



SKKU-DM

Service for the double majors in SKKU

성균관대학교 복수 전공 학생들을 위한 서비스

GROUP

MG세대 (Team G)

TEAM MEMBER

권우진 김재현 박지수 이채은

CONTENTS

1 Progress Update

2 Repository Setup

3 Backend Details

4 Frontend Details

5 Infra Details

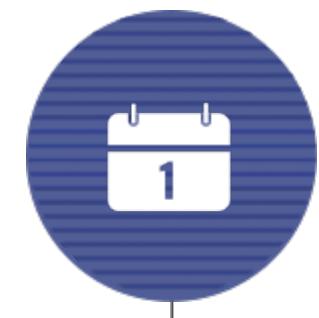
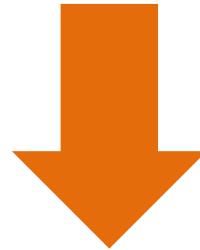
CHAPTER

01

Progress Update

Progress Update

...



WEEK 1 - 4

Project Topic Refinement
and Proposal Writing



WEEK 5 - 11

Application Development



WEEK 12

Testing



WEEK 13

Application Deployment and
Preparing Final Presentation

CHAPTER

01

Progress Update



WEEK 5 - 11

Application Development

Frontend (Chaeun & Woojin)

- Implement Some Pages

Backend (Jisoo & Jaehyeon)

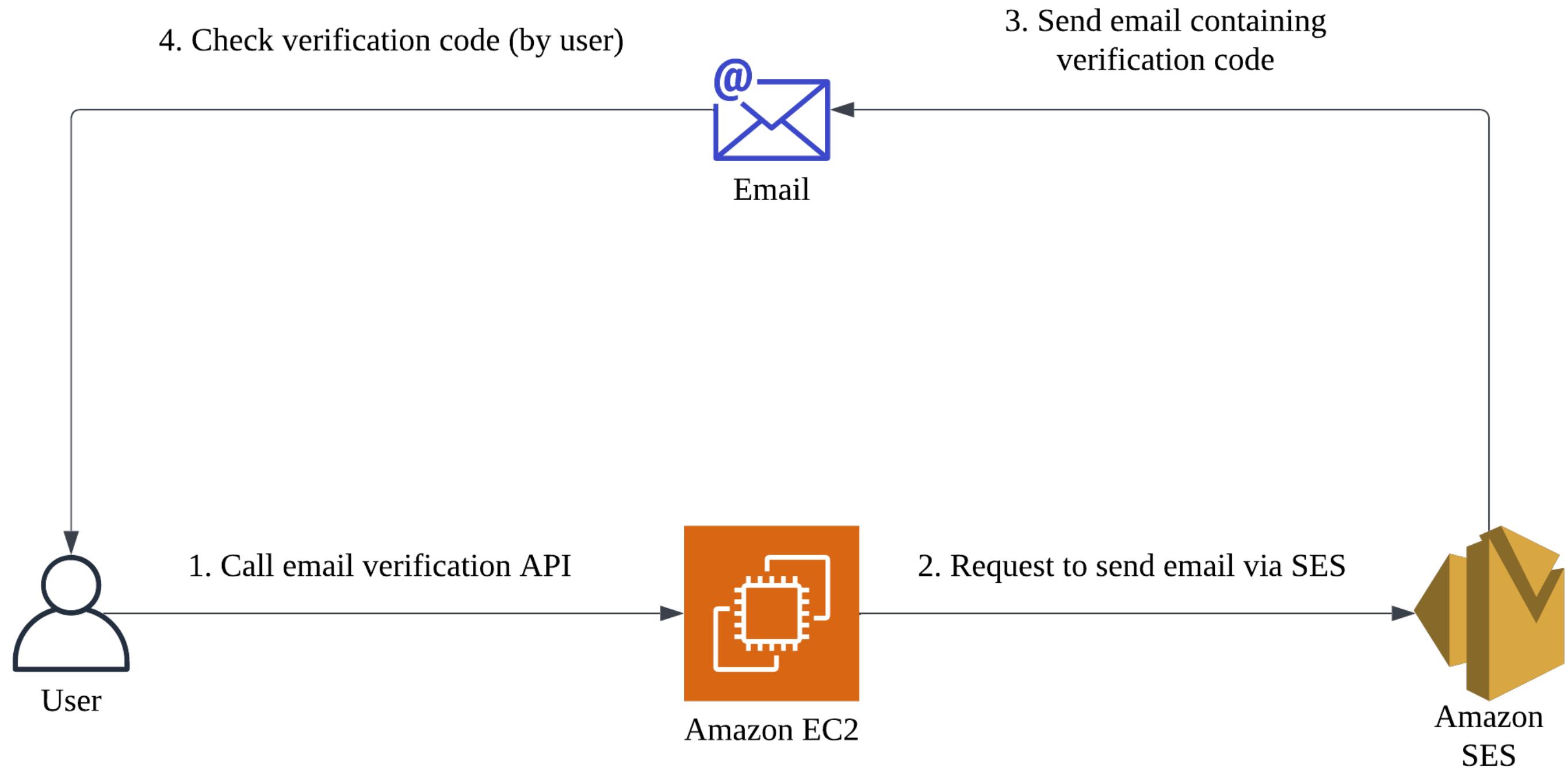
- Implements email-based signup services
- Configure basic infra structure on AWS

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CHAPTER
03

**Backend
Detail**

Email Verification & Sign Up



CHAPTER

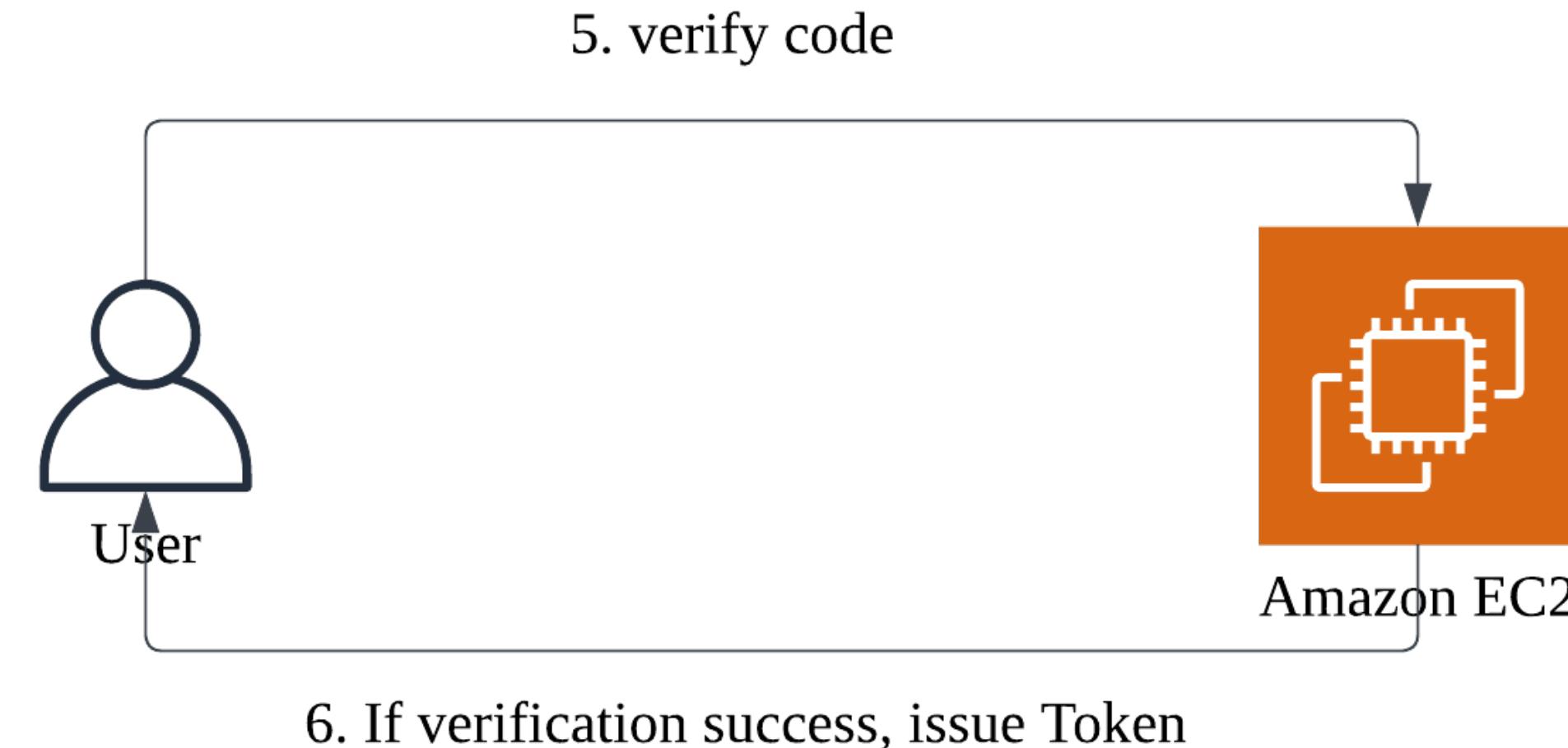
03

Backend

Detail

Email Verification & Sign Up

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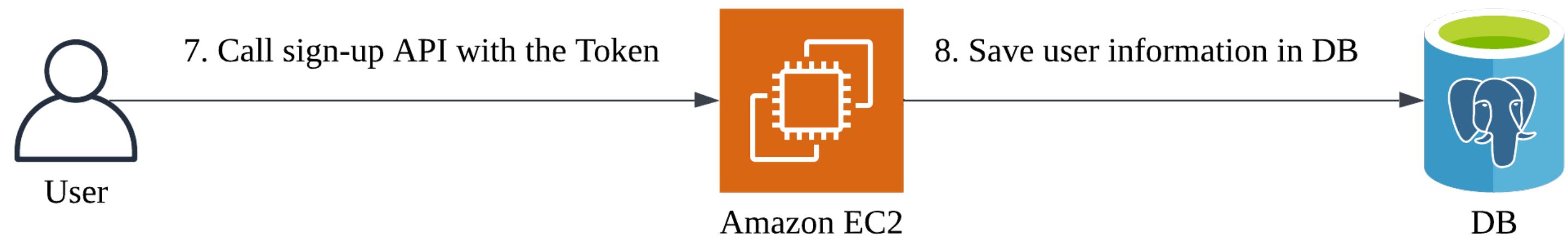


CHAPTER
03

**Backend
Detail**

Email Verification & Sign Up

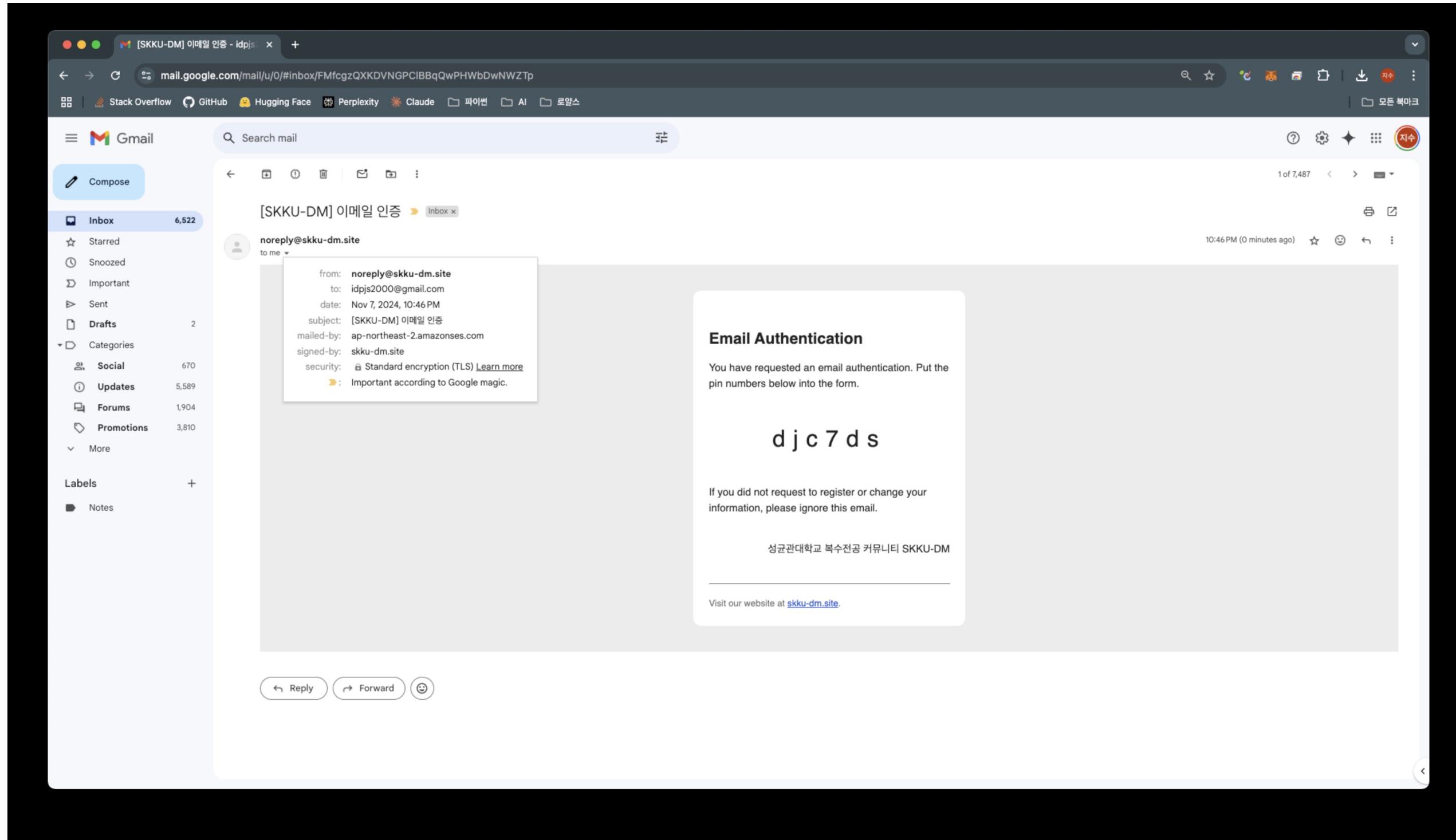
...



CHAPTER 03

Backend Detail

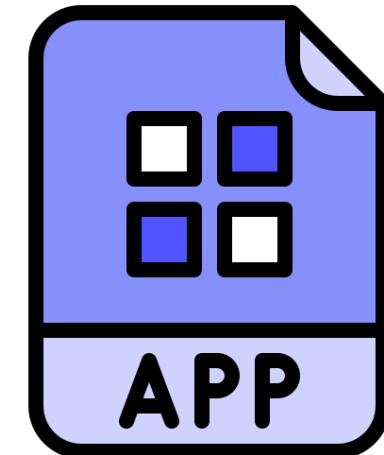
Email Verification & Sign Up



CHAPTER

04

FRONTEND
DETAIL



SKKU-DM

Objectives

To provide the place for double majors to meet each other

Square

To provide the place where double majors can find information easily

Bulletin Board
Graduation Requirements info

...

...

CHAPTER
04
FRONTEND
DETAIL

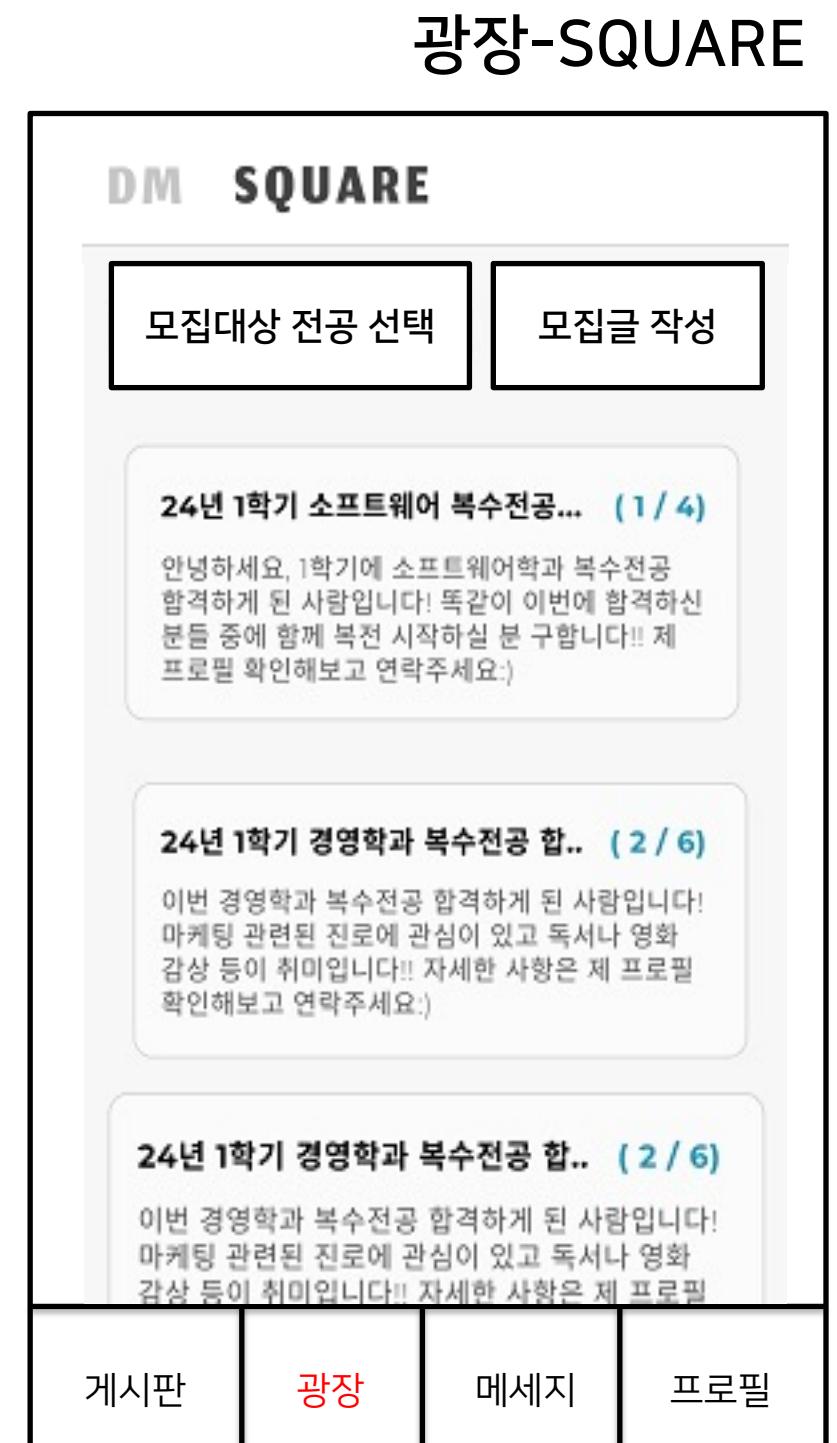
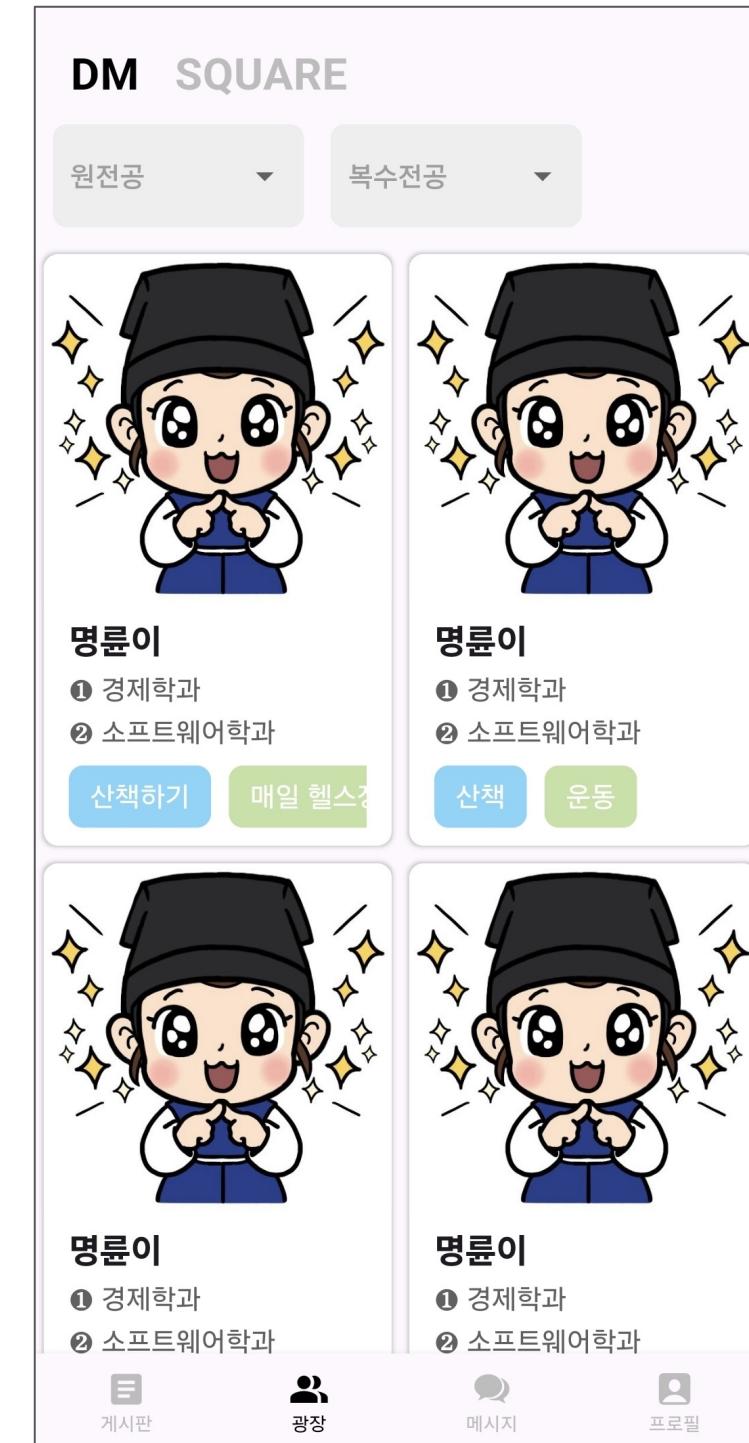


Two Pages in One
Tab by sliding



Square

To provide the place for double majors to meet each other

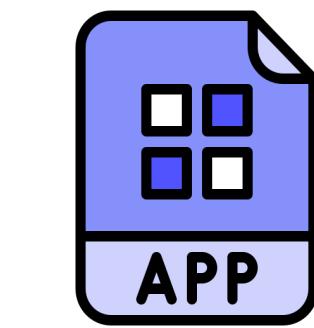


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CHAPTER

04

FRONTEND DETAIL



SKKU-DM

Square

To provide the place for double majors to meet each other



You can search other students who have same double major

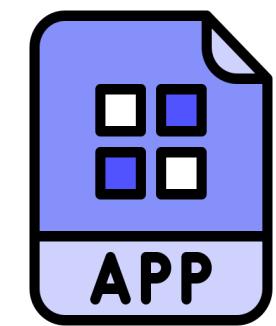
Then, you can send a direct message to the student you want to talk to.

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CHAPTER

04

FRONTEND DETAIL



SKKU-DM



The screenshot shows a mobile application interface titled "광장-SQUARE". At the top, there is a navigation bar with the text "DM SQUARE" and two buttons: "모집대상 전공 선택" and "모집글 작성". Below the navigation bar, there are three recruitment posts listed:

- 24년 1학기 소프트웨어 복수전공...** (1 / 4)
안녕하세요, 1학기에 소프트웨어학과 복수전공 합격하게 된 사람입니다! 똑같이 이번에 합격하신 분들 중에 함께 복전 시작하실 분 구합니다!! 제 프로필 확인해보고 연락주세요(:)
- 24년 1학기 경영학과 복수전공 합..** (2 / 6)
이번 경영학과 복수전공 합격하게 된 사람입니다! 마케팅 관련된 진로에 관심이 있고 독서나 영화 감상 등이 취미입니다!! 자세한 사항은 제 프로필 확인해보고 연락주세요(:)
- 24년 1학기 경영학과 복수전공 합..** (2 / 6)
이번 경영학과 복수전공 합격하게 된 사람입니다! 마케팅 관련된 진로에 관심이 있고 독서나 영화 감상 등이 취미입니다!! 자세한 사항은 제 프로필 확인해보고 연락주세요(:)

At the bottom of the screen, there is a footer navigation bar with four items: "게시판", "광장" (highlighted in red), "메세지", and "프로필".

Square

To provide the place for double majors to meet each other

광장-SQUARE

You can recruit small group of students who want to do something together

Recruit by bulletin format first, and then when all participants are confirmed, they will move on to chat message. Because the square seek to face-to-face meeting, we thought people would read the recruitment and ask questions in the comments and make a careful decision

CHAPTER
04
FRONTEND
DETAIL



SKKU-DM

Bulletin Board Graduation Requirements info

To provide the place where double majors can find information easily

You can search information
by tag-based

In order to activate the
bulletin board, we decided to
force users to write at least
one informative post to
access other posts.

The screenshot shows two main sections of the app. On the left is the 'Bulletin Board' section, which includes a header with a back arrow, filter settings, and a new post button. It displays several posts with tags like #수학, #전공진입, #수업추천, and #꿀팁. On the right is the 'PROFILE' section, featuring a user's profile picture, their name (명륜이), and their double major (비공개, 소프트웨어학과). It also shows graduation requirements (졸업 요건) for the Software Engineering major, including a table for credits and a sidebar with links to educational resources and maps.

You can check graduation
requirements according to
your double major

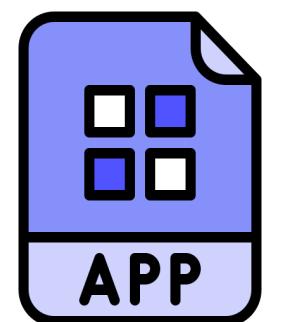
...

...

CHAPTER

04

FRONTEND DETAIL



SKKU-DM



Frontend Progress

SKKU-DM
Connection with SKKU Double Majors

아이디 도메인 선택
비밀번호를 입력해 주세요
로그인
아직 회원이 아니신가요?

Login



Register

회원가입

학교 구글 이메일 인증을 진행해 주세요
아이디 도메인 선택 인증
비밀번호를 입력해 주세요
비밀번호를 재입력해 주세요
원전공을 입력해 주세요
학번을 선택해 주세요 복수전공 여부
복수전공을 입력해 주세요
다음

Register_profile

프로필 등록

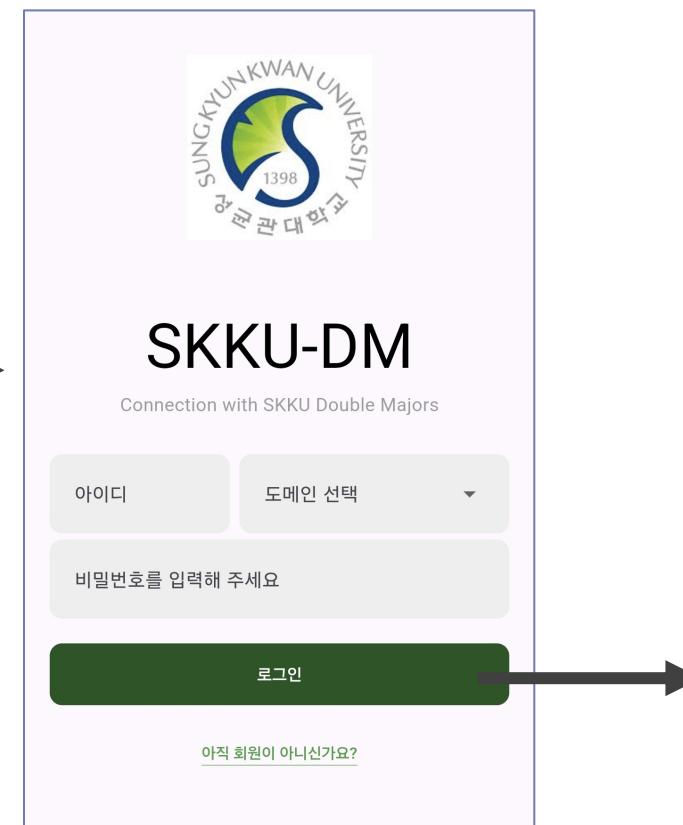
프로필 사진 업로드
닉네임을 설정해 주세요
프로필 공개 여부를 선택해 주세요 공개 비공개
첫번째 관심사 키워드를 입력해 주세요
두번째 관심사 키워드를 입력해 주세요
이전
회원가입 완료

...

CHAPTER

04

FRONTEND DETAIL



Bulletin Board

Bulletin Board

← Bulletin Board

필터 수정 새 글 작성

필터 #1 필터 #2 필터 #3 필터

#수학 #전공진입 #수업추천 #꿀팁

검색결과

이번 학기에 반드시 수강신청해야하는 과목 ❤12 □3

이번 학기에 새롭게 부임하신 이율전 교수님이 진행하시는 암호론 되시겠다. 우선 이 교수님...

#수학 #전공진입 #수업추천 #꿀팁

전공진입 수월하게 하는 꿀팁 공유 ❤6 □1

다들 전공진입 어떻게 할 지 슬슬 고민되시죠? 전공진입 어느 학과까지 가능한지 쉽게 알 수 있는 꿀팁 공유해...

#수학 #전공진입 #수업추천 #꿀팁

수강신청 망친 분들 참고하세요 ❤2 □6

참고 하라고 ㅋㅋㅋㅋㅋㅋㅋㅋ

#수학 #전공진입 #수업추천 #꿀팁

알고개 같이 공부하실 분 구해요~ ❤1 □2

월요일 9시 수업 같이 듣고 공부하실 분 구합니다!!!

#수학 #전공진입 #수업추천 #꿀팁

게시판 광장 메시지 프로필

DM SQUARE

← DM SQUARE

원전공 복수전공

명륜이

① 경제학과
② 소프트웨어학과

산책하기 매일 헬스장

명륜이

① 경제학과
② 소프트웨어학과

산책 운동

명륜이

① 경제학과
② 소프트웨어학과

명륜이

① 경제학과
② 소프트웨어학과

게시판 광장 메시지 프로필

Message

← Message

김성균
감사합니다! 2

이율전
저도 그 수업 듣는데 0

수학과-소프트웨어학과 복전생 모임
과제 너무 많네요ㅠㅠ 6

농구 좋아하는 사람들 모임
내일 저녁 8시 학교 코트에서 농구하실분? 13

게시판 광장 메시지 프로필

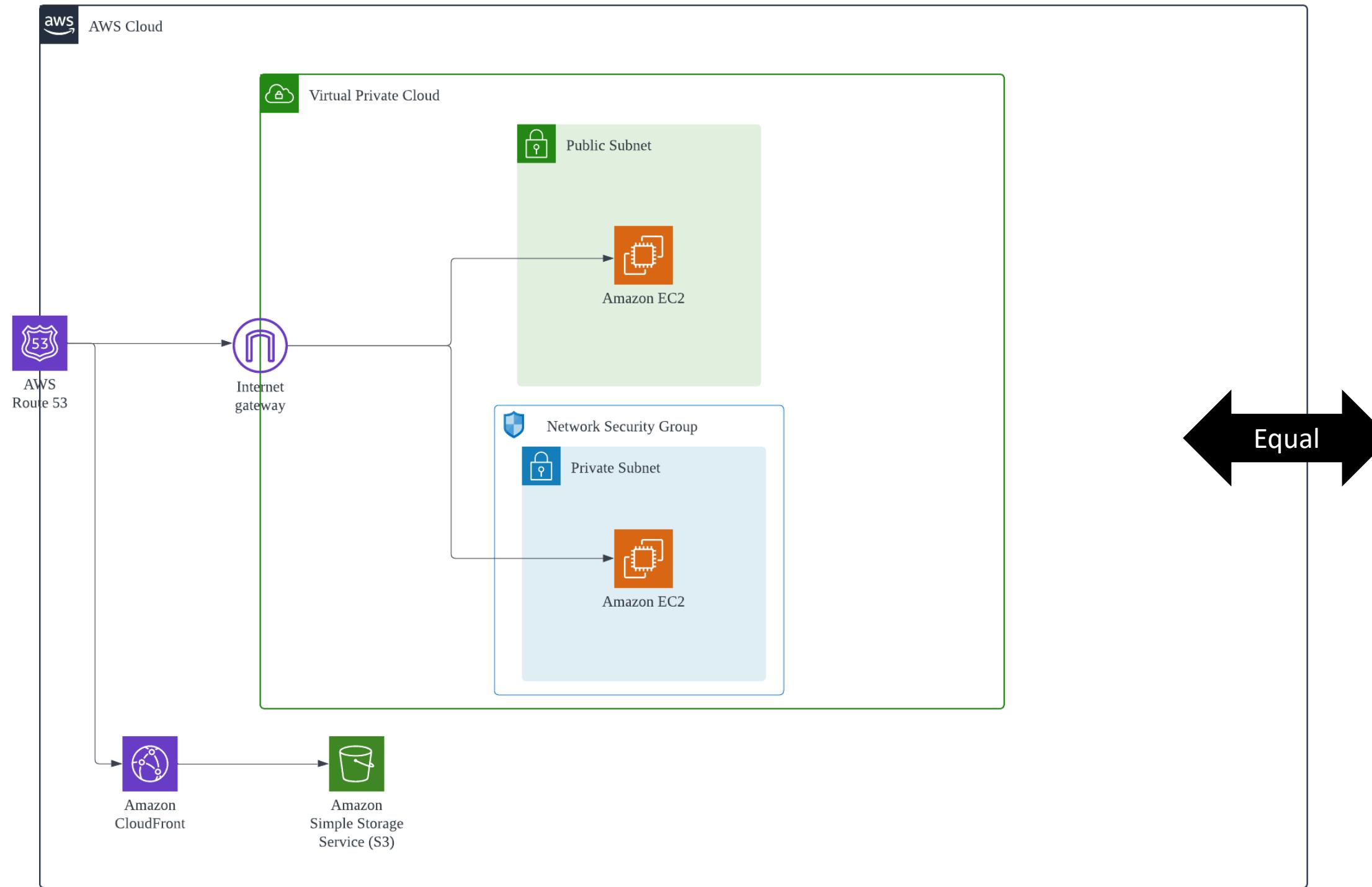
Bulletin Board

Square

Message

CHAPTER 05

Infra Detail



```
security-group.tf ×
apps > aws > skkudm > security-group.tf > ...
1 resource "aws_security_group" "ec2" {
2   name      = "skkudm-sg-ec2"
3   description = "Allow local access to PostgreSQL and Redis"
4   vpc_id    = aws_vpc.main.id
5
6   ingress {
7     from_port  = 5432
8     to_port    = 5432
9     protocol   = "tcp"
10    cidr_blocks = ["${aws_vpc.main.cidr_block}"]
11    description = "Allow local PostgreSQL access"
12  }
13
14   ingress {
15     from_port  = 6379
16     to_port    = 6379
17     protocol   = "tcp"
18     cidr_blocks = ["${aws_vpc.main.cidr_block}"]
19     description = "Allow local Redis access"
20   }
21
22   egress {
23     from_port      = 0
24     to_port        = 0
25     protocol       = "-1"
26     cidr_blocks   = ["0.0.0.0/0"]
27     ipv6_cidr_blocks = [":/0"]
28     description    = "Allow all outbound traffic"
29   }
30
31   tags = {
32     Name = "skkudm-sg-ec2"
33   }
34
35 data "aws_security_group" "ssh-allow" {
36   id = "sg-0926f131881f41a2d"
37 }
38
39 }
```

CHAPTER 05

Infra Detail

```
name: CD

on:
  push:
    branches: [main]
  workflow_dispatch:

permissions:
  id-token: write
  contents: read

env:
  AWS_REGION: ap-northeast-2

concurrency:
  group: ${{ github.workflow }}-${{ github.ref }}
  cancel-in-progress: true

jobs:
  build-backend-api:
    name: Build backend-api image
    runs-on: ubuntu-latest
    steps:
      - name: Setup Docker Buildx
        uses: docker/setup-buildx-action@v3

      - name: Login to GitHub Container Registry
        uses: docker/login-action@v3
        with:
          registry: ghcr.io
          username: ${{ secrets.ACTIONS_USERNAME }}
          password: ${{ secrets.ACTIONS_DEPLOY_KEY }}

      - name: Build and push image
        uses: docker/build-push-action@v6
        with:
          file: ./apps/backend/Dockerfile
          push: true
          tags: ghcr.io/swe3028-41-team-g/skkudm-api:latest
```



GitHub Actions

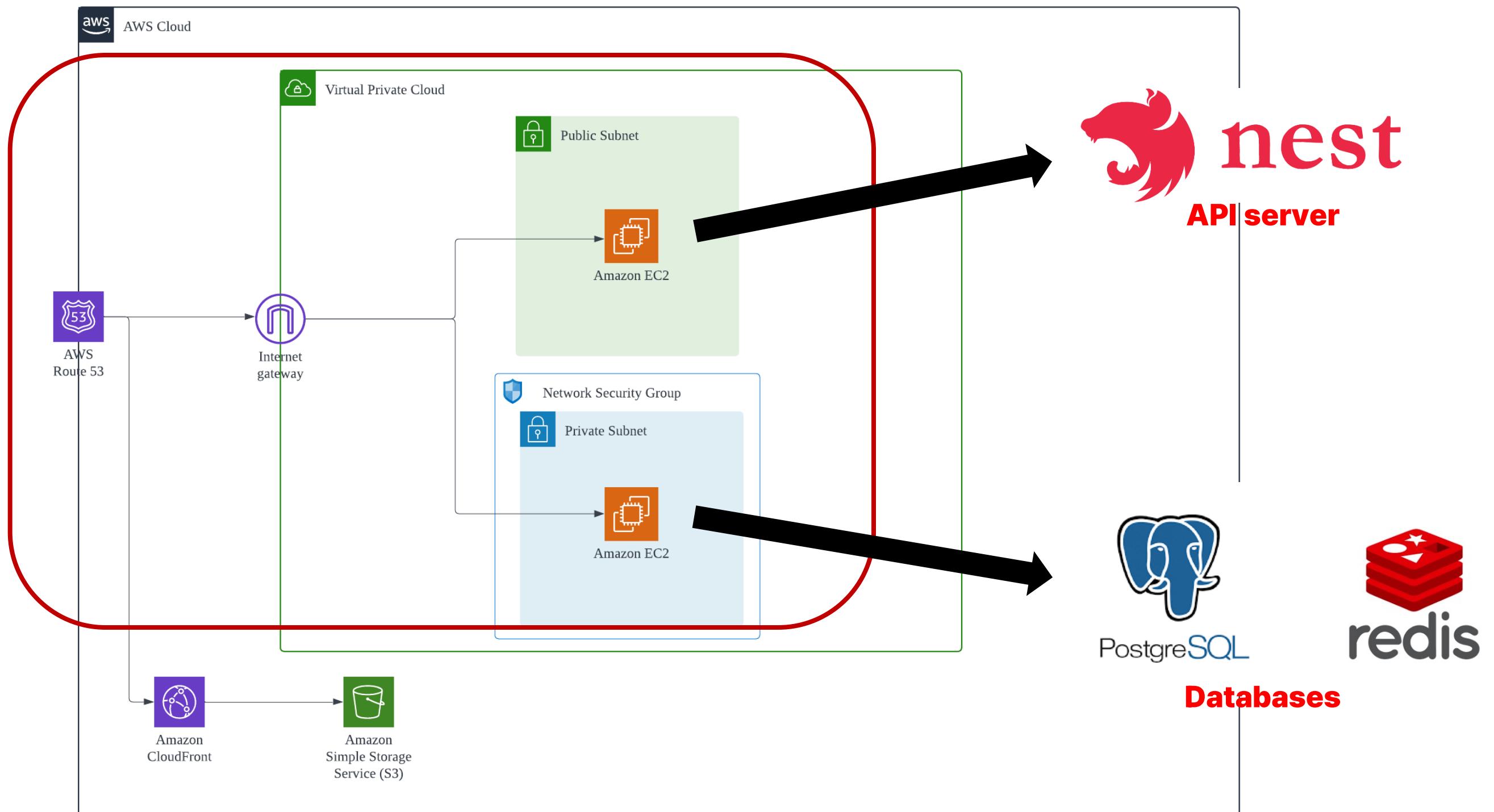
Screenshot of a GitHub Actions workflow run summary page. The workflow is named 'CD' and was triggered by a push to the 'main' branch. The run was successful and completed in 2m 13s. The workflow file (CD.yaml) defines two jobs: 'Build backend-api image' and 'Deploy'. The 'Build backend-api image' job uses the 'docker/build-push-action@v6' action with Dockerfile, pushing to ghcr.io/swe3028-41-team-g/skkudm-api:latest. The 'Deploy' job follows it.

...

CHAPTER 05

Infra Detail

Backend Server



CHAPTER

05

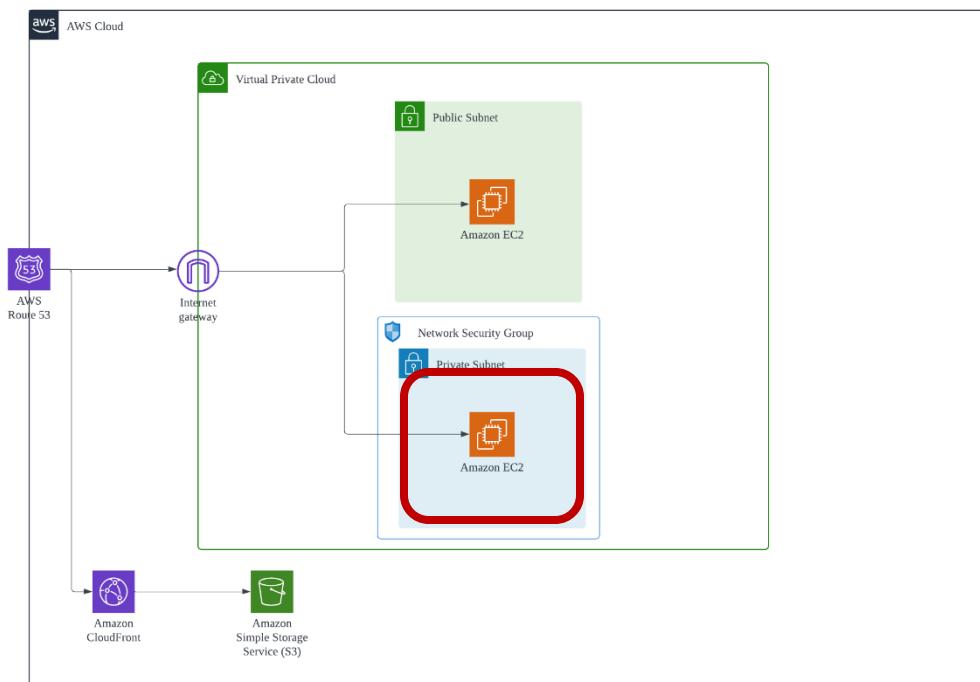
Infra Detail

Backend Server - Appendix

```

  ec2.tf
  X
apps > aws > skkudm > ec2.tf > ...
1 resource "aws_instance" "database" {
2   ami                      = "ami-0c28dbbd4ed200038"
3   instance_type            = "t4g.small"
4   subnet_id                = aws_subnet.private_1.id
5   key_name                 = "skkudm-key-pair"
6   vpc_security_group_ids  = [aws_security_group.ec2.id, data.aws_security_group.ssh-allow.id]
7   associate_public_ip_address = true
8
9   root_block_device {
10    volume_size        = 30
11    volume_type        = "gp3"
12    delete_on_termination = true
13  }
14
15  user_data = templatefile("${path.module}/databases-docker.sh.tpl", { postgres_password = var.postgres_password })
16
17  tags = {
18    Name = "EC2 Instance for Postgres and Redis"
19  }
20}

```



databases-docker.sh.tpl

```

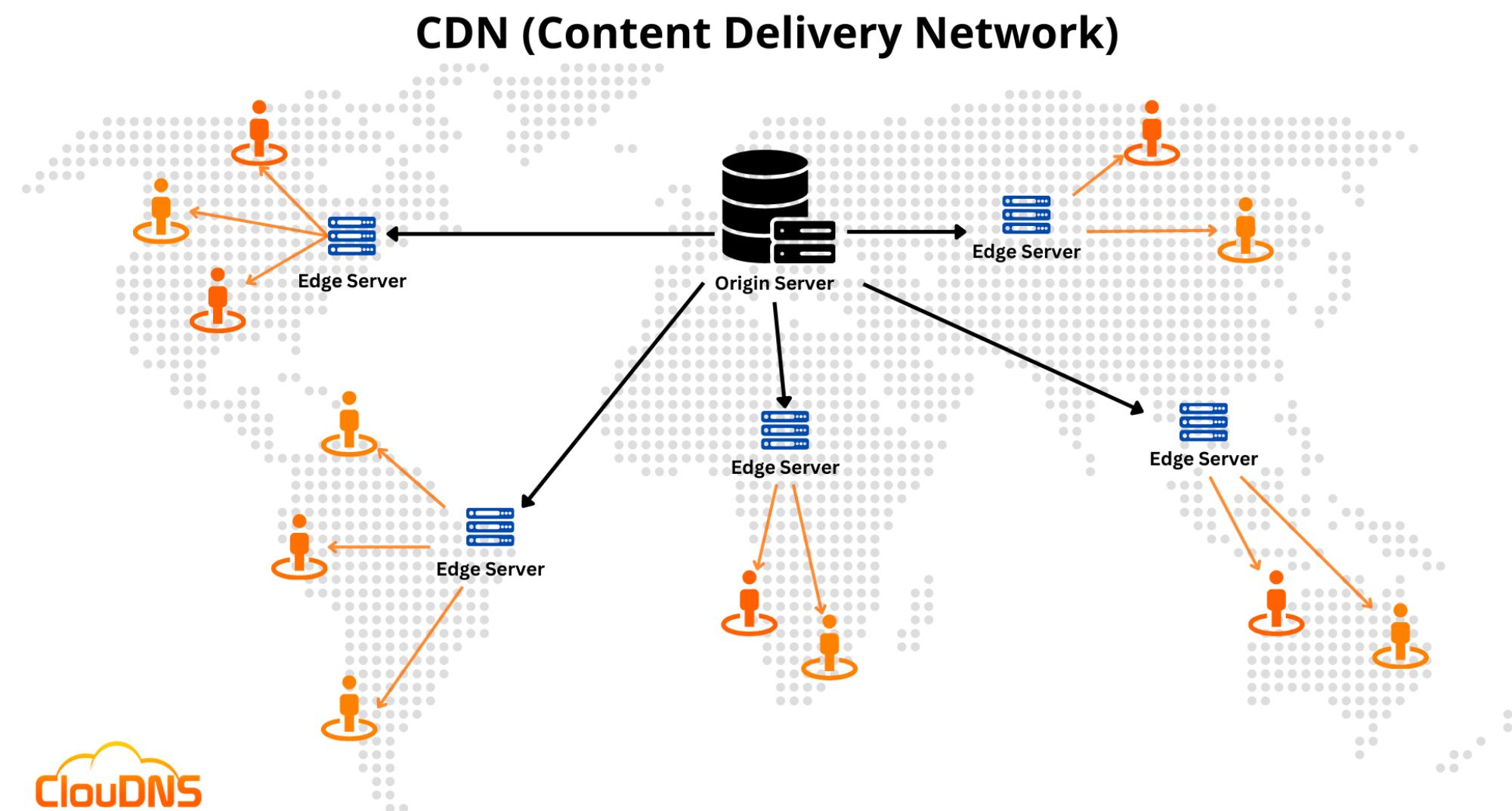
#!/bin/bash
sudo yum update -y
sudo yum install docker -y
sudo systemctl start docker
sudo systemctl enable docker
sudo usermod -a -G docker ec2-user
sudo docker run --name postgres -e
POSTGRES_PASSWORD=${postgres_password} -d -p 5432:5432
postgres:15
sudo docker run --name redis -d -p 6379:6379 redis:7

```

CHAPTER 05

CDN

Infra Detail

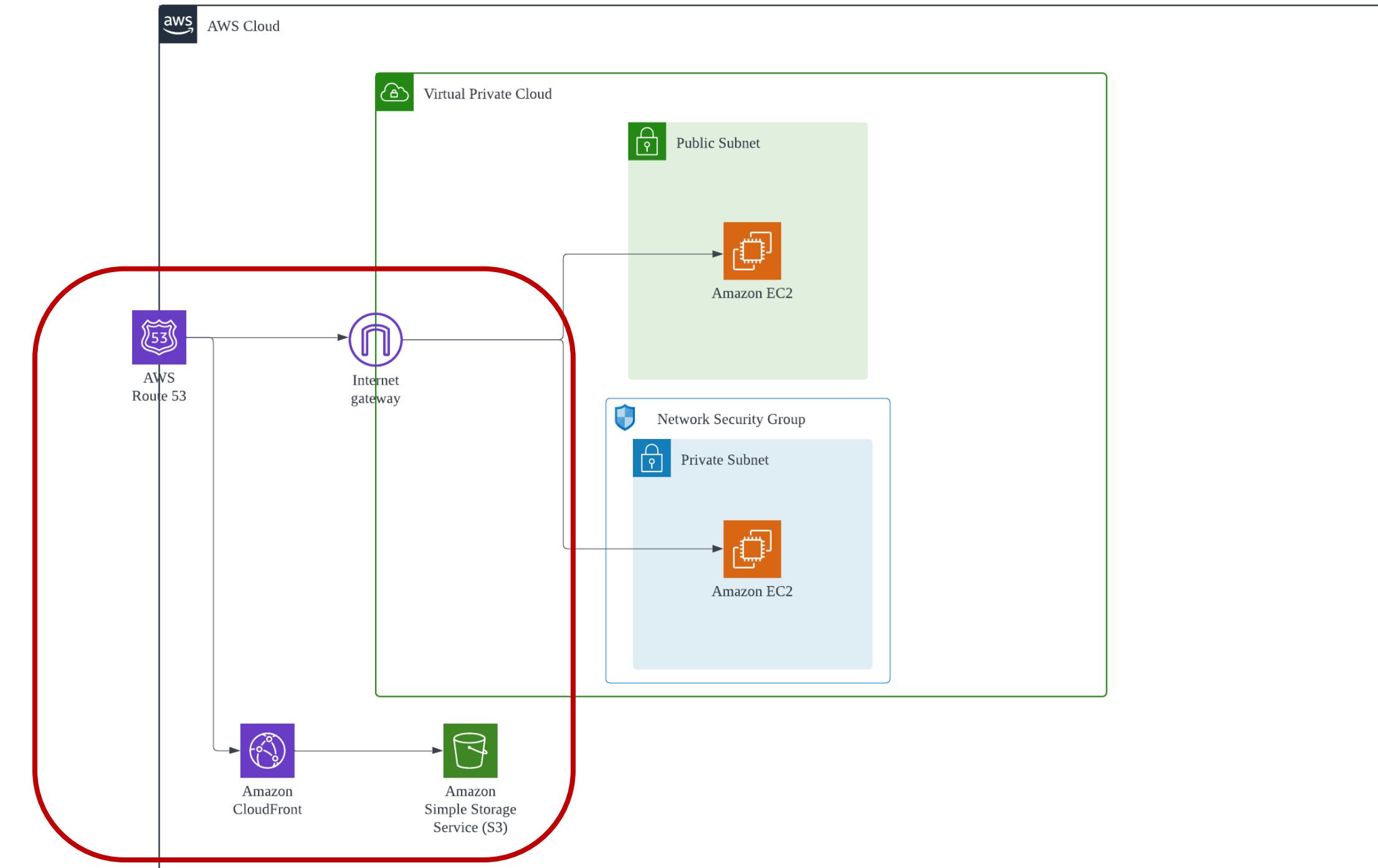


CDN is a geographically distributed network of servers and data centers that work together to deliver web content to users quickly and efficiently.

CHAPTER 05

CDN

Infra Detail

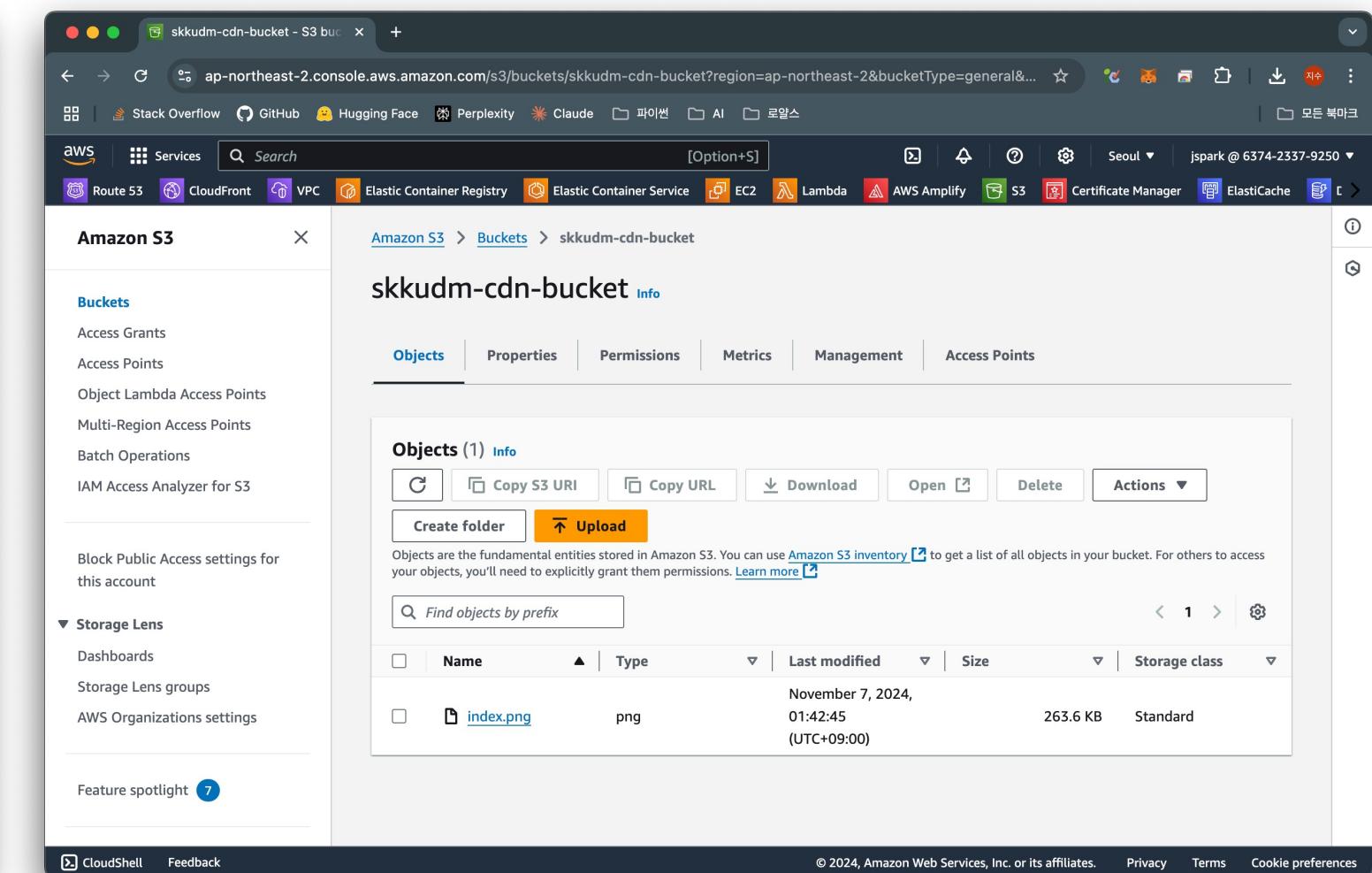
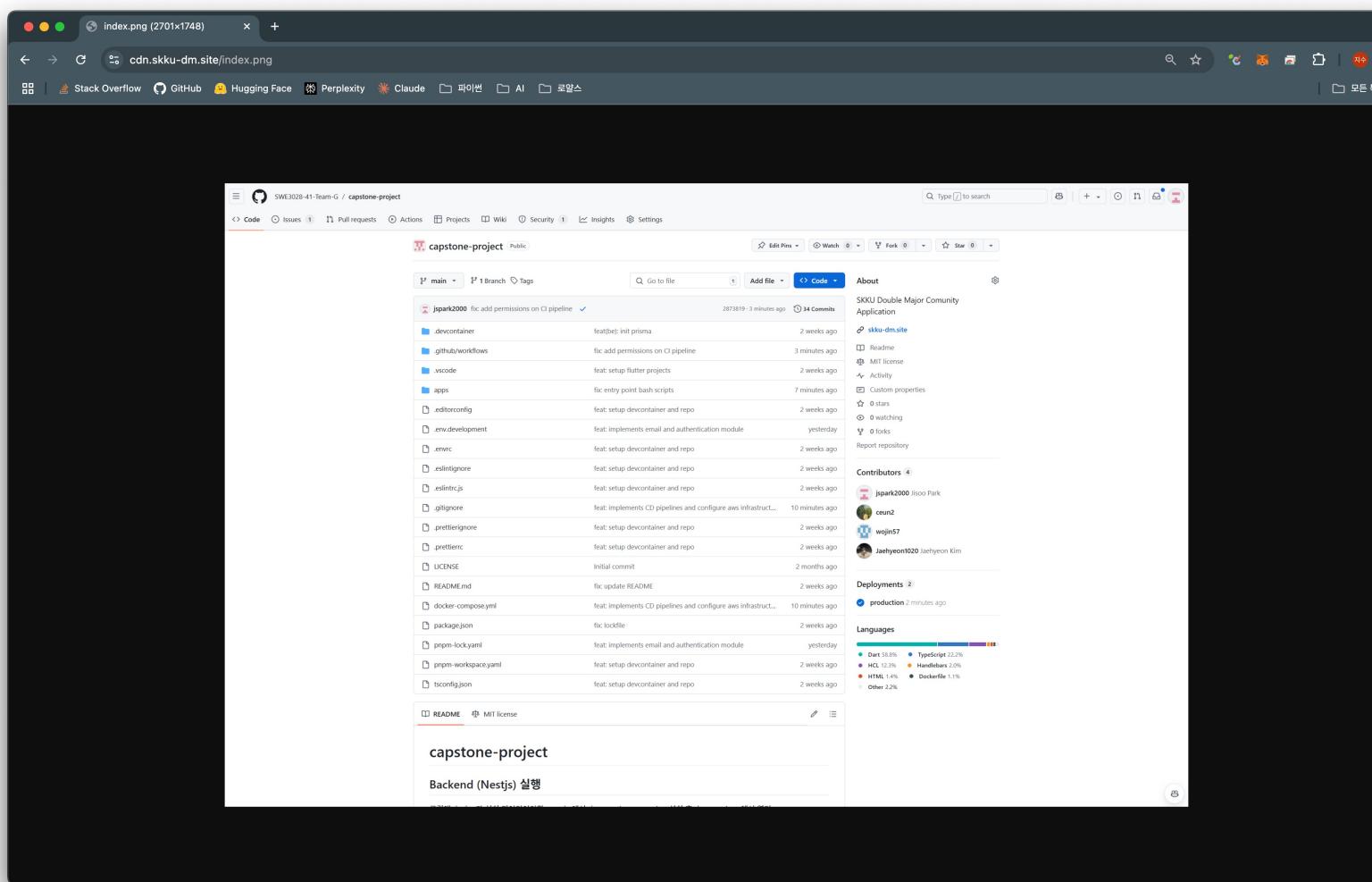


CHAPTER 05

Infra Detail

CDN Example

<https://cdn.skku-dm.site/index.png>



THANK YOU!