**Monitoring and Notifications with CloudWatch Events and SNS**

**About this Hands-on Lab**

In this hands-on lab, we will create a CloudWatch Events alarm that triggers an SNS email notification. Then, we will trigger the alarm by simulating the shutdown of an EC2 instance.

**The Scenario**

Since engineers are critical to keeping your EC2 instances running to serve your traffic with minimal downtime, you have been tasked with architecting a solution to have your engineers alerted on all state changes to your Production EC2 instances. You have decided to use CloudWatch and SNS to receive alerts to all EC2 state changes in your Production environment so that immediate corrective actions can be taken. Let's get started!

**Learning Objectives**

Successfully complete this lab by achieving the following learning objectives:

**Create an SNS Topic and Subscribe an Email Address**

1. Create an SNS topic.
2. Subscribe to an email address.
3. Confirm your subscription to the newly created SNS topic.

**Create a CloudWatch Events Rule to Trigger the SNS Topic When There Is a State Change to an EC2 Instance**

Create a CloudWatch Events rule to trigger the newly created SNS topic whenever there is a state change to an EC2 instance.

**Change the State of the EC2 Instance and Verify the Receipt of the SNS Notification**

1. In the EC2 console, change the state of the EC2 instance to stopped.
2. Next, check your email to verify you received the SNS notification that a state change has occurred for an EC2 instance.

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