

MJ Company

MJ 컴퍼니 클라우드 전환

MJ company 맹재영

2회차 2조

Jaejae.store

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요구사항

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04

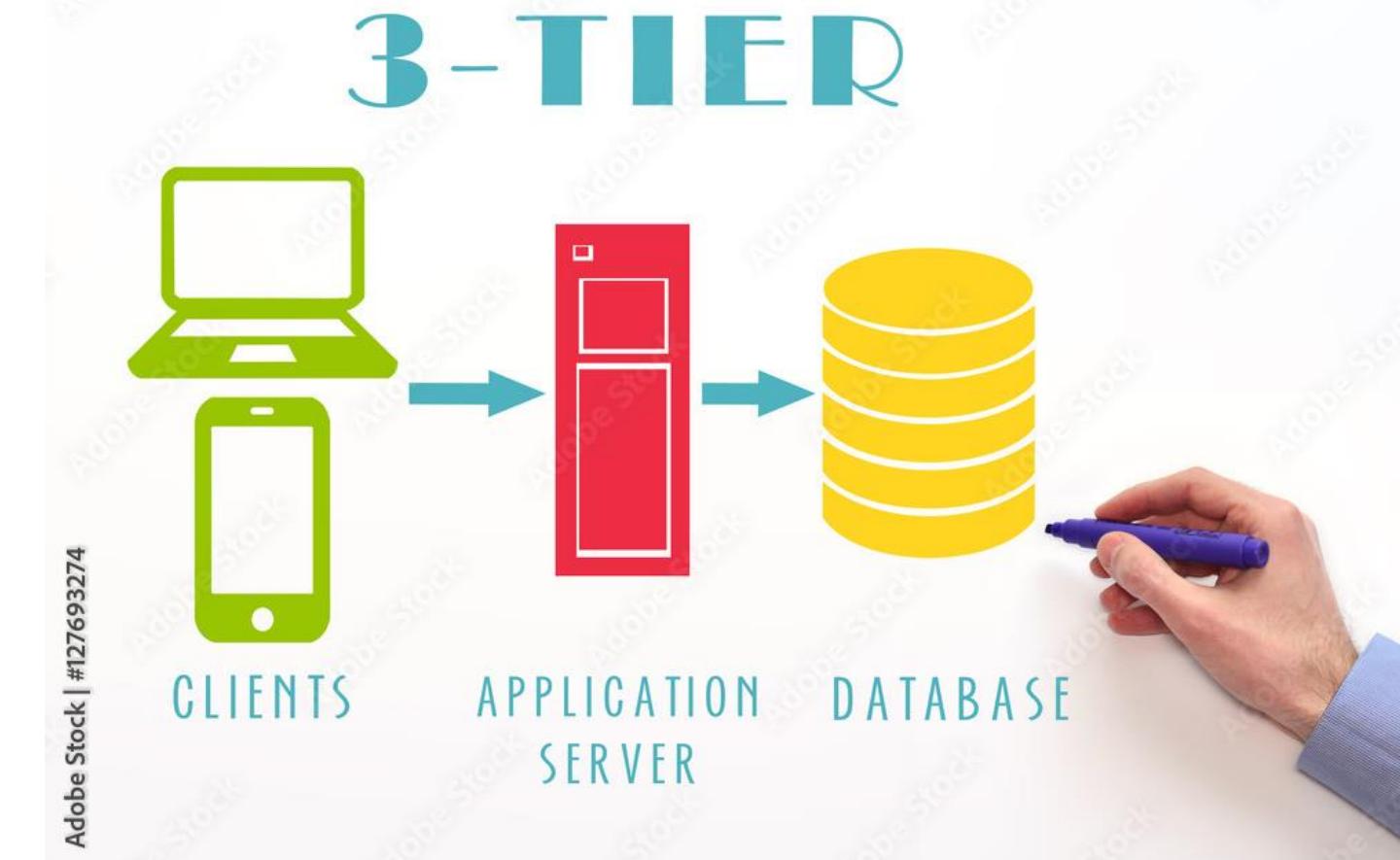
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ISMS-P 인증

요구사항

서비스 환경

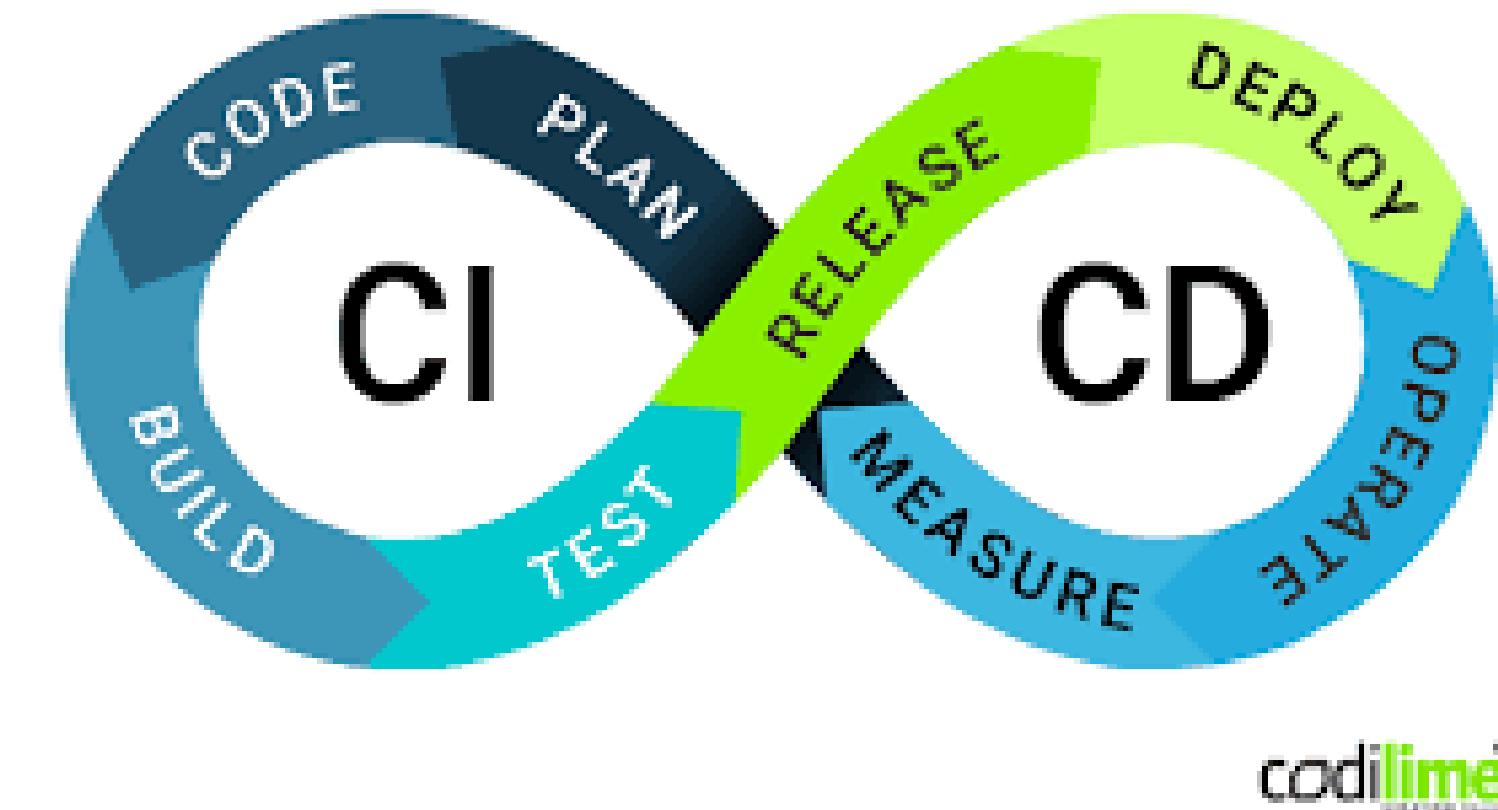
3-tier container 환경
확장성 및 유연성 고려



요구사항

CI/CD

서비스 자동 빌드/배포



요구사항

모니터링

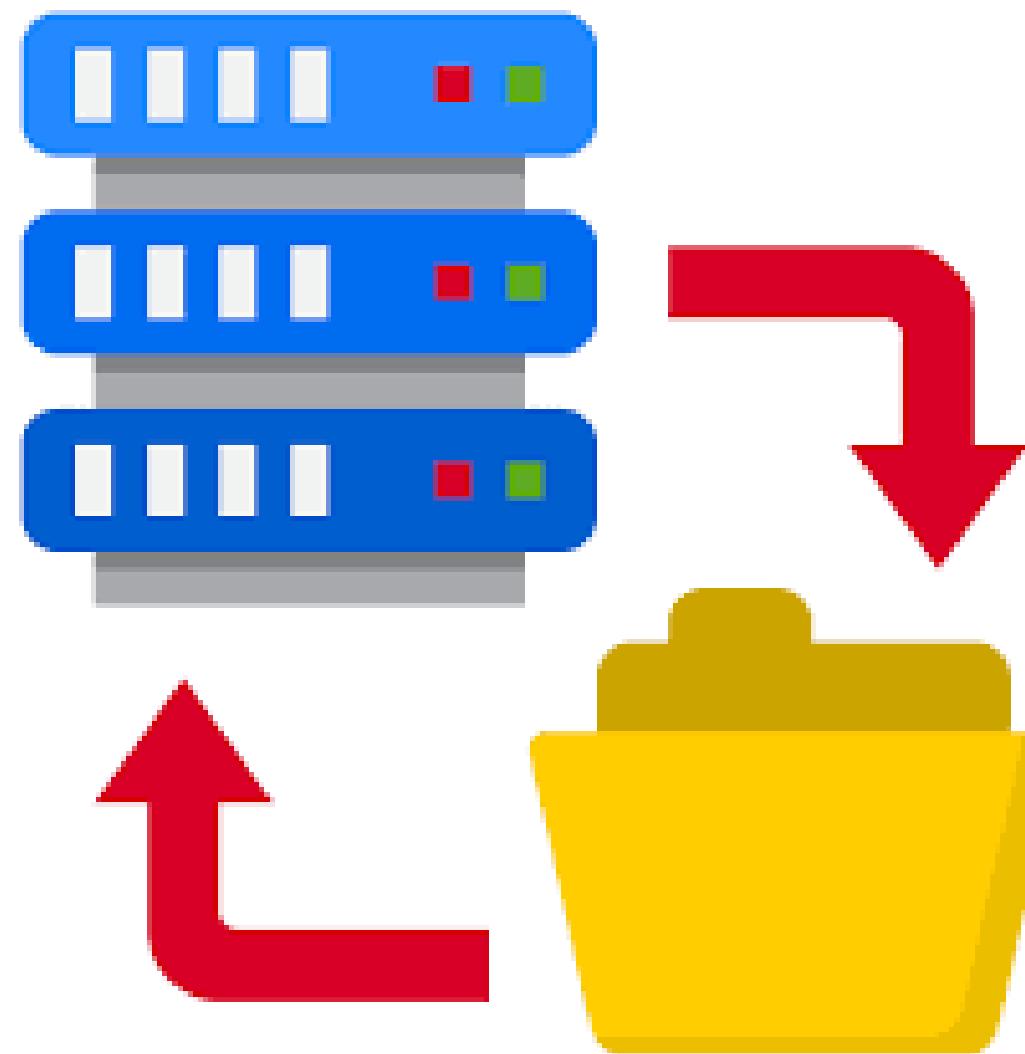
오류 알림 수신
데이터 분석 대시보드



요구사항

보관/백업

비용 효율적인 보관
주요데이터 백업



요구사항

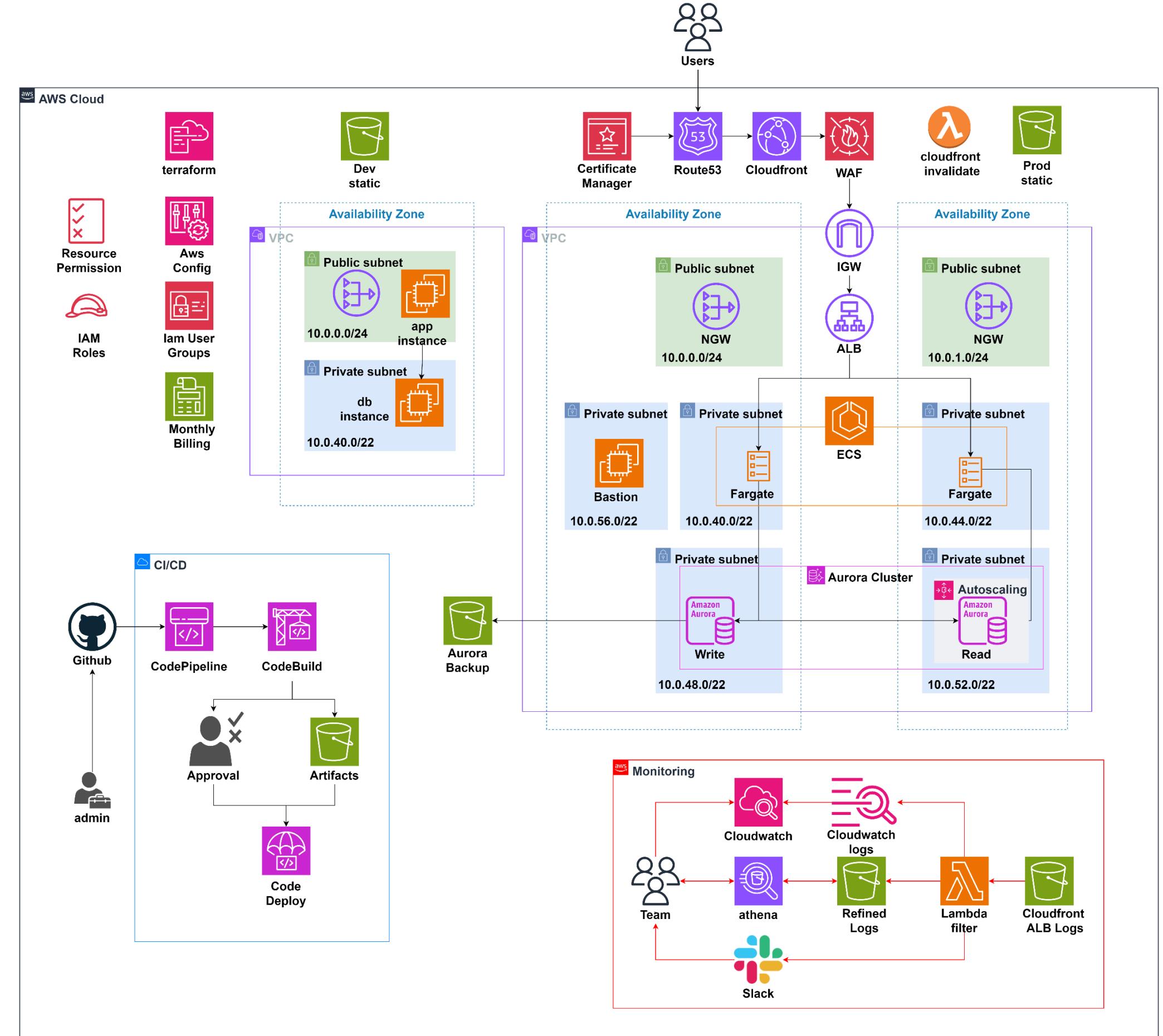
보안

ISMS-P 인증



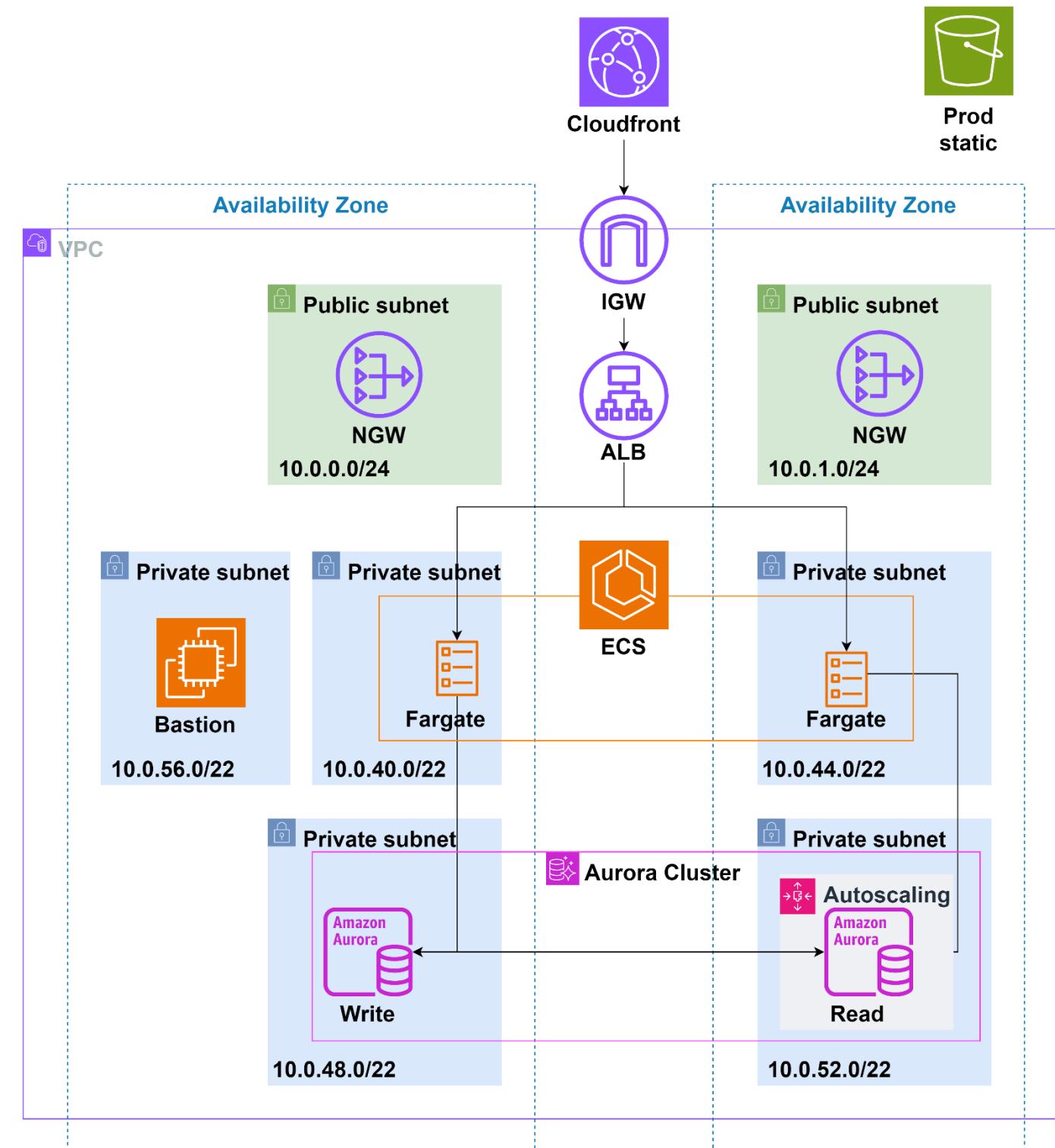
CHAPTER 02

서비스 구성



서비스 환경

서비스 구성



요구사항

3-tier container 환경
확장성 및 유연성 고려

서비스 환경

Web : S3, Cloudfront
Was : Fargate, EC2
DB : Aurora, EC2

서비스 환경

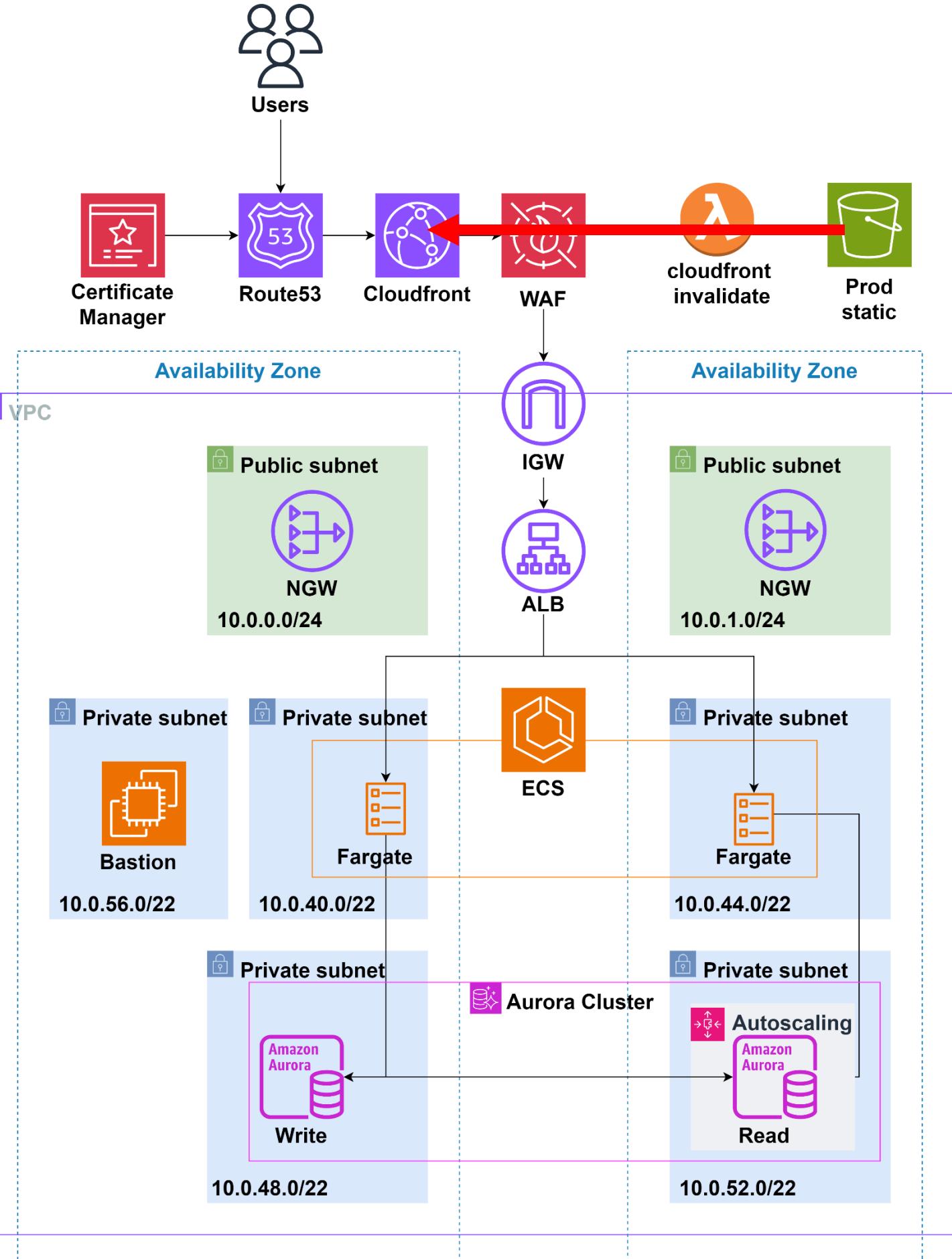
Block all public access

On

▶ Individual Block Public Access settings for this bucket

```

STatement - 1
{
    "Sid": "AllowCodeBuildAndCodePipeline",
    "Effect": "Allow",
    "Principal": {
        "Service": [
            "codebuild.amazonaws.com",
            "codepipeline.amazonaws.com"
        ]
    },
    "Action": [
        "s3:PutObject",
        "s3:GetObject",
        "s3:DeleteObject"
    ],
    "Resource": "arn:aws:s3:::mjjy-static-deploy/*",
    "Condition": {
        "StringEquals": {
            "AWS:SourceArn": "arn:aws:cloudfront::99238277"
        }
    }
}
  
```



서비스 환경

This XML file does not appear to have any style information associated with it. The document tree is shown below.

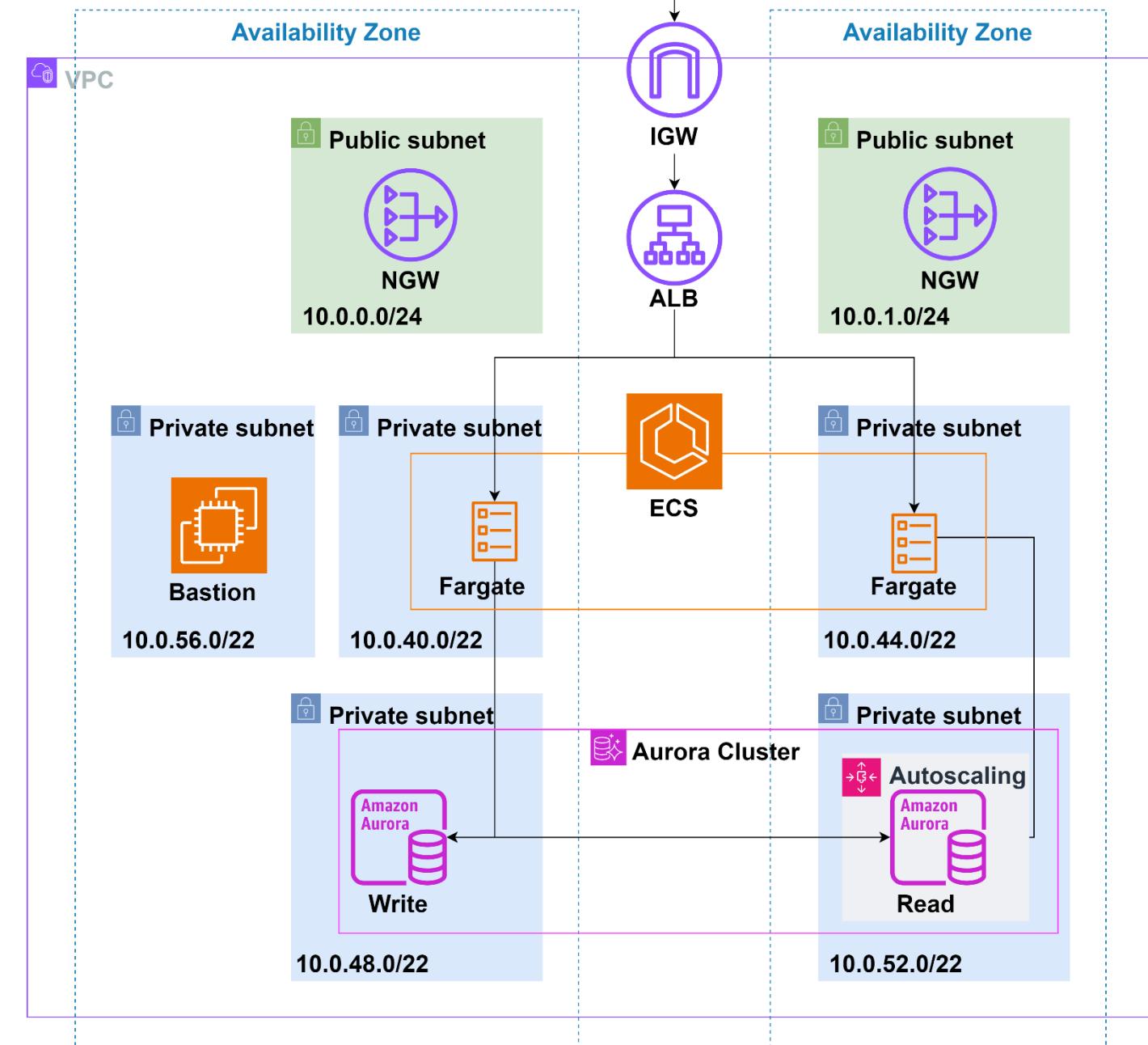
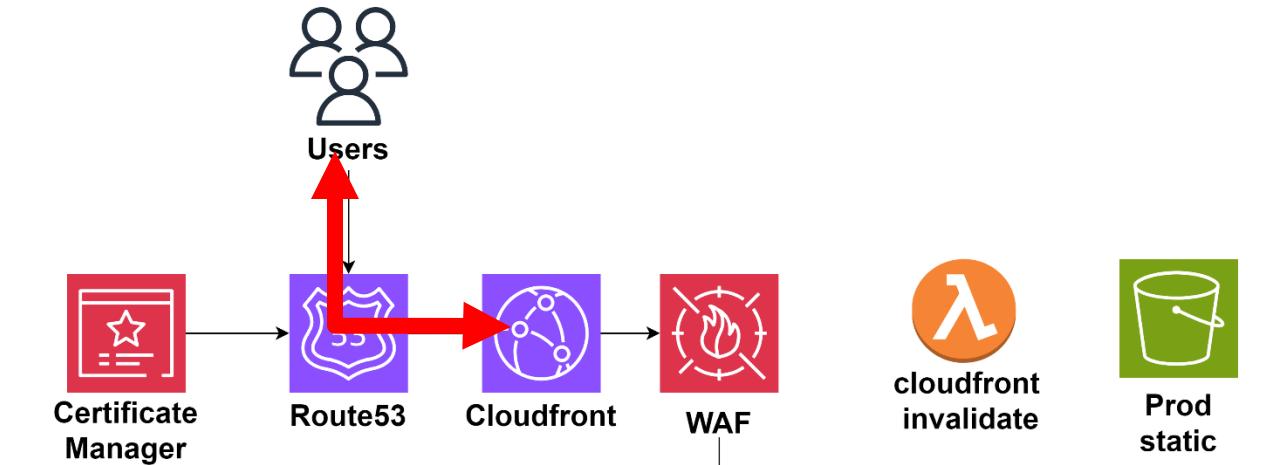
```
▼<Error>
<Code>AccessDenied</Code>
<Message>Access Denied</Message>
<RequestId>R6AE58JFESAR84JZ</RequestId>
<HostId>CV3QJCcYFzBoxzihipA5b1o/Fqmm5k0WrIsJ3f6ndpKjWSrTHij8Bq0kbedD72c06RhGyjmQhpdk9hz7BdA5fA==</HostId>
</Error>
```

≡ MJY online cosmetic shop testing~~~

[Add Cosmetic](#)

구성 설명

서비스 환경



서비스 환경



Certificate
Manager



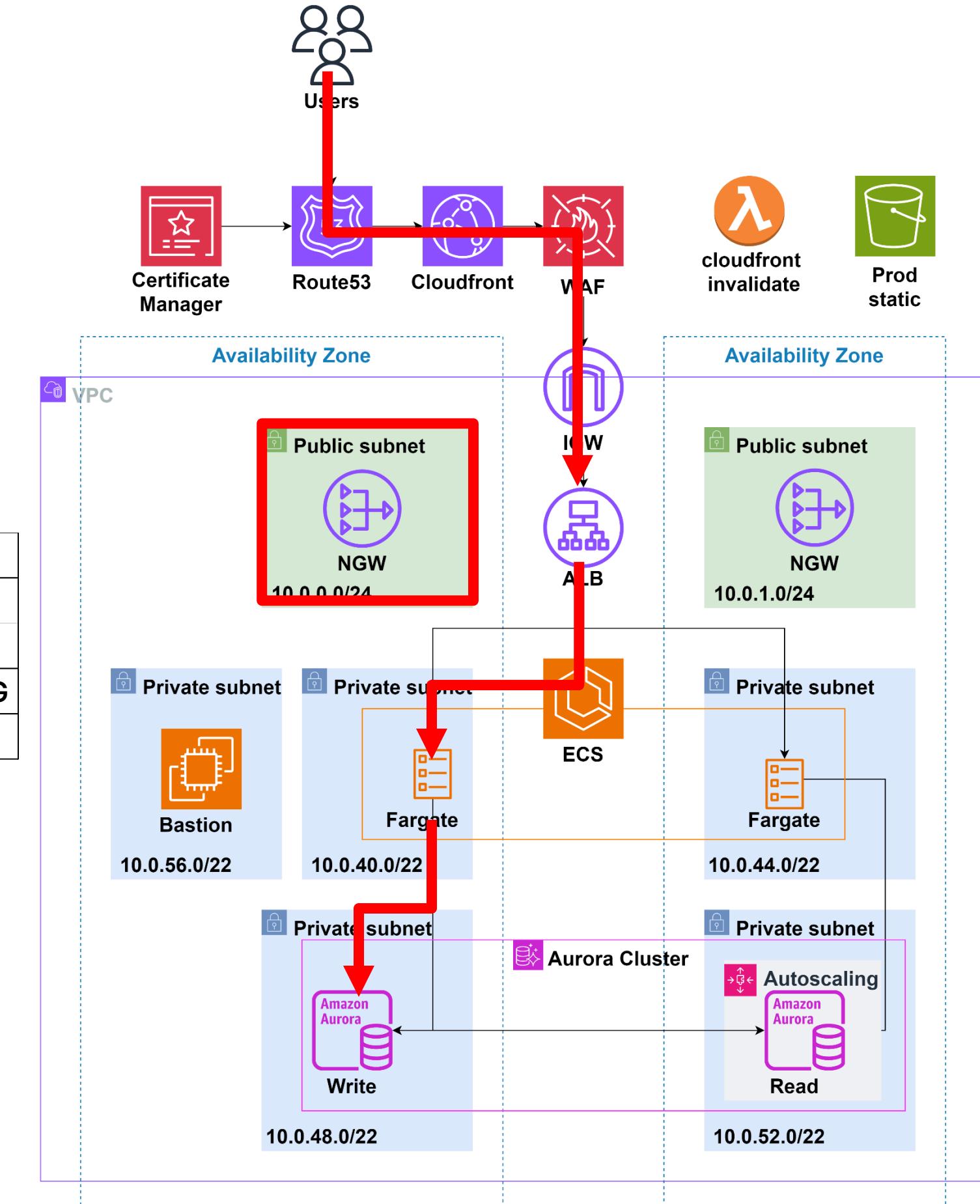
Route53



구성 설명

서비스 환경

NAME	ID	VPC	INBOUND PORT	SOURCE
MJY_APP_ALB SG	sg-01f4***	MJY_PROD_VPC	80	0.0.0.0/0
			443	0.0.0.0/0
MJY_APP_SG	sg-09e8***	MJY_PROD_VPC	8080	MJY_APP_ALB SG
MJY_DB_SG	sg-0443***	MJY_PROD_VPC	3306	MJY_APP_SG



구성 설명

서비스 환경

Transfer rate: 148.70 [Kbytes/sec] received

Connection Times (ms)

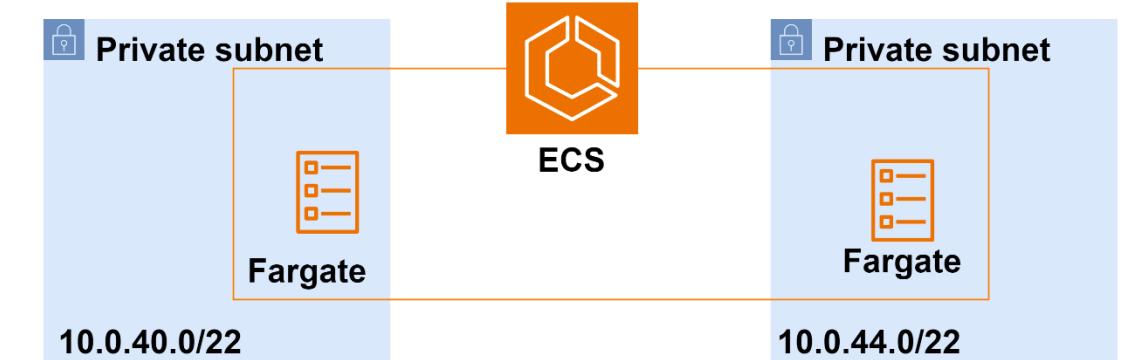
	min	mean[+/-sd]	median	max
Connect:	6	1178	434.5	1179
Processing:	95	983	467.6	938
Waiting:	10	632	466.0	511
Total:	101	2160	166.3	2146
				5712

Percentage of the requests served within a certain time (ms)

50%	2146
66%	2168
75%	2190
80%	2209
90%	2255
95%	2300
98%	2395
99%	2811
100%	5712 (longest request)

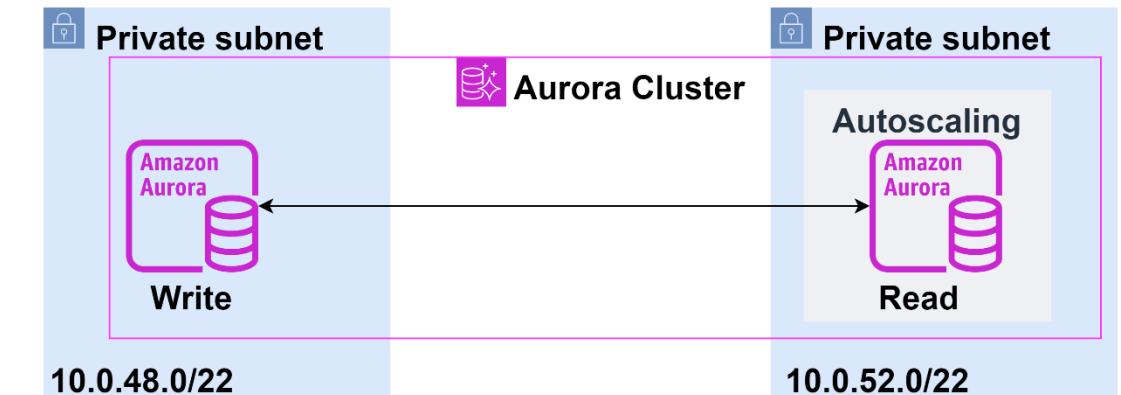
\$ ^C
\$ █

VEED



Scale Out Cpu utilization > 80%

Scale in Cpu utilization < 30%



Scale Out Cpu utilization > 80%

Scale in Cpu utilization < 30%

구성 설명

서비스 환경

The screenshot shows the AWS WAF & Shield dashboard. On the left, there's a sidebar with sections for AWS WAF (Getting started, Web ACLs, Bot control dashboard, Application integration, IP sets, Regex pattern sets, Rule groups, AWS Marketplace managed rules) and AWS Shield (Getting started, Overview, Protected resources). The main area has a title 'WAF & Shield' and a sub-section 'AWS WAF'. It displays a summary of traffic actions: Total 28 (▲ 25%), Blocked 26 (▲ 30.77%), Allowed 2 (▼ -50%), and Captcha 0. Below this, there are tabs for 'All traffic' (selected) and 'Bot Control'. A section titled 'Action totals for the specified time range - all traffic' provides details about request counts for different actions over the last 3 hours. At the bottom, there are links for CloudShell and Feedback.



WAF

백엔드 서버의
임의적 접근 차단

구성 설명

서비스 환경

VEED

MJY online cosmetic shop

Add Cosmetic

Cosmetic Name *

Cosmetic Address

Image URL

SUBMIT

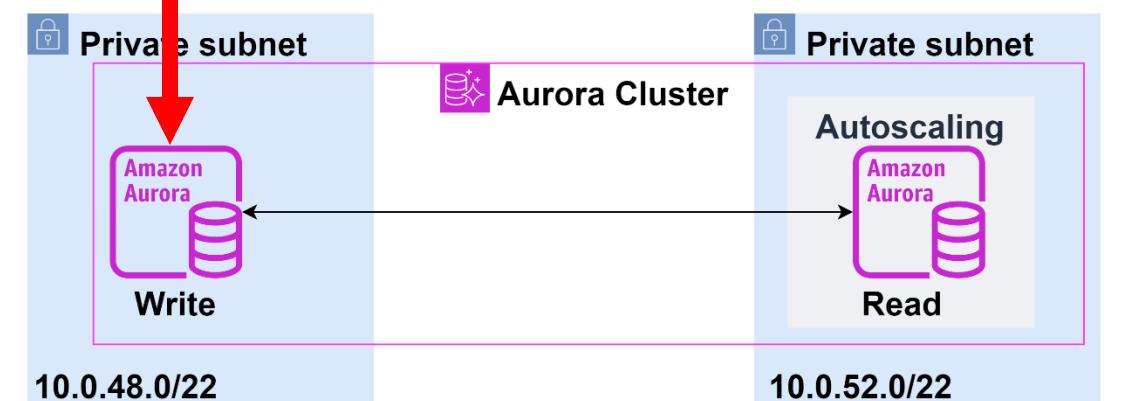
Cosmetics

PANTENE
DAILY MOISTURE REPAIR

Id: 1
Name: shampoo
Address: test

Name	Status	Type	Initiator	Size	Time
jaejae.store	304	document	Other	312 B	452 ms
main.c7c3277.js	304	script	(index0)	331 B	153 ms
main.e6c13ad2.css	200	stylesheet	(index0)	7 ms	
getAll	200	fetch	Cosmetics.js:43	229 B	585 ms
favicon.ico	200	image	Other	(disk cache)	2 ms
manifest.json	200	manifest	Other	(disk cache)	3 ms
shampoo	200	webp	react-dom.production	(memory)	0 ms

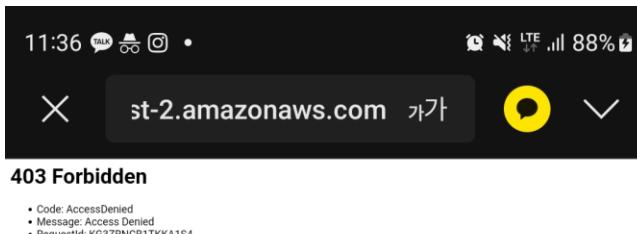
7 requests | 872.8 transferred | 485 kB resources | Finish: 1.32 s | DOMContentLoaded: 661 ms



구성 설명

서비스 환경

A screenshot of a web browser displaying a form titled "Add Cosmetic". The form has three input fields: "Cosmetic Name *", "Cosmetic Address", and "Image URL". Below the fields is a blue "SUBMIT" button.



Block **all** public access

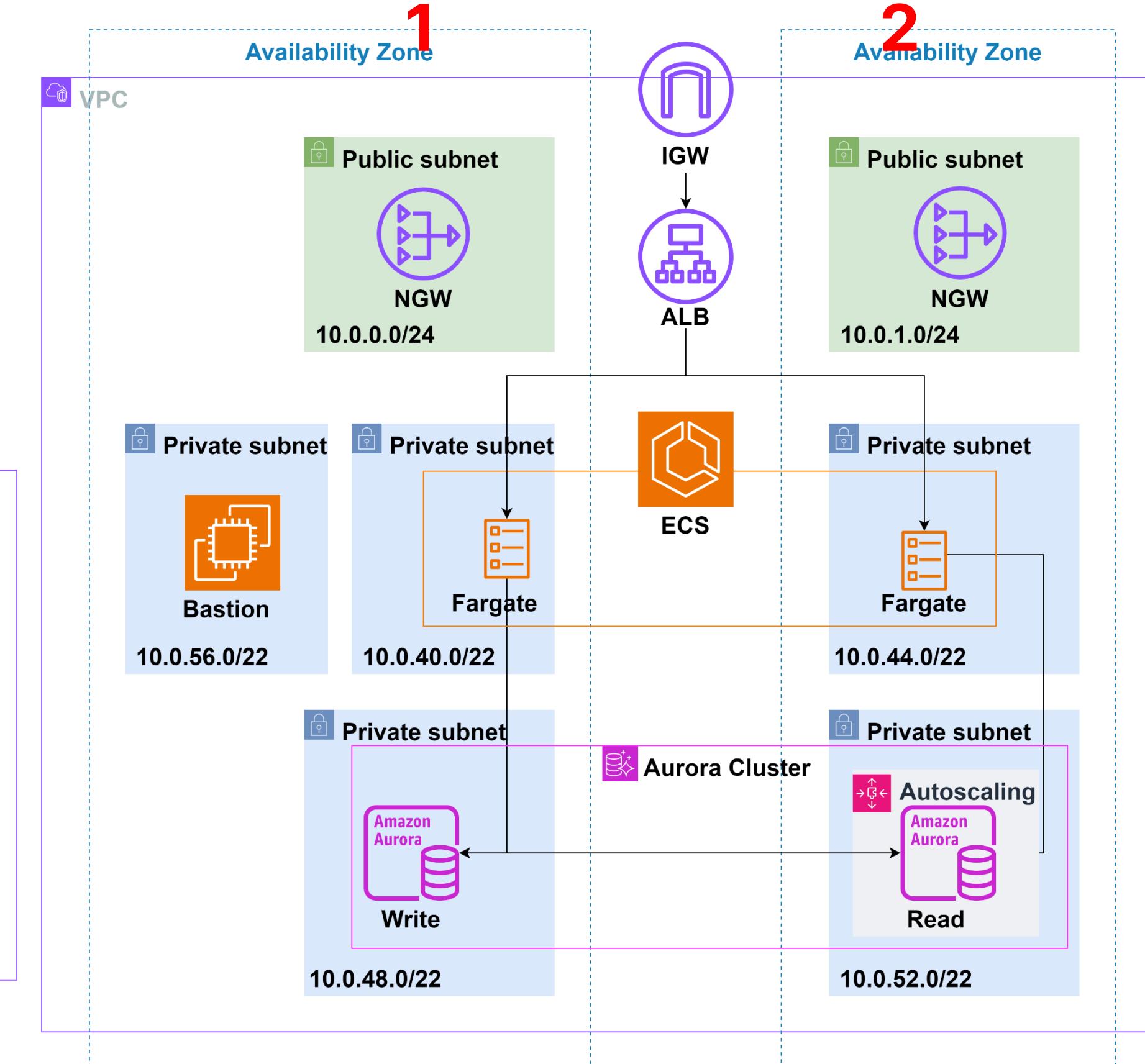
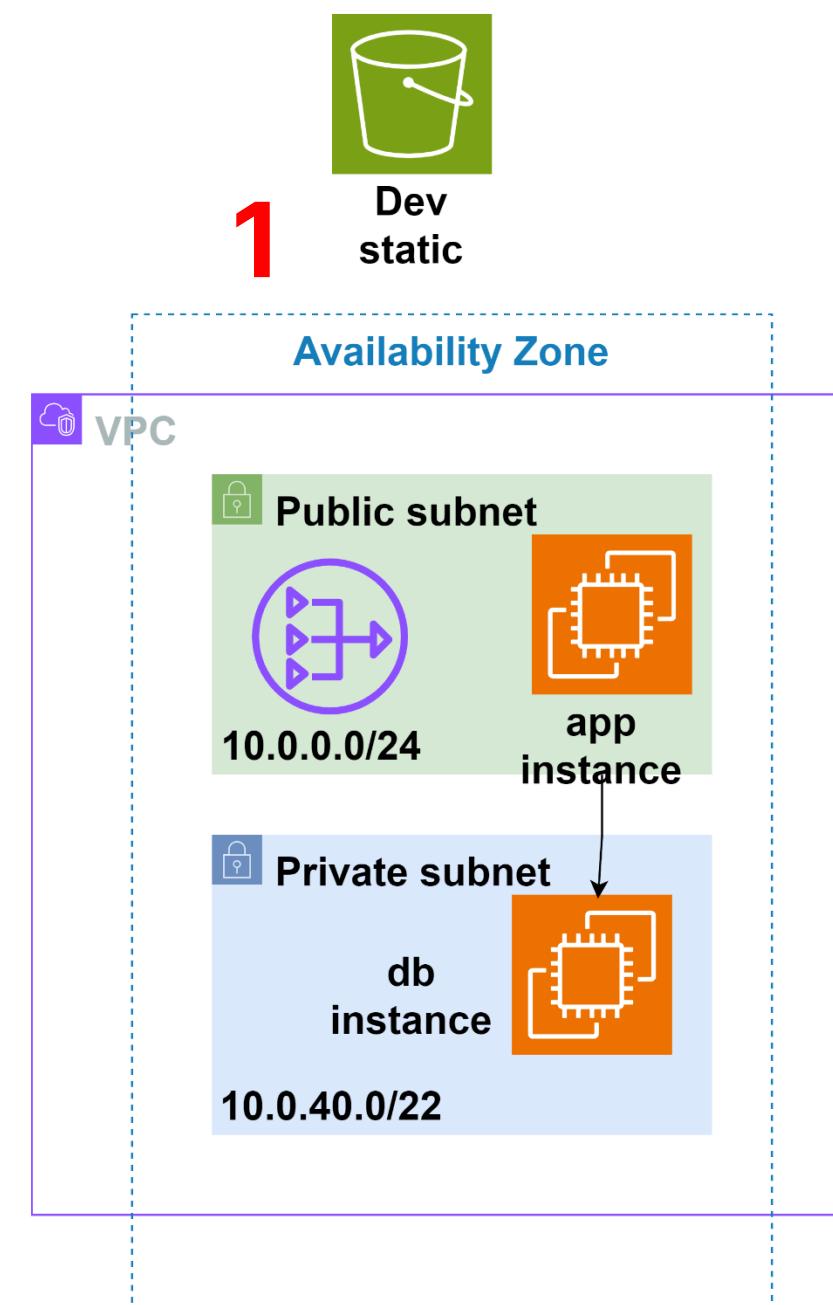
On

► Individual Block Public Access settings for this bucket

```
"Version": "2012-10-17",
"Statement": [
  {
    "Sid": "PublicReadGetObject",
    "Effect": "Allow",
    "Principal": "*",
    "Action": [
      "s3>ListBucket",
      "s3:GetObject"
    ],
    "Resource": [
      "arn:aws:s3:::mjy-static-test-deploy/*",
      "arn:aws:s3:::mjy-static-test-deploy"
    ],
    "Condition": {
      "IpAddress": {
        "aws:SourceIp": [
          "175.209.15.0/24",
          "221.148.35.243"
        ]
      }
    }
  }
]
```

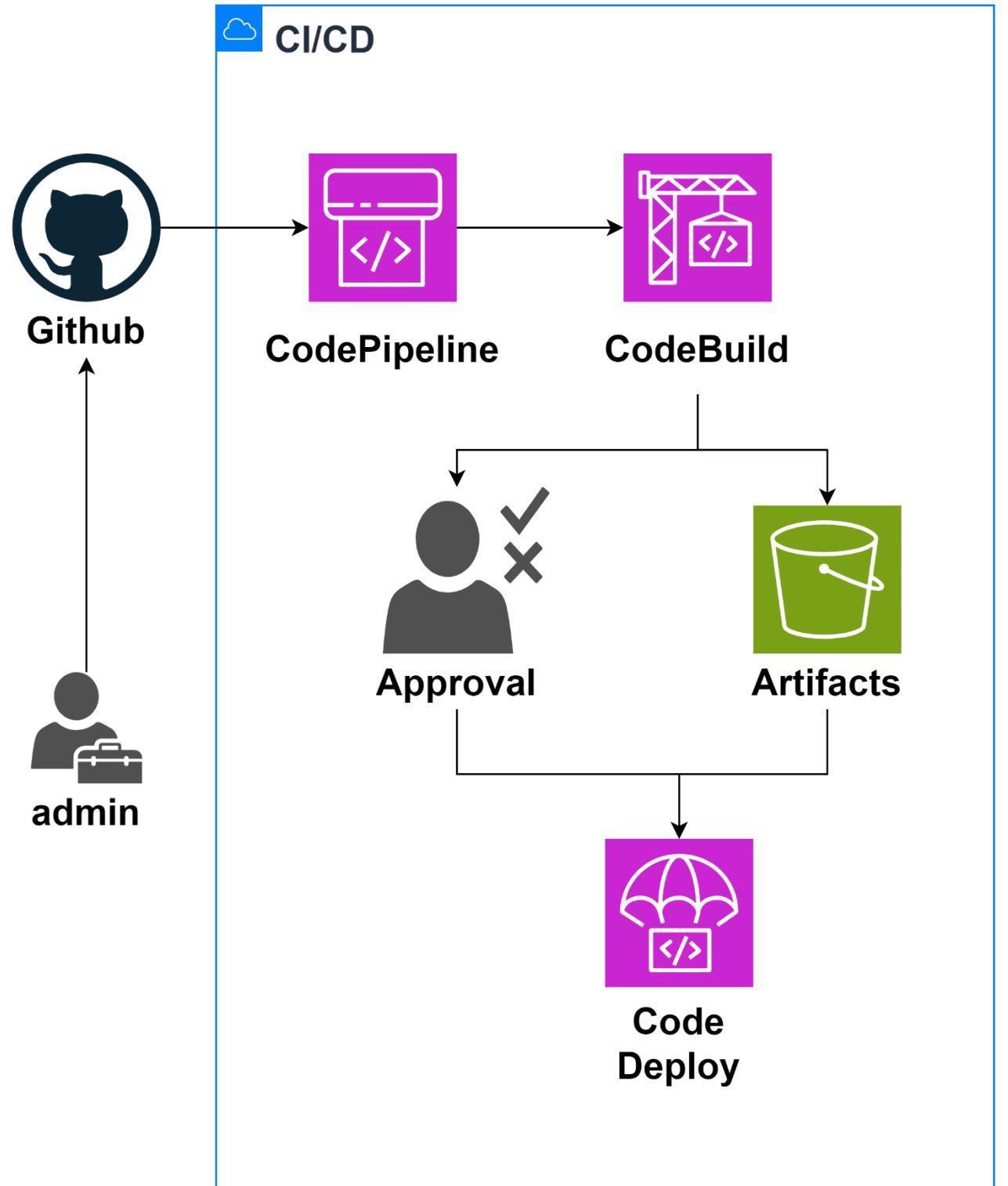
구성 설명

서비스 환경



CI/CD

서비스 구성



요구사항

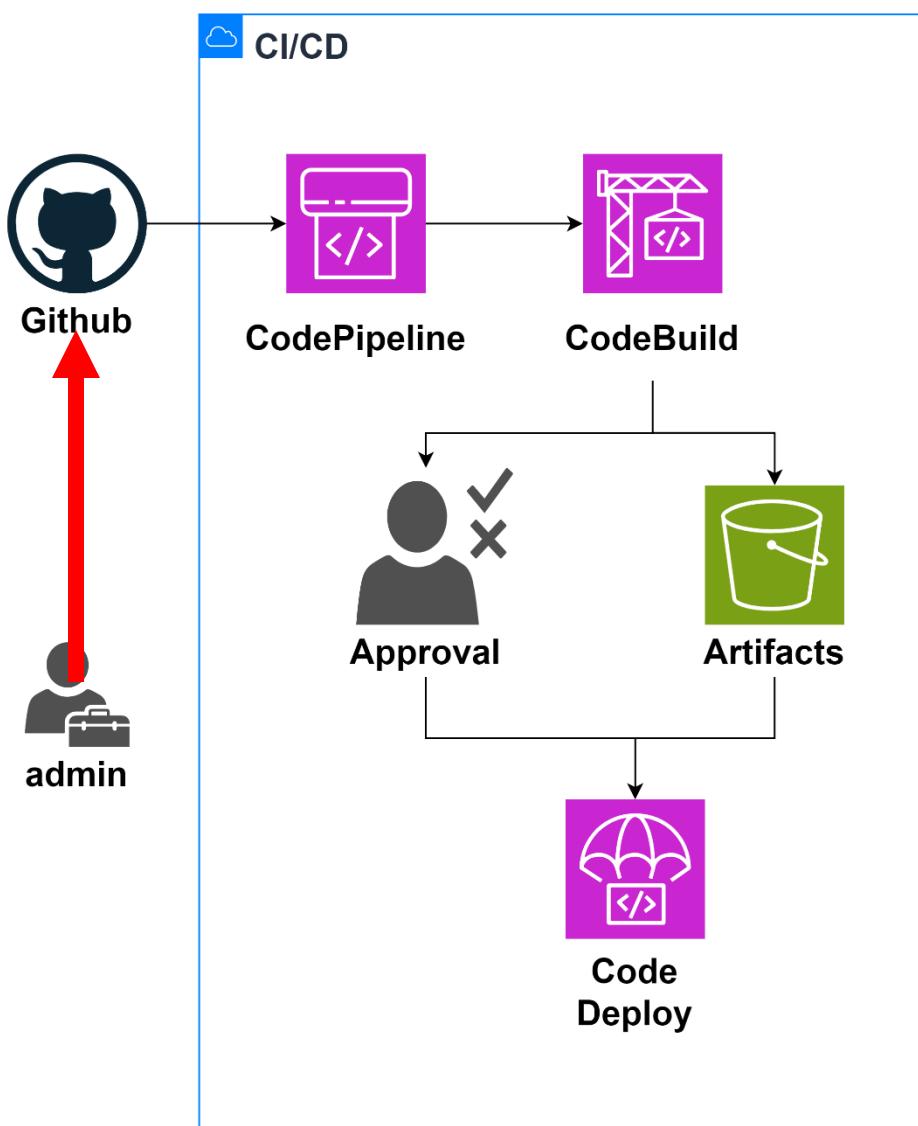
서비스 자동 빌드/배포

CI/CD

CodePipeline
Approval

구성 설명

CI/CD



The screenshot shows a merge conflict resolution interface for a file named `src/components/Appbar.js`. The interface displays two branches side-by-side:

- Incoming:** Contains the code:

```
11 export default function Appbar({ username, handleLogout }) {  
12 return (  
13     <MenuIcon />  
14     <IconButton>  
15     <Typography variant="h6" component="div" sx={{ flexGrow: 1 }}>
```
- Current:** Contains the code:

```
11 export default function Appbar({ username, handleLogout }) {  
12 return (  
13     <MenuIcon />  
14     <IconButton>  
15     <Typography variant="h6" component="div" sx={{ flexGrow: 1 }}>
```

The conflict at line 26 is highlighted with a green background and the message: `MJY online cosmetic shop merge test!!!!!!`.

Below the code editor, there are buttons for conflict resolution:

- `Accept Incoming | Accept Combination (Incoming First)`
- `Accept Incoming | Remove Current`
- `Current | Remove Current`

A red box highlights the `Complete Merge` button at the bottom right.

```
<Typography variant="h6" component="div" sx={{ flexGrow: 1 }}>  
Accept Current Change | Accept Incoming Change | Accept Both Changes | Compare Changes  
<<<<< HEAD (Current Change)  
MJY online cosmetic shop merge test!!!!!!  
=====  
MJY online cosmetic shop merge test?  
>>>> 6553385f9fdf22b4f56b958b3dd721d7165c9a01 (Incoming Change)  
</Typography>  
{username ? (
```

```
src > components > JS AppBar.js > ...  
Incoming ⚡ 6553385 • origin/static  
11 export default function AppBar({ username, handleLogout }) {  
12 return (  
13     <MenuIcon />  
14     <IconButton>  
15     <Typography variant="h6" component="div" sx={{ flexGrow: 1 }}>  
Accept Incoming | Accept Combination (Incoming First)  
26 MJY online cosmetic shop merge test!!!!!!  
Current ⚡ c364d3f • static  
11 export default function AppBar({ username, handleLogout }) {  
12 return (  
13     <MenuIcon />  
14     <IconButton>  
15     <Typography variant="h6" component="div" sx={{ flexGrow: 1 }}>  
26 MJY online cosmetic shop merge test!!!!!!  
Result src\components\Appbar.js  
11 export default function AppBar({ username, handleLogout }) {  
12     <MenuIcon />  
13     <IconButton>  
14     <Typography variant="h6" component="div" sx={{ flexGrow: 1 }}>  
15     Current | Remove Current  
26 MJY online cosmetic shop merge test!!!!!!  
27     </Typography>  
28     {username ? (
```

0 Conflicts Remaining

Complete Merge

구성 설명

CI/CD

MJY online cosmetic shop

LOGIN REGISTER

Add Cosmetic

Cosmetic Name *

Cosmetic Address

Image URL

SUBMIT

Cosmetics



PANTENE
MOISTURE RECHARGE

Id: 1
Name: shampoo
Address: test



MIELLE
ROSEMARY MINT STRENGTHENING SHAMPOO

Id: 4
Name: shampoo2
Address: test

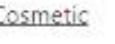


Suave
NATURALS
COCONUT & HONEY

Id: 5
Name: shampoo3
Address: test

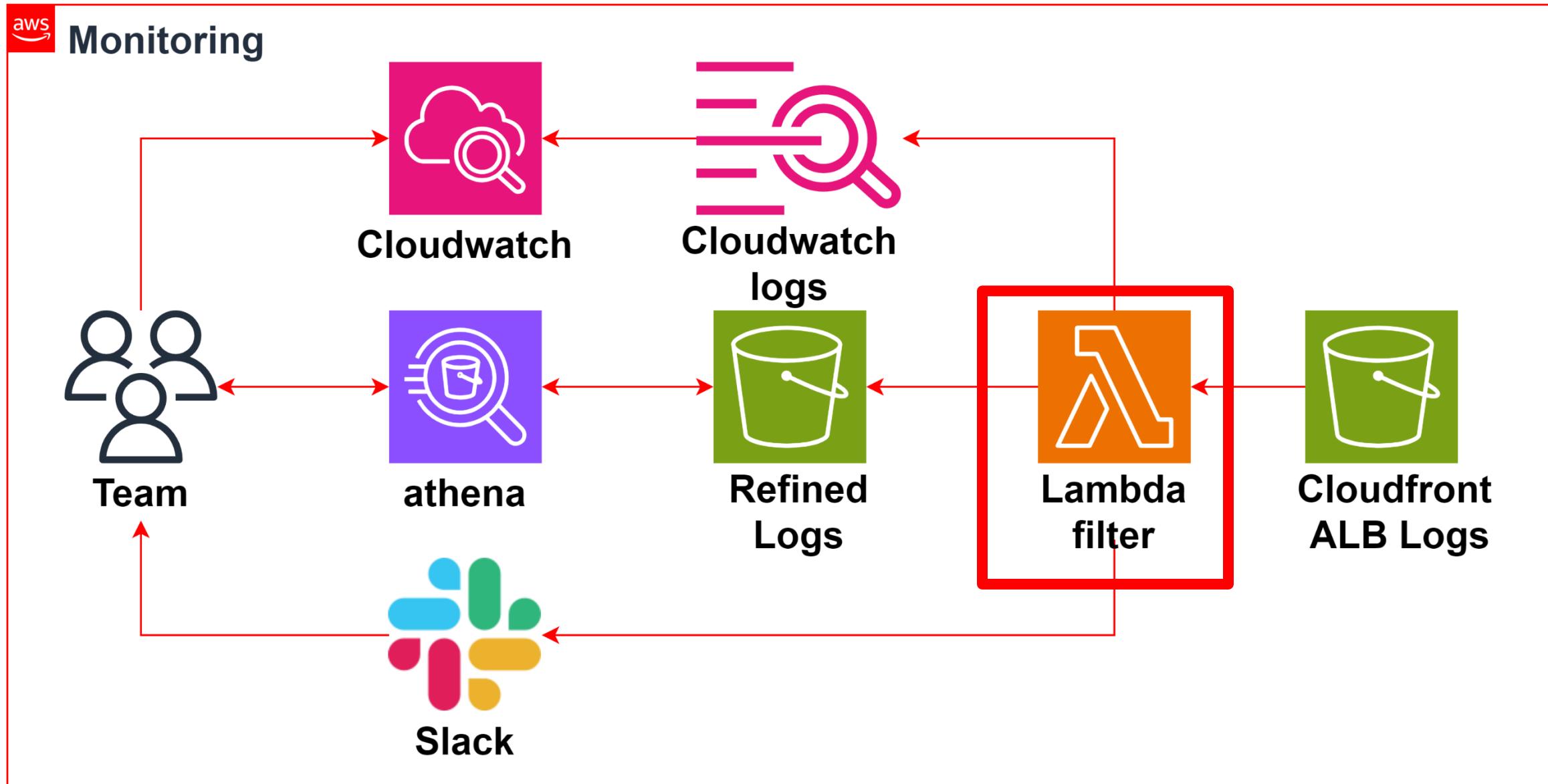


Vaseline Original HEALING JELLY

 Cosmetic

모니터링

서비스 구성



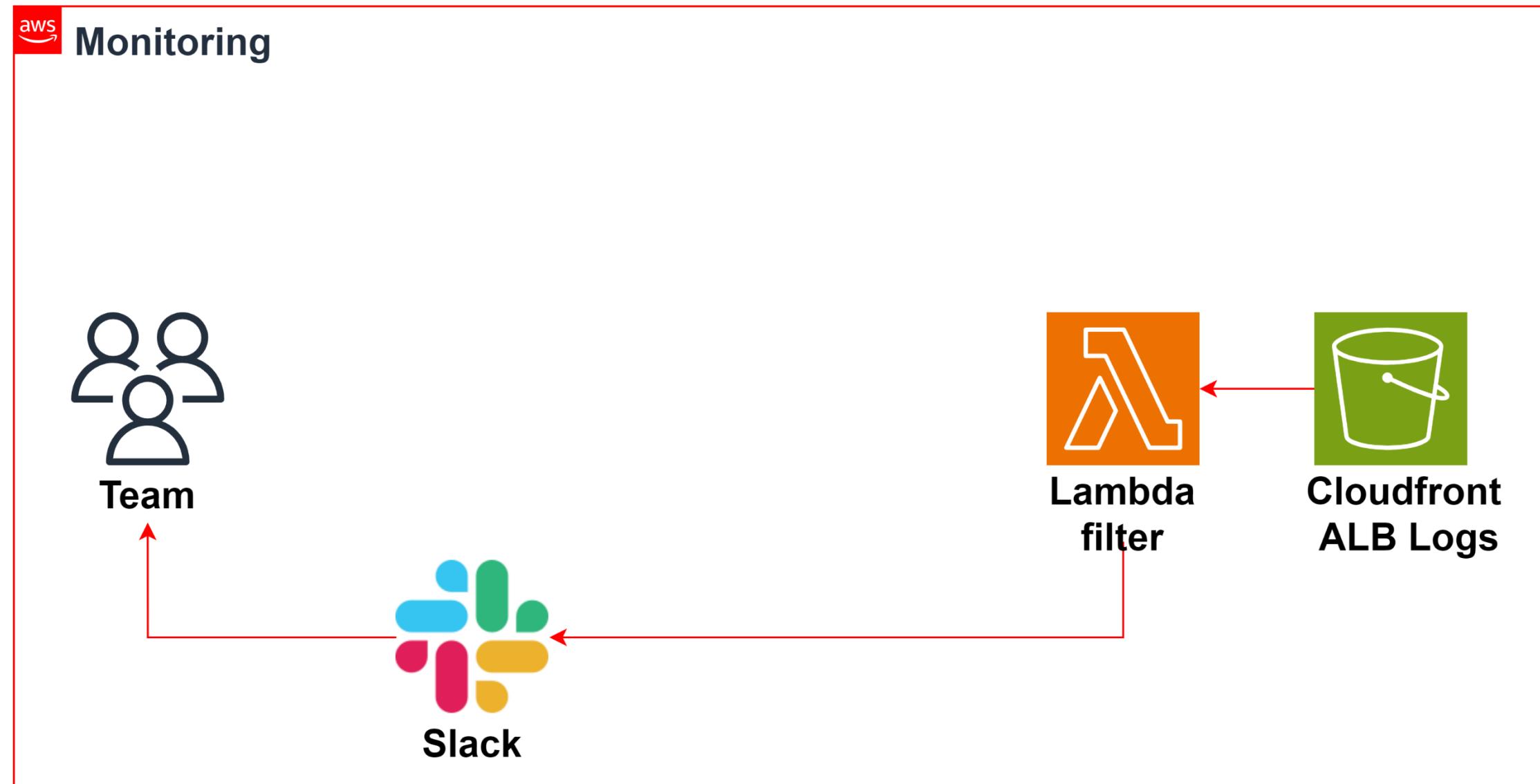
요구사항

오류 알림 수신
데이터 분석 대시보드

모니터링

Cloudwatch
Athena
Lambda

모니터링



구성 설명

모니터링

MJY online cosmetic shop testing---

LOGIN REGISTER

Add Cosmetic

Cosmetic Name *

Cosmetic Address

Image URL

SUBMIT

Cosmetics

Id	Name	Type	Initial...	Size	Time
1	PANTENE DAILY MOISTURE SHAMPOO	document	Other	0 B	Pending
4	MIELLE ROSEMARY MINT STRENGTHENING SHAMPOO	document	Other	0 B	Pending
5	Suave COCONUT & HONEY SMOOTHIE SHAMPOO	document	Other	0 B	Pending

VEED

DevTools is now available in Korean!

Always match Chrome's language | Switch DevTools to Korean | Don't show again

Elements Console Sources Network

Fetch/XHR Doc CSS JS Font Img Media Manifest WS Wasm Other

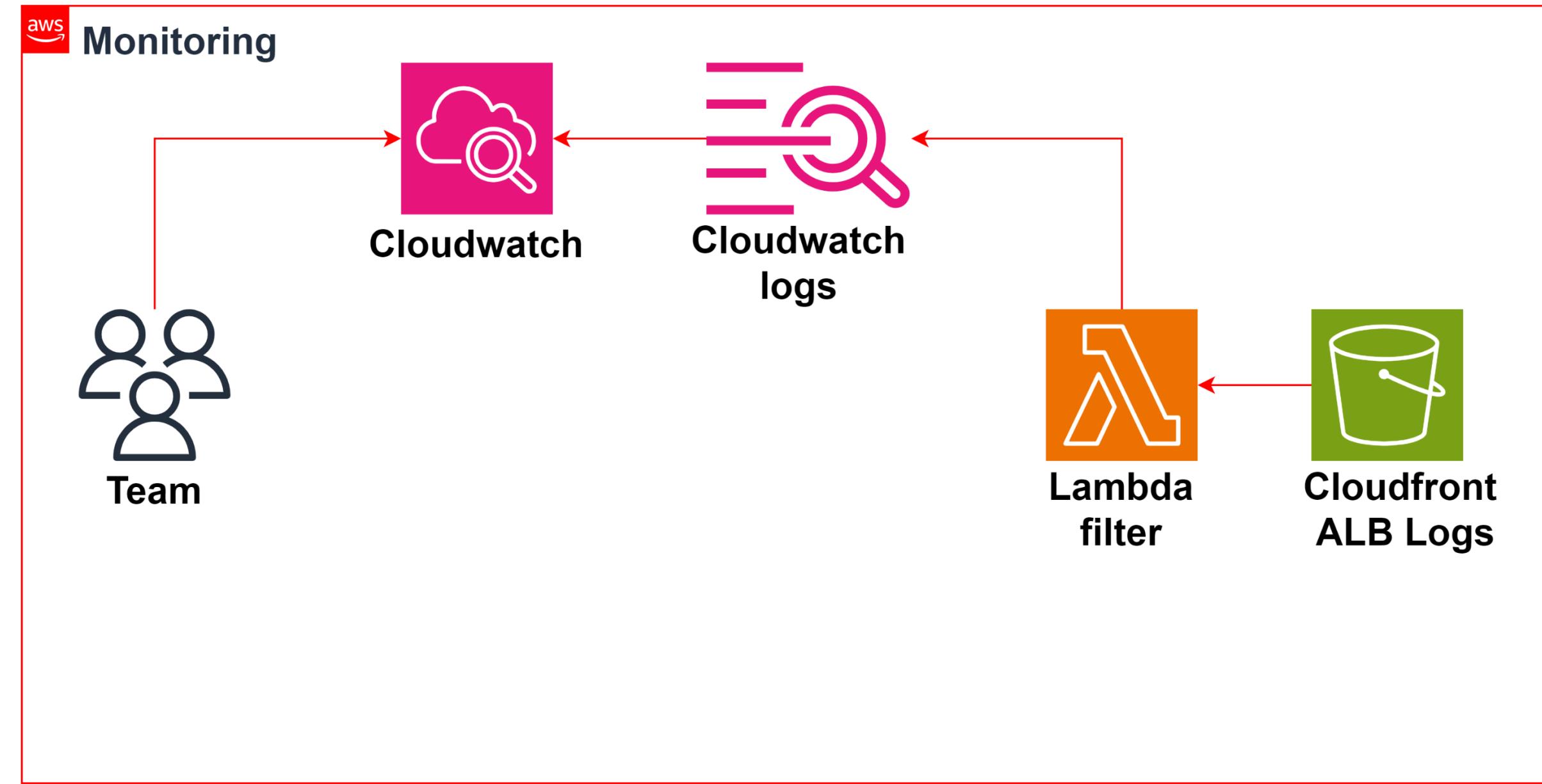
Blocked response cookies Blocked requests 3rd-party requests

20 ms	40 ms	60 ms	80 ms	100 ms

Name	Status	Type	Initial...	Size	Time
jaejae.store	(pending)	document	Other	0 B	Pending

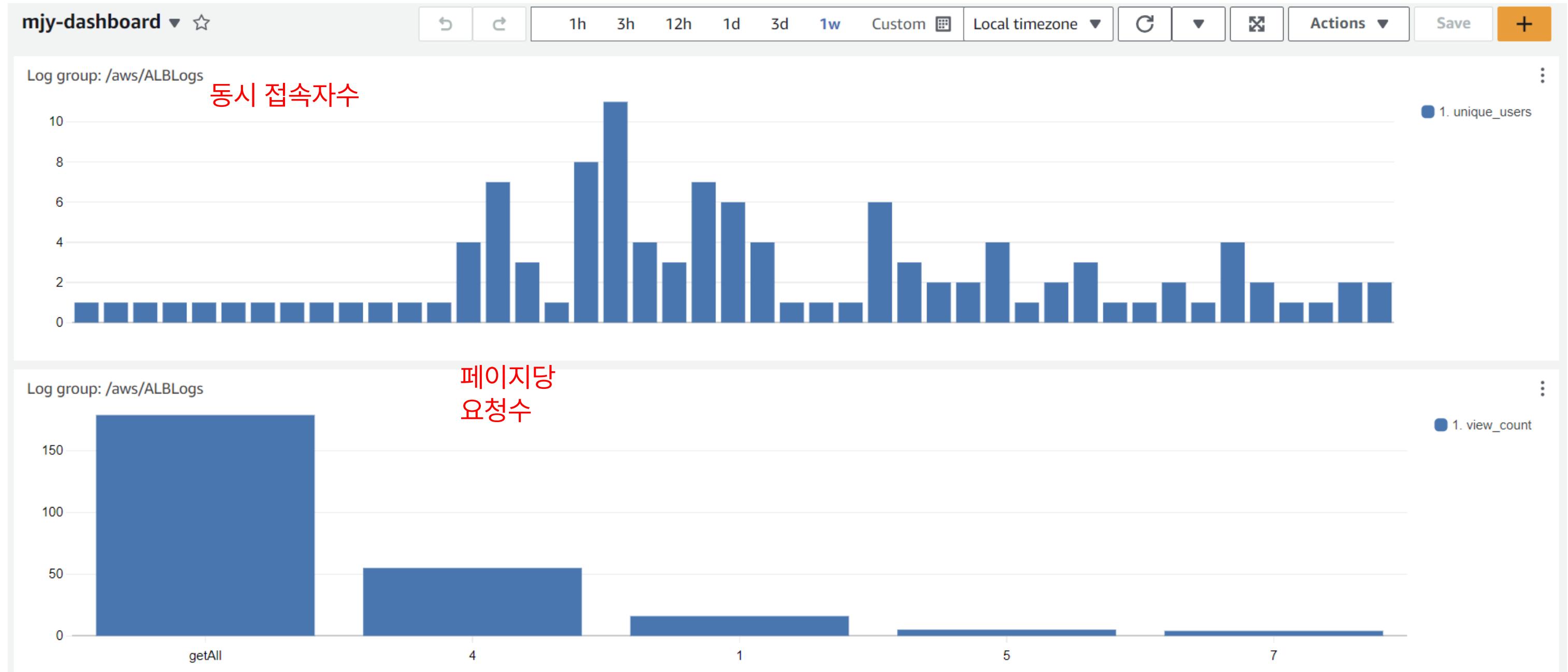
1 requests | 0 B transferred | 0 B resources

모니터링



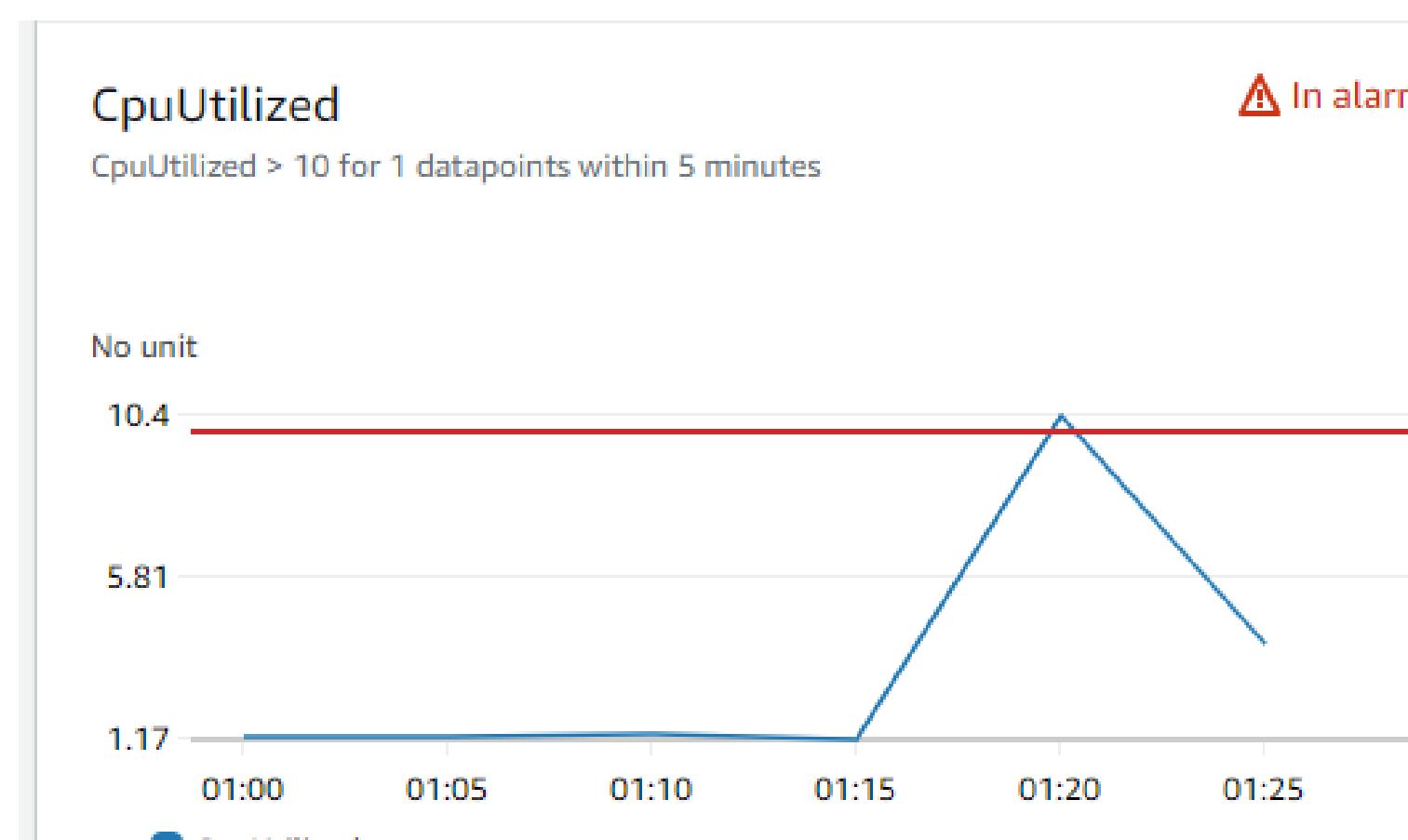
구성 설명 모니터링

```
1 fields @timestamp, @message, @logstream, @log
2 | sort @timestamp desc
3 | limit 1000
4 | filter @message like /\\Q{"date": \\E.*\\Q, "time": \\E.*\\Q, "client_ip": \\E.*\\Q,
5 | stats count_distinct(concat(client_ip, ":", client_port)) as unique_users by b
6
```



모니터링

구성 설명



AWS Notifications <no-reply@sns.amazonaws.com>

나에게 ▾

한국어로 번역



You are receiving this email because your Amazon CloudWatch Alarm "ecs cpu" in the US East (Ohio) region has entered the threshold (10.0) (minimum 1 datapoint for OK -> ALARM transition). at "Thursday 20 June, 2024 16:26:46 UTC".

View this alarm in the AWS Management Console:

<https://us-east-2.console.aws.amazon.com/cloudwatch/deeplink.js?region=us-east-2#alarmsV2:alarm/ecs%20cpu>

Alarm Details:

- Name: ecs cpu
- Description: ecs cpu overloading
- State Change: OK -> ALARM
- Reason for State Change: Threshold Crossed: 1 out of the last 1 datapoints [12.748839066823322 (20/06/24 16:21:11.000)] crossed the threshold (10.0).
- Timestamp: Thursday 20 June, 2024 16:26:46 UTC
- AWS Account: 992382777416
- Alarm Arn: arn:aws:cloudwatch:us-east-2:992382777416:alarm:ecs cpu

Threshold:

- The alarm is in the ALARM state when the metric is GreaterThanThreshold 10.0 for at least 1 of the last 1 period(s) of 300 seconds.

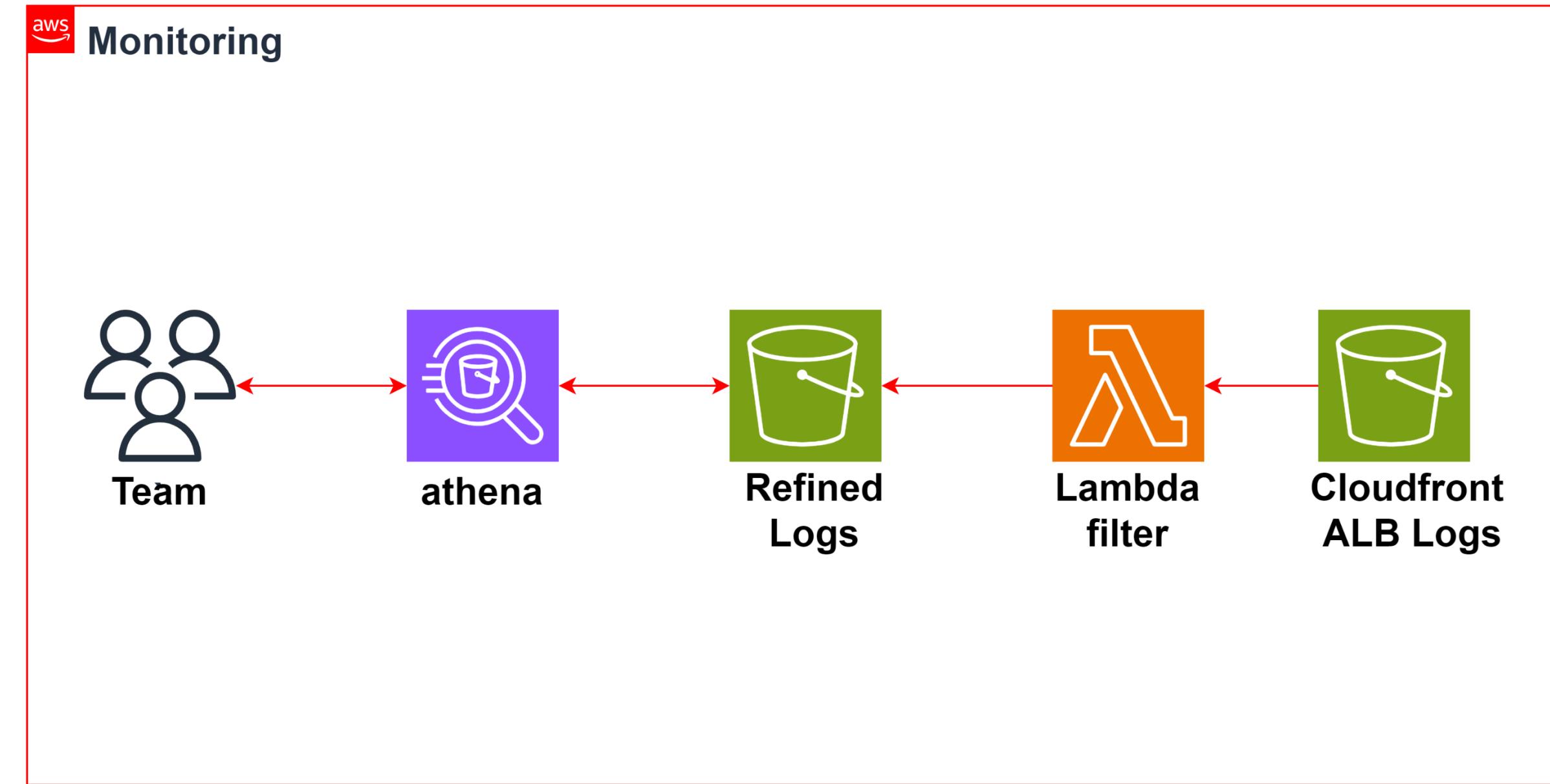
Monitored Metric:

- MetricNamespace: ECS/ContainerInsights
- MetricName: CpuUtilized
- Dimensions: [ClusterName = mju-app-cluster]
- Period: 300 seconds
- Statistic: Average
- Unit: not specified
- TreatMissingData: missing

State Change Actions:

- OK:
- ALARM: [arn:aws:sns:us-east-2:992382777416:Default_CloudWatch_Alarms_Topic]
- INSUFFICIENT_DATA:

모니터링



구성 설명

모니터링

< ? : X | ✓ Query 3 : X | ✓ Query 4 : X |

```
1 SELECT count(*)
2 FROM log_query.alb_logs
3 WHERE url LIKE '%register%'
4 AND date = DATE '2024-06-11';
5
```

▾ _col0

#	col0
1	8

< : X | ✓ Query 2 : X | ✓ Query 3 : X | > | + | ▾

```
1 SELECT *
2 FROM log_query.alb_logs
3 WHERE url LIKE '%register%'
4 AND date = DATE '2024-06-11'
5 ORDER BY date DESC;
6
```

	date	time	method	path	status
2	2024-06-11	05:17:25.581	h2	2024-06-11T05:17:25.581556Z	app/mjy
3	2024-06-11	07:26:36.230	h2	2024-06-11T07:26:36.230195Z	app/mjy
4	2024-06-11	02:25:59.688	h2	2024-06-11T02:25:59.688648Z	app/mjy
5	2024-06-11	02:24:41.059	h2	2024-06-11T02:24:41.059424Z	app/mjy
6	2024-06-11	05:17:25.784	h2	2024-06-11T05:17:25.784166Z	app/mjy
7	2024-06-11	07:26:36.429	h2	2024-06-11T07:26:36.429180Z	app/mjy
8	2024-06-11	07:27:43.885	https	2024-06-11T07:27:43.885216Z	app/mjy

보관/백업

서비스 구성



S3

확장성

암호화

내구성

가용성

요구사항

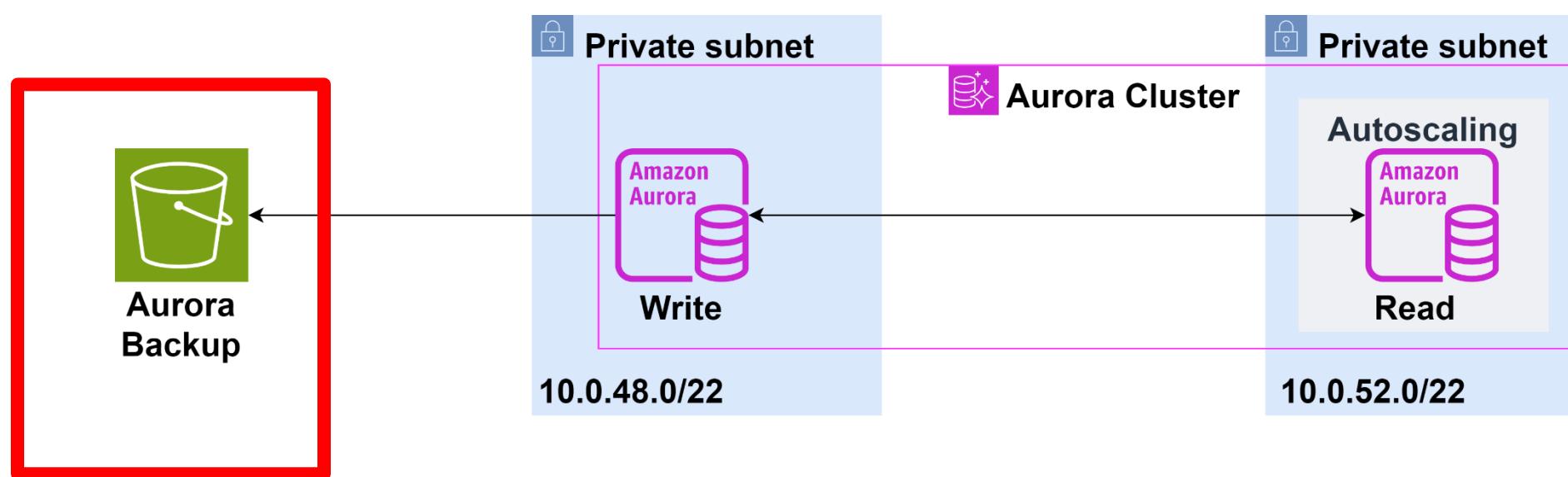
비용 효율적인 보관
주요데이터 백업

보관/백업

S3

구성 설명

보관/백업



Backup

Backup

Backup retention period [Info](#)
The number of days (1-35) for which automatic backups are kept.

7 days

Start time

19 : 00 UTC

Duration

2 hours

Current Region backups (1) [Info](#)

Filter by current region backups

DB instance or cluster	Earliest restorable time	Latest restorable time	Engine
mjy-aurora-cluster	June 10, 2024, 09:57 (UTC+09:00)	June 17, 2024, 17:39 (UTC+09:00)	aurora-mysql

구성 설명

보관/백업

DB identifier | Status | Role | Engine | Region & AZ | Size | Recommendations

backup-test	Available	Regional cluster	Aurora MySQL	us-east-2	1 instance
backup-test	Available	Writer instance	Aurora MySQL	us-east-2a	db.t3.medium

Connectivity & security | Monitoring | Logs & events | Configuration | Zero-ETL integrations | Maintenance & backups | Tags

Endpoints (2)

Actions	Create custom endpoint
Endpoint copied	Find resources
backup-test.cluster-cdsy6ycma7gv.us-east-2.rds.amazonaws.com	Status: Available, Type: Writer, Port: 3306
backup-test.cluster-ro-cdsy6ycma7gv.us-east-2.rds.amazonaws.com	Status: Available, Type: Reader, Port: 3306

Environment variables | Info

Add individually

Add a key-value pair to specify an environment variable.

Key	Value type	Value	Remove
db_endpoint	Value	backup-test.cluster-cdsy6	Remove

Add environment variable

Add from file

Add environment file

You can add 10 more environment files.

구성 설명

보관/백업

Task | Last status | Desired st... | Task definition

Running | Running | app-task-family:83

← → ⌛ jaejae.store

MJY online cosmetic shop testing~~~ LOGIN REGISTER

Add Cosmetic

Cosmetic Name *

Cosmetic Address

Image URL

SUBMIT

Cosmetics



Id: 1
Name: shampoo
Address: test

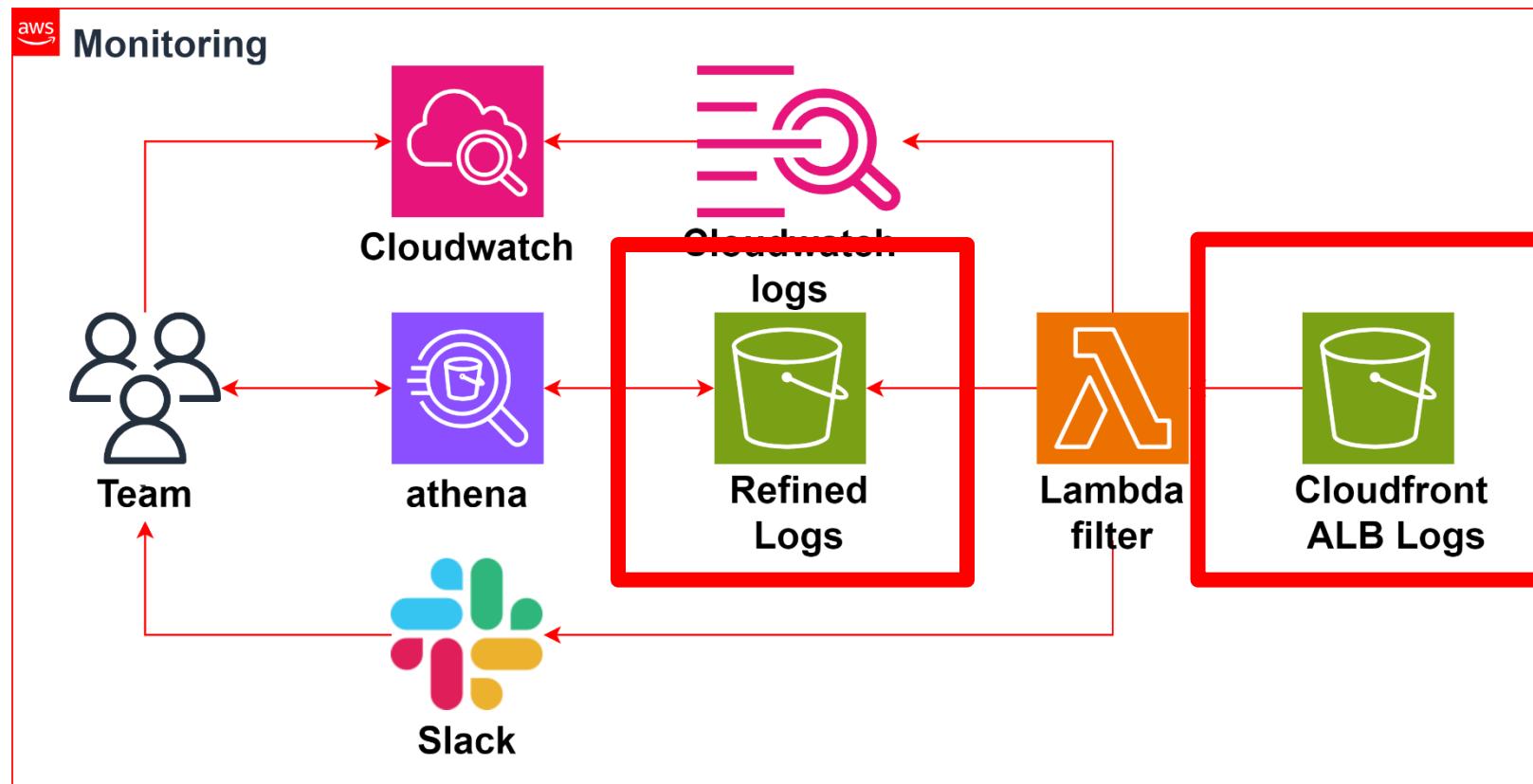


Id: 4
Name: shampoo2
Address: test



Id: 5
Name: shampoo3
Address: test

보관/백업



Review transition and expiration actions

Current version actions

Day 0

- Objects uploaded

Day 30

- Objects move to Standard-IA

Day 90

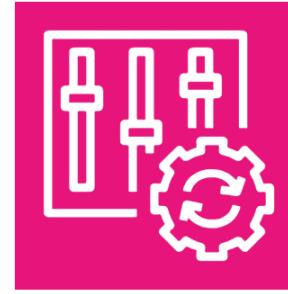
- Objects move to Glacier Deep Archive

Day 365

- Objects expire

보안

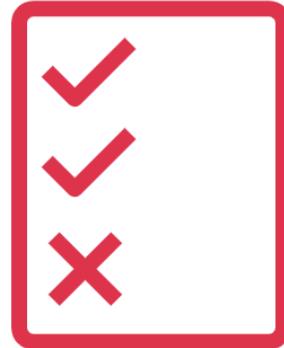
서비스 구성



Aws
Config



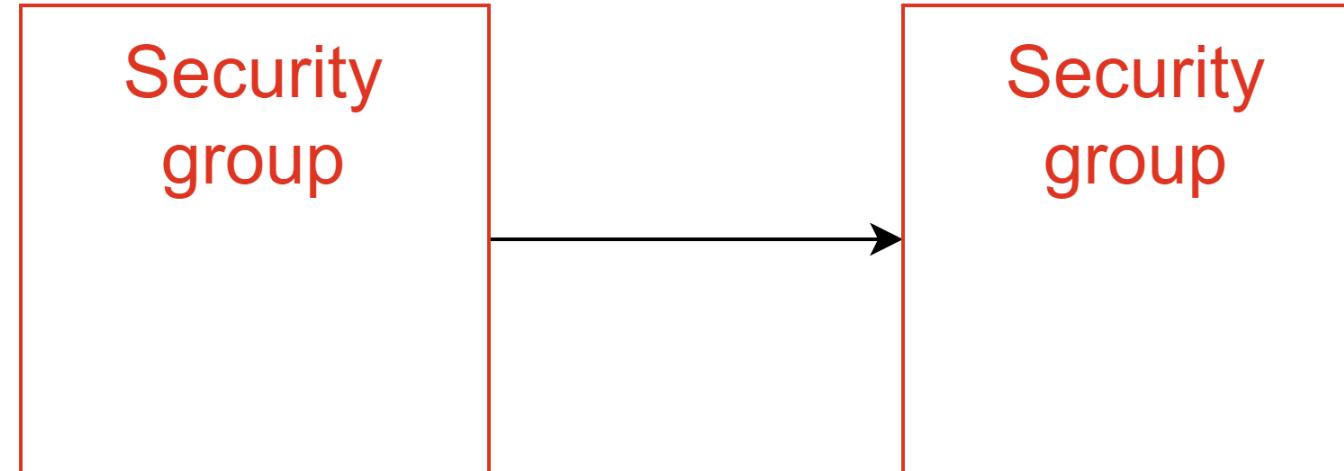
Iam User
Groups



Resource
Permission



IAM
Roles



요구사항

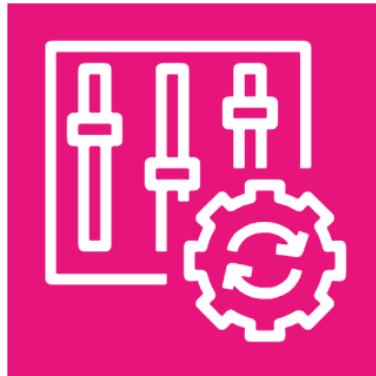
ISMS-P 인증

보안

AWS Config
IAM Group
Security group

구성 설명

보안



Aws
Config



IAM

김기현

조지원

송경진

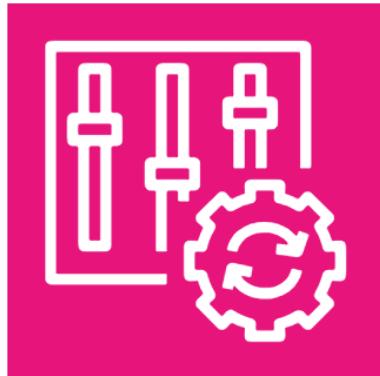
임효경

Logging

S3

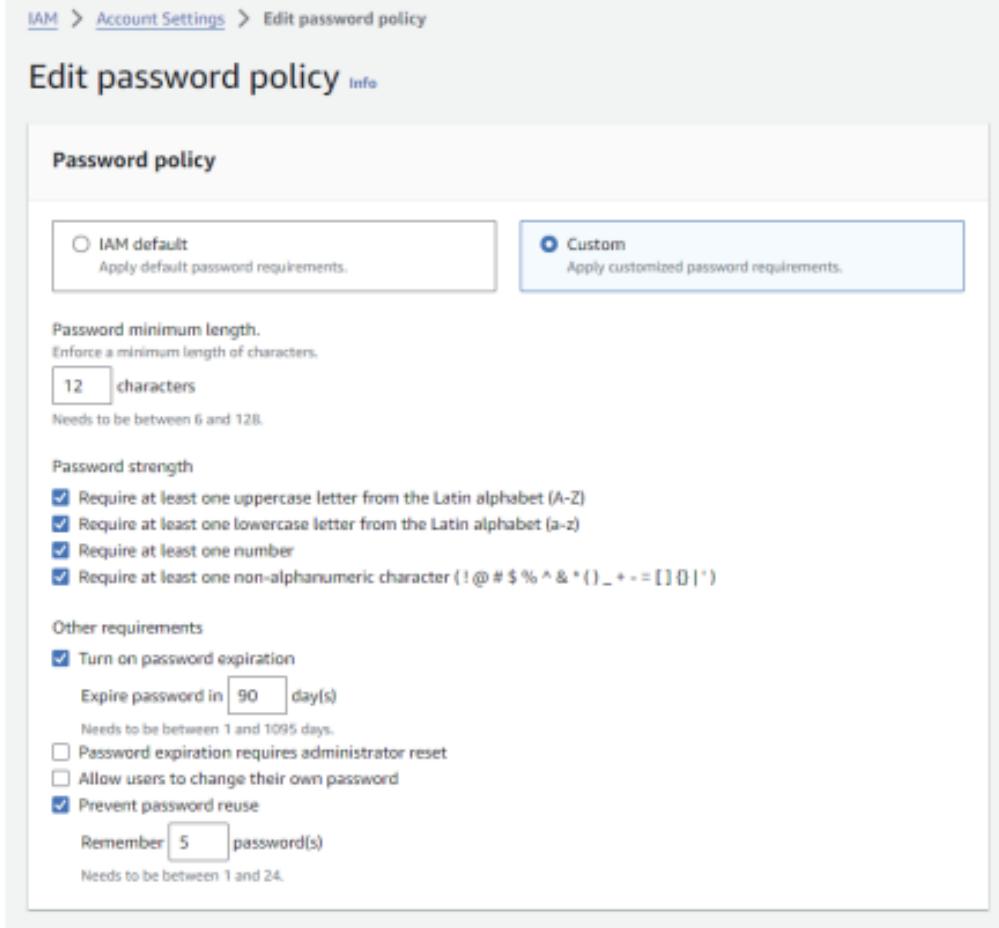
구성 설명

보안



Aws Config

2. 계정

분류	계정	중요도	상
항목명	iam-password-policy-conformance-pack		
항목 설명	Checks if the account password policy for AWS Identity and Access Management (IAM) users meets the specified requirements indicated in the parameters. The rule is NON_COMPLIANT if the account password policy does not meet the specified requirements.		
설정 방법	 A screenshot of the AWS IAM 'Edit password policy' page. It shows the 'Custom' tab selected for a password policy named 'iam-password-policy-conformance-pack'. The 'Password minimum length' is set to 12 characters. Under 'Password strength', four requirements are checked: 'Require at least one uppercase letter from the Latin alphabet (A-Z)', 'Require at least one lowercase letter from the Latin alphabet (a-z)', 'Require at least one number', and 'Require at least one non-alphanumeric character (!@#\$%^&*()_+=[]{} ;)'. Other requirements include 'Turn on password expiration' (set to 90 days), 'Allow users to change their own password', and 'Prevent password reuse' (remembering 5 password(s)).		
진단 기준	양호기준 비번 설정 조건을 parameter에 일치할 경우 취약기준 비번 설정 조건이 parameter과 맞지 않을 경우		

구성 설명

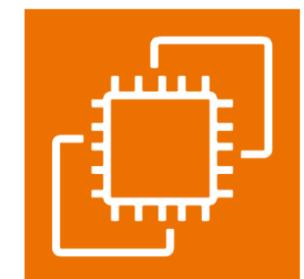
보안



Iam User
Groups

[mjy-product-uploader-group](#)

[mjy-service-developer-group](#)



Bastion



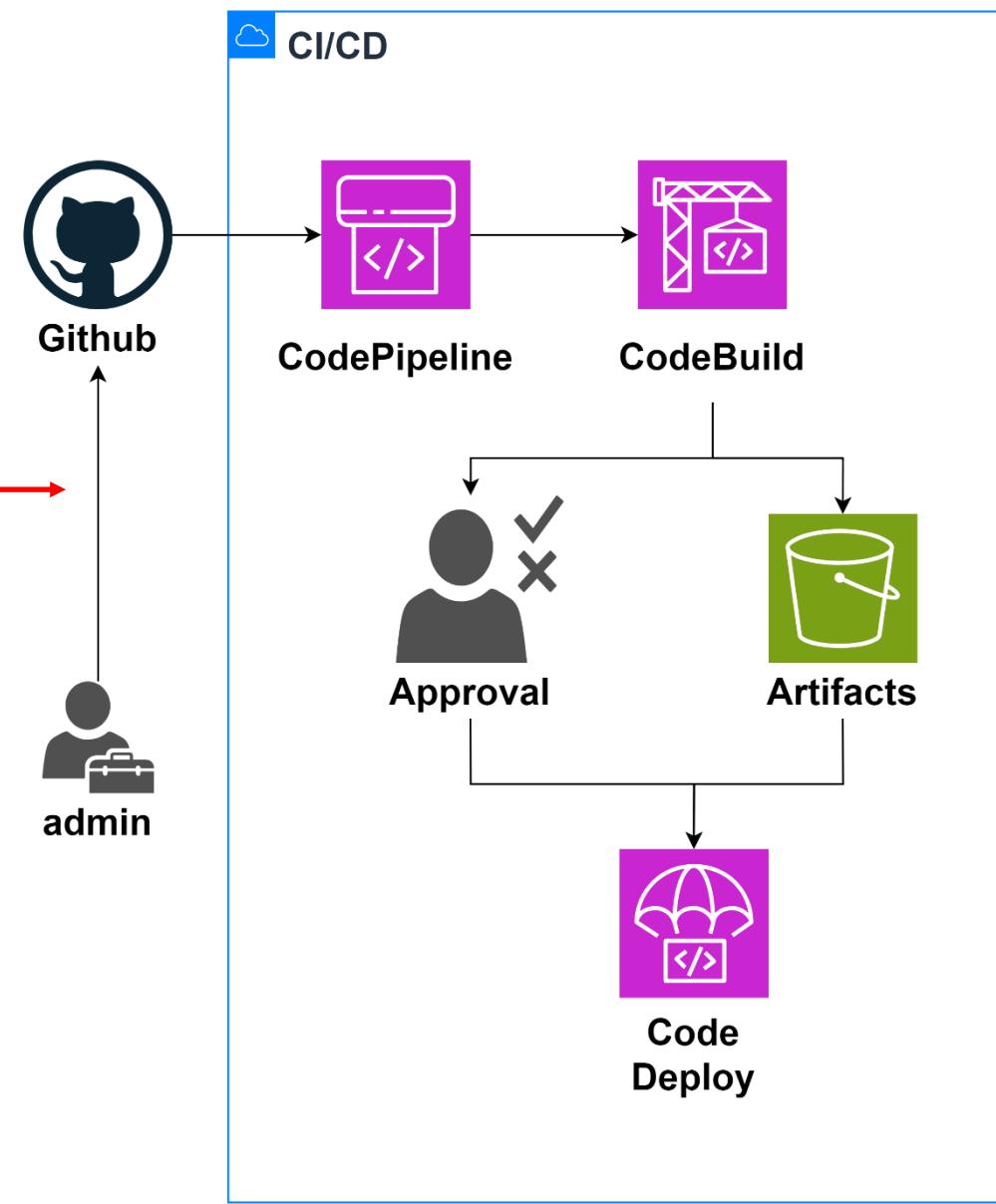
Prod
static



상품 개발 부서
S3, bastion,



서비스 개발 부서
CI/CD, Github



CHAPTER 03

비용

구성 설명

비용

Monthly cost

735.64 USD

서울 리전

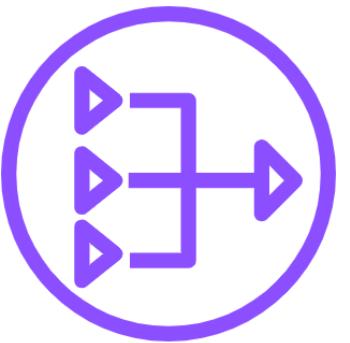
사용자 설정

하루 접속자 : 1,000,000
상품 : 100,000

My Estimate				
	Service Name	Status	Upfront cost	Monthly cost
<input type="checkbox"/>	AWS Fargate	 -	0.00 USD	97.81 USD
<input type="checkbox"/>	Amazon EC2	 -	0.00 USD	1.61 USD
<input type="checkbox"/>	Amazon EC2	 -	0.00 USD	6.57 USD
<input type="checkbox"/>	Amazon Virtual Private Cloud ...	 -	0.00 USD	130.98 USD
<input type="checkbox"/>	Amazon Simple Storage Servi...	 Cost updated	104.86 USD	13.12 USD
<input type="checkbox"/>	AWS Web Application Firewall...	 -	0.00 USD	12.00 USD
<input type="checkbox"/>	Elastic Load Balancing	 -	0.00 USD	63.15 USD
<input type="checkbox"/>	Amazon CloudWatch	 -	0.00 USD	79.47 USD
<input type="checkbox"/>	Amazon Aurora MySQL-Comp...	 -	0.00 USD	330.93 USD

구성 설명

비용



NGW

서울 리전

사용자 설정

하루 접속자 : 1,000,000
상품 : 100,000

Service settings Info

Number of NAT Gateways

3

Data Processed per NAT Gateway

10

Unit

GB per month

▼ Show calculations

730 hours in a month x 0.059 USD = 43.07 USD (Gateway usage hourly cost)

10 GB per month x 0.059 USD = 0.59 USD (NAT Gateway data processing cost)

43.07 USD + 0.59 USD = 43.66 USD (NAT Gateway processing and month hours)

3 NAT Gateways x 43.66 USD = 130.98 USD (Total NAT Gateway usage and data processing cost)

Total NAT Gateway usage and data processing cost (monthly): 130.98 USD

구성 설명

비용



Aurora

▼ Select Aurora MySQL Compatible instances

Nodes

2

db.r6g.large ×

Selected Instance:

db.r6g.large

vCPU: 2

Memory: 16 GiB

Network Performance: Up to 10 Gigabit

서울 리전

사용자 설정

하루 접속자 : 1,000,000
상품 : 100,000

Utilization

With utilization, you still have to stop the instance to get the cost benefit. Utilization only affects OnDemand pricing for instances and not the storage, backups, etc.

Value

100

Unit

%Utilized/Month

Instance Family

Memory optimized

Pricing Model

Reserved

Lease Offering Term

1yr

Purchase Option

No Upfront

▼ Show calculations

2 instance(s) x 0.2059 USD hourly x 730 hours in a month = 300.6140 USD

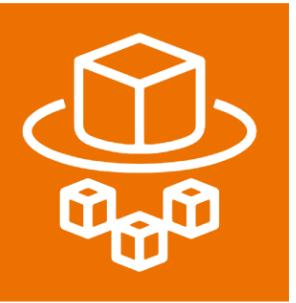
Monthly Cost for Amazon Aurora MySQL Compatible (monthly): 300.61 USD

2 instance(s) x 0 USD = 0.0000 USD

Monthly Cost for Amazon Aurora MySQL Compatible (upfront): 0.00 USD

구성 설명

비용



Fargate

Operating system

Linux

CPU Architecture

x86

Number of tasks or pods

Enter the number of tasks or pods running for your application

Value

2

Unit

per day

Average duration

Enter the time period for which your tasks or pods are running. Pricing is per second with a 1-minute minimum (Linux) and a 5-minute minimum (Windows). Duration is calculated from the time you start to download your container image (docker pull) until the Task or Pod terminates, rounded up to the nearest second.

Value

24

Unit

hours

사용자 설정

하루 접속자 : 1,000,000
상품 : 100,000

서울 리전

Amount of vCPU allocated

Enter the amount between 0.25 vCPU and 16 vCPU

1



vCPU selected supports memory values between 2 GB and 8 GB, in 1 GB increments

Amount of memory allocated

4

Unit

GB

Amount of ephemeral storage allocated for Amazon ECS

Enter the amount between 20 GB and 200 GB. The first 20 GB are at no additional charge, you only pay for any additional storage that you configure for the Task.

Value

20

Unit

GB

▼ Show calculations

Unit conversions management events

Number of tasks or pods: 2 per day * (730 hours in a month / 24 hours in a day) = 60.83 per month

Pricing calculations

60.83 tasks x 1 vCPU x 24 hours x 0.04656 USD per hour = 67.97 USD for vCPU hours

60.83 tasks x 4.00 GB x 24 hours x 0.00511 USD per GB per hour = 29.84 USD for GB hours

20 GB - 20 GB (no additional charge) = 0.00 GB billable ephemeral storage per task

67.97 USD for vCPU hours + 29.84 USD for GB hours = 97.81 USD total

Fargate cost (monthly): 97.81 USD

MJ Company

감사합니다

MJ company 맹재영

2회차 2조

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