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1. 개발환경

1.1 기술스택

Frontend

- React 18.2.0
- Node.js 20.11.0
- NPM 10.2.4
- Vite 5.0.8
- Typescript 5.2.2
- React Query 5.17.15

- React Zustand 4.5.0
- React Router DOM 6.21.3
- Axios 1.6.7
- Tailwind CSS 3.4.1

Backend

- SpringBoot 3.2.1
- Java 21
- Mysql 5.7
- Spring Security
- Spring Data JPA
- JWT
- OAuth2
- Swaager

Tool

- Notion
- GitLab / Git
- JIRA
- Postman
- Mattermost

1.2 설정 파일

Frontend

.env

```
VITE_OPENAI_API_KEY={api key}
VITE_API_BASE_URL='https://j10d103.p.ssafy.io/api'
VITE_BASE_URL=http://j10d103.p.ssafy.io/api
```

```
VITE_DEV_USER_TOKEN={개발용 JWT}
VITE_PAGE_SIZE=12
```

Backend

application-key.yaml

```
my-db:
url: 로컬 테스트용 db
username: db 아이디
password: db 비밀번호
driver-class-name: com.mysql.cj.jdbc.Driver

encryptor:
key: {Jasypt 암호화 키}
```

Infra

• Jenkins 파이프라인

```
stage('Build FrontEnd') {
                    steps {
                        catchError(buildResult: 'SUCCESS',
stageResult: 'FAILURE') {
                             echo 'get credential files...'
                            withCredentials([file(credentia
lsId: 'react-env', variable: 'reactKey')]) {
                                 script {
                                     sh 'cp $reactKey fronte
nd/.env'
                                     sh 'chown jenkins:jenki
ns frontend/.env'
                                     sh 'chmod 644 fronten
d/.env'
                                }
                             }
                             echo 'executing npm...'
                             dir('frontend') {
                                 sh "rm -rf dist"
                                 sh "rm -rf node modules"
                                 sh "rm -rf package-lock.jso
n"
                                 sh 'npm install'
                                 sh 'npm run build'
                                 }
                        }
                    }
                }
                stage('Build BackEnd') {
                    steps {
                             echo 'get credential files...'
                            withCredentials([file(credentia
lsId: 'spring-key', variable: 'appKey')]) {
                                 script {
                                     sh 'cp $appKey backend/
src/main/resources/application-key.yaml'
                                     sh 'chown jenkins:jenki
```

```
ns backend/src/main/resources/application-key.yaml'
                                     sh 'chmod 644 backend/s
rc/main/resources/application-key.yaml'
                                 }
                             }
                             echo 'executing gradle...'
                            withGradle() {
                                 sh 'chmod +x ./backend/grad
lew'
                                 sh './backend/gradlew clean
build -Dscan -p ./backend -Dspring.profiles.active=server'
                             }
                    }
                }
            }
        }
        stage('Docker Delete') {
            parallel {
                stage('Delete Old front') {
                    steps {
                        sh "docker rm -f dust_frontend"
                        sh "docker rmi -f dust frontend"
                    }
                }
                stage('Delete Old back') {
                    steps {
                        sh "docker rm -f dust backend"
                        sh "docker rmi -f dust backend"
                    }
                }
            }
        stage('Docker Build') {
            parallel {
```

```
stage('docker build front') {
                     steps {
                         sh 'docker build -t dust_frontend
./frontend '
                    }
                }
                stage('docker build back') {
                     steps {
                         sh 'docker build -t dust_backend ./
backend '
                    }
                }
            }
        }
        stage('Deploy') {
            steps {
                sh 'docker-compose -f compose.yml up -d'
            }
        }
    }
    post {
        success {
            script {
                def Author_ID = sh(script: "git show -s --p
retty=%an", returnStdout: true).trim()
                def Author_Name = sh(script: "git show -s -
-pretty=%ae", returnStdout: true).trim()
                mattermostSend (color: 'good',
                message: "빌드 성공: ${env.JOB_NAME} #${env.B
UILD_NUMBER} by ${Author_ID}(${Author_Name})\n(<${env.BUILD}</pre>
URL}|Details>)",
            }
        }
        failure {
            script {
                def Author_ID = sh(script: "git show -s --p
retty=%an", returnStdout: true).trim()
```

2. 배포 방법

2.1 EC2

2.1.1 방화벽 설정

```
sudo ufw allow 80
sudo ufw allow 8080
sudo ufw allow 443
sudo ufw enable
sudo ufw status
```

2.1.2 도커 설치

```
sudo apt update
sudo apt install apt-transport-https ca-certificates curl s
oftware-properties-commonsudo apt install apt-transport-htt
ps ca-certificates curl software-properties-common
//도커 레포 접근 키 설정
curl -fsSL https://download.docker.com/linux/ubuntu/gpg | s
udo apt-key add -
// 도커 레포 등록
sudo add-apt-repository "deb [arch=amd64] https://download.
```

```
docker.com/linux/ubuntu bionic stable"
sudo apt update
//도커 설치
sudo apt install docker-ce
//실행 확인
sudo systemctl status docker
```

2.1.3 도커 컴포즈 설치

```
sudo curl -L "https://github.com/docker/compose/releases/download/1.28.2/docker-compose-$(uname -s)-$(uname -m)" -o /u sr/local/bin/docker-composesudo curl -L "https://github.com/docker/compose/releases/download/1.28.2/docker-compose-$(uname -s)-$(uname -m)" -o /usr/local/bin/docker-compose//권한 부여 sudo chmod +x /usr/local/bin/docker-compose//심볼릭 링크 sudo ln -s /usr/local/bin/docker-compose/usr/bin/docker-compose//버전 확인 docker-compose --version
```

2.1.4 젠킨스 설치

```
// 젠킨스 이미지 실행
sudo docker run -d -p 8080:8080 -v /home/ubuntu/jenkins-dat
a:/var/jenkins_home -v /var/run/docker.sock:/var/run/docke
r.sock -v /usr/bin/docker:/usr/bin/docker -v /usr/bin/docke
r-compose:/usr/bin/docker-compose --name jenkins jenkins/je
nkins:lts

// 안되면 sudo chown -R 1000 ./jenkins-data 폴더 권한주기

//권한
sudo chmod 666 /var/run/docker.sock
sudo chmod a+rx /usr/local/bin/docker-compose
```

```
//젠킨스 비밀번호 얻기
docker exec -it jenkins bash -c "cat /var/jenkins_home/secr
ets/initialAdminPassword"
```

2.1.5 ssl 인증서발급

```
sudo apt-get install letsencrypt
//인증서 설치
sudo letsencrypt certonly --standalone -d <도메인>
```

2.1.6 MySQL 도커 컨테이너 실행

```
docker pull mysql

docker volume create mysql-volume

docker run -d --name mysql-container -p 3306:3306 -v mysql-volume:/var/lib/mysql -e MYSQL_ROOT_PASSWORD=비번 mysql:5.7
--character-set-server=utf8mb4 --collation-server=utf8mb4_u nicode_ci

//접속
docker exec -it mysql-container bash

$ mysql -u root -p
mysql> CREATE DATABASE test;
mysql> SHOW DATABASES;
```

2.2 GitLab webHook

Q Search page

Webhook

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

URL

http://j10d103.p.ssafy.io:8080/project/RasingDust

URL must be percent-encoded if it contains one or more special characters.

O Show full URL

Mask portions of URL

Do not show sensitive data such as tokens in the UI.

Secret token

•••••

Used to validate received payloads. Sent with the request in the $\tt X-Gitlab-Token$ HTTP header.

Trigger

Push events

O All branches

Wildcard pattern

develop

Wildcards such as *-stable or production/* are supported.

Regular expression

Tag push events

A new tag is pushed to the repository.

¬ ~.......