## Automated EC2 Backup

## Project Overview

This project involves the automated creation of backups for EC2 instances using AWS Backup. Once a backup job completes, AWS EventBridge triggers an event that sends data to Amazon SNS, which then fires an email notification to the designated recipients.

## Architecture

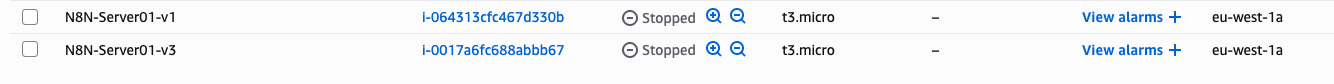
1. EC2 Instances: The compute resources that require regular backups.  
2. AWS Backup: Manages and automates backup processes for EC2 instances.  
3. EventBridge: Monitors backup job completion events and triggers actions.  
4. SNS (Simple Notification Service): Sends notifications via email upon receiving events from EventBridge.

## Workflow

1. AWS Backup initiates a scheduled backup job for EC2 instances.  
2. Upon completion, AWS Backup emits an event.  
3. EventBridge captures the event and forwards it to an SNS topic.  
4. SNS sends an email notification to the configured recipients.  
  
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AI-generated content may be incorrect.

## Output 1. EC2 Instances



2. AWS Backup – Backup Vault and Plan

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3. EventBridge – Rule  
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A close-up of a computer screen

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A screenshot of a computer program

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4. SNS – Subscription

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5. SNS Email notification sent

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## Production Use-Cases

- Disaster Recovery: Ensures EC2 instances are backed up regularly to recover from failures or data loss.  
- Compliance: Meets regulatory requirements for data protection and retention.  
- Business Continuity: Maintains operational resilience by automating backups and notifications.  
- Monitoring and Alerts: Provides real-time alerts to system administrators about backup job statuses.