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# 1. 개발 환경 및 기술 스택

- Backend
  - JAVA 17 (17.0.9 2023-10-17 LTS)
  - Spring boot 3.2.1
  - o OAUTH 2.0
  - Spring Security 6.2.1
  - Spring Data JPA
  - Mysql 8.0.35
  - o Redis 5.0.7
  - RabbitMQ 3.12.12
  - o OpenVidu 2.29.0
- Frontend
  - Node.js 20.10.0

- o npm 10.2.3
- Vue 3.3.11
- vite 4.5.2
- YJS 13.6.11
- Y-websocket 1.5.3
- Infra
  - Ubuntu 20.04.6 LTS
  - o Nginx 1.18.0
  - o Jenkins 2.442
  - o docker 25.0.3
- IDE
  - IntelliJ Ultimate
  - Vscode

# 2. 설정 파일 및 환경 변수 정보

### 1. Spring boot

• application.yml (로컬용)

```
spring:
 jpa:
   open-in-view: false
   defer-datasource-initialization: true
   generate-ddl: true
   hibernate:
     ddl-auto: create-drop
                                          # ddl 자동 작성 0
   properties:
     hibernate:
       format_sql: true
                                   # 하이버네이트가 실행한 S(
       use_sql_comments: true
                                    # 하이버네이트가 실행한 S(
       show_sql: true
       jdbc:
```

```
batch_size: 100
                                         insert/update 쿠
      default batch fetch size: 100
datasource:
  driver-class-name: com.mysql.cj.jdbc.Driver # DB 드라이
  url: jdbc:mysql://localhost:3306/plancard?useUnicode=t
                                      # 데이터베이스 계정명
  username: ssafy
                                        # 데이터베이스 계정
  password: ssafy
# data_테이블명.sql 관련 실행 setting
sql:
  init:
    mode: always
    data-locations:
      - 'classpath:/data_member.sql'
      - 'classpath:/data place.sql'
      - 'classpath:/data_plan.sql'
      - 'classpath:/data_card.sql'
      - 'classpath:/data_alarm.sql'
      - 'classpath:/data_friendship.sql'
      - 'classpath:/data_plan_member.sql'
batch:
  idbc:
    initialize-schema: always
  iob:
    enabled: false
# NoSQL setting
data:
 # Redis setting
  redis:
    host: localhost
    port: 6379
 # mongodb setting
  mongodb:
    uri: mongodb://localhost:27017/planCard
```

```
# Java Mail Sender setting (Google Mail)
 mail:
   host: smtp.gmail.com
   port: 587
   username: donggeun3484@gmail.com
   password: tbplnbqivtwteeki
   properties:
     mail:
       smtp:
         auth: true
         starttls:
           enable: true
 # RabbitMQ setting
  rabbitmg:
   host: localhost # RabbitMQ 서버 호스트
                # RabbitMQ 서버 포트, 기본값은 15672
   port: 15672
   username: guest # RabbitMQ 사용자 이름, 기본값은 guest
   password: quest # RabbitMO 비밀번호, 기본값은 quest
   virtual-host: / # RabbitMQ 가상 호스트, 기본값은 /
# jwt setting
jwt:
 secret-key:
   access: TestAccessKey1111111222222222333333333333333aaa
   refresh: TestRefreshKey11111112222222233333333333333333
 expired-min:
   access: 60 # 액세스 토큰 만료제한시간 60분 (1시간) (60)
   refresh: 10080 # 리프레쉬 토큰 만료제한시간 10080분 (7일) (:
# log 관리
logging:
 level:
   org.hibernate:
     type.descriptor.sql: trace
```

```
org.hibernate.SQLQuery: debug
# 공공데이터
public-data:
  key: 734364614c73656e32386579495665
stt:
  id: YrKMFxbs_H29nZ1cZs3r
  secret: -wXxmNVuqYD-F1_jNH7DRYgQOs0S1L8Vb2W2ArJR
server:
  ssl:
    enabled: false
openvidu:
  url: http://localhost:4443/
  secret: MY_SECRET
# OAUTH2.0 Setting
oauth:
  kakao:
    client-id: 8e8a2a929b0cbf786ac9567191ac7ff7
    client-secret: OaZuL5rd6IcxxcwDd4pqcKRnJP9afsHo
    redirect-uri: http://localhost:5173/member/loading/kak
    scope:
      - profile_nickname
      profile_image
      - account email
      - name
  naver:
    client-id: d5K9OtbM_JbyOZIiOG54
    client-secret: UAm7jJPmsC
    redirect_uri: http://localhost:5173/member/loading/nav
    scope:
```

```
- nickname
- name
- email
- profile_image

# firebase setting
app:
firebase-configuration-file: classpath:serviceAccountKey
firebase-bucket: plancard-3b8f9.appspot.com
```

• application.yml (배포용)

```
spring:
 jpa:
   open-in-view: false
   defer-datasource-initialization: true
   generate-ddl: true
   hibernate:
     ddl-auto: create-drop
                                         # ddl 자동 작성 0
   properties:
     hibernate:
       format_sql: true
                                   # 하이버네이트가 실행한 S(
       use_sql_comments: true
       show_sql: true
                                   # 하이버네이트가 실행한 S(
       jdbc:
         batch size: 100
                                         insert/update 쿠
                                     #
       default_batch_fetch_size: 100
  datasource:
   driver-class-name: com.mysql.cj.jdbc.Driver # DB 드라이
   url: jdbc:mysql://plancard-db.cts0808eovz6.ap-northeas
   username: admin
                                      # 데이터베이스 계정명
                                            # 데이터베이스
   password: ssafy1234
 # data_테이블명 sql 관련 실행 setting
  sql:
   init:
     mode: always
```

```
data-locations:
      - 'classpath:/data_member.sql'
      - 'classpath:/data_place.sql'
      - 'classpath:/data_plan.sql'
      - 'classpath:/data card.sql'
      - 'classpath:/data_alarm.sql'
      - 'classpath:/data_friendship.sql'
      - 'classpath:/data_plan_member.sql'
batch:
 jdbc:
    initialize-schema: always
  job:
    enabled: false
# NoSQL setting
data:
 # Redis setting
  redis:
    host: i10C110.p.ssafy.io
    port: 6379
    # mongodb setting
  mongodb:
    #
           host: mongodb
    #
           port: 27017
    uri: mongodb://mongodb:27017/planCard
# Java Mail Sender setting (Google Mail)
mail:
 host: smtp.gmail.com
 port: 587
  username: donggeun3484@gmail.com
  password: tbplnbqivtwteeki
  properties:
    mail:
      smtp:
```

```
auth: true
         starttls:
           enable: true
 # RabbitMQ setting
  rabbitmq:
   host: rabbitmg # RabbitMQ 서버 호스트
   port: 5672 # RabbitMQ 서버 포트, 기본값은 15672
   username: guest # RabbitMQ 사용자 이름, 기본값은 guest
   password: guest # RabbitMQ 비밀번호, 기본값은 guest
   virtual-host: / # RabbitMQ 가상 호스트, 기본값은 /
# jwt setting
jwt:
 secret-key:
   access: TestAccessKey1111111222222222333333333333333333
   refresh: TestRefreshKey11111112222222233333333333333333
 expired-min:
   access: 1000000000 # 액세스 토큰 만료제한시간 60분 (1시간)
   refresh: 100000000 # 리프레쉬 토큰 만료제한시간 10080분 (7일
# log 관리
logging:
 level:
   org.hibernate:
     type descriptor sql: trace
     org hibernate SQLQuery: debug
# 공공데이터
public-data:
  key: 734364614c73656e32386579495665
stt:
 id: YrKMFxbs H29nZ1cZs3r
 secret: -wXxmNVuqYD-F1_jNH7DRYgQOs0S1L8Vb2W2ArJR
```

```
server:
  ssl:
   enabled: false
openvidu:
  url: https://i10c110.p.ssafy.io:4443
  secret: MY SECRET
# OAUTH2.0 Setting
oauth:
  kakao:
    client-id: 8e8a2a929b0cbf786ac9567191ac7ff7
    client-secret: OaZuL5rd6IcxxcwDd4pgcKRnJP9afsHo
    redirect-uri: https://i10c110.p.ssafy.io/member/loadin
    scope:
      - profile_nickname
      profile_image
      - account email
      - name
  naver:
    client-id: d5K9OtbM_JbyOZIiOG54
    client-secret: UAm7jJPmsC
    redirect_uri: https://i10c110.p.ssafy.io/member/loadin
    scope:

    nickname

      - name
      - email
      profile_image
# firebase setting
app:
  firebase-configuration-file: classpath:serviceAccountKey
  firebase-bucket: plancard-3b8f9.appspot.com
```

#### 2. Vue.is

• .env(로컬용)

```
# API URL settings for PJT
VITE_VUE_API_URL=http://localhost:8080/api/v1
VITE_KAKAO_MAP_SERVICE_KEY=ec21f2ebe162718a8bd658f5bb7a0bd
# Stomp WebSocket 주소 설정
VITE_VUE_WS_URL=ws://localhost:8080/ws
# audio 처리를 위한 WebSocket 주소 설정
VITE_VUE_AUDIO_WS_URL=ws://localhost:8080/audio
# YJS y-websocket 주소 설정
VITE_VUE_YJS_WS_URL=ws://localhost:1234/yjs
# 기본 URL 설정
BASE_URL=/
```

#### • .env(배포용)

```
# API URL settings for PJT
VITE_VUE_API_URL=https://i10C110.p.ssafy.io/api/v1
VITE_KAKAO_MAP_SERVICE_KEY=ec21f2ebe162718a8bd658f5bb7a0bd
# Stomp WebSocket 주소 설정
VITE_VUE_WS_URL=wss://i10c110.p.ssafy.io/ws
# audio 처리를 위한 WebSocket 주소 설정
VITE_VUE_AUDIO_WS_URL=wss://i10c110.p.ssafy.io/audio
# YJS y-websocket 주소 설정
VITE_VUE_YJS_WS_URL=wss://i10c110.p.ssafy.io/yjs
# 기본 URL 설정
BASE_URL=/
```

### 3. 빌드 및 배포

### 1) Docker 설치

```
# 1. Docker 엔진의 공식 버전을 설치하기 전 충돌하는 패키지를 제거해야 한[
for pkg in docker.io docker-doc docker-compose docker-compose
# 2. Docker apit 저장소 설정
# Add Docker's official GPG key:
sudo apt-get update
sudo apt-get install ca-certificates curl
sudo install -m 0755 -d /etc/apt/keyrings
sudo curl -fsSL https://download.docker.com/linux/ubuntu/gpg
sudo chmod a+r /etc/apt/keyrings/docker.asc
# Add the repository to Apt sources:
echo \
  "deb [arch=$(dpkg --print-architecture) signed-by=/etc/apt/
  $(. /etc/os-release && echo "$VERSION CODENAME") stable" |
  sudo tee /etc/apt/sources.list.d/docker.list > /dev/null
sudo apt-get update
# 3. Docker 패키지 설치
# 최신 버전 설치
sudo apt-get install docker-ce docker-ce-cli containerd.io do
# 4. hello-world 이미지를 실행하여 Docker 엔진 설치가 성공했는지 확인
sudo docker run hello-world
```

### 2) Docker compose 설치

```
# 설치
sudo apt update
sudo apt install docker.io
```

```
sudo apt install docker-compose

# 설치 확인
docker --version
docker-compose --version
```

### 3) Jenkins 컨테이너 실행

```
# 네트워크 생성
sudo docker network create jenkins-network
# jenkins 컨테이너 실행
sudo docker run -d --name jenkins --network jenkins-network
```

### 4) docker compose를 통한 실행

• Jenkins를 통해 docker-compose.yml파일의 구성을 실행시킨다.

#### docker-compose.yml

```
version: '3.8'

services:
  backend:
  image: pji0128/back:latest
  container_name: back
  build:
    context: ./BackEnd
    dockerfile: Dockerfile
  ports:
    - "8081:8080"
  networks:
    - jenkins-network
```

```
environment:
      RABBITMQ_HOST: rabbitmq
  mongodb:
    image: mongo
    command: mongod --bind_ip 0.0.0.0
    container_name: mongodb
    ports:
      - "27017:27017"
    networks:
      - jenkins-network
    volumes:
      - mongodb_data:/data/db
  frontend:
    image: pji0128/front:latest
    container_name: front
    build:
      context: ./FrontEnd
      dockerfile: Dockerfile
    ports:
      - "8083:4173"
    networks:
      - jenkins-network
    environment:
      - HOST=0.0.0.0
      - PORT=1234
  y-websocket:
    image: node:latest
    container_name: y-websocket-server
    command: sh -c "npm -g install yjs y-websocket && HOST=0.
    ports:
      - "1234:1234"
    networks:
      - jenkins-network
volumes:
```

```
mongodb_data:

networks:
  jenkins-network:
  external: true
```

#### **BE Jenkinsfile**

```
pipeline {
    agent any
    environment {
        REP0 = "s10-webmobile1-sub2/S10P12C110"
        DOCKERHUB_REGISTRY = "pji0128/back"
        DOCKERHUB_CREDENTIALS = credentials('Docker-credential
    }
    stages {
        stage('Checkout') {
            steps {
                checkout scm
            }
        stage('Setup Environment') {
            steps {
                dir("${env.WORKSPACE}/BackEnd"){
                    script {
                         sh "ls -al"
                         sh "chmod +x ./gradlew"
                    }
                }
            }
        stage("Build") {
            steps {
                script {
                    sh "docker build -t ${DOCKERHUB_REGISTRY}
                }
```

```
}
}
stage("Login") {
    steps {
         sh "echo \${DOCKERHUB_CREDENTIALS_PSW} | doc
    }
}
stage("Tag and Push") {
    steps {
        script {
            withCredentials([[$class: 'UsernamePasswo
                sh "docker push ${DOCKERHUB_REGISTRY}
            }
        }
    }
}
stage('Prune old images'){
    steps{
        script{
            sh "docker ps"
        }
    }
}
stage('Pull') {
    steps {
        script {
            withCredentials([[$class: 'UsernamePasswo
                sh "docker stop back || true" // Ign
                sh "docker rm back || true"
                sh "docker rmi ${DOCKERHUB_REGISTRY}|
                sh "docker pull ${DOCKERHUB_REGISTRY}
            }
        }
    }
}
stage('Up') {
    steps {
        script {
```

#### **BE Dockerfile**

```
# 빌드 스테이지
FROM amazoncorretto:17.0.7-alpine AS builder
USER root
WORKDIR /back
COPY gradlew .
COPY gradle gradle
COPY build.gradle .
COPY settings.gradle .
COPY src src
# gradlew 실행 권한 부여
RUN chmod +x ./gradlew
RUN ./gradlew bootJar
# 실행 스테이지
FROM openjdk:17
WORKDIR /back
COPY --from=builder /back/build/libs/*.jar app.jar
ENTRYPOINT ["java", "-jar", "app.jar"]
VOLUME /tmp
```

### 5) NGINX 설정

### nginx.conf

```
user www-data;
worker_processes auto;
pid /run/nginx.pid;
include /etc/nginx/modules-enabled/*.conf;
events {
        worker_connections 768;
        # multi_accept on;
}
http {
        ##
        # Basic Settings
        ##
        sendfile on;
        tcp_nopush on;
        tcp_nodelay on;
        keepalive_timeout 65;
        types_hash_max_size 2048;
        # server_tokens off;
        # server_names_hash_bucket_size 64;
        # server_name_in_redirect off;
        include /etc/nginx/mime.types;
        default_type application/octet-stream;
        ##
        # SSL Settings
        ##
        ssl_protocols TLSv1 TLSv1.1 TLSv1.2 TLSv1.3; # Droppi
        ssl_prefer_server_ciphers on;
```

```
##
        # Logging Settings
        ##
        access_log /var/log/nginx/access.log;
        error_log /var/log/nginx/error.log;
        ##
        # Gzip Settings
        ##
        gzip on;
        # gzip_vary on;
        # gzip_proxied any;
        # gzip_comp_level 6;
        # gzip_buffers 16 8k;
        # gzip_http_version 1.1;
        # gzip_types text/plain text/css application/json app.
        ##
        # Virtual Host Configs
        ##
        include /etc/nginx/conf.d/*.conf;
        include /etc/nginx/sites-enabled/*;
}
#mail {
        # See sample authentication script at:
        # http://wiki.nginx.org/ImapAuthenticateWithApachePhp!
#
#
        # auth_http localhost/auth.php;
#
        # pop3_capabilities "TOP" "USER";
#
        # imap_capabilities "IMAP4rev1" "UIDPLUS";
#
#
```

```
#
        server {
                listen
                           localhost:110;
#
                protocol
#
                          pop3;
#
                proxy
                           on;
        }
#
#
#
        server {
#
                listen localhost:143;
#
                protocol
                           imap;
#
                proxy
                           on;
#
        }
#}
```

#### default

```
proxy_pass http://i10c110.p.ssafy.io:8081;
             proxy_set_header Host $host;
             proxy_set_header X-Real-IP $remote_addr;
        }
        location /ws {
             proxy_pass http://i10c110.p.ssafy.io:8081;
             proxy_http_version 1.1;
             proxy_set_header Upgrade $http_upgrade;
             proxy_set_header Connection "upgrade";
             proxy_set_header Host $host;
        }
        location /yjs {
             proxy_pass http://i10c110.p.ssafy.io:1234;
             proxy_http_version 1.1;
             proxy_set_header Upgrade $http_upgrade;
             proxy_set_header Connection "upgrade";
             proxy_set_header Host $host;
        }
}
server {
        listen 9001 ssl;
        server_name i10c110.p.ssafy.io;
        ssl_certificate /etc/letsencrypt/live/i10c110.p.ssafy
        ssl_certificate_key /etc/letsencrypt/live/i10c110.p.s
        location / {
                proxy_pass http://localhost:9000;
        }
}
server {
```

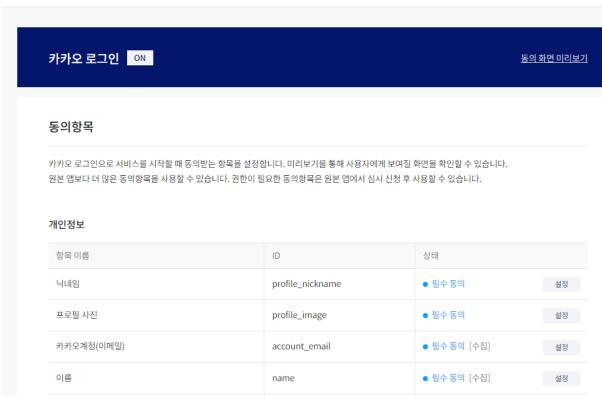
```
root /var/www/html;
   # Add index.php to the list if you are using PHP
    index index.html index.htm index.nginx-debian.html;
server_name i10c110.p.ssafy.io; # managed by Certbot
   location / {
            proxy_pass http://i10c110.p.ssafy.io:8083;
            proxy_set_header Host $host;
            proxy_set_header X-Real-IP $remote_addr;
   }
   # Backend
   location /api/v1 {
         proxy_pass http://i10c110.p.ssafy.io:8081;
         proxy_set_header Host $host;
         proxy_set_header X-Real-IP $remote_addr;
   }
   location /ws {
         proxy_pass http://i10c110.p.ssafy.io:8081;
         proxy_http_version 1.1;
         proxy_set_header Upgrade $http_upgrade;
         proxy_set_header Connection "upgrade";
         proxy_set_header Host $host;
   }
   location /vis {
         proxy_pass http://i10c110.p.ssafy.io:1234;
         proxy_http_version 1.1;
         proxy_set_header Upgrade $http_upgrade;
         proxy_set_header Connection "upgrade";
         proxy_set_header Host $host;
   }
```

```
listen [::]:443 ssl ipv6only=on; # managed by Certbot
    listen 443 ssl; # managed by Certbot
    ssl_certificate /etc/letsencrypt/live/i10c110.p.ssafy.io/
    ssl_certificate_key /etc/letsencrypt/live/i10c110.p.ssafy
    include /etc/letsencrypt/options-ssl-nginx.conf; # manage
    ssl_dhparam /etc/letsencrypt/ssl-dhparams.pem; # managed
}
server {
    if ($host = i10c110.p.ssafy.io) {
        return 301 https://$host$request_uri;
    } # managed by Certbot
        listen 80 ;
        listen [::]:80 ;
    server_name i10c110.p.ssafy.io;
    return 404; # managed by Certbot
}
```

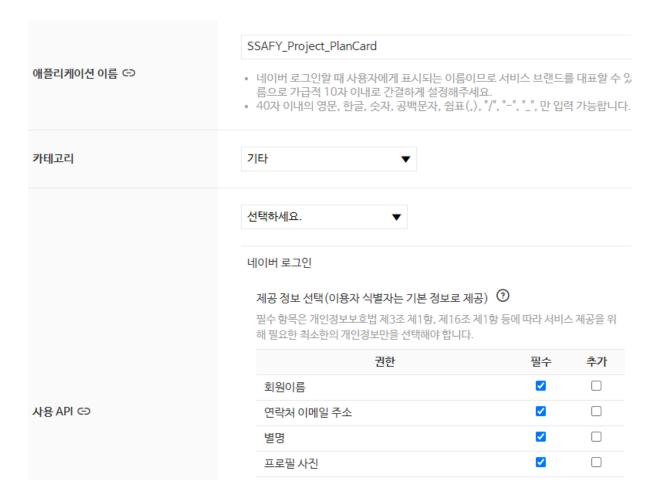
# 4. 외부 서비스 및 정보

• 카카오 소셜 로그인 정보





### • 네이버 소셜 로그인 정보



# 5. DB dump 설명

테이블들은 JPA로 자동으로 DB와 매핑하여 Spring boot 서버 내에서 자동으로 생성되게 끔 설정하였습니다.

해당 db dump 데이터는 PlanCard\BackEnd\src\main\resources 폴더내에 저장되어 있습니다.

- data\_member.sql (회원 데이터)
- data\_place,sql (여행지 데이터)
- data\_plan.sql (여행 계획 데이터)
- data\_card.sql (카드 데이터)
- data\_alarm.sql (알람(친구 추가 알람, 여행 계획 참여 요청 알람) 데이터)
- data\_friendship.sql (친구 관계 데이터)
- data\_plan\_member.sql (해당 여행 계획에 같이 갈 멤버 데이터)