**# AWS Systems Manager EC2 Run Command: A Step-by-Step Guide**

**Introduction:**

AWS Systems Manager EC2 Run Command allows you to automate and execute administrative tasks on your EC2 instances at scale. This guide provides step-by-step instructions for using AWS Systems Manager EC2 Run Command effectively.

**Prerequisites:**

1. An AWS account.

2. EC2 instances with the AWS Systems Manager Agent (SSM Agent) installed.

3. AWS Identity and Access Management (IAM) permissions to use SSM.

**Step 1: Ensure SSM Agent is Installed**

1.1. Ensure that the AWS Systems Manager Agent (SSM Agent) is installed and running on your EC2 instances. You can check the agent's status from the AWS Systems Manager Console.

**Step 2: Create an IAM Role**

2.1. If you haven't already, create an IAM role that grants EC2 instances permissions to execute SSM commands. This role should have the "AmazonEC2RoleforSSM" policy attached.

**Step 3: Define SSM Document**

3.1. Go to the AWS Systems Manager Console.

3.2. Under "Actions", select "Create Command Document".

3.3. Define the SSM document that specifies the command you want to run. For example, to run a shell script, create a "AWS-RunShellScript" document. Customize the document with your script or command.

**Step 4: Execute a Run Command**

4.1. In the Systems Manager Console, navigate to "Run Command" on the left.

4.2. Choose "Run a command."

4.3. Configure the following:

- Targets: Select the EC2 instances on which you want to execute the command.

- Command document: Choose the SSM document created in Step 3.

- Parameters: Configure any necessary parameters for your command.

- Execution role: Select the IAM role created in Step 2.

4.4. Choose "Run" to execute the command on selected instances.

**Step 5: View Command Output and Status**

5.1. Monitor the status of the command execution in the AWS Systems Manager Console. You can see whether the command is "InProgress," "Success," or "Failed."

5.2. To view the command output, select the execution ID, and click "View output." This allows you to see the results of your command.

**Step 6: View Command History**

6.1. To review past command executions, navigate to "Command history" in the Systems Manager Console. Here, you can see a history of all executed commands and their results.

**Step 7: Create Automation Runbooks (Optional)**

7.1. AWS Systems Manager provides the capability to create Automation Runbooks. These are sequences of steps and actions to automate complex tasks. Consider creating Runbooks to automate recurring tasks.

**Step 8: Schedule Commands (Optional)**

8.1. You can schedule commands to run at specified times or intervals using Systems Manager. This is helpful for tasks like patch management or backups.