

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

CONTETNS

1 Motivation & Objective

2 Timeline & Roles

3 Backend & Infra

4 Frontend with Demo

5 Challenges

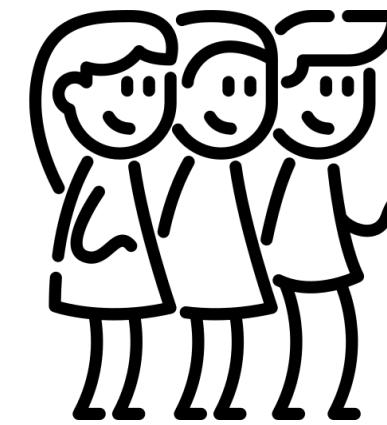
6 Limitation

CHAPTER

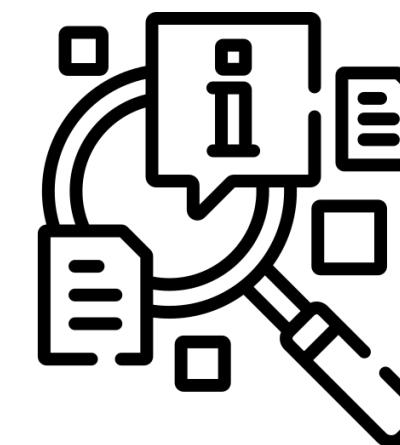
01

PROBLEMS with Double Majors

MOTIVATION



- Lack of opportunity to interact with the same double major
- No official events to make friends unlike primary major
 - But double majors spend lots of time in second major

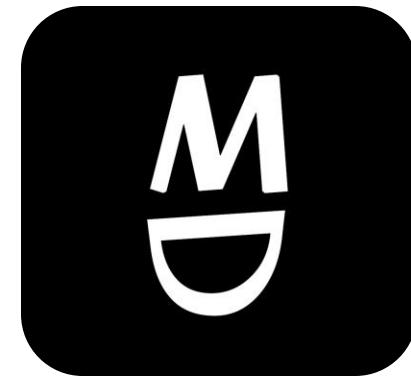


- Difficulty finding scattered information related to double majors
- Graduation requirements
 - Roadmap recommendations for the second major

CHAPTER

01

OBJECTIVE



SKKU-DM

To provide the place for double majors to interact each other

To provide the place where double majors can find information easily

DM
Square

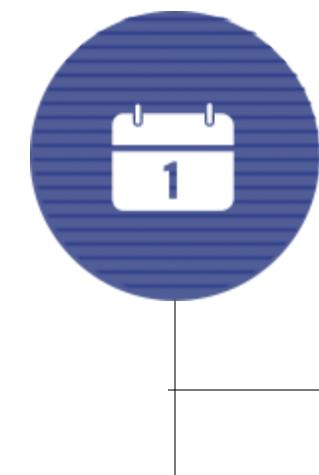
Bulletin Board

CHAPTER
02

Timeline & Role

Timeline

...



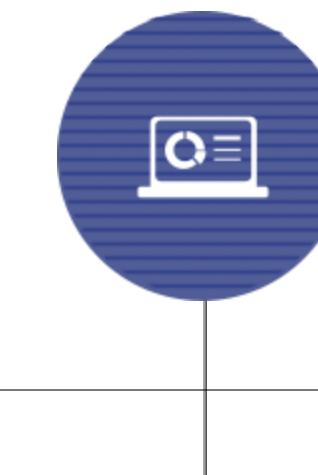
WEEK 1 - 4

**Project Topic Refinement
and Proposal Writing**



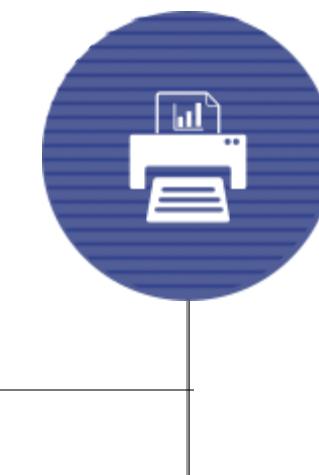
WEEK 5 - 11

**Application Development
and Infrastructure
Deployment**



WEEK 12-13

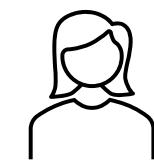
**Frontend, Backend
Integration & Testing**



WEEK 14

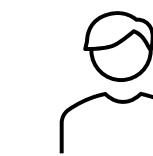
**Final Application
Development, Debuging and
Preparing Final Presentation**

Roles - Frontend



Chae-eun Lee

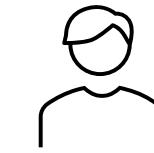
- Implemented Sign-up and login pages
- Developed DM and Square pages
- Created profile page



Woojin Kwon

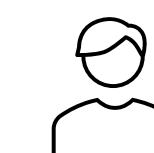
- Implemented Tag-based search
- Developed bulletin board pages
- Built CRUD functionality for Posts

Roles - Backend & Infra



Jisoo Park

- Implemented email verification
- Developed Chatting
- Created User APIs
- Deployed the Project



Jaehyeon Kim

- Implemented Database Schema
- Developed APIs for bulletin board and comments
- Built Square APIs

CHAPTER

03

Backend & Infra

Documentation

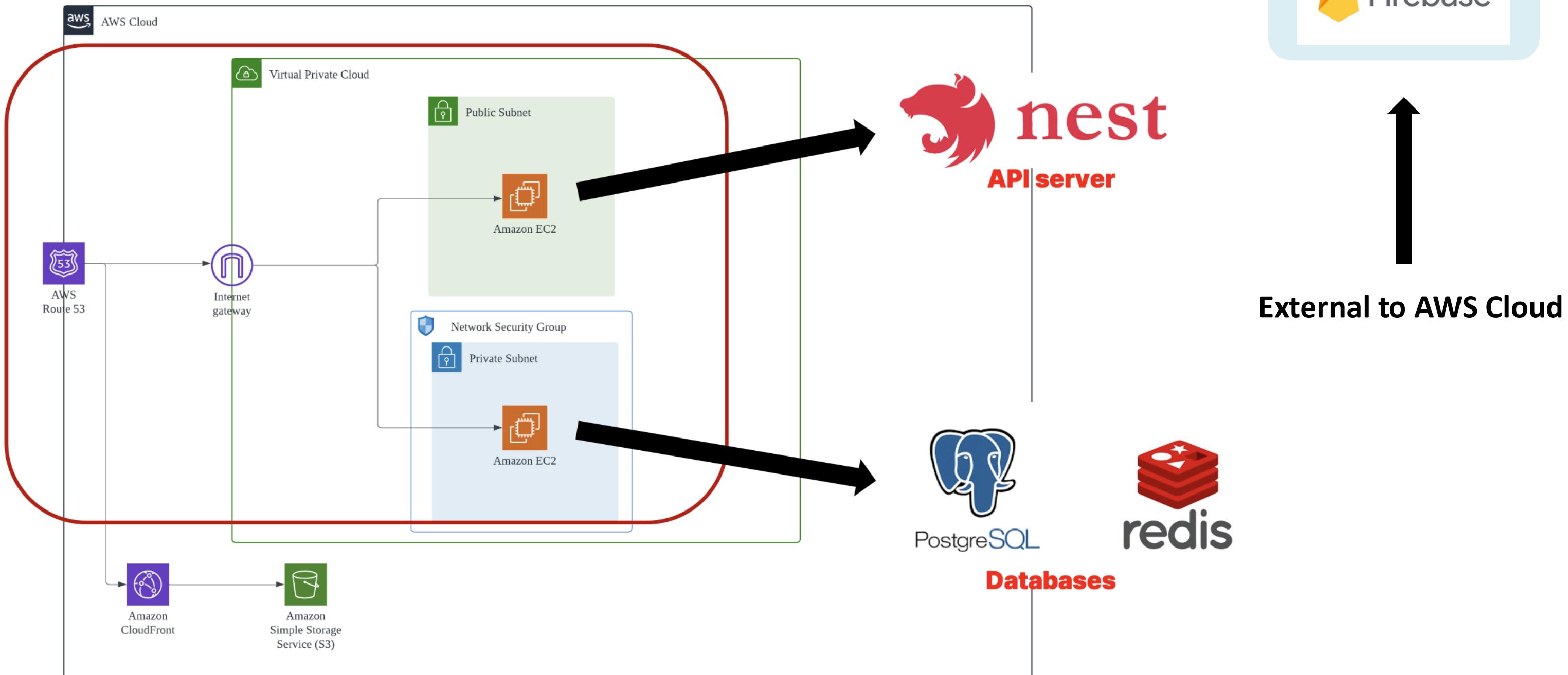
The screenshot shows a dark-themed API documentation interface. On the left, there's a sidebar with navigation links like 'API 서버 정보', '회원가입/로그인', '프로필', and '임시 계정'. The main content area has two tables: one for '회원가입/로그인' and another for '프로필'. The '회원가입/로그인' table lists endpoints such as '/users/register?pin={pin}' (POST), '/users/profile/image' (POST), and '/auth/login' (POST). The '프로필' table lists endpoints like '/users/profile/image' (PUT) and '/users/current/profile' (GET). On the right, a specific endpoint for '회원가입' is detailed: '/users/register?pin={pin}' (Method: POST). It includes a '쿼리 스트링' section with 'pin' set to '이메일 인증 번호'. Below it, a '요청 바디' section shows a JSON schema for the registration body:

```
{  
    "username": "string", // 아이디  
    "password": "string", // 패스워드  
    "nickname": "string", // 별명  
    "email": "string", // 이메일  
    "public": "boolean", // 프로필 공개 여부  
    "admitYear": "number", // 입학년도 (1957 ~ 2024)  
    "interests": "string[]", // 관심사 목록  
    "majorId": "number", // 원전공 ID  
    "real": "boolean", // 실제 복수전공 여부  
    "dualMajorId": "number | undefined", // 복수전공 ID (Optional)  
    "profileImageUrl": "string | undefined" // 프로필 이미지 주소 (Optional)  
}
```

At the bottom, a '반환 값' (Return Value) section indicates 'void'.

Infrastructure

...

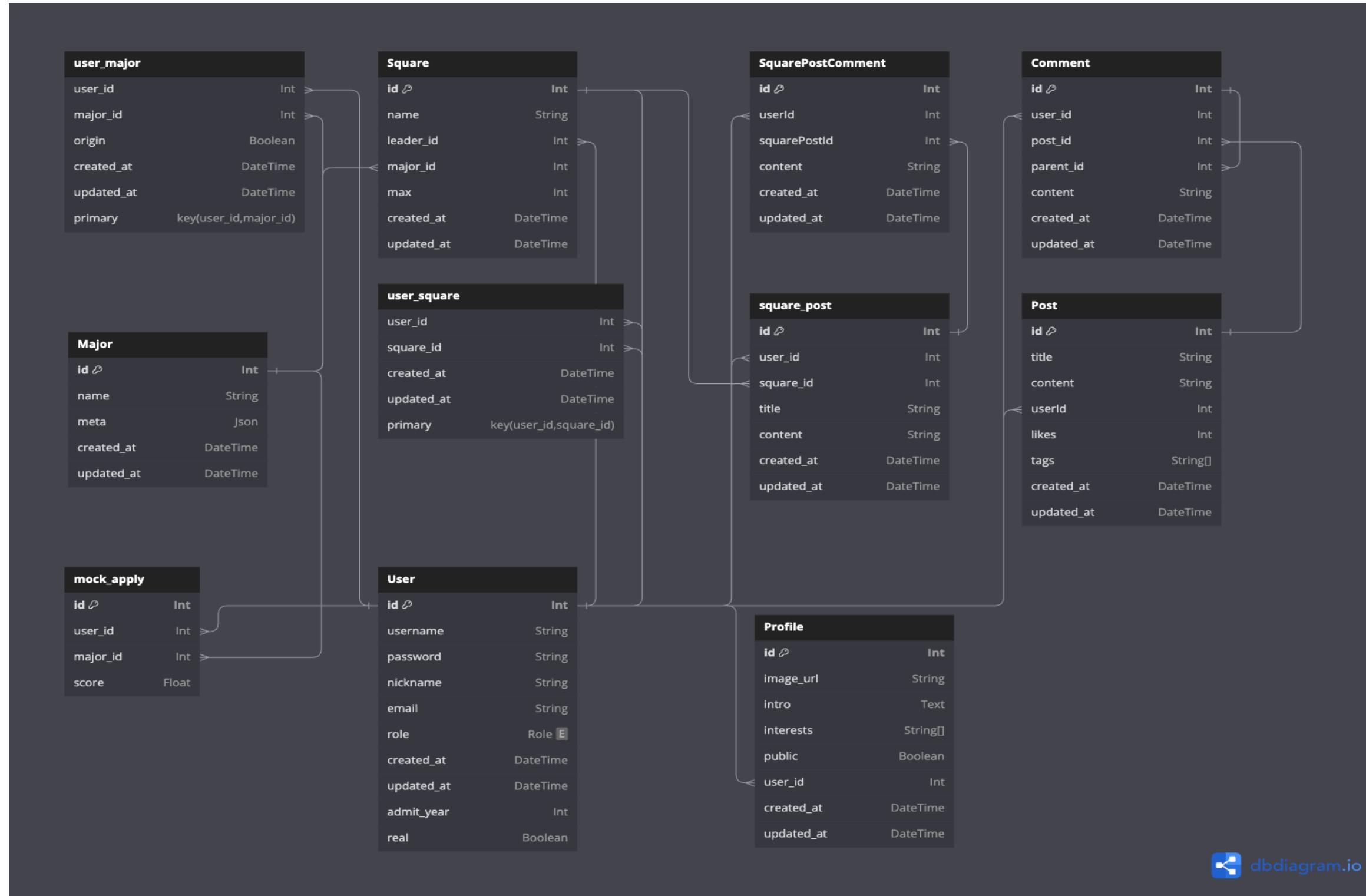


CHAPTER

03

Backend & Infra

Databases - PostgreSQL



CHAPTER 03

Backend & Infra

Databases - NoSQL

skku-dm ▾ Cloud Firestore

Query results

Document ID	createdAt	createdBy	lastMessage	lastMessageTime	name	participantDetails	participants
1	December 5, 2024 at 2:46:00 AM UTC+9	"1"	"hi!!"	December 5, 2024 at 9:57:40 AM UTC+9	"[Squre] test"	[{"nickname": "user01", "profileImgUrl": "https://c...", "userId": "5", "nickname": "u..."}]	
2	December 5, 2024 at 11:10:43 AM UTC+9	"2"	"채팅방이 생성되었습니다."	December 5, 2024 at 11:10:43 AM UTC+9	"[Square] test2"	[{"userId": "2", "nickname": "u..."}, {"nickname": "user05", "profileImgUrl": "https://c..."}]	
3	December 5, 2024 at 2:52:54 PM UTC+9	"1"	"채팅방이 생성되었습니다."	December 5, 2024 at 2:52:54 PM UTC+9	"[Square] 경영학과 복전생 모임"	[{"userId": "1", "profileImgUrl": "https://c..."}]	
4	December 5, 2024 at 2:59:01 PM UTC+9	"1"	"안녕하세요!!"	December 5, 2024 at 2:59:55 PM UTC+9	"[Square] 코테스터디"	[{"profileImgUrl": "https://c...", "userId": "9", "nickname": "ㅋ..."}]	
GzHdXB1B9JdQSKeyYnyn	December 5, 2024 at 9:58:13 AM UTC+9	"5"	"hi"	December 5, 2024 at 9:58:17 AM UTC+9	"[DM] user05, user04"	[{"profileImgUrl": "https://c...", "userId": "5", "profileImgUrl": "https://c..."}]	
JWVUwFQjoLLBVOP887fW	December 5, 2024 at 2:35:45 PM UTC+9	"1"	"네네!!"	December 5, 2024 at 2:36:16 PM UTC+9	"[DM] user01, 크리스마스"	[{"userId": "1", "nickname": "u..."}, {"profileImgUrl": "https://c..."}]	
MwnopHuuYMwNVQRPqEYE	December 5, 2024 at 6:18:11 PM UTC+9	"1"	"채팅방이 생성되었습니다."	December 5, 2024 at 6:18:11 PM UTC+9	"[DM] user01, 크리스마스"	[{"userId": "1", "profileImgUrl": "https://c...", "userId": "9", "profileImgUrl": "https://c..."}]	
VM9oNe6zO43IITL7LemG	December 5, 2024 at 2:45:36 AM UTC+9	"1"	"12341234"	December 5, 2024 at 2:45:42 AM UTC+9	"[DM] user01, user03"	[{"nickname": "user01", "profileImgUrl": "https://c...", "userId": "3", "profileImgUrl": "https://c..."}]	

Items per page: 50 ▾ 1 - 8 of 8 < >

CHAPTER

03

Backend & Infra

CI / CD

Actions [New workflow](#)

All workflows

CD

CI (selected)

Management

- Caches
- Deployments
- Attestations
- Runners
- Usage metrics
- Performance metrics

CI

[CI.yaml](#)

95 workflow runs

- feat: apply chatting service on square
CI #95: Commit [3cad49c](#) pushed by jspark2000
- feat: apply chatting service on square
CI #94: Pull request [#8](#) opened by jspark2000
- feat: implement chatting(dm)
CI #93: Commit [1417916](#) pushed by jspark2000
- feat: implement chatting (dm)
CI #92: Pull request [#7](#) synchronize by jspark2000
- feat: implement chatting (dm)
CI #91: Pull request [#7](#) synchronize by jspark2000
- feat: implement chatting (dm)
CI #90: Pull request [#7](#) edited by jspark2000
- feat: implement chatting (dm)
CI #89: Pull request [#7](#) edited by jspark2000
- feat: implement chatting (dm)
CI #88: Pull request [#7](#) synchronize by jspark2000

Deploy succeeded 19 hours ago in 1m 15s 17s

Terraform Apply

```
24 module.cdn.aws_acm_certificate_validation.main: Refreshing state... [id=2024-11-06 15:47:14.289 +0000 UTC]
25 module.skkudm.data.aws_security_group.ssh-allow: Read complete after 1s [id=sg-0926f131881f41a2d]
26 module.skkudm.aws_internet_gateway.main: Refreshing state... [id=igw-0652a16105e1f882f]
27 module.skkudm.aws_subnet.private_2: Refreshing state... [id=subnet-0a556f2a7b2afbb42]
28 module.skkudm.aws_subnet.public_2: Refreshing state... [id=subnet-0d3272e01363c999e]
29 module.skkudm.aws_subnet.private_1: Refreshing state... [id=subnet-0498764633b109d8e]
30 module.skkudm.aws_subnet.public_1: Refreshing state... [id=subnet-07cf2a0850ff6ebfe]
31 module.skkudm.aws_security_group.ec2: Refreshing state... [id=sg-0b190d2d3f19141e2]
32 module.skkudm.aws_route_table.public: Refreshing state... [id=rtb-021bf4be64d125632]
33 module.skkudm.aws_route_table.private: Refreshing state... [id=rtb-0556d4eb3df0346e0]
34 module.skkudm.aws_instance.database: Refreshing state... [id=i-03015208d2085dc2]
35 module.skkudm.aws_route_table_association.public_2: Refreshing state... [id=rbassoc-091a156e8d949c746]
36 module.skkudm.aws_route_table_association.public_1: Refreshing state... [id=rbassoc-014877c8541ec399b]
37 module.skkudm.aws_route_table_association.private_1: Refreshing state... [id=rbassoc-0a89222fc688200cc]
38 module.skkudm.aws_route_table_association.private_2: Refreshing state... [id=rbassoc-0fd16c9c9eeb18d2a]
39 aws_s3_bucket_versioning.tfstate: Refreshing state... [id=skkudm-tfstate-storage]
40 module.cdn.aws_cloudfront_distribution.main: Refreshing state... [id=E2S4ANQKU90TA8]
41 module.cdn.aws_route53_record.main: Refreshing state... [id=Z074361325UCSWXG9E3UQ_cdn.skku-dm.site_A]
42 module.cdn.data.aws_iam_policy_document.cdn: Reading...
43 module.cdn.data.aws_iam_policy_document.cdn: Read complete after 0s [id=2055677347]
44 module.cdn.aws_s3_bucket_policy.cdn: Refreshing state... [id=skkudm-cdn-bucket]
```

No changes. Your infrastructure matches the configuration.

Terraform has compared your real infrastructure against your configuration and found no differences, so no changes are needed.

Releasing state lock. This may take a few moments...

Apply complete! Resources: 0 added, 0 changed, 0 destroyed.

> Post Run aws-actions/configure-aws-credentials@v4 0s

> Post Run actions/checkout@v4 0s

> Complete job 0s

CHAPTER
04

Frontend with
Demo

Register & Login

회원가입

학교 구글 이메일 인증을 진행해 주세요

아이디 도메인 선택 인증

비밀번호를 입력해 주세요 —

비밀번호를 재입력해 주세요 —

원전공을 선택해 주세요

입학년도 선택 복수전공 여부 —
 해당없음

다음

프로필 등록

프로필 사진 업로드

닉네임을 설정해 주세요 —
10글자 이내로 작성해 주세요

프로필 공개 여부를 선택해 주세요 공개 비공개

첫번째 관심사를 입력해 주세요 —
10글자 이내로 작성해 주세요

두번째 관심사를 입력해 주세요 —
10글자 이내로 작성해 주세요

이전

회원가입 완료



Email Authentication

Authenticate via
@g.skku.edu



Enter Personal
Information

Users' student number,
primary major, and second
major

...

...

Register

Login

CHAPTER

04

Frontend with
Demo



SKKU-DM

성균관대학교 복수전공생들을 위한 커뮤니티

아이디 도메인 선택 ▾

비밀번호를 입력해 주세요

로그인

[아직 회원이 아니신가요?](#)



SKKU-DM

성균관대학교 복수전공생들을 위한 커뮤니티

아이디 도메인 선택 ▾

비밀번호를 입력해 주세요

로그인

[아직 회원이 아니신가요?](#)

CHAPTER

04

Frontend with
Demo

DM & Messages

DM SQUARE

원전공 복수전공

user03
① 소프트웨어학과
② 영상학과
관심사 1 관심사 2

user04
① 소프트웨어학과
② 경영학과
관심사 1 관심사 2

스구디엠
① 수학과
② 소프트웨어학과

크리스마스
① 글로벌경제학과
② 소프트웨어학과

게시판 광장 메시지 프로필

← [DM] user01, 크리스마스

user01 안녕하세요!! 읽음 2

user01 혹시 솔트 복전생이신가요?? 읽음 2

나 네!! 읽음 1

메시지를 입력하세요 ➤

Search Users and send Messages

You can search users by major and send direct messages.

Private Profile

If you don't want to be in DM list, you can change your profile into private.

Private Profile

CHAPTER

04

Frontend with
Demo

Messages

...

DM SQUARE

원전공 복수전공

user03
① 소프트웨어학과
② 영상학과
관심사 1 관심사 2

user04
① 소프트웨어학과
② 경영학과
관심사 1 관심사 2

user05
① 소프트웨어학과
② 전자전기공학부
게시판 광장 메시지 프로필

스꾸디엠
① 수학과
② 소프트웨어학과
프로필

DM SQUARE

원전공 복수전공

user03
① 소프트웨어학과
② 영상학과
관심사 1 관심사 2

user04
① 소프트웨어학과
② 경영학과
관심사 1 관심사 2

user05
① 소프트웨어학과
② 전자전기공학부
게시판 광장 메시지 프로필

스꾸디엠
① 수학과
② 소프트웨어학과
프로필

CHAPTER

04

Frontend with
Demo

Square & Messages

DM SQUARE

모집대상 전공 ▾ 모집글 작성

코테스터디 (2/4)
이번 학기 종강하고부터 같이 코테스터디 하실 숏트 복전생분들 있으신가요??

경영학과 복전생 모임 (1/4)
안녕하세요!! 다음 학기부터 경영학과 복수전공을 시작하게 된 복전 새내기인데 같이 즐거운 복전생활 시작하실 분 구합니다!!!

test2 (2/4)
test2

test (4/4)
test

게시판 광장 메시지 프로필

← user01 2024-12-05 14:59 (2/4)

코테스터디
이번 학기 종강하고부터 같이 코테스터디 하실 숏트 복전생분들 있으신가요??

참가 확정하기

크리스마스 2024-12-05 14:59
주로 언제하실 예정인가요??

댓글을 입력하세요... ➔



Recruit small groups

You can write and search recruitments by major and ask some questions in comments before joining.



Join a group

If you carefully decide to join, you can enter the chat room for this group.

Square

CHAPTER

04

Frontend with
Demo

DM SQUARE

원전공 복수전공

user03
① 소프트웨어학과
② 영상학과
관심사 1 관심사 2

user04
① 소프트웨어학과
② 경영학과
관심사 1 관심사 2

user05
① 소프트웨어학과
② 전자전기공학부

스푸디엠
① 수학과
② 소프트웨어학과

게시판 광장 메시지 프로필

Search by major

DM SQUARE

모집대상 전공 모집글 작성

코테스터디 (2/4)
이번 학기 종강하고부터 같이 코테스터디 하실 숏트 복전생분들 있으신가요??

경영학과 복전생 모임 (1/4)
안녕하세요!! 다음 학기부터 경영학과 복수전공을 시작하게 된 복전 새내기인데 같이 즐거운 복전생활 시작하실 분 구합니다!!!

test2 (2/4)
test2

test (4/4)
test

게시판 광장 메시지 프로필

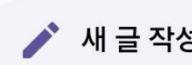
CHAPTER

04

Frontend with
Demo

Bulletin board & Graduation info

Bulletin Board

 새 글 작성

태그

#수학 #전공진입 #꿀팁 #소프트웨어 #졸

검색결과

My First Post  0  2

This is the content of my first post

#소프트웨어학과 #전자전기

My Second Post  0  0

This is the content of my second post

#복수전공 #전자전기2

솔트 복전생 수업 추천  0  1

1. 오소실
2. 모앱실
3. 웹프실

#소프트웨어 #수업추천 #복수전공



Profile

내 프로필  정보 수정 >

 크리스마스

① 글로벌경제학과
② 소프트웨어학과

산책 프론트엔드

복수전공 모의 지원

졸업 요건  오류신고

원전공 글로벌경제학과
복수전공 소프트웨어학과

[학사제도 바로가기](#)
[교육과정 바로가기](#)
[학과/교과목 검색 바로가기](#)

#

Tag-based Bulletin board

You can write and search about major information quickly based on tag.

i

Graduation Information

You can go directly to the site that provides the graduation information.

Bulletin Board

CHAPTER
04
Frontend with
Demo

Bulletin Board

새 글 작성

태그

#수학 #전공진입 #꿀팁 #소프트웨어 #졸

검색결과 C

My First Post ♡0 2

This is the content of my first post

#소프트웨어학과 #전자전기

My Second Post ♡0 0

This is the content of my second post

#복수전공 #전자전기2

게시판 광장 메시지 프로필

Graduation info

Profile

내 프로필

정보 수정 >



크리스마스

- ❶ 글로벌경제학과
- ❷ 소프트웨어학과

산책

프론트엔드

복수전공 모의 지원

졸업 요건

! 오류신고

원전공

글로벌경제학과

복수전공

소프트웨어학과

앱 설정

다크모드

알림 설정

비밀번호 변경

로그아웃

게시판

광장

메시지

프로필

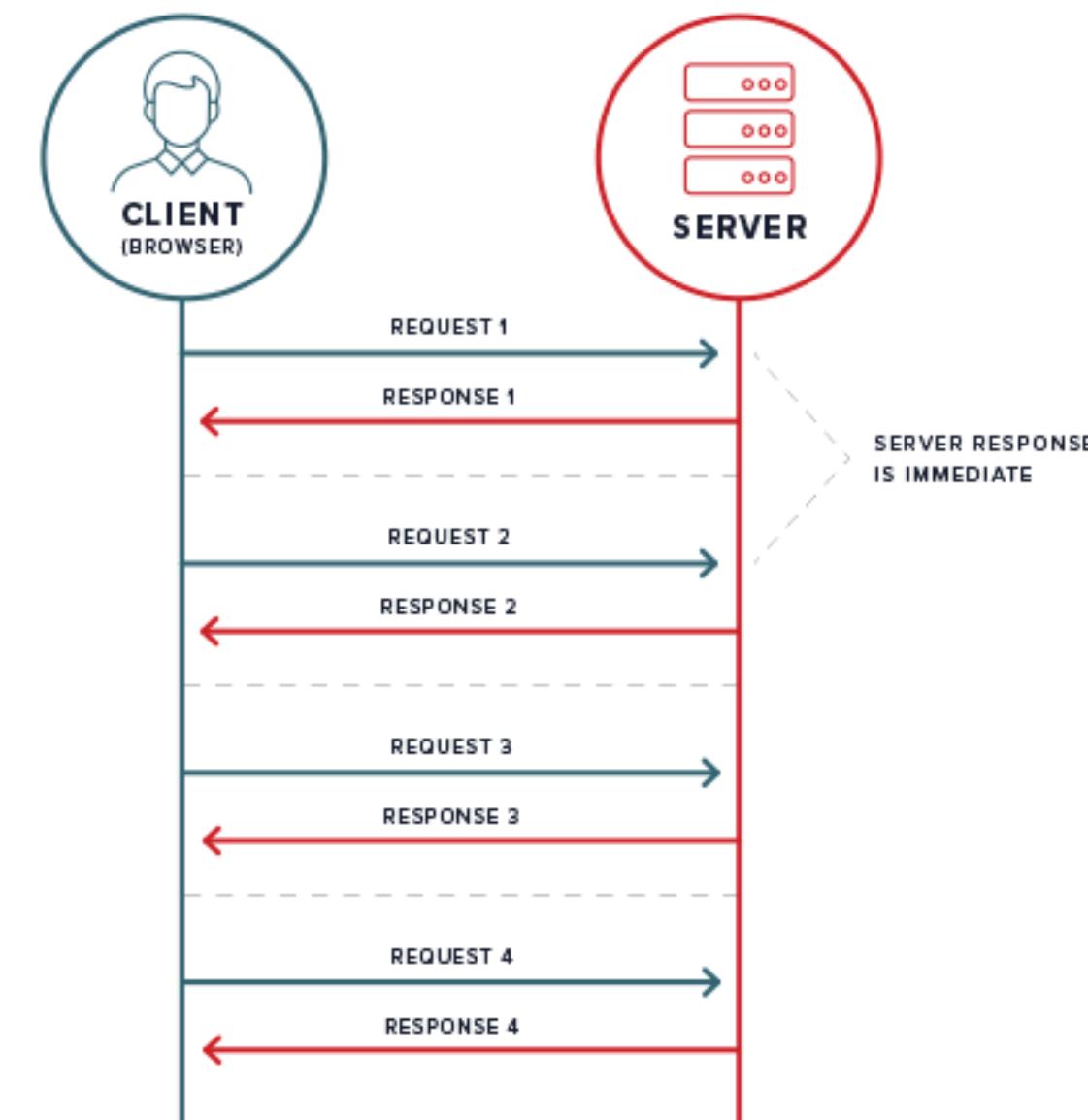
CHAPTER
05

CHALLENGES

Chatting

During Weekly Process #3

**Our team has decided to
implement chat using **polling****



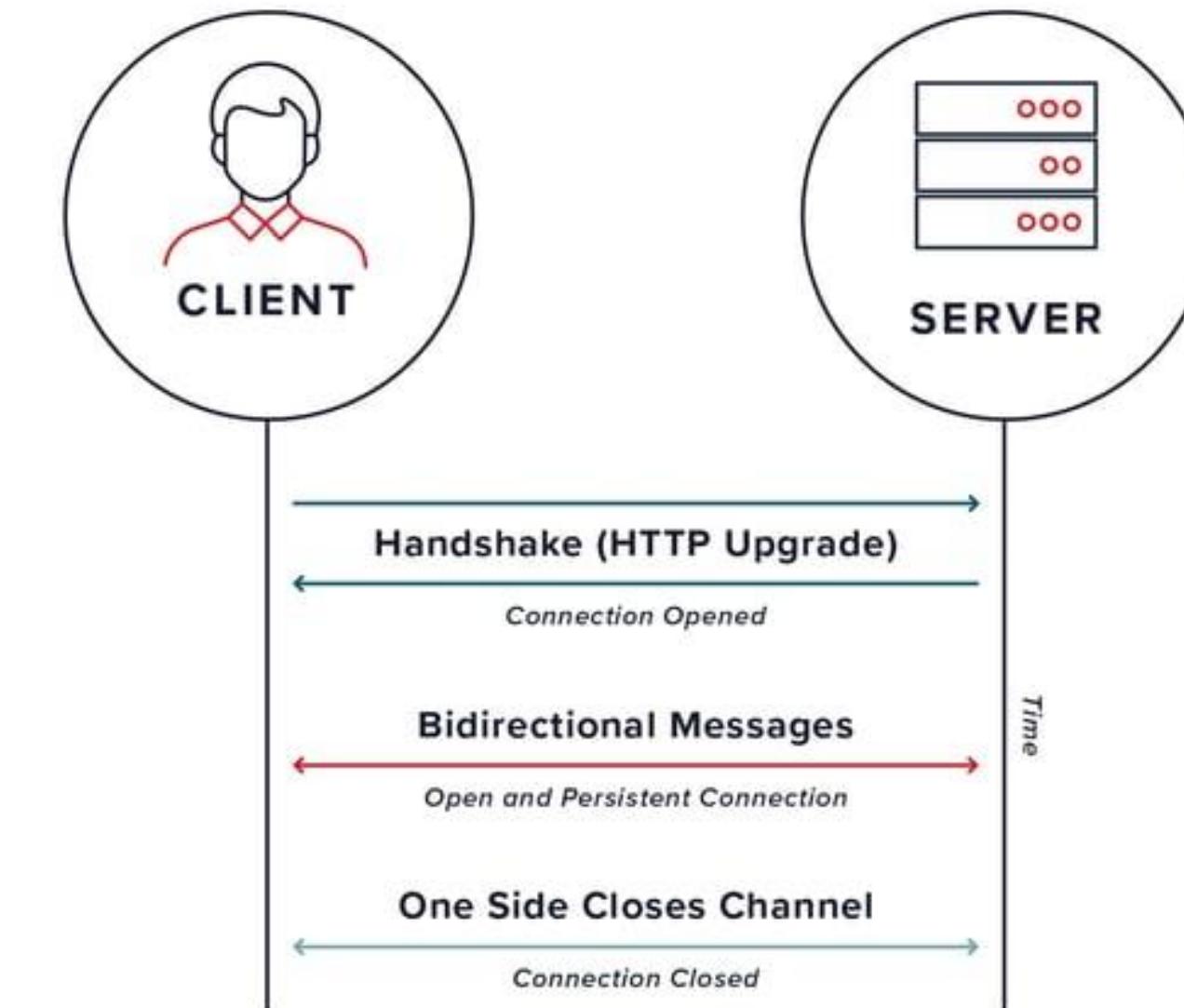
CHAPTER
05

CHALLENGES

Chatting

After receiving professor's feedback,
we are attempting to implement using
WebSocket instead

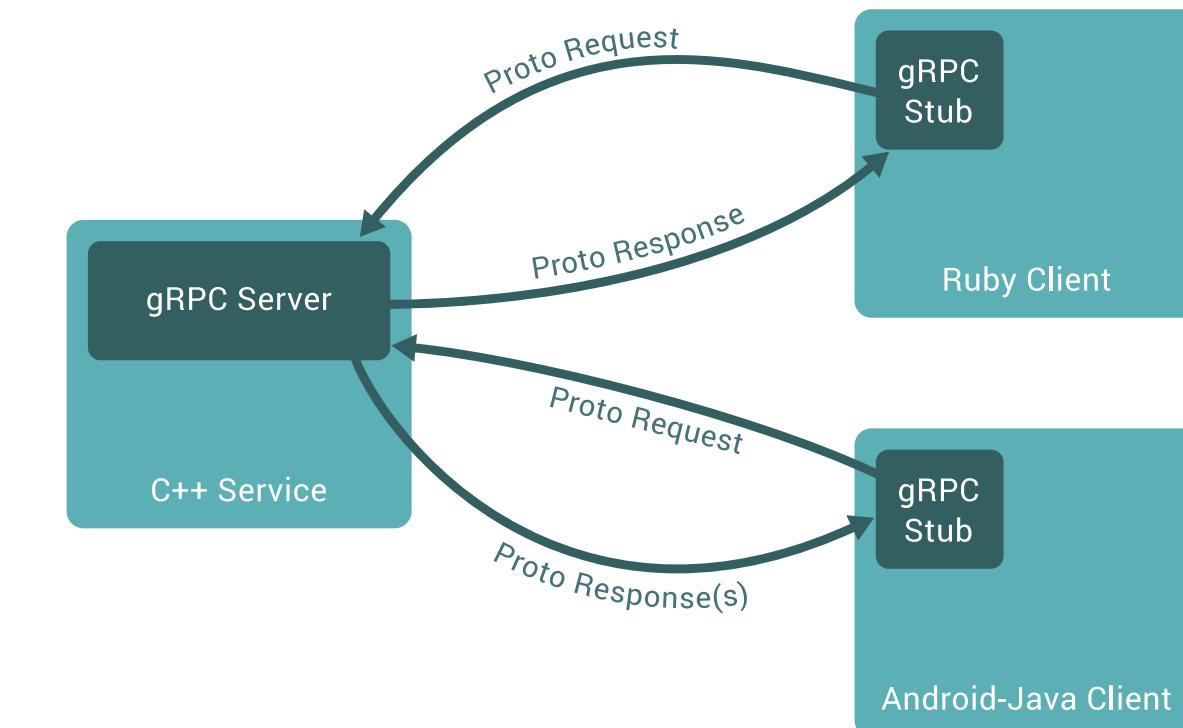
but handling **HTTP request** and
WebSocket on same server is difficult..



Chatting



We implemented the chat functionality using Firebase and related Flutter libraries, which support **gRPC** protocol, enabling easy implementation of bidirectional communication.



CHAPTER 06

Limitations

Partially Implemented - Graduation info

PROFILE

내 프로필

정보 수정 >

명륜이

① 비공개
② 소프트웨어학과

산책 독서

졸업 요건

복수전공 소프트웨어학과

19학번 오류 신고

전공핵심	전공일반	실험실습
27학점	16학점	8학점

바로가기

- > 소프트웨어학과 교육과정
- > 소프트웨어학과 로드맵
- > 소프트웨어학과 졸업요건

게시판 광장 프로필

Profile

내 프로필 정보 수정 >

크리스마스

① 글로벌경제학과
② 소프트웨어학과

산책 프론트엔드

복수전공 모의 지원

졸업 요건

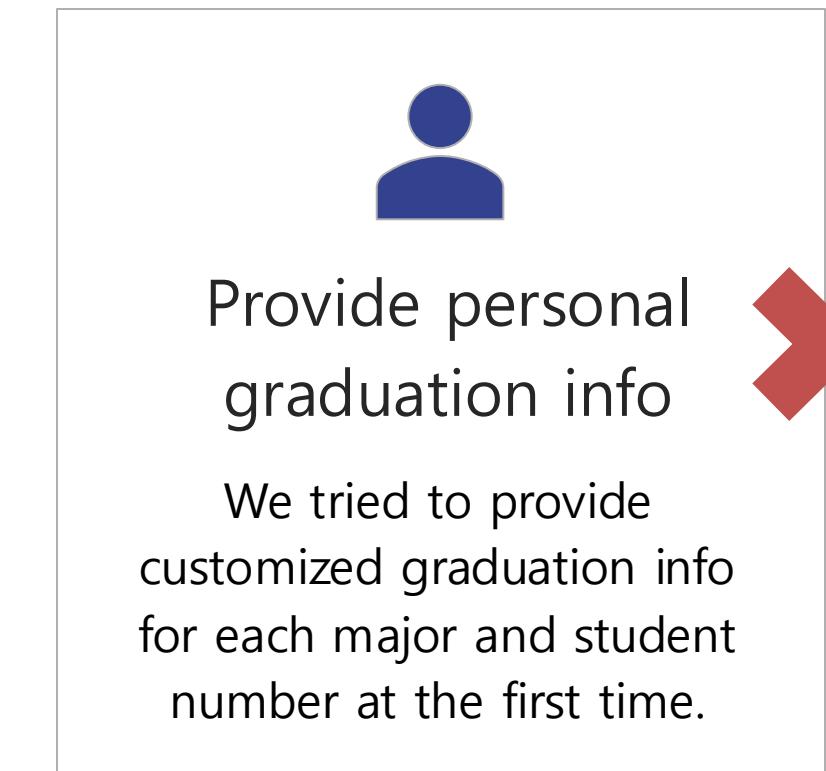
원전공 글로벌경제학과
복수전공 소프트웨어학과

오류신고

[학사제도 바로가기](#)

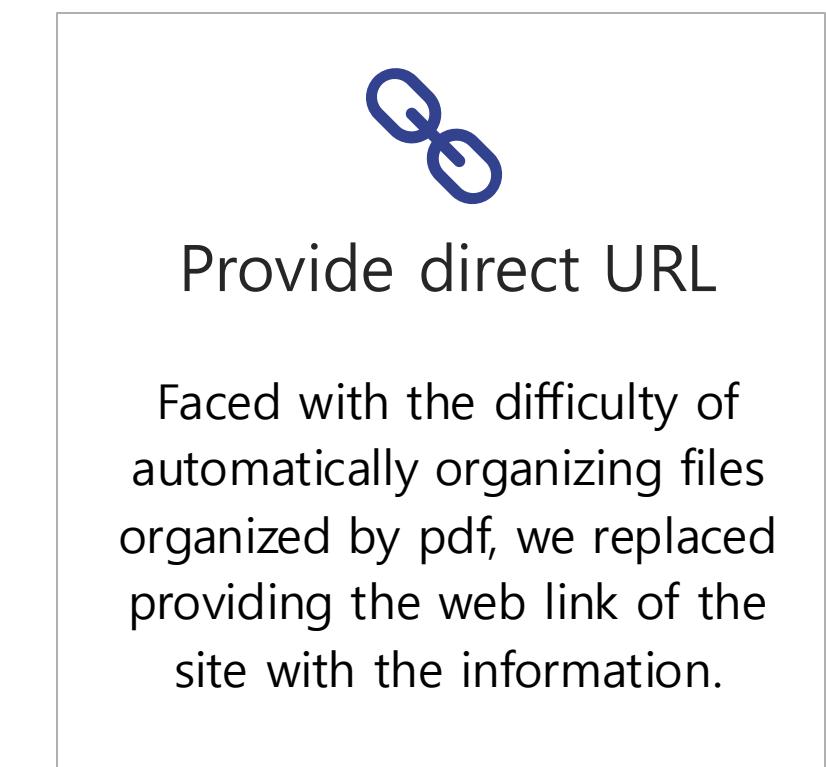
[교육과정 바로가기](#)

[학과/교과목 검색 바로가기](#)



Provide personal graduation info

We tried to provide customized graduation info for each major and student number at the first time.



Provide direct URL

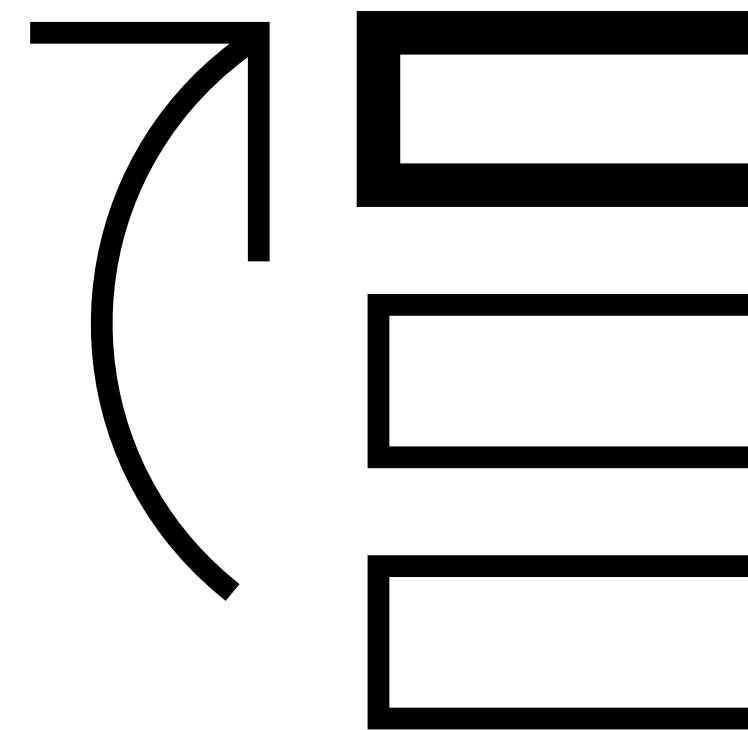
Faced with the difficulty of automatically organizing files organized by pdf, we replaced providing the web link of the site with the information.

CHAPTER
06

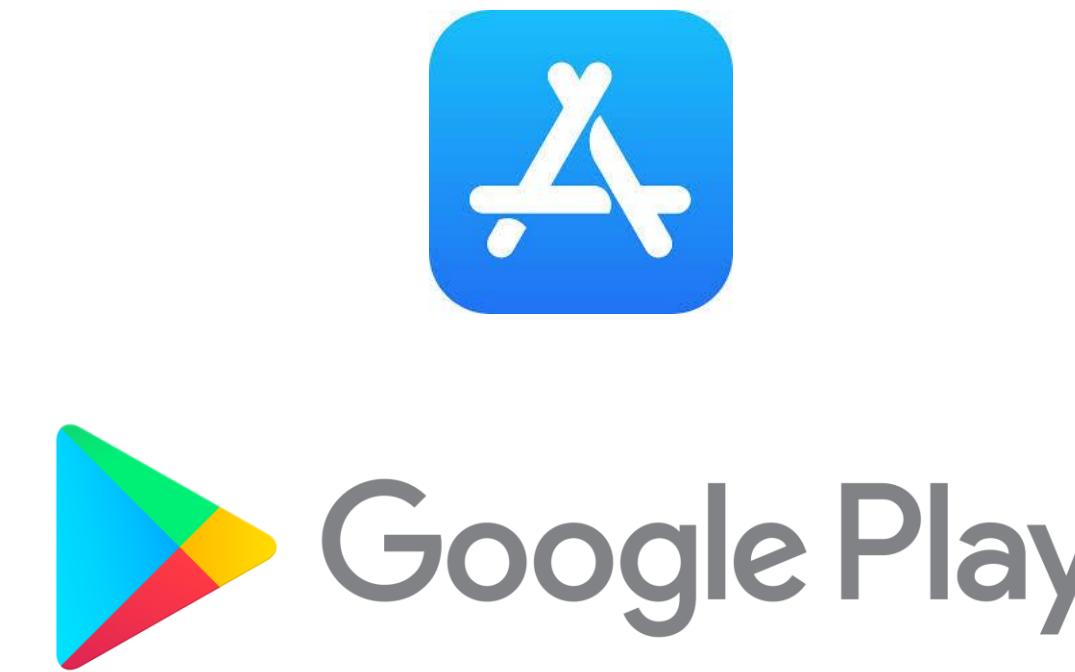
Limitations

Not Implemented

...



Mock Apply



Marketplace Deploy

THANK YOU!