

Boto3 AWS Credentials Preference Order

- We know that Python Boto3 scripts can authenticate your AWS account in different ways
- They are:
 - Programmatic Access Keys (Like as directly in the code, as env, from awscli configure ...)
 - AWS IAM Roles – Recommended and more secure, but only usable in AWS environments like EC2, Lambda, ECS or EKS
 - AWS Single Sign-On (SSO)
 - AWS Web Identity Token
- If you define AWS Credentials in multiple places, Boto3 automatically follows a strict order of priority to select which credentials to use
- Here's the exact order Boto3 uses to search for AWS credentials:
 - Passing credentials directly in code
 - Environment Variables
 - AWS Configure Credentials
 - IAM Role
 - AWS Single Sign-On (SSO)
 - AWS Web Identity Token
- Recommended Practice
 - Local Development: Use ~/.aws/credentials or environment variables
 - Scripting/Automation: Use IAM roles wherever possible (e.g., EC2, EKS, Lambda)
 - Avoid hardcoding credentials in your scripts for security