

문제1-1 계정만들기

The screenshot shows the AWS IAM console interface. The top navigation bar includes the AWS logo, '서비스' (Services), a search bar, and user information 'SeoYehJun'. The left sidebar contains the 'Identity and Access Management(IAM)' menu with various options like '사용자 그룹' (User Groups), '사용자' (Users), '역할' (Roles), etc. The main content area is titled 'IAM > 사용자' (IAM > Users). It features a '사용자 (1) 정보' (User (1) Info) section with buttons for 'refresh', 'delete', and '사용자 생성' (Create User). Below this is a search bar and a table listing users. The table has columns for '사용자 이름' (User Name), '경로' (Path), '그룹' (Group), and '마지막 활동' (Last Activity). One user is listed with the name 'iamfnxm' and path '/'. A red arrow points from the bottom of the screen to the '사용자 생성' button.

Identity and Access Management(IAM)

Q IAM 검색

대시보드

▼ 액세스 관리

- 사용자 그룹
- 사용자**
- 역할
- 정책
- 자격 증명 공급자
- 계정 설정

▼ 보고서 액세스

- 액세스 분석기
 - External access
 - Unused access
 - Analyzers and settings
- 자격 증명 보고서
- 조직 활동
- SCP(서비스 제어 정책)

관련 콘솔

- [IAM 자격 증명 센터](#)
- [AWS Organizations](#)

IAM > 사용자

사용자 (1) 정보 [refresh] [삭제] **사용자 생성**

IAM 사용자는 계정에서 AWS와 상호 작용하는 데 사용되는 장기 자격 증명을 가진 자격 증명입니다.

Q 검색

< 1 > [설정]

<input type="checkbox"/>	사용자 이름	경로	그룹	마지막 활동
<input type="checkbox"/>	iamfnxm	/	1	...

문제1-1 계정만들기

사용자 세부 정보 지정

사용자 세부 정보

사용자 이름

chaptertest

사용자 이름은 최대 64자까지 가능합니다. 유효한 문자: A~Z, a~z, 0~9 및 +, =, ., @, _ -(하이픈)

- ☒ AWS Management Console에 대한 사용자 액세스 권한 제공 - 선택 사항
사용자에게 콘솔 액세스 권한을 제공하는 경우 IAM Identity Center에서 액세스를 관리하는 것은 **모범 사례**입니다.

사용자에게 콘솔 액세스 권한을 제공하고 있습니까?

사용자 유형

☐ Identity Center에서 사용자 지정 - 권장

Identity Center를 사용하여 사용자에게 콘솔 액세스 권한을 제공하는 것이 좋습니다. Identity Center를 사용하면 AWS 계정 및 클라우드 애플리케이션에 대한 사용자 액세스를 중앙에서 관리할 수 있습니다.

☒ IAM 사용자를 생성하고 싶음

액세스 키, AWS CodeCommit이나 Amazon Keyspaces에 대한 서비스별 보안 인증 정보 또는 비상 계정 액세스를 위한 백업 보안 인증 정보를 통해 프로그래밍 방식 액세스를 활성화해야 하는 경우에만 IAM 사용자를 생성하는 것이 좋습니다.

콘솔 암호

☐ 자동 생성된 암호

사용자를 생성한 후 암호를 볼 수 있습니다.

☒ 사용자 지정 암호

사용자의 사용자 지정 암호를 입력합니다.

.....

- 8자 이상이어야 합니다.
- 다음 문자 유형 중 세 가지 이상을 조합하여 포함해야 합니다. 대문자(A~Z), 소문자(a~z), 숫자(0~9), 기호(!, #, \$, %, &, '*, +, -, ., /, :; =, ? [\] ^ _ { | } ~) (하이픈 -은 필수)

권한 정책 (903)



정책 생성

필터링 기준 유형

Q administrator X

모든 유형 ▼

15 개 일치

< 1 > ⚙

<input type="checkbox"/>	정책 이름	유형	다음...	설명
<input type="checkbox"/>	AdministratorAccess	AWS 관리형 - ...	권한 정...	Provides full access to AWS service...
<input type="checkbox"/>	AdministratorAcce...	AWS 관리형	없음	Grants account administrative perm...
<input type="checkbox"/>	AdministratorAcce...	AWS 관리형	없음	Grants account administrative perm...

Users (2) Info

An IAM user is an identity with long-term credentials that is used to interact with A...

Q Search

<input type="checkbox"/>	User name	Path
<input type="checkbox"/>	chaptertest	/
<input type="checkbox"/>	iamfnxm	/

문제 1-2 스택 만들기

Specify template

A template is a JSON or YAML file that describes your stack's resources and properties.

Template source

Selecting a template generates an Amazon S3 URL where it will be stored.

☒ **Amazon S3 URL**
Provide an Amazon S3 URL to your template.

☐ **Upload a template file**
Upload your template directly to the console.

☐ **Sync from Git - new**
Sync a template from your Git repository.

Amazon S3 URL

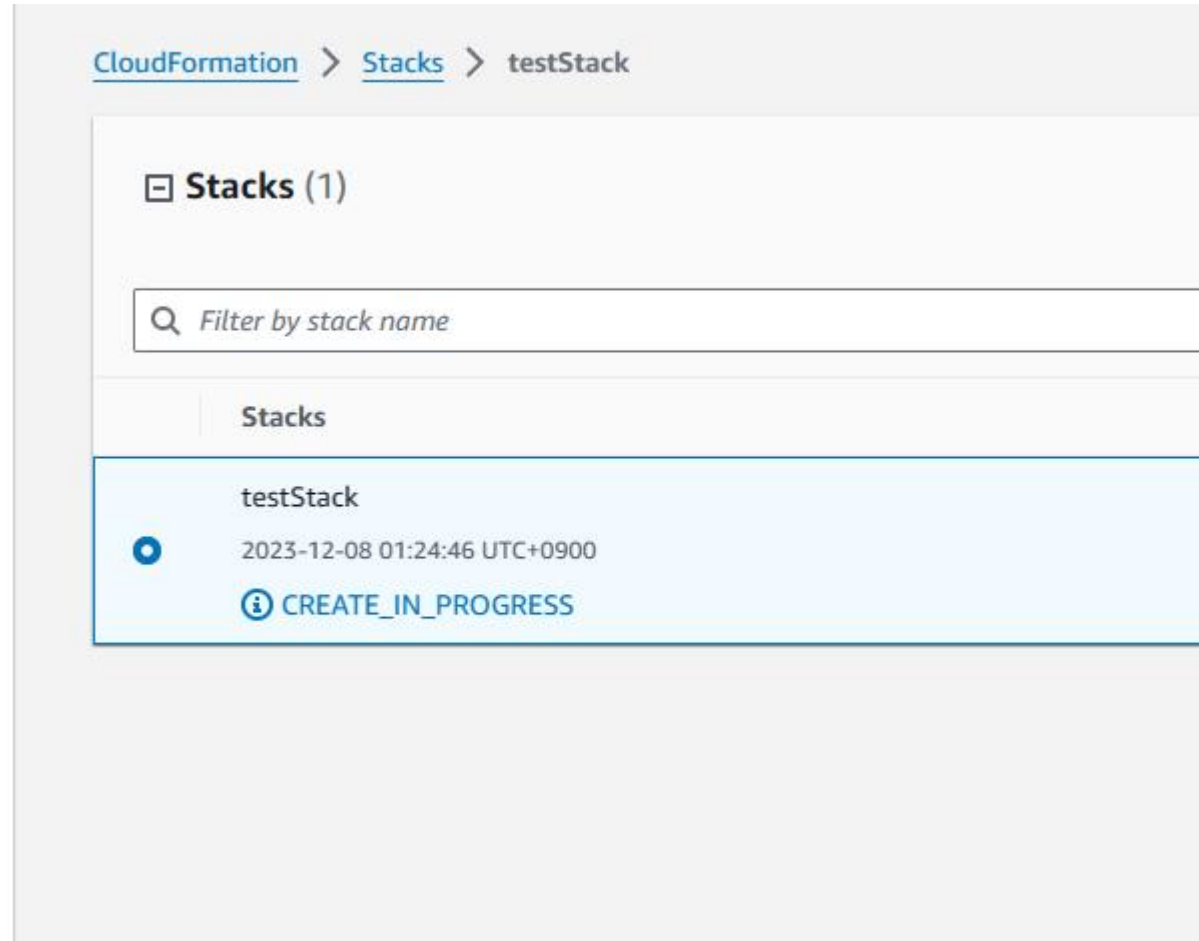
Amazon S3 template URL

S3 URL: `https://s3.ap-northeast-2.amazonaws.com/tisa.applaycrew.com/template_cognito.json`

[View in Designer](#)

[Cancel](#) [Next](#)

문제1-2 스택만들기



문제2-1 Dynamo테이블 만들기

[Alt+S]

DynamoDB > Tables

Tables (1) Info

Find tables by table name

Any tag key

Any tag value

< 1 >

Create table

<input type="checkbox"/>	Name	Status	Partition key	Sort key	Indexes	Deletion protection	Read capacity mode
<input type="checkbox"/>	sentence-name	✓ Active	name (S)	string (S)	0	⊖ Off	Provisioned (5)

Wondershare PDFelement

문제2-2 Web호스팅용 버킷 생성 및 설정

General purpose buckets | Directory buckets

General purpose buckets (2) [Info](#)

Buckets are containers for data stored in S3. [Learn more](#)

	Name	AWS Region
<input type="radio"/>	chaptertestbucket	US East (N. Virginia) us-east-1
<input type="radio"/>	shoppingbucket-1232	Asia Pacific (Seoul) ap-northeast-2

Edit bucket policy [Info](#)

Bucket policy

The bucket policy, written in JSON, provides access to the objects stored in the bucket. Bucket policies don't

Bucket ARN

`arn:aws:s3:::chaptertestbucket`

Policy

```
1 {
2   "Version": "2012-10-17",
3   "Statement": [
4     {
5       "Sid": "PublicReadGetObject",
6       "Effect": "Allow",
7       "Principal": "*",
8       "Action": "s3:GetObject",
9       "Resource": "arn:aws:s3:::BUCKET_NAME/*"
10    }
11  ]
12 }
```

[Amazon S3](#) > [Buckets](#) > chaptertestbucket

chaptertestbucket [Info](#)

Objects | Properties | **Permissions** | Metrics | Management

Permissions overview

Access

Bucket and objects not public

Block public access (bucket settings)

Public access is granted to buckets and objects through access control lists (ACLs), bucket policies, and object ACLs. To ensure that public access to buckets and objects is blocked, turn on Block all public access. These settings apply only to this bucket and its contents.

Successfully edited bucket policy.

► Individual Block Public Access settings for this bucket

Bucket policy

The bucket policy, written in JSON, provides access to the objects stored in the bucket. Bucket policies don't

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Sid": "PublicReadGetObject",
      "Effect": "Allow",
      "Principal": "*",
      "Action": "s3:GetObject",
      "Resource": "arn:aws:s3:::chaptertestbucket/*"
    }
  ]
}
```

문제2-2 Web호스팅용 버킷 생성 및 설정

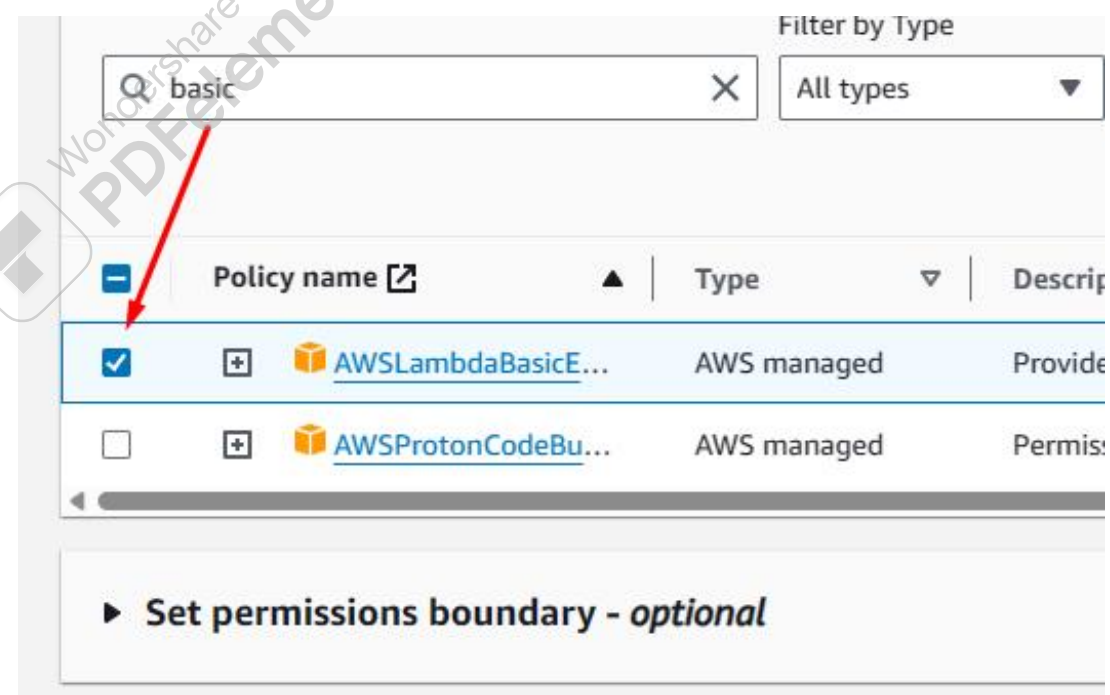
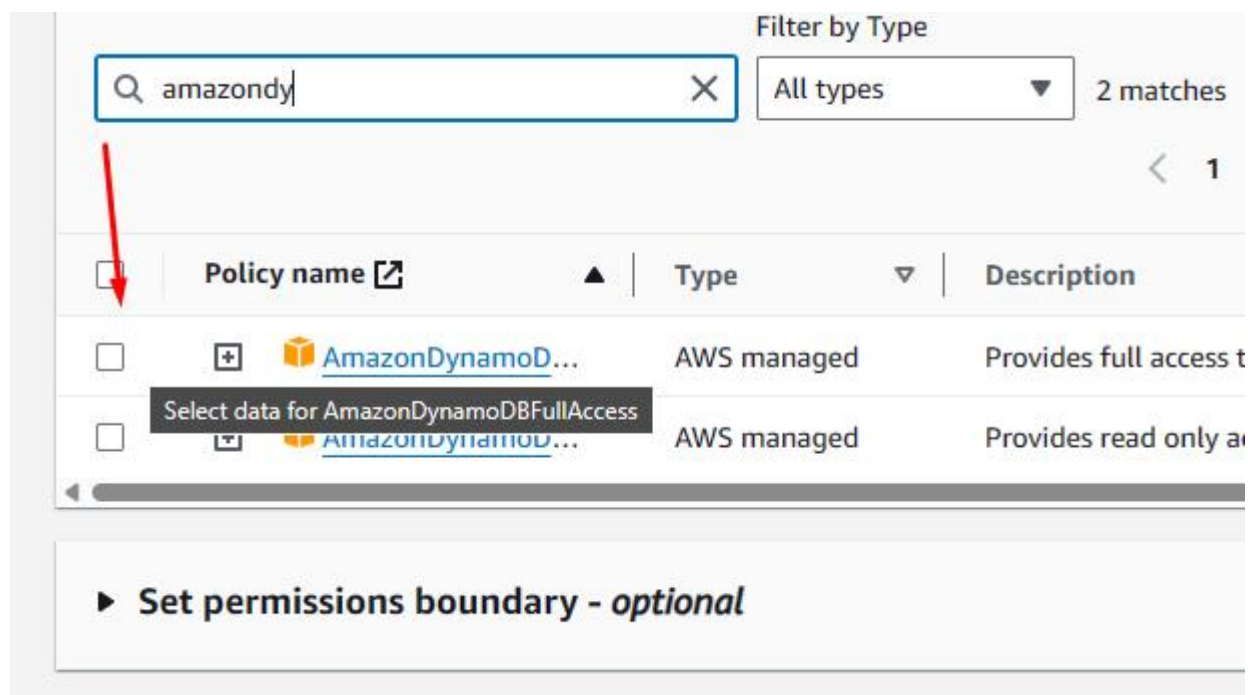
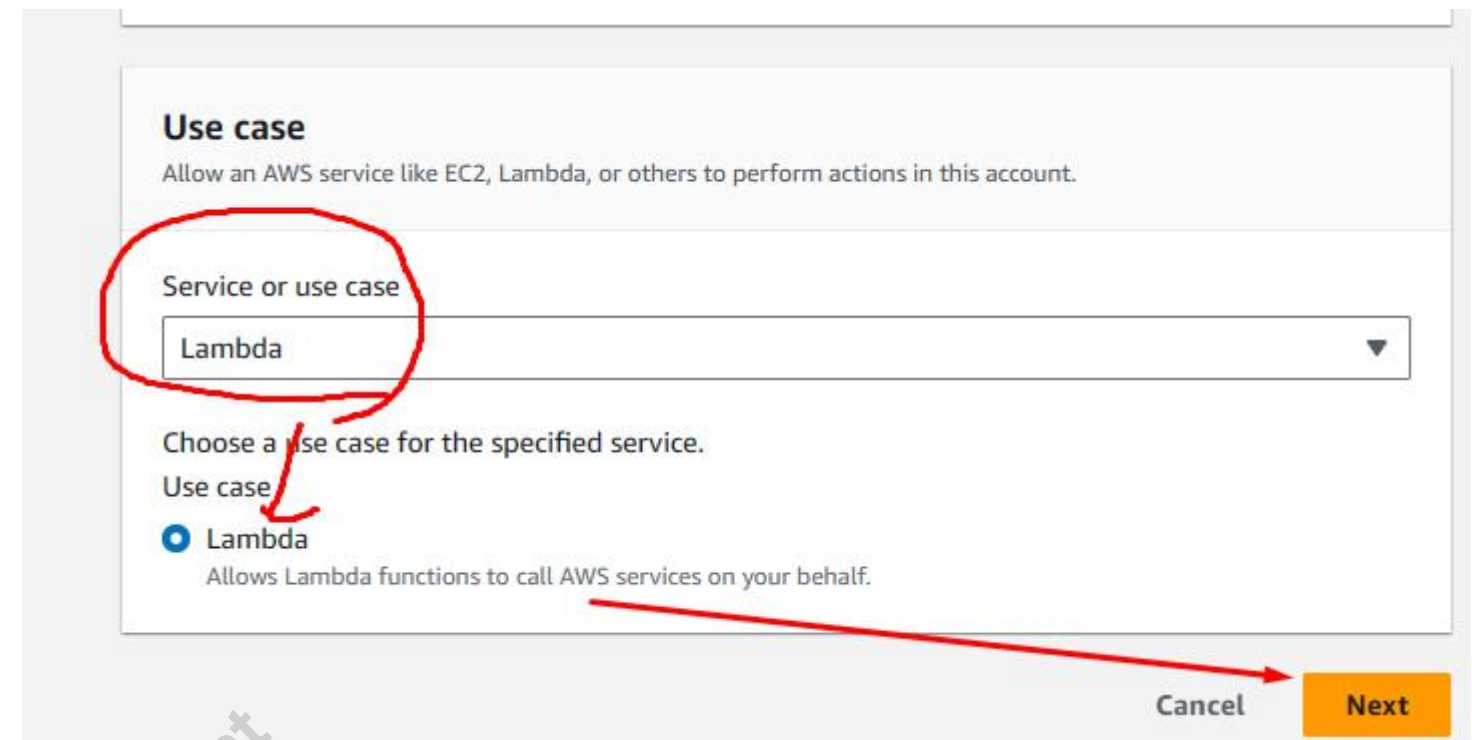
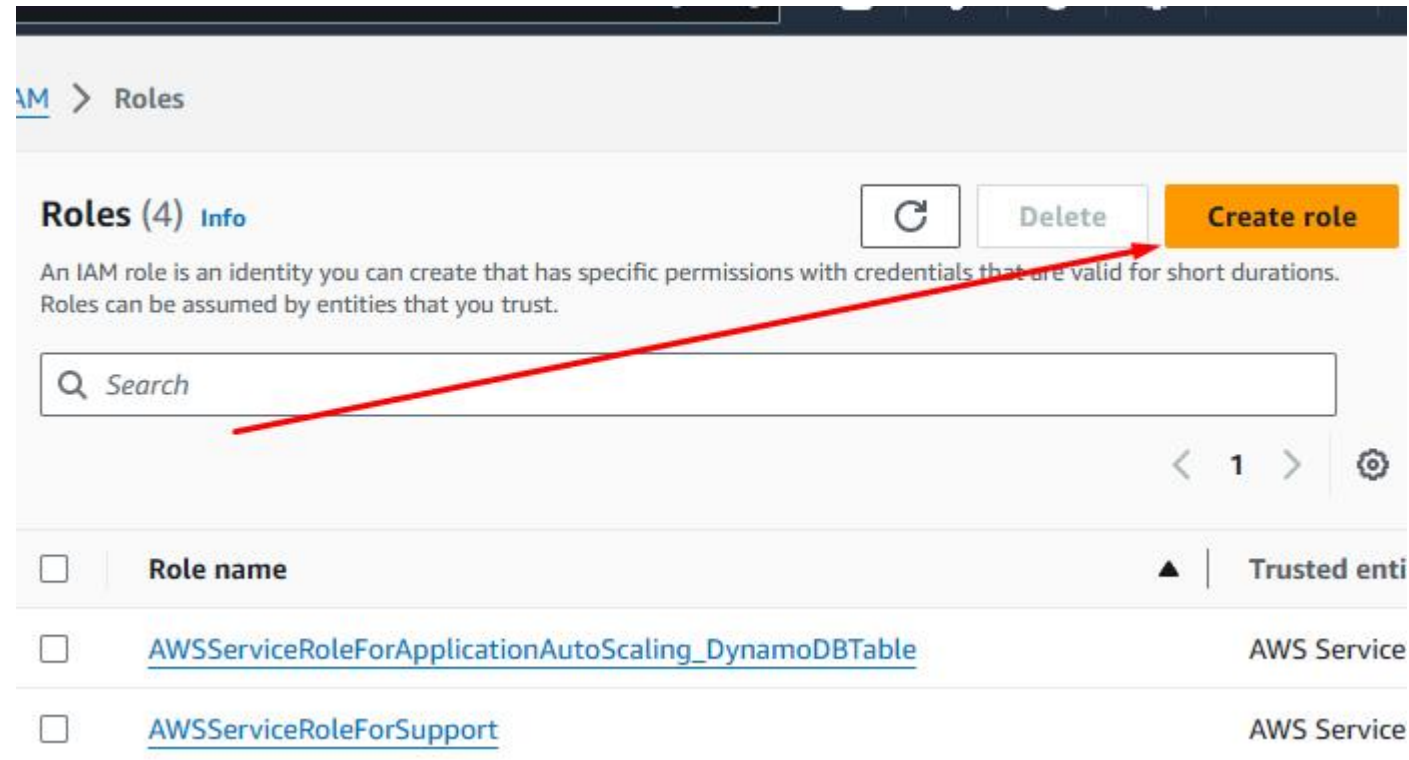
Drag and drop files and folders you want to upload here, or choose **Add files** or **Add folder**.

Files and folders (3 Total, 794.0 KB) **Remove** **Add files** **Add**

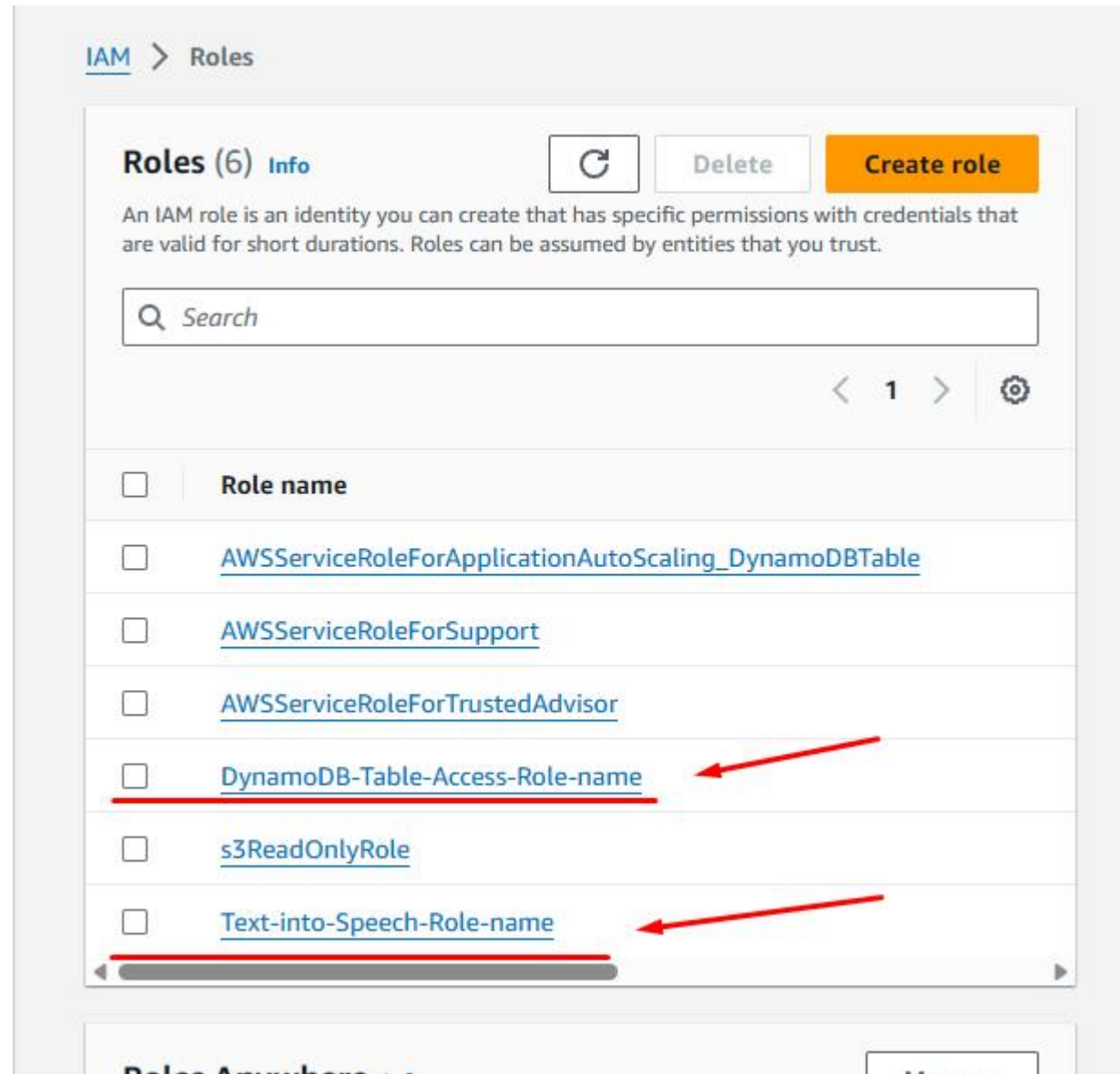
All files and folders in this table will be uploaded.

<input checked="" type="checkbox"/>	Name ▾	Folder ▾	Type ▾	Size
<input checked="" type="checkbox"/>	App-dashboard.htm	-	text/html	7.6 KB
<input checked="" type="checkbox"/>	aws-sdk-2.1.45.min.js	-	text/javascript	425.0 KB
<input checked="" type="checkbox"/>	favicon.ico	-	image/x-icon	361.4 KB

문제2-3 Lamda함수용 권한 만들기



문제2-3 Lamda함수용 권한 만들기



문제2-4 PutSentence Lambda 함수를 생성

Function name
Enter a name that describes the purpose of your function.

PutSentence-name

Use only letters, numbers, hyphens, or underscores with no spaces.

Runtime [Info](#)
Choose the language to use to write your function. Note that the console code editor supports only Node.js, Python, and Ruby.

Node.js 14.x

Architecture [Info](#)
Choose the instruction set architecture you want for your function code.

☒ x86_64
☐ arm64

Permissions [Info](#)
By default, Lambda will create an execution role with permissions to upload logs to Amazon CloudWatch Logs. You can customize this default role later when adding triggers.

▼ **Change default execution role**

Execution role
Choose a role that defines the permissions of your function. To create a custom role, go to the [IAM console](#).

☐ Create a new role with basic Lambda permissions
☒ Use an existing role
☐ Create a new role from AWS policy templates

Existing role
Choose an existing role that you've created to be used with this Lambda function. The role must have permission to upload logs to Amazon CloudWatch Logs.

DynamoDB-Table-Access-Role-name

Q |

DynamoDB-Table-Access-Role-name ✓

► **Advanced settings**

이전문제에서 만든 role

index.js

```
1 var AWS = require('aws-sdk')
2
3 AWS.config.update({
4   region: 'us-east-1',
5   endpoint: "http://dynamodb.REGION_CODE.amazonaws.com"
6 })
7 //TODO: Change REGION_CODE to your Region Code
8
9 const docClient = new AWS.DynamoDB.DocumentClient();
10 exports.handler = function(event, context, callback) {
11   console.log(event);
12   var params = {
13     TableName: "sentence-name", //TODO: Change "sentence-name" to
14     Item:
15     {
16       "name": event.name,
17       "string": event.string,
18       "bucketlink": ''
19     }
20   };
21
22   docClient.put(params, function(err, data) {
23     if(err){
24       callback(err, null);
25     } else{
26       callback(null, data);
27     }
28   })
29 }
30
```

지역코드

테이블 이름이

sentence-name

임

4:23 JavaScript Spaces: 2

문제2-5 API Gateway 생성(과정이 많아 사진 다수 생략)

▼ Mapping templates

Content type

application/json

Remove

Generate template

Template body

1

{

2

"name":\$in

3

"string":\$

4

}

Create resource

/

/entries

OPTIONS

POST

URL path parameters (0)

Name	Mapped from	Caching
No URL path parameters		
No URL path parameters defined		

URL query string parameters (0)

Name	Mapped from	Caching
No URL query string parameters		
No URL query string parameters defined		

HTTP headers (0)

Name	Mapped from	Caching
No HTTP headers		
No HTTP headers defined		

Mapping templates (1)

▶ application/json

159

</div>

160

</div>

161

162

<script type="text/javascript">

163

var API_URL = 'https://ayn096ahe8.execute-api.us-east-1.amazonaws.com/dev';

164

//TODO: Change the URL above to the URL of the API resource deployed in API Gat

165

166

\$(document).ready(function () {

167

문제2-5

API Gateway > APIs > Resources - CreateSentence-name (ayn096ahe8)

Resources

Create resource

/

/entries

OPTIONS

POST

Resource details

Path

/entries

Resource name

x3t3dc

Methods (2)

| | Method type | Integration type |
|-----------------------|-------------|------------------|
| <input type="radio"/> | OPTIONS | Mock |
| <input type="radio"/> | POST | Lambda |

API Gateway

APIs

Custom domain names

VPC links

API: CreateSentence-name

Resources

Stages

Authorizers

Gateway responses

Models

Resource policy

Documentation

Dashboard

API settings

API Gateway > APIs > CreateSentence-name (ayn096ahe8) > Stages

Stages

dev

Stage details Info

Stage name

dev

Rate Info

-

API cache

Inactive

Burst Info

-

Invoke URL

https://ayn096ahe8.execute-api.us-east-1.amazonaws.com/dev

Active deployment

ujl3jd on December 08, 2023, 00:18 (UTC+09:00)

문제2-6변환 된 음성 파일 저장용 버킷 생성 및 설정

your specific storage use cases. [Learn more](#)

Block *all* public access

⚠ Off

► Individual Block Public Access settings for this bucket

Bucket policy

The bucket policy, written in JSON, provides access to the objects stored in the bucket. Bucket policies don't apply to objects ov

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Sid": "PublicReadGetObject",
      "Effect": "Allow",
      "Principal": "*",
      "Action": "s3:GetObject",
      "Resource": "arn:aws:s3:::chaptertestbucket2/*"
    }
  ]
}
```

General purpose buckets (3) [Info](#)

Buckets are containers for data stored in S3. [Learn more](#)

🔍 Find buckets by name

| | Name |
|-----------------------|---------------------|
| <input type="radio"/> | chaptertestbucket |
| <input type="radio"/> | chaptertestbucket2 |
| <input type="radio"/> | shoppingbucket-1232 |

저장
용



문제2-7 Text into Speech Lambda 함수를 아래 환경으로 생성

Basic information

Function name

Enter a name that describes the purpose of your function.

Text-into-Speech-name

Use only letters, numbers, hyphens, or underscores with no spaces.

Runtime [Info](#)

Choose the language to use to write your function. Note that the console code editor supports only Node.js, Python, and

Python 3.8

Architecture [Info](#)

Choose the instruction set architecture you want for your function code.

☒ x86_64

☐ arm64

Permissions [Info](#)

By default, Lambda will create an execution role with permissions to upload logs to Amazon CloudWatch Logs. You can customize this default role later triggers.

Code

Test

Monitor

Configuration

Aliases

Versions

General configuration

Triggers

Permissions

Destinations

Function URL

Environment variables

Tags

VPC

Triggers (1) [Info](#)



Fix errors

Edit

Delete

Add trigger

Find triggers

< 1 >

☐ Trigger



DynamoDB: [sentence-name](#)

arn:aws:dynamodb:us-east-1:086250836428:table/sentence-name/stream/2023-12-07T15:51:32.916

state: Enabled

► Details

트리거 추가

Code

Test

Monitor

Configuration

Aliases

Versions

Code source [Info](#)

Upload from

File

Edit

Find

View

Go

Tools

Window

Test

Deploy

Changes not deployed

Go to Anything (Ctrl-P)

Environment

Text-into-Speech-nz

test-into-speech.py

test-into-speech. x

Environment Vari x

```
1 # Text into Speech Lambda function
2 #
3 # This function is triggered when values are inserted into the Inventory
4
5 import json, boto3
6
7
8 # This handler is executed every time the Lambda function is triggered
9 def lambda_handler(event, context):
10
11     # Show the incoming event in the debug log
12     print("Event received by Lambda function: " + json.dumps(event, indent=2))
13
14     # For each inventory item added, check if the count is zero
15     for record in event['Records']:
16         newImage = record['dynamodb'].get('NewImage', None)
17         if newImage:
18
19             username = record['dynamodb']['NewImage']['name']['S']
20             targetstring = record['dynamodb']['NewImage']['string']['S']
21             bucketlink = record['dynamodb']['NewImage']['bucketlink']['S']
22             print(username)
23             print(targetstring)
24
25     if not bucketlink:
```

```
22 print(username)
23 print(targetstring)
24
25 if not bucketlink:
26     polly_client = boto3.Session(region_name='us-east-1').client('polly')
27     #TODO: Change REGION CODE to your Region Code
28     dynamodb = boto3.resource('dynamodb')
29     sentenceTable = dynamodb.Table('sentence-name')
30     #TODO: Change "sentence-name" to your dynamoDB Table name
31
32     response = polly_client.start_speech_synthesis_task(
33         Engine='neural',
34         VoiceId='Seoyeon',
35         OutputS3BucketName='chaptertestbucket2',
36         #TODO: Change BUCKET NAME to your S3 Output Bucket name
37         OutputFormat='mp3',
38         LanguageCode='ko-KR',
39         Text=targetstring)
40
41     outputlink = response['SynthesisTask']['OutputUri']
42
43     print(outputlink)
44     (function) update_item: Any
45     response = sentenceTable.update_item(
46         Key={
```

문제3 실행 및 테스트

Clear 1m 30m 1h 12h Local timezone Display ⚙️

| ▶ | Timestamp | Message |
|---|-------------------------------|--|
| No older events at this moment. Retry | | |
| ▶ | 2023-12-08T12:12:36.873+09:00 | INIT_START Runtime Version: nodejs:14.v42 Runtime Version ARN: arn:aws:lambda:ap-northeast-... |
| ▼ | 2023-12-08T12:12:37.045+09:00 | 2023-12-08T03:12:37.045Z undefined ERROR Uncaught Exception {"errorType":"Runtime.HandlerNo... |

2023-12-08T03:12:37.045Z undefined ERROR Uncaught Exception

```
{
  "errorType": "Runtime.HandlerNotFound",
  "errorMessage": "index.handler is undefined or not exported",
  "stack": [
    "Runtime.HandlerNotFound: index.handler is undefined or not exported",
    "    at Object.module.exports.load (/var/runtime/UserFunction.js:304:11)",
    "    at Object.<anonymous> (/var/runtime/index.js:43:34)",
    "    at Module._compile (internal/modules/cjs/loader.js:1114:14)",
    "    at Object.Module._extensions..js (internal/modules/cjs/loader.js:1143:10)",
    "    at Module.load (internal/modules/cjs/loader.js:979:32)",
    "    at Function.Module._load (internal/modules/cjs/loader.js:819:12)",
    "    at Function.executeUserEntryPoint [as runMain] (internal/modules/run_main.js:75:12)",
    "    at internal/main/run_main_module.js:17:47"
  ]
}
```

Copy

람다함수 핸들러에 문제가 생겨 해결하였다.

문제3 실행 및 테스트

Reading a sentence Dashboard

Choose a user to view sentence and voice file link.

name

sentence

CREATE

User:

All Users

| name | sentence | bucketlink |
|------------|----------|---|
| .All Users | 테스트 | https://s3.ap-northeast-2.amazonaws.com/chaptertestbucket2/2638874d-6b5a-4e73-91989ad205ba89a.mp3 |
| .All Users | 디버그 | https://s3.ap-northeast-2.amazonaws.com/chaptertestbucket2/9268a4cc-6efe-4a38-9d62-7eb876f52c24.mp3 |
| .All Users | 11 | https://s3.ap-northeast-2.amazonaws.com/chaptertestbucket2/f6f788ee2861.mp3 |

This page uses an Amazon Cognito identity to retrieve

https://s3.ap-northeast-2.amazonaws.com/chaptertestbucket2/9268a4cc-6efe-4a38-9d62-7eb876f52c24.mp3

▶

0:00 / 0:00

🔊

⋮