Environment Setup To Start With AWS Automation (Python, Boto3)

- AWS automation using Python Boto3 scripts requires authentication and the method of authentication depends on where and how the scripts are being executed
- We can run Python Boto3 scripts from the following environments:
  - From a local machine or laptop (Windows, Linux, Mac or any OS)
  - From an EC2 instance
  - From an AWS Lambda function
  - From a microservice or web application (Ex: Flask or Django app running on EC2, ECS or EKS)

- We can provide authentication using :
  - Programmatic Access Keys – Can be used in any environment, but must be handled securely
  - 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

- Executing Scripts from Local Machine:
  - Create an IAM User with the required permissions to work with: IAM, S3, ECR, EKS, EC2 and Lambda
  - Create programmatic access keys
  - Install Python, Boto3 and AWS CLI