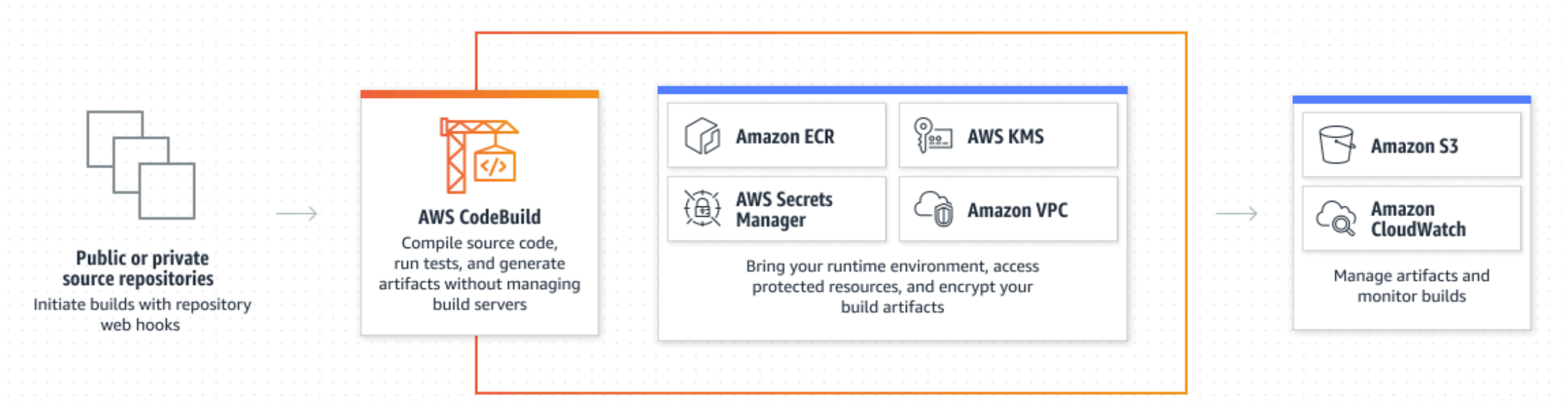
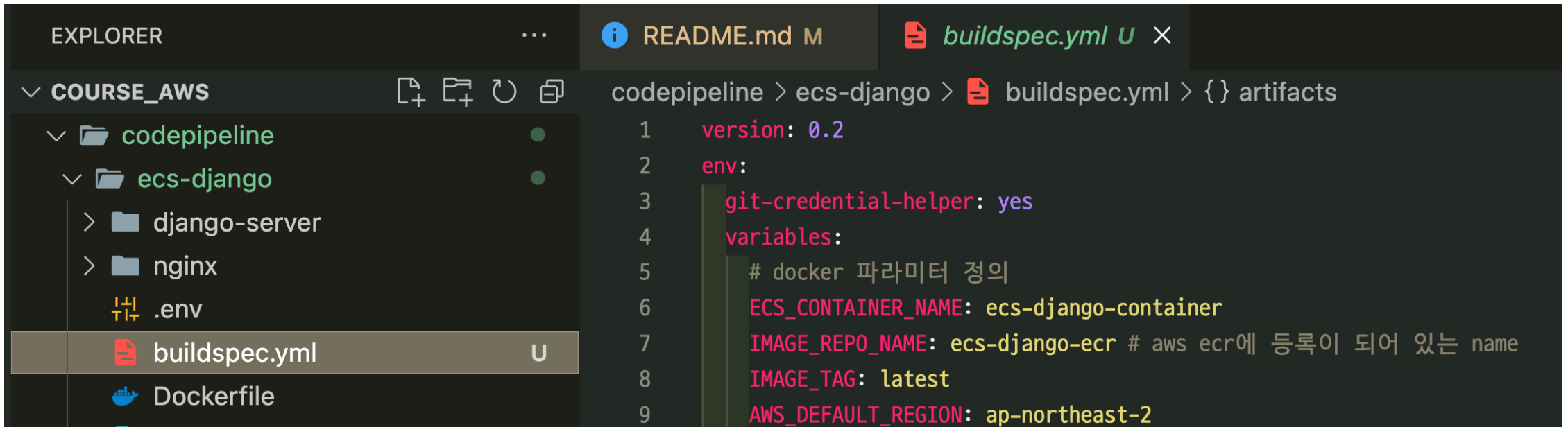


# AWS CodeBuild

- AWS CodeBuild는 소스 코드를 컴파일하고 테스트를 실행한 다음 바로 배포 가능한 소프트웨어 패키지를 생성할 수 있는 완전관리형의 지속적 통합 서비스입니다.



## 단계1: buildspec.yml 생성



The screenshot shows a code editor with a file explorer on the left and a code editor on the right. The file explorer shows a project structure with folders 'codepipeline' and 'ecs-django', and files '.env', 'buildspec.yml', and 'Dockerfile'. The 'buildspec.yml' file is selected and its content is displayed in the code editor. The code defines the version, environment, and variables for the buildspec.

```
codepipeline > ecs-django > buildspec.yml > {} artifacts
1  version: 0.2
2  env:
3      git-credential-helper: yes
4  variables:
5      # docker 파라미터 정의
6      ECS_CONTAINER_NAME: ecs-django-container
7      IMAGE_REPO_NAME: ecs-django-ecr # aws ecr에 등록이 되어 있는 name
8      IMAGE_TAG: latest
9      AWS_DEFAULT_REGION: ap-northeast-2
```

- 생성한 aws ecr 적용

```
version: 0.2
env:
  git-credential-helper: yes
  variables:
    # docker 파라미터 정의
    ECS_CONTAINER_NAME: ecs-django-container
    IMAGE_REPO_NAME: ecs-django-ecr # aws ecr에 등록이 되어 있는 name
    IMAGE_TAG: latest
    AWS_DEFAULT_REGION: ap-northeast-2

...

```

- Github Repository에 있는 Dockerfile의 위치에 맞춰 수정

...

build:

commands:

- echo Build started on `date`
- echo Building the Docker image...
- # Github Repository에 있는 Dockerfile의 위치에 맞춰 수정
- docker build -f ./codepipeline/ecs-django/Dockerfile -t \$IMAGE\_REPO\_NAME:\$IMAGE\_TAG .
- docker tag \$IMAGE\_REPO\_NAME:\$IMAGE\_TAG \$REPOSITORY\_URI

...

## 단계2: AWS CodePipeline

The screenshot shows the AWS Management Console interface. At the top, the search bar contains the text 'codepipeline'. Below the search bar, the search results are displayed. On the left side of the search results, there is a list of categories: 'Services (1)', 'Resources New', 'Documentation (2,890)', 'Knowledge Articles (4)', 'Marketplace (103)', 'Blogs (105)', and 'Tutorials (1)'. The 'Services (1)' category is selected, and the results are shown in the main area. The first result is 'CodePipeline', which is highlighted with a red box and a red arrow pointing to it. The 'CodePipeline' result shows the service icon, the name 'CodePipeline' with a star, and the description 'Release Software using Continuous Delivery'. Below the 'Services' section, there is a 'Resources' section with a link to 'Introducing resource search'.

aws Services

Amazon Elastic Container Registry

▼ Private registry

Repositories

Settings

▼ Public registry

Repositories

Settings

Search results for 'codepipeline'

**Services**

Services (1)

Resources **New**

Documentation (2,890)

Knowledge Articles (4)

Marketplace (103)

Blogs (105)

Tutorials (1)

**CodePipeline** ★

Release Software using Continuous Delivery

**Resources** / for a focused search

**Introducing resource search**

Enable to show cross-region resources for your account in search results. Takes less than

Actions ▼

ability Scan frequency

## 단계3: Create connection

The screenshot shows the AWS IAM console interface. On the left, the 'Developer Tools' menu is expanded, and 'Connections' is highlighted with a red box. In the main content area, the 'Connections' tab is selected. At the top right of this section, there are four buttons: 'View details', 'Update pending connection', 'Delete', and 'Create connection'. A red arrow points from the 'Connections' link in the sidebar to the 'Create connection' button. Below the buttons is a search bar and a table with columns: 'Connection name', 'Provider', 'Status', and 'ARN'. The table is currently empty, displaying 'No results' and 'There are no results to display.'


Developer Tools ×

**Settings**

- ▶ Source • CodeCommit
- ▶ Build • CodeBuild
- ▶ Deploy • CodeDeploy
- ▶ Pipeline • CodePipeline
- ▼ Settings
  - Notification rules
  - Connections**

Developer Tools > Connections

**Connections** Hosts

**Connections** [Info](#)  [View details](#) [Update pending connection](#) [Delete](#) [Create connection](#)

Connection name	Provider	Status	ARN
No results			
There are no results to display.			

## 단계4: Connect to GitHub

**Select a provider**

☐ Bitbucket

☒ **GitHub**

☐ GitHub Enterprise Server

☐ GitLab

☐ GitLab self-managed

**Create GitHub App connection** [Info](#)

Connection name

**► Tags - optional****Connect to GitHub**

## 단계5: Connect

### GitHub connection settings [Info](#)

Connection name

GitHub Apps

GitHub Apps create a link for your connection with GitHub. Install a new app and save this connection.

or

► **Tags - optional**



## 단계6: 결과 확인

Developer Tools

Settings

▶ Source • CodeCommit

▶ Build • CodeBuild

▶ Deploy • CodeDeploy

▶ Pipeline • CodePipeline

▼ Settings

Notification rules

Connections

Developer Tools > Connections

Connections Hosts

Connections Info

↻

View details

Update pending connection

Delete

Create connection

🔍

< 1 > ⚙️

	Connection name	Provider	Status	ARN
<input type="radio"/>	github-good593	GitHub	✓ Available	arn:aws:codeconnections:ap-northeast-2:426653742146:connection/f89e768b-dd11-4b46-9198-45352124a4e2

## 단계7: Create build project

The screenshot shows the AWS CodeBuild console interface. On the left sidebar, under 'Developer Tools > CodeBuild', the 'Build projects' link is highlighted with a red box. A red arrow originates from this box and points to the 'Create project' button in the top right corner of the main content area. The main content area has a breadcrumb trail 'Developer Tools > CodeBuild > Build projects'. Below this, there's a 'Build projects' header with an 'Info' link, a refresh icon, and buttons for 'Actions', 'Create trigger', 'View details', 'Start build', and 'Create project'. A search bar is present below the header. Below the search bar is a table with columns: 'Name', 'Source provider', 'Repository', 'Latest build status', 'Description', and 'Last Modified'. The table is currently empty, displaying 'No results' and 'There are no results to display.'

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 **Create project**

Search

Your projects < 1 > ⚙

Name	Source provider	Repository	Latest build status	Description	Last Modified
No results					
There are no results to display.					

## 단계8: Create build project > Project configuration

### Project configuration

Project name

A project name must be 2 to 255 characters. It can include the letters A-Z and a-z, the numbers 0-9, and the special characters - and \_.

#### ► Additional configuration

Description, Build badge, Concurrent build limit, tags

## 단계9: Create build project > Source

### Source 1 - Primary

Source provider

GitHub

Repository

☒ Repository in my GitHub account

☐ Public repository

☐ GitHub scoped webhook

GitHub repository

Q https://github.com/good593/course\_aws.git

https://github.com/<user-name>/<repository-name>

Connection status

You are connected to GitHub using OAuth.

Disconnect from GitHub

Source version - *optional* [Info](#)

Enter a pull request, branch, commit ID, tag, or reference and a commit ID.

► Additional configuration

Git clone depth, Git submodules, Build status config

## 단계9: Create build project > Environment

Environment image

☒ **Managed image**  
Use an image managed by AWS CodeBuild

☐ **Custom image**  
Specify a Docker image

Operating system

Amazon Linux ▼

Runtime(s)

Standard ▼

Image

aws/codebuild/amazonlinux2-x86\_64-standard:5.0 ▼

Image version

Always use the latest image for this runtime version ▼

☐ Use GPU-enhanced compute

Service role

☒ **New service role**  
Create a service role in your account

☐ **Existing service role**  
Choose an existing service role from your account

Role name

codebuild-ecs-django-role

Type your service role name

## 단계10: Create build project > Buildspec

- Github에 저장된 buildspec.yml 위치 작성

### Buildspec

#### Build specifications

☐ Insert build commands  
Store build commands as build project configuration

☒ Use a buildspec file  
Store build commands in a YAML-formatted buildspec file

#### Buildspec name - *optional*

By default, CodeBuild looks for a file named `buildspec.yml` in the source code root directory. If your buildspec file uses a different name or location, enter its path from the source root here (for example, `buildspec-two.yml` or `configuration/buildspec.yml`).

codepipeline/ecs-django/buildspec.yml

## 단계11: Create build project 클릭

### Logs

CloudWatch

☒ CloudWatch logs - *optional*  
Checking this option will upload build output logs to CloudWatch.

Group name - *optional*

The group name of the logs in CloudWatch Logs. The log group name will be `/aws/codebuild/<project-name>` by default.

Stream name prefix - *optional*

The prefix of the stream name of the CloudWatch Logs.

S3

☐ S3 logs - *optional*  
Checking this option will upload build output logs to S3.

Cancel **Create build project**

## 단계12: IAM 접속

The screenshot shows the AWS IAM console search results for 'iam'. The search bar at the top contains 'iam' and is highlighted with a red box. A red arrow points from the search bar to the 'IAM' service result. The search results are displayed in a dark blue sidebar on the left and a main content area on the right. The sidebar lists various categories: Developer Tools (CodeBuild), Source (CodeCommit), Build (CodeBuild), Getting started, Build projects, Build history, Report groups, and Report history. The main content area shows search results for 'iam', including a list of services (IAM, IAM Identity Center, Resource Access Manager) and a list of features (IAM, IAM Identity Center, Resource Access Manager). The 'IAM' service is highlighted with a red box and a red arrow. The 'IAM' service description is 'Manage access to AWS resources'. The 'IAM Identity Center' service description is 'Manage workforce user access to multiple AWS accounts and cloud applications'. The 'Resource Access Manager' service description is 'Share AWS resources with other accounts or AWS Organizations'. The search results are titled 'Search results for 'iam'' and 'Services (11)'. A link 'See all 11 results' is visible. The 'IAM' service is marked with a star. The 'IAM Identity Center' service is marked with a star. The 'Resource Access Manager' service is marked with a star. The 'IAM' service is the first result in the list. The 'IAM Identity Center' service is the second result in the list. The 'Resource Access Manager' service is the third result in the list. The 'IAM' service is the most relevant result for the search query 'iam'.

aws Services

Developer Tools  
**CodeBuild**

► Source • CodeCommit  
▼ Build • CodeBuild  
Getting started  
**Build projects**  
Build history  
Report groups  
Report history

Search results for 'iam'

**Services (11)** [See all 11 results](#)

Features (24)  
Resources **New**  
Documentation (59,155)  
Knowledge Articles (482)  
Marketplace (840)  
Blogs (1,826)  
Events (12)  
Tutorials (1)

**IAM** ★  
Manage access to AWS resources

**IAM Identity Center** ☆  
Manage workforce user access to multiple AWS accounts and cloud applications

**Resource Access Manager** ☆  
Share AWS resources with other accounts or AWS Organizations

Start build ▼  
Your projects ▼  
description | La  
2



## 단계13: 생성한 codebuild role 선택

Identity and Access Management (IAM)

Search IAM

Dashboard

▼ Access management

User groups

Users

**Roles**

Policies

Identity providers

IAM > Roles

Roles (14) 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 django X 1 match

<input type="checkbox"/>	Role name	Trusted entities	Last activity
<input type="checkbox"/>	<a href="#">codebuild-ecs-django-role</a>	AWS Service: codebuild	-

Roles Anywhere Info

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

## 단계14: Attach policies

**codebuild-ecs-django-role** [Info](#) Delete

**Summary** Edit

Creation date  
July 28, 2024, 19:50 (UTC+09:00)

Last activity  
-

ARN  
arn:aws:iam::426653742146:role/service-role/codebuild-ecs-django-role

Maximum session duration  
1 hour

**Permissions**

Trust relationshipsTagsAccess AdvisorRevoke sessions

**Permissions policies (1)** [Info](#)  
You can attach up to 10 managed policies.

Filter by Type  
All types ▼

⌂

Simulate ↗

Remove

Add permissions ▲  
Attach policies  
Create inline policy

< 1 > ⚙

## 단계15: add Permission

- codebuild에 ECR 접속 권한 추가

AmazonEC2ContainerRegistryPowerUser

► Current permissions policies (1)

Other permissions policies (1/950) 🔄

Search:  Filter by Type:  1 match

<input checked="" type="checkbox"/>	Policy name	Type	Description
<input checked="" type="checkbox"/>	<a href="#">AmazonEC2ContainerRegistryPowerUser</a>	AWS managed	Provides full access to Amazon EC2 Cont...

Cancel Add permissions

단계16: 결과 확인

codebuild-ecs-django-role

Info

Summary


Creation date

July 28, 2024, 19:50 (UTC+09:00)

Last activity

-

ARN

 arn:aws:iam::42665374...

Maximum session duration

1 hour

Permissions

Trust relationships


Tags

Access Advisor


Revoke sessions

Permissions policies (2)

Info







You can attach up to 10 managed policies.

 Search

Filter by Type

All types

<input type="checkbox"/>	Policy name 	Type
<input type="checkbox"/>	  <a href="#">AmazonEC2ContainerRegistryPowerUser</a>	AWS managed
<input type="checkbox"/>	 <a href="#">CodeBuildBasePolicy-codebuild-ecs-django-role...</a>	Customer managed

## 단계17: AWS CodeBuild > Start build

Developer Tools **CodeBuild**

- Source • CodeCommit
- ▼ Build • CodeBuild
  - Getting started
  - Build projects**
  - Build history
  - Report groups
  - Report history

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
ecs-django-build	GitHub	<a href="#">good593/course_aws</a>	-	-	16 m

## 단계18: Start build > Succeeded

Developer Tools

CodeBuild

▶ Source • CodeCommit

▼ Build • CodeBuild

Getting started

Build projects

Build project

Settings

Build history

Developer Tools > CodeBuild > Build projects > ecs-django-build > ecs-django-build:0ea9e4c9-81b6-41f3-b17d-2f8015645aa3

ecs-django-build:0ea9e4c9-81b6-41f3-b17d-2f8015645aa3

Stop build

Retry build

Build status

Status	Initiator	Build ARN	Resolved source version
✔ Succeeded	admin	arn:aws:codebuild:ap-northeast-2:426653742146:build/ecs-django-build:0ea9e4c9-81b6-41f3-b17d-2f8015645aa3	a6459dc2256d4f682da09684402b1223a1ca9cba

## 단계19: AWS ECR > ecs-django-ecr 클릭

The screenshot displays the AWS ECR console interface. On the left sidebar, the 'Amazon Elastic Container Registry' header is visible, followed by a collapse icon (X). Under the 'Private registry' section, the 'Repositories' link is highlighted with a red box and a red arrow pointing to the repository name in the table. The main content area is titled 'Private repositories' and shows a table with one repository, 'ecs-django-ecr'. The table has columns for 'Repository name', 'URI', 'Created at', 'Tag immutability', and 'Scan frequency'. The repository 'ecs-django-ecr' is highlighted with a red arrow. The table also includes a search bar 'Filter status' and buttons for 'View push commands', 'Delete', and 'Actions'.

Repository name ▲	URI	Created at ▼	Tag immutability	Scan frequency
<a href="#">ecs-django-ecr</a>	426653742146.dkr.ecr.ap-northeast-2.amazonaws.com/ecs-django-ecr	2024년 7월 28일, 19:10:55 (UTC+09)	Disabled	Manual

## 단계20: 결과 확인

- CodeBuild를 통해 이미지가 등록됨

Amazon Elastic  
Container Registry

Private registry

Repositories

Summary

Images

Permissions

Lifecycle Policy

Repository tags

Settings

Amazon ECR > Private registry > Repositories > ecs-django-ecr

ecs-django-ecr

View push commands

Images (1)

Search artifacts

Image tag

Artifact type

Pushed at

Size (MB)

Image URI

Digest

latest

Image

2024년 7월 28일, 20:16:31 (UTC+09)

86.75

Copy URI

sha256:23d6645f1f3441c...