🔨 포팅 메뉴얼 - A205(차용박사)

[개발환경]

front

Tool :

Langague : typescript

IDE : vs code

```json
{
  "name": "frontend",
  "private": true,
  "version": "0.0.0",
  "type": "module",
  "scripts": {
    "dev": "vite",
    "build": "tsc && vite build",
    "lint": "eslint . --ext ts,tsx --report-unused-disable-directives --max-warnings 0",
    "preview": "vite preview"
  },
  "dependencies": {
    "@stomp/stompjs": "^7.0.0",
    "axios": "^1.7.7",
    "classnames": "^2.5.1",
    "html2canvas": "^1.4.1",
    "jspdf": "^2.5.2",
    "path": "^0.12.7",
    "react": "^18.3.1",
    "react-dom": "^18.3.1",
    "react-router-dom": "^6.26.2",
    "sockjs-client": "^1.6.1"
  },
  "devDependencies": {
    "@types/node": "^22.5.4",
    "@types/react": "^18.3.1",
    "@types/react-dom": "^18.3.0",
    "@types/sockjs-client": "^1.5.4",
    "@typescript-eslint/eslint-plugin": "^7.8.0",
    "@typescript-eslint/parser": "^7.8.0",
    "@vite-pwa/assets-generator": "^0.2.4",
    "@vitejs/plugin-react": "^4.2.1",
    "eslint": "^8.57.0",
    "eslint-config-airbnb": "^19.0.4",
    "eslint-config-airbnb-typescript": "^18.0.0",
    "eslint-plugin-dependencies": "^2.5.0",
    "eslint-plugin-import": "^2.30.0",
```

```
        "eslint-plugin-jsx-a11y": "^6.10.0",
        "eslint-plugin-prettier": "^5.2.1",
        "eslint-plugin-react": "^7.35.2",
        "eslint-plugin-react-hooks": "^4.6.2",
        "eslint-plugin-react-refresh": "^0.4.6",
        "eslint-plugin-sort-exports": "^0.9.1",
        "prettier": "^3.3.3",
        "sass": "^1.78.0",
        "typescript": "^5.2.2",
        "typescript-eslint": "^8.5.0",
        "vite": "^5.2.10",
        "vite-plugin-pwa": "^0.20.0",
        "vite-plugin-svgr": "^4.2.0",
        "workbox-core": "^7.1.0",
        "workbox-window": "^7.1.0"
    },
    "overrides": {
        "sharp": "0.32.6",
        "sharp-ico": "0.1.5"
    }
}
```

backend

Language : Java 17

Tool : SpringBoot 3.3.6

IDE : inellij 2024.2.3

```
plugins {
    id 'java'
    id 'org.springframework.boot' version '3.3.3'
    id 'io.spring.dependency-management' version '1.1.6'
}

group = 'com.ssafy'
version = '0.0.1-SNAPSHOT'
```

```
java {
    toolchain {
        languageVersion = JavaLanguageVersion.of(17)
    }
}

configurations {
    compileOnly {
        extendsFrom annotationProcessor
    }
}

repositories {
    mavenCentral()
}

dependencies {
    implementation 'org.springframework.boot:spring-boot-st
arter-data-jpa'
    implementation 'org.springframework.boot:spring-boot-st
arter-web'

    // ! Swagger 관련 설정 추가
    implementation 'org.springdoc:springdoc-openapi-starter
-webmvc-ui:2.5.0'

    // Security
    implementation 'org.springframework.boot:spring-boot-st
arter-security'
    implementation 'org.springframework.boot:spring-boot-st
arter-oauth2-client'
    implementation 'io.jsonwebtoken:jjwt-api:0.12.3'
    implementation 'io.jsonwebtoken:jjwt-impl:0.12.3'
    implementation 'io.jsonwebtoken:jjwt-jackson:0.12.3'

    // DB
    runtimeOnly 'com.h2database:h2'
    implementation 'org.mariadb.jdbc:mariadb-java-client:3.
```

```
1.4'
    implementation 'org.springframework.boot:spring-boot-st
arter-data-redis'
    implementation 'org.redisson:redisson-spring-boot-start
er:3.33.0'
    implementation 'org.springframework.boot:spring-boot-st
arter-data-mongodb'


    //RabbitMQ
    implementation 'org.springframework.boot:spring-boot-st
arter-amqp'
    implementation 'org.springframework.boot:spring-boot-st
arter-reactor-netty'

    //websocket
    implementation 'org.springframework.boot:spring-boot-st
arter-websocket'

    //webflux
    implementation 'org.springframework.boot:spring-boot-st
arter-webflux'

    //Spring Quartz
    implementation 'org.springframework.boot:spring-boot-st
arter-quartz'

    compileOnly 'org.projectlombok:lombok'
    runtimeOnly 'com.mysql:mysql-connector-j'
    annotationProcessor 'org.projectlombok:lombok'
    testImplementation 'org.springframework.boot:spring-boo
t-starter-test'
    testRuntimeOnly 'org.junit.platform:junit-platform-laun
cher'

    implementation 'org.springframework.boot:spring-boot-st
arter-thymeleaf'
}
```

```
tasks.named('test') {
    useJUnitPlatform()
}
```

fast ai

```
aiohappyeyeballs==2.4.3
aiohttp==3.10.9
aiosignal==1.3.1
annotated-types==0.7.0
anyio==4.6.0
attrs==24.2.0
certifi==2024.8.30
charset-normalizer==3.3.2
click==8.1.7
colorama==0.4.6
distro==1.9.0
fastapi==0.115.0
frozenlist==1.4.1
h11==0.14.0
httpcore==1.0.6
httpx==0.27.2
idna==3.10
jiter==0.5.0
multidict==6.1.0
openai==0.28.0
pydantic==2.9.2
pydantic_core==2.23.4
python-dotenv==1.0.1
requests==2.32.3
sniffio==1.3.1
starlette==0.38.6
tqdm==4.66.5
typing_extensions==4.12.2
urllib3==2.2.3
```

```
uvicorn==0.31.0
yarl==1.13.1
```

server

```
Ec2                Ubuntu 20.04.6 LTS
jenkins/jenkins    2.478-jdk17
rabbitmq           management
rabbitmq           3-management
grafana/grafana    latest
influxdb           1.8
nginx              latest
redis              latest
mysql              latest
```

ufw port

```
To                        Action      From
--                        ------      ----
22                        ALLOW       Anywhere
8989                      ALLOW       Anywhere
443                       ALLOW       Anywhere
8080/tcp                  ALLOW       Anywhere
80/tcp                    ALLOW       Anywhere
6379/tcp                  ALLOW       Anywhere
9090/tcp                  ALLOW       Anywhere
5672/tcp                  ALLOW       Anywhere
15672/tcp                 ALLOW       Anywhere
61613/tcp                 ALLOW       Anywhere
3306/tcp                  ALLOW       Anywhere
22 (v6)                   ALLOW       Anywhere (v6)
8989 (v6)                 ALLOW       Anywhere (v6)
443 (v6)                  ALLOW       Anywhere (v6)
8080/tcp (v6)             ALLOW       Anywhere (v6)
80/tcp (v6)               ALLOW       Anywhere (v6)
6379/tcp (v6)             ALLOW       Anywhere (v6)
```

```
9090/tcp (v6)            ALLOW      Anywhere (v6)
5672/tcp (v6)            ALLOW      Anywhere (v6)
15672/tcp (v6)           ALLOW      Anywhere (v6)
61613/tcp (v6)           ALLOW      Anywhere (v6)
3306/tcp (v6)            ALLOW      Anywhere (v6)
```

1. docker install

공식문서 참고 : https://docs.docker.com/engine/install/ubuntu/

```
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 -o /etc/apt/keyrings/docker.asc
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/keyrings/docker.asc] https://download.docker.com/linux/ubuntu \
  $(. /etc/os-release && echo "$VERSION_CODENAME") stable" | \
  sudo tee /etc/apt/sources.list.d/docker.list > /dev/null
sudo apt-get update

sudo apt-get install docker-ce docker-ce-cli containerd.io docker-buildx-plugin docker-compose-plugin
```

2. docker-compose

전체 도커 파일

```
services:
  jenkins:
    build:
```

```yaml
      context: ./jenkins_docker
      dockerfile: Dockerfile
    container_name: jenkins
    user: root
    environment:
      - TZ=Asia/Seoul
    volumes:
      - /var/run/docker.sock:/var/run/docker.sock
      - /home/ubuntu/data/jenkins:/var/jenkins_home
    ports:
      - '9090:8080'
    restart: on-failure

  redis:
    image: redis:latest
    container_name: redis
    hostname: redis
    command: redis-server --port 6379
    ports:
      - "6379:6379"
    volumes:
      - /home/ubuntu/data/redis/redis_data:/data
      - /home/ubuntu/data/redis:/usr/local/etc/redis/redis.
conf
    networks:
      - drcha_network

  rabbitmq:
    image: rabbitmq:3-management
    container_name: rabbitmq
    ports:
      - "5672:5672"   # RabbitMQ default port
      - "15672:15672" # RabbitMQ management UI
      - "61613:61613" # STOMP protocol port
    environment:
      RABBITMQ_DEFAULT_USER: guest
      RABBITMQ_DEFAULT_PASS: guest
      RABBITMQ_DEFAULT_VHOST: /
```

```
    volumes:
      - ./rabbitmq-enabled-plugins:/etc/rabbitmq/enabled_pl
ugins
    networks:
      - drcha_network

  nginx:
    image: nginx:latest
    container_name: nginx
    ports:
      - "80:80"
      - "443:443"
    volumes:
      - ../nginx/nginx.conf:/etc/nginx/nginx.conf:ro
      - ../nginx/data/certbot/conf:/etc/letsencrypt
      - ../nginx/data/certbot/www:/var/www/certbot
    depends_on:
      - certbot

  certbot:
    image: certbot/certbot
    volumes:
      - ../nginx/data/certbot/conf:/etc/letsencrypt
      - ../nginx/data/certbot/www:/var/www/certbot

  mysql:
    image: mysql:latest
    restart: always
    container_name: mysql
    environment:
      MYSQL_ROOT_PASSWORD: rootpassword
      MYSQL_DATABASE: drcha
      MYSQL_USER: drcha
      MYSQL_PASSWORD: drchapassword
      TZ: Asia/Seoul
    ports:
      - "3306:3306"
    volumes:
```

```yaml
      - /home/ubuntu/data/mysql:/var/lib/mysql
    networks:
      - drcha_network
    command:
      - --character-set-server=utf8mb4
      - --collation-server=utf8mb4_unicode_ci

  influxdb:
    image: influxdb:1.8
    container_name: influxdb
    ports:
      - "8086:8086"
    environment:
      - INFLUXDB_DB=k6
    volumes:
      - ./influxdb-storage:/var/lib/influxdb
    networks:
      - drcha_network

  k6:
    image: grafana/k6
    container_name: k6
    environment:
      - K6_OUT=influxdb=http://influxdb:8086/k6
    volumes:
      - ./k6-scripts:/scripts
    networks:
      - drcha_network

  grafana:
    image: grafana/grafana
    container_name: grafana
    user: root
    ports:
      - "3001:3000"
    environment:
      - GF_AUTH_ANONYMOUS_ENABLED=true
      - GF_AUTH_ANONYMOUS_ORG_ROLE=Admin
```

```
    volumes:
      - ./grafana-storage:/var/lib/grafana
    networks:
      - drcha_network

volumes:
  grafana-storage:
  influxdb-storage:

networks:
  drcha_network:
    external: true
```

3. Nginx

3-1. Nginx, letsencrypt, cerbot install

SSL 인증서 설치

```
## 설치
sudo apt-get install letsencrypt
sudo apt install certbot python3-certbot-nginx

# nginx 연결
sudo certbot --nginx -d j11a205.p.ssafy.io

# docker 이용시
## docker compose 명령어 nginx 적혀있는 곳에서 실행해서 key 발급 e
mail 등록 필수
sudo docker compose run --rm certbot certonly --webroot --w
ebroot-path=/var/www/certbot -d j11a205.p.ssafy.io
```

3-2. Nginx conf

```
user nginx;
worker_processes auto;
error_log /var/log/nginx/error.log warn;
pid /var/run/nginx.pid;
```

```
events {
    worker_connections 1024;
    multi_accept on;
}

http {
    include /etc/nginx/mime.types;
    default_type application/octet-stream;

    log_format main '$remote_addr - $remote_user [$time_loc
al] "$request" '
                    '$status $body_bytes_sent "$http_refere
r" '
                    '"$http_user_agent" "$http_x_forwarded_
for"';

    access_log /var/log/nginx/access.log main;
    sendfile on;
    keepalive_timeout 65;

    # 업스트림 설정
    upstream frontend {
        server j11a205.p.ssafy.io:3000;
    }

    upstream backend {
        server j11a205.p.ssafy.io:8080;
    }

    upstream ai_backend {
        server j11a205.p.ssafy.io:8000;
    }

    map $http_upgrade $connection_upgrade {
        default upgrade;
        '' close;
    }
```

```
server {
    listen 80;
    server_name j11a205.p.ssafy.io;

    location /.well-known/acme-challenge/ {
        root /var/www/certbot;
    }

    location / {
        return 301 https://$server_name$request_uri;
    }
}

server {
    listen 443 ssl http2;
    server_name j11a205.p.ssafy.io;

    ssl_certificate /etc/letsencrypt/live/j11a205.p.ssafy.io/fullchain.pem;
    ssl_certificate_key /etc/letsencrypt/live/j11a205.p.ssafy.io/privkey.pem;

    # 프론트엔드 리버스 프록시
    location / {
        proxy_pass http://frontend;
        proxy_set_header Host $host;
        proxy_set_header X-Real-IP $remote_addr;
        proxy_set_header X-Forwarded-For $proxy_add_x_forwarded_for;
        proxy_set_header X-Forwarded-Proto $scheme;
        proxy_buffering off;
        proxy_http_version 1.1;
        proxy_set_header Upgrade $http_upgrade;
        proxy_set_header Connection $connection_upgrade;

        error_page 502 503 504 = @frontend_unavailable;
    }
```

```
        # 백엔드 리버스 프록시
        location /api {
            proxy_pass http://backend;
            proxy_set_header Host $host;
            proxy_set_header X-Real-IP $remote_addr;
            proxy_set_header X-Forwarded-For $proxy_add_x_f
orwarded_for;
            proxy_set_header X-Forwarded-Proto $scheme;
            proxy_buffering off;
            error_page 502 503 504 = @backend_unavailable;
        }

        # AI 백엔드 리버스 프록시
        location /ai {
            proxy_pass http://ai_backend;
            proxy_set_header Host $host;
            proxy_set_header X-Real-IP $remote_addr;
            proxy_set_header X-Forwarded-For $proxy_add_x_f
orwarded_for;
            proxy_set_header X-Forwarded-Proto $scheme;
            proxy_buffering off;
            error_page 502 503 504 = @ai_backend_unavailabl
e;
        }

        # WebSocket 연결을 위한 설정
        location /ws {
            proxy_pass http://backend;
            proxy_http_version 1.1;
            proxy_set_header Upgrade $http_upgrade;
            proxy_set_header Connection $connection_upgrad
e;
            proxy_set_header Host $host;
            proxy_set_header X-Real-IP $remote_addr;
            proxy_set_header X-Forwarded-For $proxy_add_x_f
orwarded_for;
            proxy_set_header X-Forwarded-Proto $scheme;
```

```
            error_page 502 503 504 = @backend_unavailable;
        }

        #Swagger 설정
        location /swagger-ui/ {
            proxy_pass http://backend/swagger-ui/;
            proxy_set_header Host $host;
            proxy_set_header X-Real-IP $remote_addr;
            proxy_set_header X-Forwarded-For $proxy_add_x_f
orwarded_for;
            proxy_set_header X-Forwarded-Proto $scheme;
        }

        location /v3/api-docs {
            proxy_pass http://backend/v3/api-docs;
            proxy_set_header Host $host;
            proxy_set_header X-Real-IP $remote_addr;
            proxy_set_header X-Forwarded-For $proxy_add_x_f
orwarded_for;
            proxy_set_header X-Forwarded-Proto $scheme;
        }

        location @frontend_unavailable {
            return 503 '{"error": "Frontend service is curr
ently unavailable"}';
        }

        location @backend_unavailable {
            return 503 '{"error": "Backend service is curre
ntly unavailable"}';
        }

        location @ai_backend_unavailable {
            return 503 '{"error": "AI service is currently
unavailable"}';
        }
    }
}
```

3-3. docker-compose.yml

```yaml
nginx:
  image: nginx:latest
  container_name: nginx
  ports:
    - "80:80"
    - "443:443"
  volumes:
    - ../nginx/nginx.conf:/etc/nginx/nginx.conf:ro
    - ../nginx/data/certbot/conf:/etc/letsencrypt
    - ../nginx/data/certbot/www:/var/www/certbot
  depends_on:
    - certbot

certbot:
  image: certbot/certbot
  volumes:
    - ../nginx/data/certbot/conf:/etc/letsencrypt
    - ../nginx/data/certbot/www:/var/www/certbot
```

4. Jenkins

4-1. Jenkins docker file

```dockerfile
FROM jenkins/jenkins:lts
USER root

# 필요한 패키지 설치 및 Docker 설정
RUN apt-get update && apt-get install -y \
    ca-certificates \
    curl \
    gnupg \
    lsb-release \
    git \
    unzip \
    xz-utils \
    libglu1-mesa \
```

```
    && rm -rf /var/lib/apt/lists/*

# Docker의 공식 GPG 키 추가
RUN install -m 0755 -d /etc/apt/keyrings \
    && curl -fsSL https://download.docker.com/linux/debian/
gpg -o /etc/apt/keyrings/docker.asc \
    && chmod a+r /etc/apt/keyrings/docker.asc

# Docker 리포지토리를 APT 소스에 추가
RUN echo \
    "deb [arch=$(dpkg --print-architecture) signed-by=/etc/
apt/keyrings/docker.asc] https://download.docker.com/linux/
debian \
    $(. /etc/os-release && echo "$VERSION_CODENAME") stabl
e" | \
    tee /etc/apt/sources.list.d/docker.list > /dev/null

# Docker 패키지 설치
RUN apt-get update && apt-get install -y \
    docker-ce-cli \
    docker-buildx-plugin \
    docker-compose-plugin \
    && rm -rf /var/lib/apt/lists/*

# jenkins 사용자를 docker 그룹에 추가
RUN groupadd -f docker && usermod -aG docker jenkins
```

4-2. docker-compose.yml

```
jenkins:
    build:
      context: ./jenkins_docker
      dockerfile: Dockerfile
    container_name: jenkins
    user: root
    environment:
      - TZ=Asia/Seoul
    volumes:
```

```
        - /var/run/docker.sock:/var/run/docker.sock
        - /home/ubuntu/data/jenkins:/var/jenkins_home
      ports:
        - '9090:8080'
      restart: on-failure
```

4-3. Jenkins Script

frontend script

```
pipeline {
    agent any

    environment {
        DOCKER_IMAGE = "drcha-frontend"
        DOCKER_TAG = "${BUILD_NUMBER}"
        CONTAINER_NAME = "frontend"
        GIT_AUTHOR_ID = ""
        GIT_AUTHOR_NAME = ""
    }

    stages {
        stage('Checkout') {
            steps {
                dir('./') {
                    git branch: 'frontend', url: 'https://l
ab.ssafy.com/s11-fintech-finance-sub1/S11P21A205.git', cred
entialsId: 'gitlab-credentials'
                }
                script {
                    GIT_AUTHOR_ID = sh(script: "git show -s
--pretty=%an", returnStdout: true).trim()
                    GIT_AUTHOR_NAME = sh(script: "git show
-s --pretty=%ae", returnStdout: true).trim()
                }
            }
        }

        stage('Prepare env file') {
```

```groovy
        steps {
            dir('frontend') {
                withCredentials([file(credentialsId: 'f
ront_env', variable: 'ENV_FILE')]) {
                    sh 'cp $ENV_FILE .env'
                }
            }
        }
    }

    stage('Docker Build') {
        steps {
            dir('frontend') {
                sh "docker build -t ${DOCKER_IMAGE}:${D
OCKER_TAG} ."
            }
        }
    }

    stage('Deploy') {
        steps {
            script {
                sh "docker stop ${CONTAINER_NAME} || tr
ue"
                sh "docker rm ${CONTAINER_NAME} || tru
e"
                sh "docker run -d --name ${CONTAINER_NA
ME} -p 3000:3000 --env-file ./frontend/.env ${DOCKER_IMAG
E}:${DOCKER_TAG}"
            }
        }
    }
}

post {
    success {
        script {
            mattermostSend(color: 'good',
```

```
                    message: "빌드 성공: ${env.JOB_NAME} #${env.B
UILD_NUMBER} by ${GIT_AUTHOR_ID}(${GIT_AUTHOR_NAME})\n(<${e
nv.BUILD_URL}|Details>)",
                        endpoint: 'https://meeting.ssafy.com/ho
oks/itjhcncagbn47y93r1yxy6ydue',
                        channel: 'A205_build_result')
            }
        }

        failure {
            script {
                mattermostSend(color: 'danger',
                    message: "빌드 실패: ${env.JOB_NAME} #${e
nv.BUILD_NUMBER} by ${GIT_AUTHOR_ID}(${GIT_AUTHOR_NAME})\n
(<${env.BUILD_URL}|Details>)",
                        endpoint: 'https://meeting.ssafy.com/ho
oks/itjhcncagbn47y93r1yxy6ydue',
                        channel: 'A205_build_result')
            }
        }

        always {
            cleanWs()
        }
    }
}
```

backend script

```
pipeline {
    agent any

    environment {
        BACKEND_IMAGE_NAME = "drcha-backend"
        BACKEND_CONTAINER_NAME = "backend"
        AI_IMAGE_NAME = "ai-backend"
        AI_CONTAINER_NAME = "ai-backend"
```

```
        NETWORK_NAME = "drcha_network"
        GIT_AUTHOR_ID = ""
        GIT_AUTHOR_NAME = ""
    }

    stages {
        stage('Checkout') {
            steps {
                dir('./') {
                    git branch: 'backend', url: 'https://la
b.ssafy.com/s11-fintech-finance-sub1/S11P21A205.git', crede
ntialsId: 'gitlab-credentials'
                }
                script {
                    GIT_AUTHOR_ID = sh(script: "git show -s
--pretty=%an", returnStdout: true).trim()
                    GIT_AUTHOR_NAME = sh(script: "git show
-s --pretty=%ae", returnStdout: true).trim()
                }
            }
        }

        // Backend Stages
        stage('Apply Backend application-private.yml') {
            steps {
                withCredentials([file(credentialsId: 'appli
cation-private-id', variable: 'APPLICATION_PRIVATE_YML')])
{
                    sh 'cp $APPLICATION_PRIVATE_YML ./backe
nd/DrChaYong/src/main/resources'
                }
            }
        }
        stage('Build Backend') {
            steps {
                dir('./backend/DrChaYong') {
                    sh 'chmod +x gradlew'
                    sh './gradlew clean build -x test'
```

```
                }
            }
        }
        stage('Build Backend Docker Image') {
            steps {
                dir('./backend/DrChaYong') {
                    sh 'docker build -t ${BACKEND_IMAGE_NAM
E}:${BUILD_NUMBER} .'
                }
            }
        }
        stage('Deploy Backend') {
            steps {
                script {
                    sh "docker stop ${BACKEND_CONTAINER_NAM
E} || true"
                    sh "docker rm ${BACKEND_CONTAINER_NAME}
|| true"
                    sh """
                    docker run -d \
                        --name ${BACKEND_CONTAINER_NAME} \
                        --network ${NETWORK_NAME} \
                        -p 8080:8080 \
                        ${BACKEND_IMAGE_NAME}:${BUILD_NUMBE
R}
                    """
                }
            }
        }

        // AI Stages
        stage('Apply AI Environment Variables') {
            steps {
                withCredentials([file(credentialsId: 'ai_en
v', variable: 'AI_ENV_FILE')]) {
                    sh 'cp $AI_ENV_FILE ./ai'
                }
            }
```

```
        }
        stage('Build AI Docker Image') {
            steps {
                dir('./ai') {
                    sh 'docker build -t ${AI_IMAGE_NAM
E}:${BUILD_NUMBER} .'
                }
            }
        }
        stage('Deploy AI') {
            steps {
                script {
                    sh "docker stop ${AI_CONTAINER_NAME} ||
true"
                    sh "docker rm ${AI_CONTAINER_NAME} || t
rue"
                    sh """
                    docker run -d \
                        --name ${AI_CONTAINER_NAME} \
                        --network ${NETWORK_NAME} \
                        -p 8000:8000 \
                        ${AI_IMAGE_NAME}:${BUILD_NUMBER}
                    """
                }
            }
        }
    }

    post {
        success {
            script {
                mattermostSend(color: 'good',
                message: "빌드 성공: ${env.JOB_NAME} #${env.B
UILD_NUMBER} by ${GIT_AUTHOR_ID}(${GIT_AUTHOR_NAME})\n(<${e
nv.BUILD_URL}|Details>)",
                    endpoint: 'https://meeting.ssafy.com/ho
oks/itjhcncagbn47y93r1yxy6ydue',
                    channel: 'A205_build_result')
```

```
            }
        }

        failure {
            script {
                mattermostSend(color: 'danger',
                    message: "빌드 실패: ${env.JOB_NAME} #${e
nv.BUILD_NUMBER} by ${GIT_AUTHOR_ID}(${GIT_AUTHOR_NAME})\n
(<${env.BUILD_URL}|Details>)",
                    endpoint: 'https://meeting.ssafy.com/ho
oks/itjhcncagbn47y93r1yxy6ydue',
                    channel: 'A205_build_result')
            }
        }

        always {
            cleanWs()
        }
    }
}
```

4-4. Jenkins plugins

```
Ant Plugin
버전511.v0a_a_1a_334f41b_
Adds Apache Ant support to Jenkins
Report an issue with this plugin



Apache HttpComponents Client 4.x API Plugin
버전4.5.14-208.v438351942757
Bundles Apache HttpComponents Client 4.x and allows it to b
e used by Jenkins plugins.
Report an issue with this plugin



ASM API
버전9.7-33.v4d23ef79fcc8
```

This plugin provides the ASM APIs (v9.7) for other plugins.
Report an issue with this plugin

Bootstrap 5 API Plugin
버전5.3.3-1
Provides Bootstrap 5 for Jenkins Plugins. Bootstrap is (according to their self-perception) the world's most popular front-end component library to build responsive, mobile-first projects on the web.
Report an issue with this plugin

bouncycastle API Plugin
버전2.30.1.78.1-248.ve27176eb_46cb_
This plugin provides a stable API to Bouncy Castle related tasks.
Report an issue with this plugin

Branch API Plugin
버전2.1178.v969d9eb_c728e
This plugin provides an API for multiple branch based projects.
Report an issue with this plugin

Build Timeout
버전1.33
This plugin allows you to automatically terminate a build if it's taking too long.
Report an issue with this plugin

1.33

Caffeine API Plugin
버전3.1.8-133.v17b_1ff2e0599

Caffeine api plugin for use by other Jenkins plugins.
Report an issue with this plugin

Checks API plugin
버전2.2.1
This plugin defines an API for Jenkins to publish checks to
SCM platforms.
Report an issue with this plugin

commons-lang3 v3.x Jenkins API Plugin
버전3.17.0-84.vb_b_938040b_078
Jenkins Api Plugin that Bundles Apache Commons Lang v3.x.
Usage will slim downstream plugin and not require dependenc
y jar being provided by core Jenkins.
Provides org.apache.commons:commons-lang3:3.17.0.
Report an issue with this plugin

commons-text API Plugin
버전1.12.0-129.v99a_50df237f7
Jenkins Api Plugin that Bundles Apache Commons Text v1.x.
Usage will slim downstream plugin.
Provides org.apache.commons:commons-text:1.12.0.
Report an issue with this plugin

Config File Provider Plugin
버전978.v8e85886ffdc4
Ability to provide configuration files (e.g. settings.xml f
or maven, XML, groovy, custom files,...) loaded through the
UI which will be copied to the job workspace.
Report an issue with this plugin

Credentials
버전1381.v2c3a_12074da_b_

This plugin allows you to store credentials in Jenkins.
Report an issue with this plugin

1378.v81ef4269d764

Credentials Binding Plugin
버전681.vf91669a_32e45
Allows credentials to be bound to environment variables for use from miscellaneous build steps.
Report an issue with this plugin

681.vf91669a_32e45

Dark Theme
버전479.v661b_1b_911c01
Adds a dark theme to Jenkins, respecting browser and OS themes if configured.
Report an issue with this plugin

Display URL API
버전2.204.vf6fddd8a_8b_e9
Provides the DisplayURLProvider extension point to provide alternate URLs for use in notifications.
Report an issue with this plugin

Durable Task Plugin
버전577.v2a_8a_4b_7c0247
Library offering an extension point for processes which can run outside of Jenkins yet be monitored.
Report an issue with this plugin

ECharts API Plugin
버전5.5.1-1

Provides ECharts for Jenkins Plugins, a JavaScript visualiz
ation tool to create intuitive, interactive, and highly-cus
tomizable charts.
Report an issue with this plugin

EDDSA API Plugin
버전0.3.0-4.v84c6f0f4969e
EDDSA api plugin for use by other Jenkins plugins.
Note:Modern (> 15) JDK variants natively support EdDSA sign
atures via JCE but some libraries still target JDK 11 and h
ave a need of this library.
Report an issue with this plugin

Email Extension Plugin
버전1844.v3ea_a_b_842374a_
This plugin is a replacement for Jenkins's email publisher.
It allows to configure every aspect of email notifications:
when an email is sent, who should receive it and what the e
mail says
Report an issue with this plugin

Folders Plugin
버전6.955.v81e2a_35c08d3
This plugin allows users to create "folders" to organize jo
bs. Users can define custom taxonomies (like by project typ
e, organization type etc). Folders are nestable and you can
define views within folders. Maintained by CloudBees, Inc.
Report an issue with this plugin

Font Awesome API Plugin
버전6.6.0-2
Provides Font Awesome 6 for Jenkins Plugins. Font Awesome h
as vector icons and social logos. It is the web's most popu
lar icon set and toolkit with more than 1700 free icons.

Report an issue with this plugin

Git
버전5.5.1
This plugin integrates Git with Jenkins.
Report an issue with this plugin

5.5.1

Git client plugin
버전6.0.0
Utility plugin for Git support in Jenkins
Report an issue with this plugin

GitHub API Plugin
버전1.321-478.vc9ce627ce001
This plugin provides GitHub API for other plugins.
Report an issue with this plugin

GitHub Branch Source Plugin
버전1797.v86fdb_4d57d43
Multibranch projects and organization folders from GitHub.
Maintained by CloudBees, Inc.
Report an issue with this plugin

1797.v86fdb_4d57d43

GitHub plugin
버전1.40.0
This plugin integrates GitHub to Jenkins.
Report an issue with this plugin

GitLab Plugin
버전1.9.2
This plugin allows GitLab to trigger Jenkins builds and dis
play their results in the GitLab UI.
Report an issue with this plugin

Gradle Plugin
버전2.13
This plugin allows Jenkins to invoke Gradle build scripts d
irectly.
Report an issue with this plugin

2.13

Gson API Plugin
버전2.11.0-41.v019fcf6125dc
This plugin provides the Gson APIs (v2.11.0) for other plug
ins.
Report an issue with this plugin

Instance Identity
버전201.vd2a_b_5a_468a_a_6
Maintains an RSA key pair that can serve as a foundation of
authentication when communicating with Jenkins
Report an issue with this plugin

185.v303dc7c645f9

Ionicons API
버전74.v93d5eb_813d5f
Provides Ionicons for Jenkins Plugins, internally known as
"symbols".
Check out the design-library how to use ionicons in your pl
ugin.

Report an issue with this plugin

Jackson 2 API Plugin
버전2.17.0-379.v02de8ec9f64c
This plugin exposes the Jackson 2 JSON APIs to other Jenkin
s plugins.
Report an issue with this plugin

Jakarta Activation API
버전2.1.3-1
This plugin provides the Jakarta Activation API for other p
lugins.
Report an issue with this plugin

Jakarta Mail API
버전2.1.3-1
This plugin provides the Jakarta Mail API for other plugin
s.
Report an issue with this plugin

Java JSON Web Token (JJWT) Plugin
버전0.11.5-112.ve82dfb_224b_a_d
Bundles the Java JSON Web Token (JJWT) library.
Report an issue with this plugin

JavaBeans Activation Framework (JAF) API
버전1.2.0-7
This plugin provides the JavaBeans Activation Framework (JA
F) API for other plugins.
Report an issue with this plugin

JavaMail API

버전1.6.2-10
This plugin provides the JavaMail API for other plugins.
Report an issue with this plugin

JAXB plugin
버전2.3.9-1
JAXB packaging for more transparent Java 9+ compatibility
Report an issue with this plugin
This plugin is up for adoption! We are looking for new main
tainers. Visit our Adopt a Plugin initiative for more infor
mation.

Jersey 2 API
버전2.44-151.v6df377fff741
This plugin provides the JAX-RS 2.1 and Jersey 2 APIs for o
ther plugins.
Report an issue with this plugin

Joda Time API Plugin
버전2.13.0-85.vb_64d1c2921f1
This plugin provides the Joda Time APIs (v2.13.0) for other
plugins.
Report an issue with this plugin

JQuery3 API Plugin
버전3.7.1-2
Provides jQuery 3 for Jenkins Plugins. jQuery is a fast, sm
all, and feature-rich JavaScript library.
Report an issue with this plugin

JSON Api Plugin
버전20240303-41.v94e11e6de726
This plugin provides the JSON APIs (v20240303) for other pl

ugins.
Report an issue with this plugin

JSON Path API Plugin
버전2.9.0-58.v62e3e85b_a_655
This plugin provides the JSON Path APIs (v2.9.0) for other
plugins.
Report an issue with this plugin

JUnit
버전1302.va_b_878c32eb_b_5
Allows JUnit-format test results to be published.
Report an issue with this plugin

LDAP Plugin
버전759.vef7f616475df
Adds LDAP authentication to Jenkins
Report an issue with this plugin

733.vd3700c27b_043

Mailer Plugin
버전488.v0c9639c1a_eb_3
This plugin allows you to configure email notifications for
build results.
Report an issue with this plugin

472.vf7c289a_4b_420

Matrix Authorization Strategy Plugin
버전3.2.2
Offers matrix-based security authorization strategies (glob
al and per-project).

Report an issue with this plugin

Matrix Project
버전832.va_66e270d2946
Multi-configuration (matrix) project type.
Report an issue with this plugin

Mattermost Notification Plugin
버전3.1.3
This plugin is a Mattermost notifier that can publish build
status to Mattermost channels.
Report an issue with this plugin

Metrics Plugin
버전4.2.21-451.vd51df8df52ec
This plugin exposes the Metrics API to Jenkins plugins.
Report an issue with this plugin

Mina SSHD API :: Common
버전2.14.0-133.vcc091215a_358
Provides the Common module of Apache Mina SSHD to plugins.
Report an issue with this plugin

2.13.2-125.v200281b_61d59

Mina SSHD API :: Core
버전2.14.0-133.vcc091215a_358
Provides the Core module of Apache Mina SSHD to plugins.
Report an issue with this plugin

2.13.2-125.v200281b_61d59

NodeJS Plugin
버전1.6.2
NodeJS Plugin executes NodeJS script as a build step.
Report an issue with this plugin

OkHttp Plugin
버전4.11.0-181.v1de5b_83857df
This plugin provides OkHttp for other plugins.
Report an issue with this plugin

OWASP Markup Formatter Plugin
버전162.v0e6ec0fcfcf6
Uses the OWASP Java HTML Sanitizer to allow safe-seeming HT
ML markup to be entered in project descriptions and the lik
e.
Report an issue with this plugin

PAM Authentication plugin
버전1.11
Adds Unix Pluggable Authentication Module (PAM) support to
Jenkins
Report an issue with this plugin

Pipeline
버전600.vb_57cdd26fdd7
A suite of plugins that lets you orchestrate automation, si
mple or complex. See Pipeline as Code with Jenkins for more
details.
Report an issue with this plugin

Pipeline Graph Analysis Plugin
버전216.vfd8b_ece330ca_
Provides a REST API to access pipeline and pipeline run dat

a.
Report an issue with this plugin

216.vfd8b_ece330ca_

Pipeline Graph View
버전349.veda_b_e2366d99
Provides "Pipeline Graph" visualization of a pipeline job run.
Report an issue with this plugin

349.veda_b_e2366d99

Pipeline: API
버전1336.vee415d95c521
Plugin that defines Pipeline API.
Report an issue with this plugin

Pipeline: Basic Steps
버전1058.vcb_fc1e3a_21a_9
Commonly used steps for Pipelines.
Report an issue with this plugin

Pipeline: Build Step
버전540.vb_e8849e1a_b_d8
Adds the Pipeline step build to trigger builds of other jobs.
Report an issue with this plugin

Pipeline: Declarative
버전2.2214.vb_b_34b_2ea_9b_83
An opinionated, declarative Pipeline.
Report an issue with this plugin

2.2214.vb_b_34b_2ea_9b_83

Pipeline: Declarative Extension Points API
버전2.2214.vb_b_34b_2ea_9b_83
APIs for extension points used in Declarative Pipelines.
Report an issue with this plugin

2.2214.vb_b_34b_2ea_9b_83

Pipeline: GitHub Groovy Libraries
버전61.v629f2cc41d83
Allows Pipeline Groovy libraries to be loaded on the fly fr
om GitHub.
Report an issue with this plugin

Pipeline: Groovy
버전3969.vdc9d3a_efcc6a_
Pipeline execution engine based on continuation passing sty
le transformation of Groovy scripts.
Report an issue with this plugin

3964.v0767b_4b_a_0b_fa_

Pipeline: Groovy Libraries
버전730.ve57b_34648c63
Libraries for Pipeline scripts allowing logic to be shared
across jobs.
Report an issue with this plugin

Pipeline: Input Step
버전495.ve9c153f6067b_
Adds the Pipeline step input to wait for human input or app

roval.
Report an issue with this plugin

Pipeline: Job
버전1436.vfa_244484591f
Defines a new job type for pipelines and provides their gen
eric user interface.
Report an issue with this plugin

Pipeline: Milestone Step
버전119.vdfdc43fc3b_9a_
Plugin that provides the milestone step
Report an issue with this plugin

Pipeline: Model API
버전2.2214.vb_b_34b_2ea_9b_83
Model API for Declarative Pipeline.
Report an issue with this plugin

Pipeline: Multibranch
버전795.ve0cb_1f45ca_9a_
Enhances Pipeline plugin to handle branches better by autom
atically grouping builds from different branches.
Report an issue with this plugin

795.ve0cb_1f45ca_9a_

Pipeline: Nodes and Processes
버전1371.vb_7cec8f3b_95e
Pipeline steps locking agents and workspaces, and running e
xternal processes that may survive a Jenkins restart or age
nt reconnection.
Report an issue with this plugin

Pipeline: REST API Plugin
버전2.34
Provides a REST API to access pipeline and pipeline run data.
Report an issue with this plugin

Pipeline: SCM Step
버전427.v4ca_6512e7df1
Adds a Pipeline step to check out or update working sources from various SCMs (version control).
Report an issue with this plugin

Pipeline: Stage Step
버전312.v8cd10304c27a_
Adds the Pipeline step stage to delineate portions of a build.
Report an issue with this plugin

Pipeline: Stage Tags Metadata
버전2.2214.vb_b_34b_2ea_9b_83
Library plugin for Pipeline stage tag metadata.
Report an issue with this plugin

Pipeline: Stage View Plugin
버전2.34
Pipeline Stage View Plugin.
Report an issue with this plugin

2.34

Pipeline: Step API

버전678.v3ee58b_469476
API for asynchronous build step primitive.
Report an issue with this plugin

Pipeline: Supporting APIs
버전926.v9f4f9b_b_98c19
Common utility implementations to build Pipeline Plugin
Report an issue with this plugin

Plain Credentials Plugin
버전183.va_de8f1dd5a_2b_
Allows use of plain strings and files as credentials.
Report an issue with this plugin

Plugin Utilities API Plugin
버전5.1.0
Provides utility classes that can be used to accelerate plu
gin development.
Report an issue with this plugin

Resource Disposer Plugin
버전0.24
Dispose resources asynchronously. Utility plugin for resour
ces that require more retries or take a long time to delete
Report an issue with this plugin

0.23

SCM API Plugin
버전696.v778d637b_a_762
This plugin provides a new enhanced API for interacting wit
h SCM systems.
Report an issue with this plugin

Script Security Plugin
버전1362.v67dc1f0e1b_b_3
Allows Jenkins administrators to control what in-process sc
ripts can be run by less-privileged users.
Report an issue with this plugin

SnakeYAML API Plugin
버전2.3-123.v13484c65210a_
This plugin provides SnakeYAML for other plugins.
Report an issue with this plugin

SSH Build Agents plugin
버전2.973.v0fa_8c0dea_f9f
Allows to launch agents over SSH, using a Java implementati
on of the SSH protocol.
Report an issue with this plugin

SSH Credentials Plugin
버전343.v884f71d78167
Allows storage of SSH credentials in Jenkins
Report an issue with this plugin

SSH server
버전3.330.vc866a_8389b_58
Adds SSH server functionality to Jenkins, exposing CLI comm
ands through it.
Report an issue with this plugin

Structs Plugin
버전338.v848422169819
Library plugin for DSL plugins that need names for Jenkins

objects.
Report an issue with this plugin

Theme Manager
버전262.vc57ee4a_eda_5d
Provides an extension point for adding user and global them
es, built-in to Jenkins.
Report an issue with this plugin

Timestamper
버전1.27
Adds timestamps to the Console Output
Report an issue with this plugin

Token Macro Plugin
버전400.v35420b_922dcb_
This plug-in adds reusable macro expansion capability for o
ther plug-ins to use.
Report an issue with this plugin

400.v35420b_922dcb_

Trilead API Plugin
버전2.147.vb_73cc728a_32e
Trilead API Plugin provides the Trilead library to any depe
ndent plugins in an easily update-able manner.
Report an issue with this plugin

Variant Plugin
버전60.v7290fc0eb_b_cd
This user-invisible library plugin allows other multi-modal
plugins to behave differently depending on where they run.
Report an issue with this plugin

```
Workspace Cleanup Plugin
버전0.46
This plugin deletes the project workspace when invoked.
Report an issue with this plugin
```

4-5. Jenkins Credentials

Credentials

T	P	Store ↓	Domain	ID	Name
📱	👤	System	(global)	gitlab-project-token-id	GitLab API token
📱	👤	System	(global)	gitlab-credentials	지종권/******
📱	👤	System	(global)	application-private-id	application-private.yml
📱	👤	System	(global)	front_env	env
📱	👤	System	(global)	ai_env	env

4-6. Tools setting

NodeJS

NodeJS installations

NodeJS installations ⌃   ✎ Edited

Add NodeJS

≡ **NodeJS**   ✕

Name

NodeJs22

☑ Install automatically   ?

≡ **Install from nodejs.org**   ✕

Version

NodeJS 22.9.0   ⌄

JDK

JDK installations

JDK installations ⌃   ✎ Edited

Add JDK

☰   **JDK**   ✕

Name

jdk17

☑ Install automatically   ?

☰   **Extract *.zip/*.tar.gz**   ?   ✕

Download URL for binary archive   ?

https://corretto.aws/downloads/latest/amazon-corretto-17-x64-linux-jdk.tar.gz

Subdirectory of extracted archive   ?

amazon-corretto-17-x64-linux

고급 ⌄

Git

Git installations

☰   **Git**   ✕

Name

Default

Path to Git executable   ?

git

☐ Install automatically   ?

4-7. webhook setting

Webhooks

enable you to send notifications to web applications in response to events in a group or project. We recommend using an in preference to a webhook.

Project Hooks ⚓ 2   Add new webhook

http://j11a205.p.ssafy.io:9090/project/frontend   Test ⌄ Edit Delete
Push events   SSL Verification: enabled

http://j11a205.p.ssafy.io:9090/project/backend   Test ⌄ Edit Delete
Push events   SSL Verification: enabled

4-8. Trigger setting

frontend

Build Triggers

☐ Build after other projects are built ?
☐ Build periodically ?
☑ Build when a change is pushed to GitLab. GitLab webhook URL: http://j11a205.p.ssafy.io:9090/project/frontend ?

Enabled GitLab triggers
☑ Push Events ?
☐ Push Events in case of branch delete ?
☑ Opened Merge Request Events ?
☐ Build only if new commits were pushed to Merge Request ?
☐ Accepted Merge Request Events ?
☐ Closed Merge Request Events ?

Rebuild open Merge Requests ?

Never	⌄

☑ Approved Merge Requests (EE-only) ?
☑ Comments ?

Comment (regex) for triggering a build ?

Jenkins please retry a build

backend

Build Triggers

☐ Build after other projects are built ?

☐ Build periodically ?

☑ Build when a change is pushed to GitLab. GitLab webhook URL: http://j11a205.p.ssafy.io:9090/project/backend ?

Enabled GitLab triggers

☑ Push Events ?

☐ Push Events in case of branch delete ?

☑ Opened Merge Request Events ?

☐ Build only if new commits were pushed to Merge Request ?

☐ Accepted Merge Request Events ?

☐ Closed Merge Request Events ?

Rebuild open Merge Requests ?

```
Never                                                                    ⌄
```

☑ Approved Merge Requests (EE-only) ?

☑ Comments ?

Comment (regex) for triggering a build ?

```
Jenkins please retry a build
```

고급 ⌄

5. backend server docker file

```
# 빌드 스테이지
FROM gradle:7.6.1-jdk17 AS build

# 컨테이너 내부 /app 디렉토리를 기준 실행
WORKDIR /app

# 빌드 캐시를 위해 의존성 관련 파일만 먼저 복사
COPY build.gradle settings.gradle ./
COPY gradle ./gradle

# 의존성 다운로드
RUN gradle dependencies --no-daemon

# 소스 코드 복사
COPY src ./src

# 애플리케이션 빌드
RUN gradle clean build --no-daemon
```

```
# 빌드된 JAR 파일 이름 변경
RUN mv /app/build/libs/DrChaYong-*-SNAPSHOT.jar /app/app.ja
r

# 실행 스테이지
FROM openjdk:17-jdk-slim

# 컨테이너 내부 /app 디렉토리 기준
WORKDIR /app

# 빌드 스테이지에서 생성된 jar 파일 복사
COPY --from=build /app/app.jar ./app.jar

EXPOSE 8080

ENTRYPOINT ["java", "-jar", "app.jar"]
```

6. frontend server docker file

```
# 빌드 단계
FROM node:22 AS build
WORKDIR /app
COPY package*.json ./
RUN npm ci
COPY . .
RUN npm run build

# 실행 단계
FROM node:22-alpine
WORKDIR /app
COPY --from=build /app/dist ./dist

# serve 설치 및 실행
RUN npm install -g serve
EXPOSE 3000
CMD ["serve", "-s", "dist", "-l", "3000"]
```

7. ai server docker file

```
FROM python:3.12-slim

WORKDIR /app

COPY requirements.txt .

RUN pip install --no-cache-dir -r requirements.txt

COPY . .

EXPOSE 8000

CMD ["uvicorn", "iou:app", "--host", "0.0.0.0", "--port",
"8000"]
```

8. redis

docker compose

```
  redis:
    image: redis:latest
    container_name: redis
    hostname: redis
    command: redis-server --port 6379
    ports:
      - "6379:6379"
    volumes:
      - /home/ubuntu/data/redis/redis_data:/data
      - /home/ubuntu/data/redis:/usr/local/etc/redis/redis.
conf
    networks:
      - drcha_network
```

9. rabbitMQ

docker compose

```
rabbitmq:
  image: rabbitmq:3-management
  container_name: rabbitmq
  ports:
    - "5672:5672"   # RabbitMQ default port
    - "15672:15672" # RabbitMQ management UI
    - "61613:61613" # STOMP protocol port
  environment:
    RABBITMQ_DEFAULT_USER: guest
    RABBITMQ_DEFAULT_PASS: guest
    RABBITMQ_DEFAULT_VHOST: /
  volumes:
    - ./rabbitmq-enabled-plugins:/etc/rabbitmq/enabled_pl
ugins
  networks:
    - drcha_network
```

rabbitmq-enable-plugins

```
[rabbitmq_management,rabbitmq_stomp].
```

10. mysql

docker compose

```
mysql:
  image: mysql:latest
  restart: always
  container_name: mysql
  environment:
    MYSQL_ROOT_PASSWORD: rootpassword
    MYSQL_DATABASE: drcha
    MYSQL_USER: drcha
    MYSQL_PASSWORD: drchapassword
    TZ: Asia/Seoul
  ports:
```

```
      - "3306:3306"
    volumes:
      - /home/ubuntu/data/mysql:/var/lib/mysql
    networks:
      - drcha_network
    command:
      - --character-set-server=utf8mb4
      - --collation-server=utf8mb4_unicode_ci
```

11. k6 / grafana / influxDB

docker compose

```
influxdb:
  image: influxdb:1.8
  container_name: influxdb
  ports:
    - "8086:8086"
  environment:
    - INFLUXDB_DB=k6
  volumes:
    - ./influxdb-storage:/var/lib/influxdb
  networks:
    - drcha_network

k6:
  image: grafana/k6
  container_name: k6
  environment:
    - K6_OUT=influxdb=http://influxdb:8086/k6
  volumes:
    - ./k6-scripts:/scripts
  networks:
    - drcha_network

grafana:
  image: grafana/grafana
  container_name: grafana
```

```
    user: root
    ports:
      - "3001:3000"
    environment:
      - GF_AUTH_ANONYMOUS_ENABLED=true
      - GF_AUTH_ANONYMOUS_ORG_ROLE=Admin
    volumes:
      - ./grafana-storage:/var/lib/grafana
    networks:
      - drcha_network
```

12. 환경변수

application-priavate.yml

```
spring:
  datasource:
    url: jdbc:mysql://j11a205.p.ssafy.io:3306/drcha?useUnic
ode=true&characterEncoding=UTF-8&useSSL=false&serverTimezon
e=Asia/Seoul&useSSL=false&allowPublicKeyRetrieval=true
    username: drcha
    password: drchapassword
    driver-class-name: com.mysql.cj.jdbc.Driver

  jpa:
    hibernate:
      ddl-auto: update
    properties:
      hibernate:
        dialect: org.hibernate.dialect.MariaDBDialect
    show-sql: true

  security:
    oauth2:
      client:
        registration:
          kakao:
            client-id: b31dea478171ba9ab3258d9700c8071a
```

```yaml
                client-secret: FRkq5ISDN05FQ3gJj5OR85VhvguWdEy5
                redirect-uri: "https://j11a205.p.ssafy.io/api/login/oauth2/code/kakao"
                authorization-grant-type: authorization_code
                client-authentication-method: client_secret_post
                scope: profile_nickname, account_email, profile_image

        provider:
          kakao:
            authorization-uri: https://kauth.kakao.com/oauth/authorize
            token-uri: https://kauth.kakao.com/oauth/token
            user-info-uri: https://kapi.kakao.com/v2/user/me
            user-name-attribute: id

  data:
    redis:
      host: redis
      port: 6379
      timeout: 6000

    mongodb:
      uri: mongodb+srv://S11P22A205:8FvGu0BiqM@ssafy.ngivl.mongodb.net/S11P22A205?authSource=admin
      database: S11P22A205

  # RabbitMQ 설정 추가
  rabbitmq:
    host: rabbitmq
    port: 5672
    username: guest
    password: guest
    virtual-host: /

  rabbitmq-stomp:
```

```yaml
    host: rabbitmq
    port: 61613
    virtual-host: /
    username: guest
    password: guest

jwt:
  secret: your_very_long_and_very_secure_secret_key_here_mi
nimum_32_chars_123145667778
  access:
    expiration: 3600
  refresh:
    expiration: 1209600

app:
  url:
    front: "https://j11a205.p.ssafy.io"

api:
  institutionCode: "00100"
  fintechAppNo: "001"
  apiKey: "d2112d0145954e84ba8ef8fcf5b31426"

server:
  forward-headers-strategy: NATIVE

ai:
  llm:
    service-url: "https://j11a205.p.ssafy.io/ai"
```

front_env

```
VITE_API_URL=https://j11a205.p.ssafy.io
VITE_API_URL_LOCAL=http://localhost:8080
VITE_API_URL_LOGIN=https://j11a205.p.ssafy.io/api
```

```
VITE_API_URL_FRONT=http://localhost:5173
VITE_API_KAKAO_ID=9ae699b3eb808fa55f9f4594c66f3be4
```