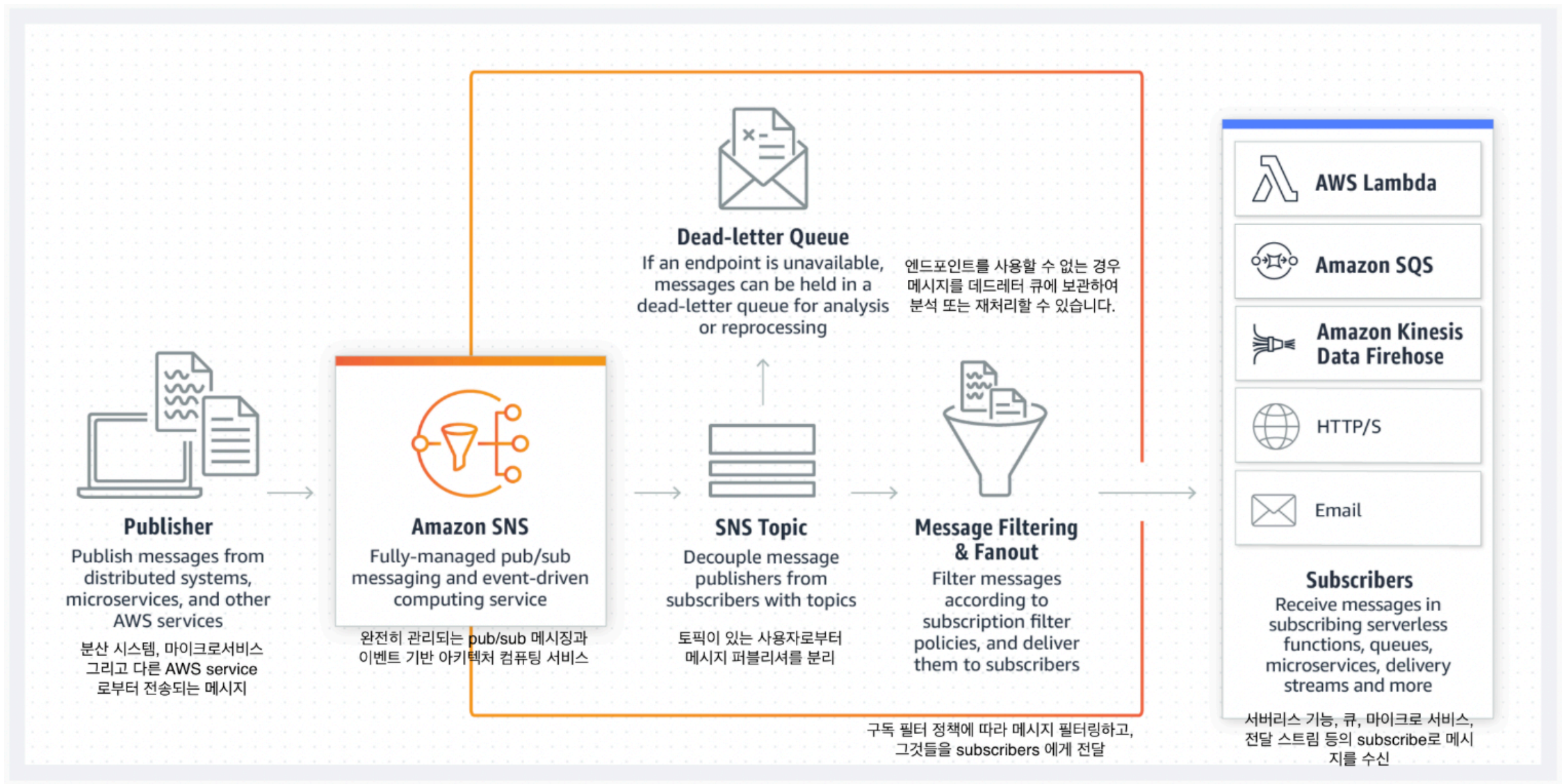
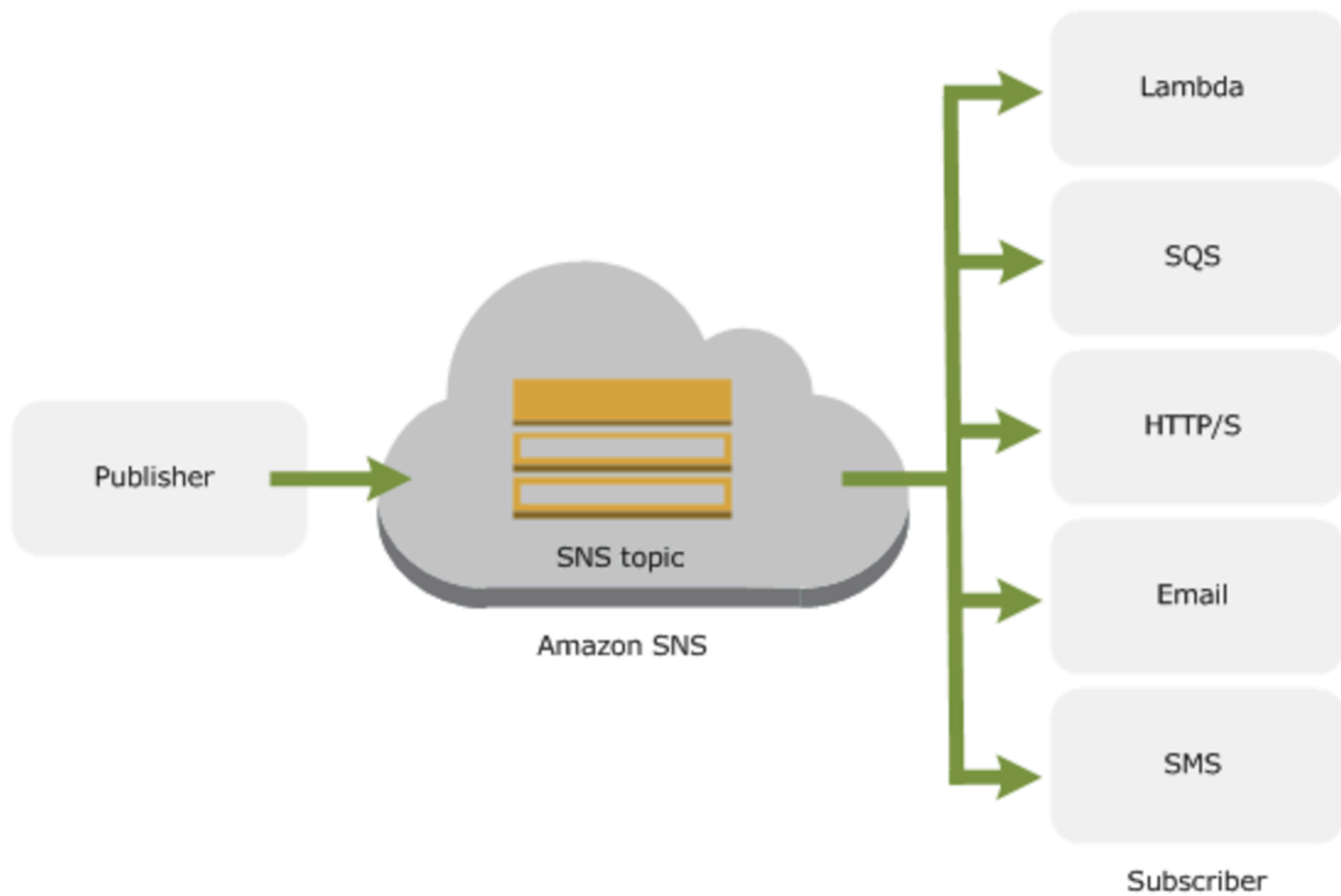


# Amazon Simple Notification Service

- Amazon Simple Notification Service(Amazon SNS) 는 구독 중인 서비스나 사용자에게 메시지 전달 및 전송을 해주는 서비스입니다.
- 메시지를 처리하는 곳(Publisher) 과 수신하는 곳(Subscriber) 을 분리하는 비동기 메시징 서비스를 제공하는 완전관리형 서비스입니다.



## Amazon SNS 구성요소



- Topic (토픽)
  - SNS는 토픽이라는 기능을 통해 메시지를 보낸다.
  - 위와 같은 구조를 통해 비동기통신(Asynchronous)을 실현시킨다.
- Publisher (발행자)
  - Publisher는 Amazon SNS에서 메시지를 발신하는 애플리케이션 등을 의미한다.
  - Publisher는 메시지를 발행하고자 하는 Topic을 선택하여 메시지를 배포한다.
  - Subscriber의 존재나 프로토콜의 종류 등은 신경 쓸 필요가 없다.
- Subscriber (구독자)
  - Subscriber는 메시지를 수신하는 (구독하는) 애플리케이션이나 사용자이다.

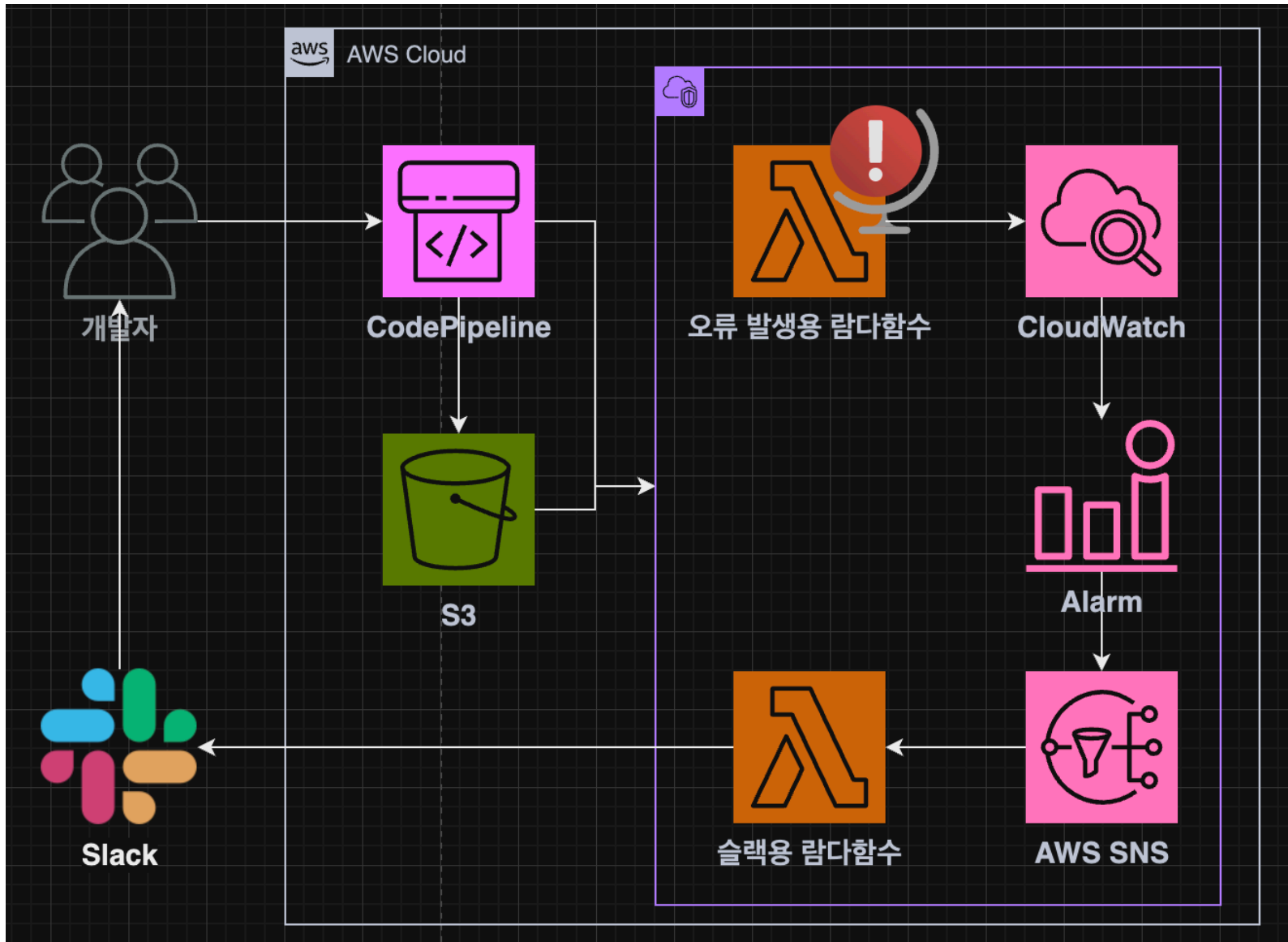
# Amazon 단순 알림 서비스 엔드포인트 및 할당량

## Amazon SNS 리소스

증가를 요청하려면 [SNS 할당량 증가 요청](#) 을 제출합니다.

Resource	기본값
주제	<ul style="list-style-type: none"><li>• 기준: 계정당 100,000개</li><li>• FIFO: 계정당 1,000개</li></ul>
구독	<ul style="list-style-type: none"><li>• 표준: 주제당 12,500,000</li></ul> Firehose 전송 스트림의 경우 주제당, 구독 소유자당 5개 <ul style="list-style-type: none"><li>• FIFO: 주제당 100개</li></ul>
대기 중인 구독	계정당 5,000개

**aws codepipeline**





**CodeBuild**

## 단계1: CodeBuild 생성

The screenshot shows the AWS CodeBuild console interface. The left sidebar contains a 'Developer Tools' section with 'CodeBuild' highlighted. Below it, under 'Build', 'Build projects' is selected. The main content area shows the 'Build projects' page with a table of existing projects. A table with 6 columns: Name, Source provider, Repository, Latest build status, Description, and Last Modified. One project is listed: 'slack-sns' from 'GitHub' with repository 'good593/course\_aws'. The 'Create project' button is visible in the top right.

Name	Source provider	Repository	Latest build status	Description	Last Modified
slack-sns	GitHub	<a href="#">good593/course_aws</a>	-	-	Just now

## 단계2: CodeBuild Role 권한 추가

The screenshot displays the AWS IAM console interface for the role **codebuild-slack-sns-service-role**. The left sidebar shows the navigation menu with 'Identity and Access Management (IAM)' selected. The main content area shows the role's details and the 'Permissions' tab, which lists the attached policies.

**Summary**

- Creation date:** December 06, 2024, 09:01 (UTC+09:00)
- Last activity:** -
- ARN:** `arn:aws:iam::426653742146:role/service-role/codebuild-slack-sns-service-role`
- Maximum session duration:** 1 hour

**Permissions** (selected tab) | Trust relationships | Tags | Last Accessed | Revoke sessions

**Permissions policies (3)** Info

You can attach up to 10 managed policies.

Buttons: [Simulate](#) | [Remove](#) | [Add permissions](#)

Filter by Type: All types

<input type="checkbox"/>	Policy name	Type	Attached entities
<input type="checkbox"/>	<a href="#">AmazonS3FullAccess</a>	AWS managed	3
<input type="checkbox"/>	<a href="#">CodeBuildBasePolicy-slack-sns-ap-northeast-2</a>	Customer managed	1
<input type="checkbox"/>	<a href="#">CodeBuildCodeConnectionsSourceCredentialsP...</a>	Customer managed	1

## 단계3: CodeBuild 실행

The screenshot shows the AWS CodeBuild console interface. The top navigation bar includes the AWS logo, a search bar, and a list of services (IAM, EC2, VPC, S3, EMR, Elastic Container Service, CodePipeline, RDS). The left sidebar shows the 'Developer Tools' section with 'CodeBuild' selected. The main content area displays the 'Build projects' page for CodeBuild. A table lists the build projects, with 'slack-sns' highlighted. The 'Start build' button is open, showing 'Start now' and 'Start with overrides' options. Red arrows point to the project name 'slack-sns', the 'Succeeded' status, and the 'Start now' option.

Developer Tools

CodeBuild

Source • CodeCommit

Build • CodeBuild

- Getting started
- Build projects
- Build history
- Report groups

Developer Tools > CodeBuild > Build projects

Build projects Info

Actions Create trigger View details Start build Start now Start with overrides

Name	Source provider	Repository	Latest build status	Description	Last Modified
slack-sns	GitHub	good593/course_aws	Succeeded	-	8 minutes

# CodePipeline

## 단계1: CodePipeline 생성 및 실행

Developer Tools  
**CodePipeline**

- ▶ Source • CodeCommit
- ▶ Build • CodeBuild
- ▶ Deploy • CodeDeploy
- ▼ Pipeline • CodePipeline
  - Getting started
  - Pipelines
  - Pipeline**
  - History
  - Settings
- ▶ Settings

Developer Tools > CodePipeline > Pipelines > slack-sns

### slack-sns

Pipeline type: V2 Execution mode: QUEUED

Edit Stop execution Clone pipeline Release change

✔ Source Succeeded

Pipeline execution ID: [ec9fcb38-ef2a-4338-a3a9-a8217302ecdc](#)

Source

[GitHub \(via GitHub App\)](#)

✔ Succeeded - 4 minutes ago

[f727102c](#)

View details

✔  
✔  
✔

## 단계2: Cloudformation 확인

The screenshot displays the AWS CloudFormation console interface. The top navigation bar includes links to various AWS services: IAM, EC2, VPC, S3, EMR, Elastic Container Service, CodePipeline, and RDS. The main header shows the breadcrumb path: CloudFormation > Stacks > slack-sns-stack.

**Left Sidebar (CloudFormation):**

- Stacks
  - Stack details** (highlighted with a red arrow)
  - Drifts
  - StackSets
  - Exports
- Infrastructure Composer
- laC generator
- Hooks overview [New](#)
- Hooks [New](#)

**Stacks (1) Section:**

- Filter status: Active
- View nested: ☒
- Stacks list:
  - slack-sns-stack** (highlighted with a red arrow and a blue box) - 2024-12-06 09:25:36 UTC+0900 - **CREATE\_COMPLETE**

**slack-sns-stack Details:**

- Buttons: Delete, Update, Stack actions, Create stack
- Tabs: Stack info, **Events - updated**, Resources, Outputs, Parameters, Telemetry
- Views: **Table view**, Timeline view - new

**Events (40) Section:**

- Detect root cause button
- Search events input
- Table with columns: Timestamp, Logical ID, Status, Detailed status

Timestamp	Logical ID	Status	Detailed status
2024-12-06 09:26:48 UTC+0900	slack-sns-stack	<b>CREATE_COMPLETE</b>	-

## 단계3: IAM 확인

The screenshot shows the AWS IAM console interface. The breadcrumb navigation at the top left indicates the path: IAM > Roles. The left-hand navigation pane is expanded to 'Access management', where 'Roles' is highlighted. The main content area displays 'Roles (8)' with a search bar containing 'DEV' and a table of roles. The table has columns for 'Role name', 'Trusted entities', and 'Last activity'. One role, 'lambda-DEV-sns-slack-role', is listed with 'AWS Service: lambda' as the trusted entity. Below the table, there are three informational cards: 'Roles Anywhere', 'X.509 Standard', and 'Temporary credentials'.

**Identity and Access Management (IAM)**

Search IAM

**Access management**

- User groups
- Users
- Roles**
- Policies
- Identity providers
- Account settings
- Root access management [New](#)

**Roles (8)** [Info](#)

An IAM role is an identity you can create that has specific permissions with credentials that are valid for short durations. Roles can be assumed by entities that you trust.

Q DEV 1 match

<input type="checkbox"/>	Role name	Trusted entities	Last activity
<input type="checkbox"/>	<a href="#">lambda-DEV-sns-slack-role</a>	AWS Service: lambda	-

**Roles Anywhere** [Info](#)

Authenticate your non AWS workloads and securely provide access to AWS services.

**Access AWS from your non AWS workloads**

Operate your non AWS workloads using the same authentication and authorization strategy that you use within AWS.

**X.509 Standard**

Use your own existing PKI infrastructure or use [AWS Certificate Manager Private Certificate Authority](#) to authenticate identities.

**Temporary credentials**

Use temporary credentials with ease and benefit from the enhanced security they provide.

[Manage](#)



## 단계4: SNS 확인

The screenshot shows the Amazon SNS console interface. On the left, the navigation menu includes 'Amazon SNS', 'Topics', 'Subscriptions', and 'Mobile'. The main content area is titled 'DEV-sns-slack-topic' and contains a 'Details' section with the following information:

- Name:** DEV-sns-slack-topic
- Display name:** DEV-sns-slack-topic
- ARN:** arn:aws:sns:ap-northeast-1:123456789012:DEV-sns-slack-topic
- Topic owner:** 123456789012
- Type:** Standard

Below the details, there is a tabbed interface with 'Subscriptions' selected. The 'Subscriptions (1)' section shows a table with one subscription:

ID	Endpoint	Status	Protocol
644e8aa2-d2d...	arn:aws:lambda:ap-northeast-1:123456789012:function:DEV-sns-slack-alarm-lambda	Confirmed	LAMBDA

Red arrows point to the 'Topics' link in the navigation menu, the 'Subscriptions' tab, and the 'Confirmed' status of the subscription.

# Alarm Test

## 단계1: AWS Lambda n번 오류 발생 시킴

The screenshot shows the AWS Lambda console interface. The left sidebar contains navigation links for Lambda, Dashboard, Applications, Functions, and DEV-sns-slack-test-lambda. The main content area shows the 'Code source' tab for the function. A warning message states 'You are using the old console editor.' Below this, there is a 'Test' button and a 'Deploy' button. The 'Test' button is highlighted with a red arrow. The 'Execution results' tab is active, showing a failed test event. The response is a JSON object with an 'errorMessage' of 'None' and an 'errorType' of 'KeyError'. A red arrow points to the 'KeyError' in the response.

**Lambda** > **Functions** > **DEV-sns-slack-test-lambda**

**Code source** Info

You are using the old console editor. [Tell us why](#) [Switch](#)

File Edit Find View Go Tools Window **Test** Deploy

Go to Anything (⌘ P)

Environment

- DEV-sns-slack-test-l
- app.ipynb
- app.py
- requirements.txt

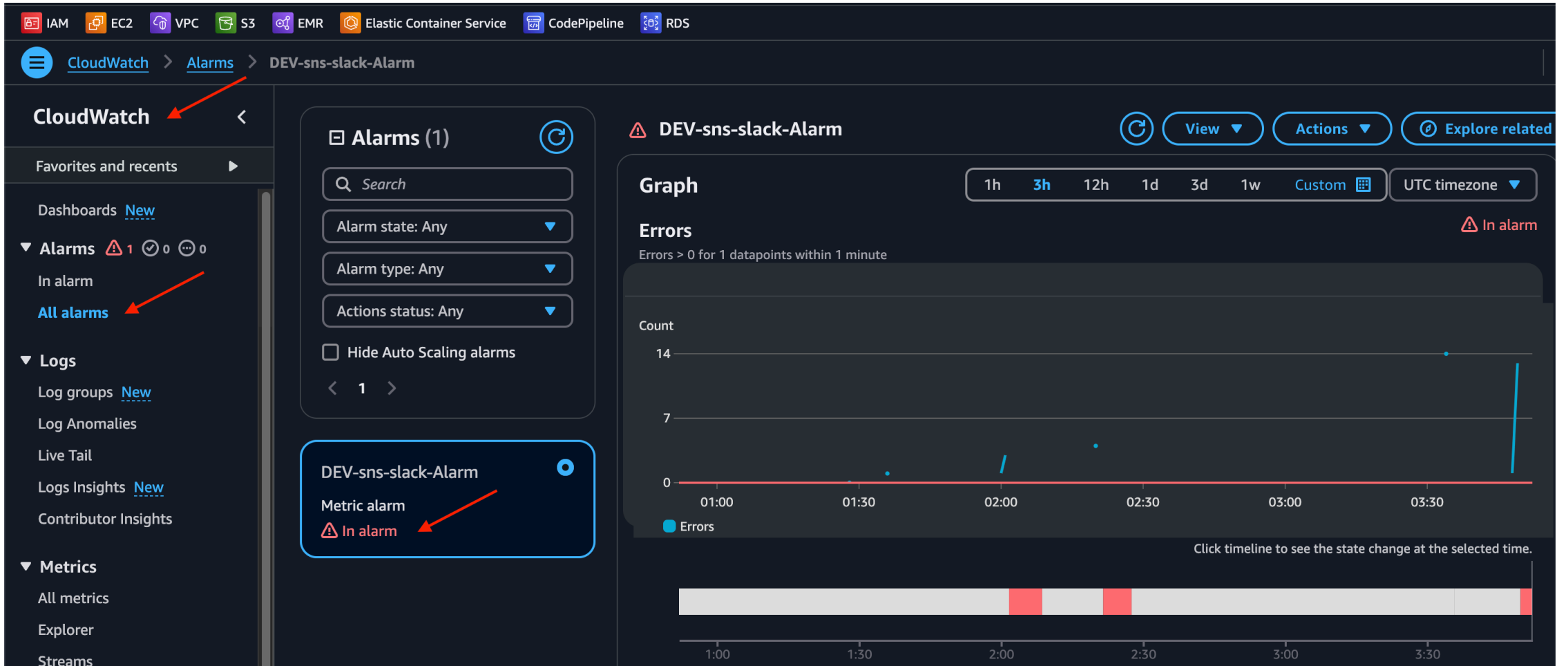
Execution results

Test Event Name  
(unsaved) test event

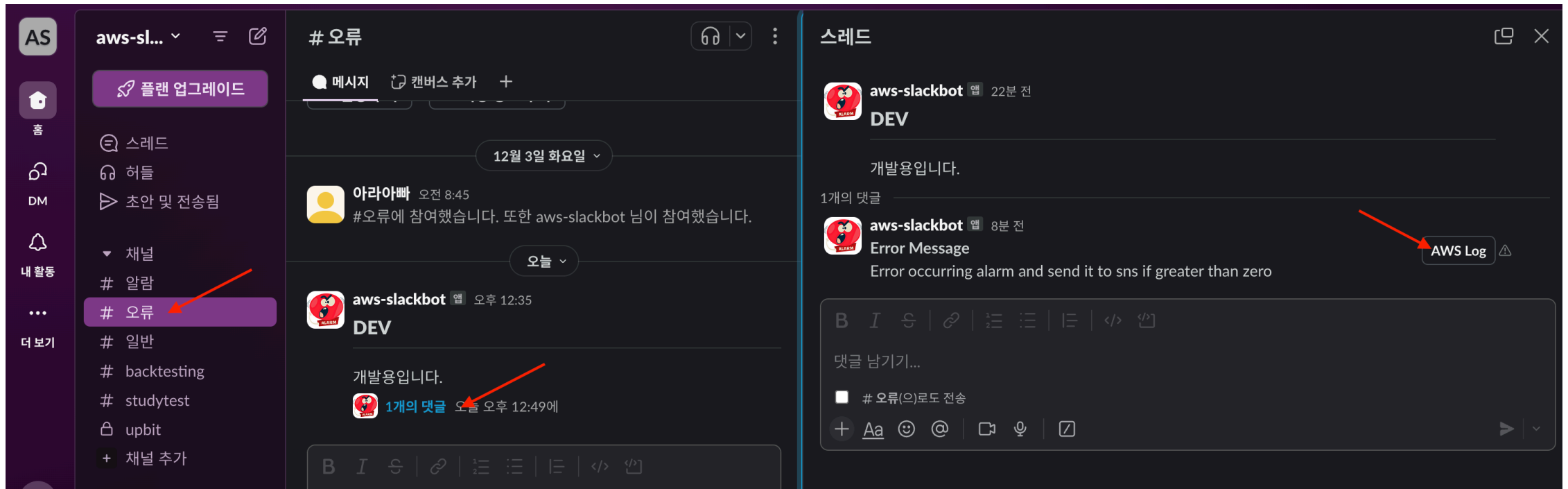
Response

```
{
  "errorMessage": "None",
  "errorType": "KeyError",
  "requestId": "8fd0f64a-3d9e-421b-8806-a6f6af0db318",
  "stackTrace": [
    " File \"/var/task/app.py\", line 19, in lambda_handler\n      slack = slack_alarm(p_slack_channel=S",
    " File \"/var/lang/lib/python3.11/enum.py\", line 792, in __getitem__\n      return cls._member_map_
```

## 단계2: AWS CloudWatch > Alarm 확인(1분 이상 기다려야함)




## 단계3: Slack에서 오류 메시지 확인



## 단계4: Slack 버튼을 이용하여 AWS Log 접속

The screenshot displays the AWS CloudWatch console interface. On the left, the navigation sidebar shows 'CloudWatch' and various sections like 'Alarms', 'Logs', 'Metrics', 'X-Ray traces', 'Events', 'Application Signals', and 'Network Monitoring'. The main content area is titled '/aws/lambda/DEV-sns-slack-test-lambda'. Below this title, there are buttons for 'Actions', 'View in Logs Insights', 'Start tailing', and 'Search log group'. The 'Log group details' section is expanded, showing various attributes such as 'Log class', 'ARN', 'Creation time', 'Retention', 'Stored bytes', 'Metric filters', 'Subscription filters', 'Contributor Insights rules', 'KMS key ID', 'Anomaly detection', 'Data protection', 'Sensitive data count', 'Field indexes', and 'Transformer'. The 'Log streams' tab is selected, showing a single log stream with a red arrow pointing to its name. The log stream name is '2024/12/06/[\$LATEST]f575364061da4816a6e235989e2f15ac'.


**CloudWatch** <

**/aws/lambda/DEV-sns-slack-test-lambda** 

Actions View in Logs Insights Start tailing Search log group

**Log group details**

**Log class** [Info](#)  
Standard

**ARN**  
 arn:aws:logs:ap-northeast-2:426653742146:log-group:/aws/lambda/DEV-sns-slack-test-lambda:\*

**Creation time**  
13 minutes ago

**Retention**  
1 month

**Stored bytes**  
-

**Metric filters**  
0

**Subscription filters**  
0

**Contributor Insights rules**  
-

**KMS key ID**  
-


**Anomaly detection**  
[Configure](#)


**Data protection**  
-


**Sensitive data count**  
-


**Field indexes**  
[Configure](#)

**Transformer**  
[Configure](#)

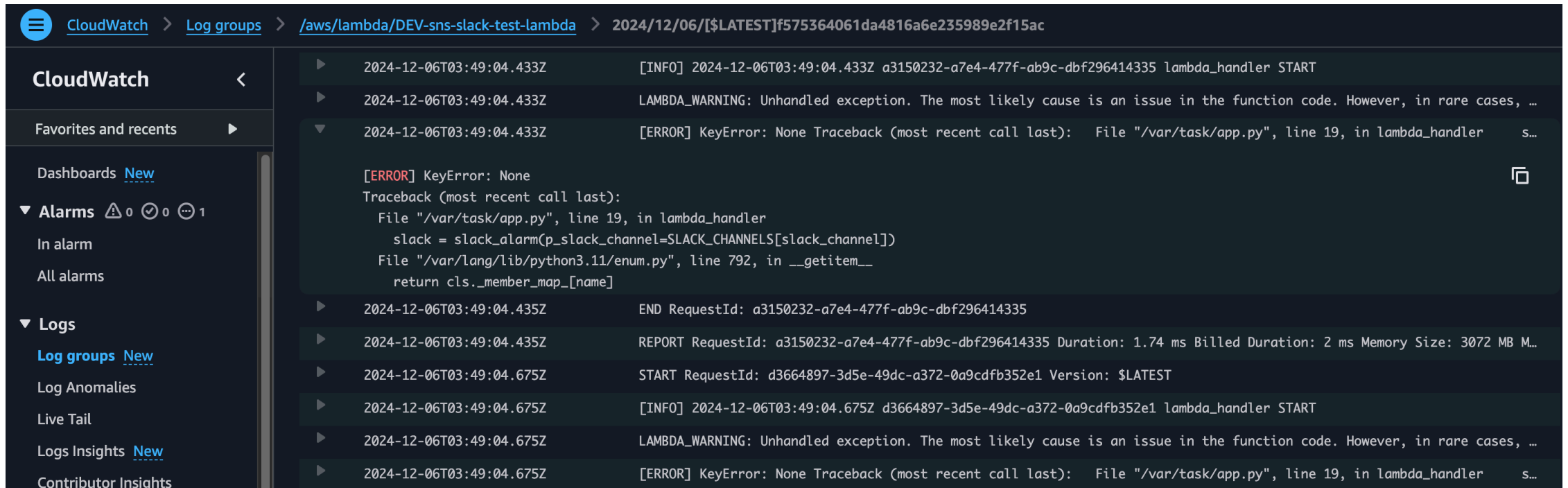
< **Log streams**  Tags Anomaly detection Metric filters Subscription filters Contributor Insights Data protection Field

**Log streams (1)**  Delete Create log stream Search all log streams

☐ Exact match ☐ Show expired [Info](#) < 1 > 

<input type="checkbox"/>	Log stream	Last event time
<input type="checkbox"/>	<a href="#">2024/12/06/[\$LATEST]f575364061da4816a6e235989e2f15ac</a> 	2024-12-06 03:49:04 (UTC)

## 단계5: Error Log 확인



The screenshot displays the AWS CloudWatch console interface. The breadcrumb navigation at the top indicates the path: CloudWatch > Log groups > /aws/lambda/DEV-sns-slack-test-lambda > 2024/12/06/[\$LATEST]f575364061da4816a6e235989e2f15ac. The left-hand navigation pane shows the 'Logs' section expanded, with 'Log groups' selected. The main content area displays a list of log events. The selected event is expanded, revealing a Python traceback for a 'KeyError: None' exception. The traceback indicates the error occurred in 'lambda\_handler' at line 19 of '/var/task/app.py'. The code snippet shown is: 

```
slack = slack_alarm(p_slack_channel=SLACK_CHANNELS[slack_channel])
```

. Other log events visible include 'START', 'LAMBDA\_WARNING: Unhandled exception', and 'END' messages.

CloudWatch > Log groups > /aws/lambda/DEV-sns-slack-test-lambda > 2024/12/06/[\$LATEST]f575364061da4816a6e235989e2f15ac

CloudWatch <

Favorites and recents ▶

Dashboards [New](#)

▼ Alarms 0 0 1

In alarm

All alarms

▼ Logs

[Log groups](#) [New](#)

Log Anomalies

Live Tail

Logs Insights [New](#)

Contributor Insights

2024-12-06T03:49:04.433Z [INFO] 2024-12-06T03:49:04.433Z a3150232-a7e4-477f-ab9c-dbf296414335 lambda\_handler START

2024-12-06T03:49:04.433Z LAMBDA\_WARNING: Unhandled exception. The most likely cause is an issue in the function code. However, in rare cases, ...

2024-12-06T03:49:04.433Z [ERROR] KeyError: None Traceback (most recent call last): File "/var/task/app.py", line 19, in lambda\_handler s...

[ERROR] KeyError: None

Traceback (most recent call last):

File "/var/task/app.py", line 19, in lambda\_handler

slack = slack\_alarm(p\_slack\_channel=SLACK\_CHANNELS[slack\_channel])

File "/var/lang/lib/python3.11/enum.py", line 792, in \_\_getitem\_\_

return cls.\_member\_map\_[name]

2024-12-06T03:49:04.435Z END RequestId: a3150232-a7e4-477f-ab9c-dbf296414335

2024-12-06T03:49:04.435Z REPORT RequestId: a3150232-a7e4-477f-ab9c-dbf296414335 Duration: 1.74 ms Billed Duration: 2 ms Memory Size: 3072 MB M...

2024-12-06T03:49:04.675Z START RequestId: d3664897-3d5e-49dc-a372-0a9cdfb352e1 Version: \$LATEST

2024-12-06T03:49:04.675Z [INFO] 2024-12-06T03:49:04.675Z d3664897-3d5e-49dc-a372-0a9cdfb352e1 lambda\_handler START

2024-12-06T03:49:04.675Z LAMBDA\_WARNING: Unhandled exception. The most likely cause is an issue in the function code. However, in rare cases, ...

2024-12-06T03:49:04.675Z [ERROR] KeyError: None Traceback (most recent call last): File "/var/task/app.py", line 19, in lambda\_handler s...