Secure the Root User Account

1. Enable Multi-Factor Authentication (MFA):

- Navigate to **IAM** in the AWS Console.
- Go to the Security Credentials section for the root user and enable MFA using an authenticator app (e.g., Google Authenticator).

2. Limit Root User Access:

 Use the root account only for critical tasks (e.g., billing) and rely on IAM users for daily operations.

3. Create an IAM User

1. Navigate to the IAM Console:

o In the AWS Management Console, search for and open the IAM Service.

2. Add a New User:

- Click Users on the left-hand menu, then click Add Users.
- o Enter a username for the new user.
- Select the type of access:
 - AWS Management Console Access: For GUI access.
 - **Programmatic Access**: For API, CLI, or SDK usage.

3. Assign Permissions:

- Choose how to assign permissions:
 - Add User to a Group: Recommended for managing multiple users.
 - Attach Policies Directly: Attach predefined policies like AdministratorAccess or ReadOnlyAccess.
 - Copy Permissions: Clone another user's permissions.

4. Review and Create User:

Verify the details and click Create User.

5. **Download Credentials**:

 Save the Access Key ID and Secret Access Key securely. These are only shown once.

4. Organize Permissions with Groups

1. Create an IAM Group:

Navigate to the Groups section in IAM and click Create Group.

2. Assign Permissions:

• Attach policies to the group (e.g., PowerUserAccess, EC2ReadOnlyAccess).

3. Add Users to the Group:

 Add the previously created user to the group to grant them the group's permissions.

5. Configure IAM User Security

- 1. Enable MFA for IAM Users:
 - Navigate to the user's security settings and enable MFA.
- 2. Set Strong Password Policies:
 - o In the IAM settings, enforce password complexity and rotation policies