the action and which resource should perform it.
- **Authorization:** By default, all resources are denied. IAM authorizes a request only if all parts of the request are allowed by a matching policy. After authenticating and authorizing the request, AWS approves the action.
- Actions are used to view, create, edit or delete a resource.
- **Resources:** A set of actions can be performed on a resource related to your AWS account.

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- **Components of IAM :**
- **Users :** IAM user is an identity with an associated credential and permissions attached to it.
- This could be an actual person who is a user, or it could be an application that is a user.
- Each IAM user is associated with only one AWS account.

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- **Components of IAM :**
- **Groups :** A collection of IAM users is an IAM group.
- IAM groups used to specify permissions for multiple users so that any permissions applied to the group are applied to the individual users in that group.
- New member of the Group inherit the policies and permissions of the Group automatically.

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- **Components of IAM :**
- **Policies :** IAM policy sets permission and controls access to AWS resources.
- Policy is a JSON data document.
- Permissions specify who has access to the resources and what actions they can perform. Policy would contain the following information:
 - Who can access it
 - What actions that user can take
 - Which AWS resources that user can access
 - When they can be accessed

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- **Components of IAM :**
- **Roles :** IAM role is a set of permissions that define what actions are allowed and denied by an entity in the AWS console.
- Role permissions are temporary credentials.

Will see you in Next Lecture...

Thank you!

A close-up photograph of a hand holding a black marker, completing the cursive word 'Thank you!' on a white surface. The marker is positioned at the end of the exclamation mark, and the hand is visible on the right side of the frame.

See you in next lecture ...