

TASK – 22

Stop the EC2 instance with help of lambda and get the notification through the cloud watch as instance stopped.

Creation of topic

The screenshot shows the AWS SNS Topics page. On the left, there's a sidebar with 'Amazon SNS' and links for 'Dashboard', 'Topics' (which is selected), 'Subscriptions', and 'Mobile' (with 'Push notifications' and 'Text messaging (SMS)'). The main area has a 'Details' section with fields: 'Name' (my_topic), 'Display name' (empty), 'ARN' (arn:aws:sns:ap-southeast-1:393827457998:my_topic), 'Topic owner' (393827457998), and 'Type' (Standard). Below this is a tab navigation bar with 'Subscriptions' (selected), 'Access policy', 'Data protection policy', 'Delivery policy (HTTP/S)', 'Delivery status logging', 'Encryption', and 'Tags'. Under 'Subscriptions', it says '(1)' and shows a table with one row: ID (cb4f4b58-2e68-402d-ad8e-7b0f6...), Endpoint (+916381475510), Status (Confirmed), and Protocol (SMS). There are buttons for 'Edit', 'Delete', 'Request confirmation', 'Confirm subscription', and 'Create subscription'.

Creation of instance

The screenshot shows the AWS EC2 Instances page. On the left, there's a sidebar with 'EC2' (selected) and links for 'Dashboard', 'EC2 Global View', 'Events', 'Instances' (selected), 'Images', and 'Elastic Block Store'. The main area shows a success message: 'Successfully initiated starting of i-079341d565b7c6217'. Below it is a table titled 'Instances (1/1)'. The table has columns: Name (dropdown), Instance ID (i-079341d565b7c6217), Instance state (Running), Instance type (t2.micro), Status check (Initializing), Alarm status (View alarms +), Availability Zone (ap-southeast-1b), and Public IP (ec2-13-2-). There are buttons for 'Connect', 'Actions', and 'Launch instances'. At the bottom, there's a detailed view for 'i-079341d565b7c6217 (my_instance)' with tabs for 'Details', 'Status and alarms', 'Monitoring', 'Security', 'Networking', 'Storage', and 'Tags'. Under 'Details', it shows 'AMI ID' (ami-03bec25d3c8e6cd26), 'Monitoring' (disabled), 'AMI name' (al2023-ami-2023.9.20251020.0-kernel-6.1-x86_64), 'Allowed image' (empty), 'Platform details' (Linux/UNIX), and 'Termination protection' (Disabled).

The screenshot shows the AWS IAM Roles page. A green banner at the top says "Policy mypolicy created." Below it, a table lists roles with columns for Role name, Trusted entities, and Last activity. The role "func_lambda-role-d2vy2ojb" is selected and highlighted in blue.

Role name	Trusted entities	Last activity
AWSServiceRoleForSMSVoice	AWS Service: sms-voice (Service-Link)	11 days ago
AWSServiceRoleForSupport	AWS Service: support (Service-Link)	-
AWSServiceRoleForTrustedAdvisor	AWS Service: trustedadvisor (Service)	-
AWSServiceRoleForVPCTransitGateway	AWS Service: transitgateway (Service)	17 days ago
func_lambda-role-d2vy2ojb	AWS Service: lambda	-
s3cr_role_for_newsrcbuck-1	AWS Service: s3	42 days ago
s3cr_role_for_srcbuckett-01	AWS Service: s3	-
s3cr_role_for_srcbuckett-01_1	AWS Service: s3	-
s3cr_role_for_srcbuckett-01_2	AWS Service: s3	42 days ago

Deploying the code

The screenshot shows the AWS Lambda Functions page. On the left, the Lambda Explorer shows a function named "lambda_function.py". The code in the editor is:

```

import boto3

def lambda_handler(event, context):
    ec2 = boto3.client('ec2')
    sns = boto3.client('sns')

    instance_id = 'i-079341d565b7c6217' # Replace with your EC2 instance ID
    topic_arn = 'arn:aws:sns:ap-southeast-1:393827457998:my_topic' # Replace with your SNS ARN

    # Stop EC2 instance
    ec2.stop_instances(InstanceIds=[instance_id])

    # Send notification
    message = f'EC2 instance {instance_id} has been stopped successfully.'
    sns.publish(
        TopicArn=topic_arn,
        Message=message
    )

```

The "TEST EVENTS" section shows a selected event named "lambda_event". The "DEPLOY" button is highlighted in blue. On the right, there's a "Tutorials" sidebar with a "Create a simple web app" section.

Instance stopped

The screenshot shows the AWS Lambda console with a success message: "Successfully initiated starting of i-079341d565b7c6217". The main pane displays the EC2 Instances page with one instance listed:

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IP
my_instance	i-079341d565b7c6217	Stopped	t2.micro	-	-	ap-southeast-1b	-

Below the table, the instance details are shown:

- AMI ID:** ami-03bec25d3c8e6cd26
- AMI name:** al2023-ami-2023.9.20251020.0-kernel-6.1-x86_64
- Monitoring:** disabled
- Allowed image:** -
- Platform details:** Linux/UNIX
- Termination protection:** Disabled

