

포팅 메뉴얼

1. 개발 환경

1-1. 프로젝트 기술 스택

Frontend

```
。 프로젝트 환경
```

```
VisualStudioCode: 1.92.1
Android Studio: 2024.1.1
```

。 의존성 및 버전

```
autoprefixer: 10.4.19
axios: 1.7.2
js-cookie: 3.0.5
postcss: 8.4.39
react: 18.3.1
react-dom: 18.3.1
react-draggable: 4.4.6
react-icons: 5.2.1
react-modal: 3.16.1
react-router-dom: 6.25.1
sockjs: 0.3.24
sockjs-client: 1.6.1
stompjs: 2.3.3
swiper: 11.1.6
tailwindcss: 3.4.6
websocket: 1.0.35
zustand: 4.5.4
@types/react: 18.3.3
@types/react-dom: 18.3.0
@vitejs/plugin-react: 4.3.1
eslint: 8.57.0
eslint-config-prettier: 9.1.0
eslint-plugin-prettier: 5.2.1
eslint-plugin-react: 7.35.0
eslint-plugin-react-hooks: 4.6.2
eslint-plugin-react-refresh: 0.4.7
prettier: 3.3.3
vite: 5.3.4
```

Backend

。 프로젝트 환경

```
IntelliJ IDEA: 2024.1.4 (Ultimate Edition)

JVM: OpenJDK 17 (17-jdk-slim)

Spring Boot: 3.3.1

Spring Dependency Management: 1.1.5

Redis: 7.4.0

MySql: 8.4.2
```

。 의존성 및 버전

```
Spring Boot Starter Data JPA: 3.3.1
Spring Boot Starter Data Redis: 3.3.1
Spring Boot Starter Web: 3.3.1
MySQL Connector/J: 8.3.0
Spring Data Redis: 3.3.1
Lombok: 1.18.32
Spring Boot DevTools: 3.3.1
Spring Boot Starter WebSocket: 3.3.1
Springdoc OpenAPI Starter WebMVC UI: 2.5.0
Apache Commons Codec: 1.15
P6Spy Spring Boot Starter: 1.5.6
Spring Boot Starter Validation: 3.3.1
Javax Annotation API: 1.3.2
QueryDSL JPA: 5.0.0 (Jakarta 버전)
Spring Boot Starter Mail: 3.3.1
Spring Boot Starter OAuth2 Client: 3.3.1
Spring Boot Starter Security: 3.3.1
JJWT API: 0.11.2
JJWT Impl: 0.11.2
JJWT Jackson: 0.11.2
Firebase Admin SDK: 7.1.1
```

• CI/CD

```
AWS EC2

- Nginx: 1.18.0
- Ubuntu: 20.04.6
- Docker: 27.1.1
- Jenkins: 2.452.3
```

1-2. 환경변수 설정

Frontend

```
• .env
```

```
VITE_SERVER_URL=https://il1e205.p.ssafy.io
```

o Dockerfile

```
FROM node:16 AS build
# 애플리케이션 디렉토리 생성
WORKDIR /app
# 애플리케이션 종속성 설치
COPY package*.json ./
RUN npm install
# 애플리케이션 소스 복사
COPY . .
```

포팅 메뉴얼

```
# 애플리케이션 빌드
      RUN npm run build
      # Nginx 설정
      FROM nginx:alpine
      COPY --from=build /app/dist /usr/share/nginx/html
      COPY nginx.conf /etc/nginx/nginx.conf
      EXPOSE 80
      CMD ["nginx", "-g", "daemon off;"]
  o docker-compose-front.yml
      services:
        web:
          build:
           context: ./took_web
          container_name: took_web
          expose:
           - 5173
          restart: always
          networks:
           took_network:
             ipv4_address: 172.19.0.2
      networks:
        took_network:
          external: true
  nginx.conf
      worker_processes 1;
      events {
          worker_connections 1024;
      http {
          include /etc/nginx/mime.types;
          default_type application/octet-stream;
          server {
              listen 80;
              server_name localhost; # 필요에 따라 도메인 이름 수정
              root /usr/share/nginx/html; # 도커파일에서 복사한 위치와 일치하도록 수정
              index index.html;
              location / {
                 try_files $uri $uri/ /index.html;

    google-service.json

        "project_info": {
          "project_number": "433232049429",
          "project_id": "took-a85bc",
          "storage_bucket": "took-a85bc.appspot.com"
        },
"client": [
         {
    "client_info": {
        "loadk app_
              "mobilesdk_app_id": "1:433232049429:android:3a5c56d8b147d30a68651c",
              "android_client_info": {
                "package_name": "com.example.myfcmapp"
             "oauth_client": [],
            "api_key": [
              {
                "current_key": "AIzaSyCpfPT9A_R1TFpC2eQ87R8YRGchgPA8bjQ"
             "services": {
              "appinvite_service": {
                "other_platform_oauth_client": []
          },
            "client_info": {
              "mobilesdk_app_id": "1:433232049429:android:b139762e395ee86d68651c",
              "android_client_info": {
                "package_name": "com.example.took_app"
             "oauth_client": [],
             "api_key": [
              {
"current_key": "AIzaSyCpfPT9A_R1TFpC2eQ87R8YRGchgPA8bjQ"
             }
            ],
             "services": {
              "appinvite_service": {
                "other_platform_oauth_client": []
           }
         "configuration_version": "1"

    Backend

    application.properties

      # Redis
      spring.data.redis.host=i11e205.p.ssafy.io
      spring.data.redis.port=6380
```

포팅 메뉴얼

MySQL

```
spring.datasource.url=jdbc:mysql://db:3306/took
spring.datasource.username=turtle
spring.datasource.password=took5678%^&*
spring.datasource.driver-class-name=com.mysql.cj.jdbc.Driver
#spring.datasource.url=jdbc:mysql://localhost:3306/test
\verb|#spring.datasource.username=root|\\
#spring.datasource.password=ssafy
#spring.datasource.driver-class-name=com.mysql.cj.jdbc.Driver
# JPA
spring.jpa.hibernate.ddl-auto=validate
spring.jpa.show-sql=false
\verb|spring.jpa.properties.hibernate.dialect=| org.hibernate.dialect.MySQL8Dialect| \\
spring.jpa.open-in-view=true
# Swagger
{\tt springdoc.version=@project.version@}
springdoc.api-docs.path=/api-docs
{\tt springdoc.default-consumes-media-type=application/json}
springdoc.default-produces-media-type=application/json
springdoc.swagger-ui.operations-sorter=alpha
springdoc.swagger-ui.tags-sorter=alpha
springdoc.swagger-ui.path=/api/swagger-ui/index.html
springdoc.swagger-ui.disable-swagger-default-url=true\\
{\tt springdoc.swagger-ui.display-query-params-without-oauth 2=true}
springdoc.swagger-ui.doc-expansion=none
# API KEY
kakao.api.key=f10f59b2a284e660b2b416dc63f9bf6f
sms.api.key=NCSA8ZZQ0IFAMBS1
sms.api.secret=F5CRLDG3CBFY0ZNDT7JXTRS4ONGGJP2C
#Gmail
spring.mail.host=smtp.gmail.com
spring.mail.port=587
spring.mail.username=devjaechan@gmail.com
spring.mail.password=lioz rges mfgm rdhr
spring.mail.properties.mail.smtp.auth=true
spring.mail.properties.mail.smtp.starttls.enable=true
spring.security.oauth2.client.registration.kakao.client-id=290fedb94c4d6ee266dfe2e4e56f563a
spring.security.oauth 2.client.registration.kakao.client-secret = 7Czf997AslCjhspjg2SjNEDBs19Ufhoxing.security.oauth 2.client.registration.kakao.client.security.outh 2.client.registration.client.security.outh 2.client.registration.security.outh 2.clien
spring.security.oauth 2.client.registration.kakao.redirect-uri=https://i11e205.p.ssafy.io/api/oauth 2/callback/\{registrationId\}
\verb|spring.security.oauth2.client.registration.kakao.authorization-grant-type=authorization\_code|\\
spring.security.oauth 2.client.registration.kakao.client-authentication-method = client\_secret\_post
\verb|spring.security.oauth2.client.registration.kakao.scope=profile_nickname|\\
# Google Oauth2
spring.security.oauth 2.client.registration.google.client-id = 951724536921-v4kbthfc7tcjkfq14dr909ch3j51ubv1.apps.googleusercontent.com
spring.security.oauth 2.client.registration.google.client-secret= GOCSPX-CADHP-ULbj@eySTGwcaC7\_K8c0JY
#KaKao Oauth2 provider
spring.security.oauth2.client.provider.kakao.authorization-uri=https://kauth.kakao.com/oauth/authorizetion-uri=https://kauth.kakao.com/oauth/authorizetion-uri=https://kauth.kakao.com/oauth/authorizetion-uri=https://kauth.kakao.com/oauth/authorizetion-uri=https://kauth.kakao.com/oauth/authorizetion-uri=https://kauth.kakao.com/oauth/authorizetion-uri=https://kauth.kakao.com/oauth/authorizetion-uri=https://kauth.kakao.com/oauth/authorizetion-uri=https://kauth.kakao.com/oauth/authorizetion-uri=https://kauth.kakao.com/oauth/authorizetion-uri=https://kauth.kakao.com/oauth/authorizetion-uri=https://kauth.kakao.com/oauth/authorizetion-uri=https://kauth.kakao.com/oauth/authorizetion-uri=https://kauth.kakao.com/oauth/authorizetion-uri=https://kauth.kakao.com/oauth/authorizetion-uri=https://kauth.kakao.com/oauth/authorizetion-uri=https://kauth.kakao.com/oauthorizetion-uri=https://kauthorizetion-uri=https://kauthorizetion-uri=https://kauthorizetion-uri=https://kauthorizetion-uri=https://kauthorizetion-uri=https://kauthorizetion-uri=https://kauthorizetion-uri=https://kauthorizetion-uri=https://kauthorizetion-uri=https://kauthorizetion-uri=https://kauthorizetion-uri=https://kauthorizetion-uri=https://kauthorizetion-uri=https://kauthorizetion-uri=https://kauthorizetion-uri=https://kauthorizetion-uri=https://kauthorizetion-uri=https://kauthorizetion-uri=https://kauthorizetion-uri=https://kauthorizetion-uri=https://kauthorizetion-uri=https://kauthorizetion-uri=https://kauthorizetion-uri=https://kauthorizetion-uri=https://kauthorizetion-uri=https://kauthorizetion-uri=https://kauthorizetion-uri=https://kauthorizetion-uri=https://kauthorizetion-uri=https://kauthorizetion-uri=https://kauthorizetion-uri=https://kauthorizetion-uri=https://kauthorizetion-uri=https://kauthorizetion-uri=https://kauthorizetion-uri=https://kauthorizetion-uri=https://kauthorizetion-uri=https://kauthorizetion-uri=https://kauthorizetion-uri=https://kauthorizetion-uri=https://kauthorizetion-uri=https://kauthorizetion-uri=https://kauthorizetion-uri=https://k
spring.security.oauth2.client.provider.kakao.token-uri=https://kauth.kakao.com/oauth/token
spring.security.oauth2.client.provider.kakao.user-info-uri=https://kapi.kakao.com/v2/user/me
spring.security.oauth 2.client.provider.kakao.user-name-attribute=id\\
# Jwt
{\tt secret-key=ThisStatementIsJwtSecretKeyDoNotUseThisState}
# http utf-8
server.servlet.encoding.charset=UTF-8
{\tt server.servlet.encoding.enabled=true}
server.servlet.encoding.force=true
# application.properties
distance.threshold=10000.0
# timezone
spring.jackson.time-zone=Asia/Seoul
# CORS ( swagger-ui )
server.forward-headers-strategy=FRAMEWORK
```

Dockerfile

```
# Use a base image with JDK
FROM openjdk:17-jdk-slim
# Install tzdata package and configure timezone
RUN apt-get update && apt-get install -y tzdata && \
   ln -fs /usr/share/zoneinfo/Asia/Seoul /etc/localtime && \
   dpkg-reconfigure --frontend noninteractive tzdata
\ensuremath{\text{\#}} Add a directory for the application
WORKDIR /app
# Copy the JAR file into the container
COPY build/libs/*.jar app.jar
# Run the JAR file
ENTRYPOINT ["java", "-jar", "app.jar"]
```

o docker-compose.yml

```
services:
    image: mysql:8
    environment:
      {\tt MYSQL\_ROOT\_PASSWORD: took5678\%^\&^*}
      MYSQL_DATABASE: took
      MYSQL_USER: turtle
      {\tt MYSQL\_PASSWORD:}\ {\tt took5678\%^\&^*}
        expose:
           - 3306
    networks:
      took_network:
        ipv4_address: 172.19.0.3
```

포팅 메뉴얼

```
image: redis:latest
   ports:
     - "6380:6379"
   networks:
     took_network:
       ipv4_address: 172.19.0.4
  springboot:
   build:
    context: ./backend
   container_name: took_springboot
   expose:
     - 8080
   depends_on:
     - db
     - redis
   networks:
     took_network:
       ipv4_address: 172.19.0.5
networks:
  took_network:
   external: true
```

serviceAccountKey.json

```
{
    "type": "service_account",
    "project_id": "took-a85bc",
    "private_key_id": "39e4e83e996390830c9678874529d2ec386ca498",
    "private_key_id": "39e4e83e996390830c9678874529d2ec386ca498",
    "private_key": "----BEGIN PRIVATE KEY-----\nMIIEVQIBADANBgkqhkiG9w0BAQEFAASCBKcwggSjAgEAAoIBAQCM8Ji2EmsNjAjx\nSbaVoMq4f+7C0Foi0ZmWioZLonDBjRcrS9dEEV9fKYyUcAzWJxBs+sdBTdocV07m\nBqf2SPEF
    "client_email": "firebase-adminsdk-7typg@took-a85bc.iam.gserviceaccount.com",
    "client_id": "115351089823964331132",
    "auth_uri": "https://accounts.google.com/o/oauth2/auth",
    "token_uri": "https://acuth2.googleapis.com/ooauth2/auth",
    "uth_provider_x509_cert_url": "https://www.googleapis.com/oauth2/v1/certs",
    "client_x509_cert_url": "https://www.googleapis.com/robot/v1/metadata/x509/firebase-adminsdk-7typg%40took-a85bc.iam.gserviceaccount.com",
    "universe_domain": "googleapis.com"
}
```

1-3. CI/CD 설정 파일

Nginx

。 설정 파일 위치

```
/etc/nginx/sites-available/proxy-setting
```

proxy-setting

```
server {
    listen 80;
    listen [::]:80;
    server_name i11e205.p.ssafy.io;
    return 301 https://$host$request_uri;
}
server {
         listen 443 ssl;
         listen [::]:443 ssl;
         server_name i11e205.p.ssafy.io;
         ssl\_certificate \ /etc/letsencrypt/live/i11e205.p.ssafy.io/fullchain.pem; \ \textit{\# managed by Certbot}
         ssl_certificate_key /etc/letsencrypt/live/i11e205.p.ssafy.io/privkey.pem; # managed by Certbot
        location /api {
            # Postman의 User-Agent를 차단하는 설정
            if (\frac{*}{*} (\frac{*}{*} "PostmanRuntime") {
               return 403;
            # Referer 헤더를 확인하여 프론트엔드에서의 요청만 허용
if ($http_referer !~* "^https://i11e205.p.ssafy.io") {
               return 403;
            proxy_pass http://172.19.0.5:8080/api;
            proxy_set_header Host $host;
            proxy_set_header X-Real-IP $remote_addr;
            proxy_set_header X-Forwarded-Host $host;
            proxy_set_header X-Forwarded-Server $host;
            {\tt proxy\_set\_header~X-Forwarded-For~\$proxy\_add\_x\_forwarded\_for;}
             proxy_set_header X-Forwarded-Proto $scheme;
        location /ws {
            proxy_pass http://172.19.0.5:8080/ws;
             proxy_http_version 1.1;
             proxy_set_header Connection "Upgrade";
             proxy_set_header Host $host;
             proxy_set_header X-Real-IP $remote_addr;
             proxy_set_header X-Forwarded-Host $host;
             proxy_set_header X-Forwarded-Server $host;
             \verb"proxy_set_header X-Forwarded-For $proxy_add_x_forwarded_for";
            proxy_set_header X-Forwarded-Proto $scheme;
        location / {
            proxy_pass http://172.19.0.2;
            proxy_set_header Host $host;
            proxy_set_header X-Real-IP $remote_addr;
             proxy_set_header X-Forwarded-Host $host;
            proxy_set_header X-Forwarded-Server $host;
            \verb"proxy_set_header X-Forwarded-For $proxy_add_x_forwarded_for";
            proxy_set_header X-Forwarded-Proto $scheme;
```

포팅 메뉴얼

Jenkins

Frontend 파이프라인

```
pipeline {
   agent any
   stages {
       stage('Clone Repository') {
           steps {
              git branch: 'dev-fe', credentialsId: 'zxader', url: 'https://lab.ssafy.com/s11-webmobile1-sub2/S11P12E205'
           }
       stage('Prepare Docker Compose File') {
           steps {
               withCredentials([file(credentialsId: 'docker-compose-front', variable: 'yml')]) {
                  script {
                      sh 'pwd'
                      sh 'chmod +r $yml'
                      sh 'chmod -R 777 ./'
                      sh 'cp $yml docker-compose-front.yml'
                  }
              }
          }
       stage('Prepare env') {
           steps {
               withCredentials([file(credentialsId: 'env', variable: 'env')]) {
                  script {
                      // 현재 작업 디렉토리 출력
                      sh 'pwd'
                      // .env 파일에 읽기 권한 부여
                      sh 'chmod +r $env'
                      // 모든 파일에 대해 777 권한 부여 (주의: 이 권한 설정은 보안에 취약할 수 있음)
                      sh 'chmod -R 777 ./'
                      // .env 파일을 front_web 디렉토리로 복사
                      sh 'cp $env took_web/.env'
                  }
              }
          }
       stage('Build and Run Docker Compose') {
           steps {
              sh 'docker-compose -f docker-compose-front.yml up -d --build'
           }
       }
   }
   post {
       failure {
           echo 'Build or deployment failed.'
       cleanup {
           script {
              // 모든 경우에 사용하지 않는 이미지 삭제
              sh 'docker image prune -af'
           }
}
```

。 Backend 파이프라인

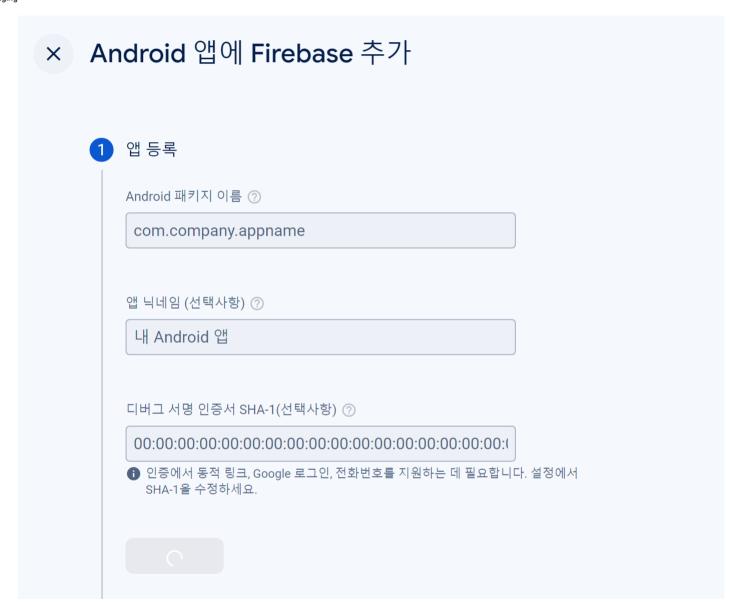
```
pipeline {
   agent any
    stages {
        stage('Clone Repository') {
                git branch: 'dev-be', credentialsId: 'zxader', url: 'https://lab.ssafy.com/s11-webmobile1-sub2/S11P12E205'
        stage('application.properties'){
              steps{
              with {\tt Credentials Id: 'application', variable: 'properties')]) \ \{
              script {
                    sh 'chmod +r $properties'
                    sh 'chmod -R 777 ./backend/src/main/resources'
                    sh 'cp $properties backend/src/main/resources/application.properties'
           }
        stage('serviceAccountKey'){
              with {\tt Credentials} ( \texttt{[file(credentialsId: 'serviceAccountKey', variable: 'json')]) \ \{ \\
              script {
                   sh 'pwd'
                               +r $json
                    sh 'chmod -R 777 ./backend/src/main/resources'
                    \verb|sh'cp $json backend/src/main/resources/serviceAccountKey.json'|\\
           }
        stage('docker-compose'){
              steps{
              with {\tt Credentials} ( [file (credentials {\tt Id}: 'docker-compose', variable: 'yml') ]) \ \{
                    sh 'chmod +r $yml'
                    sh 'chmod -R 777 ./'
                    sh 'cp $yml docker-compose.yml'
           }
        stage('Build JAR') {
            steps {
                   // JAR 파일 빌드를 위한 디렉토리로 이동
                    dir('backend') {
```

포팅 메뉴얼

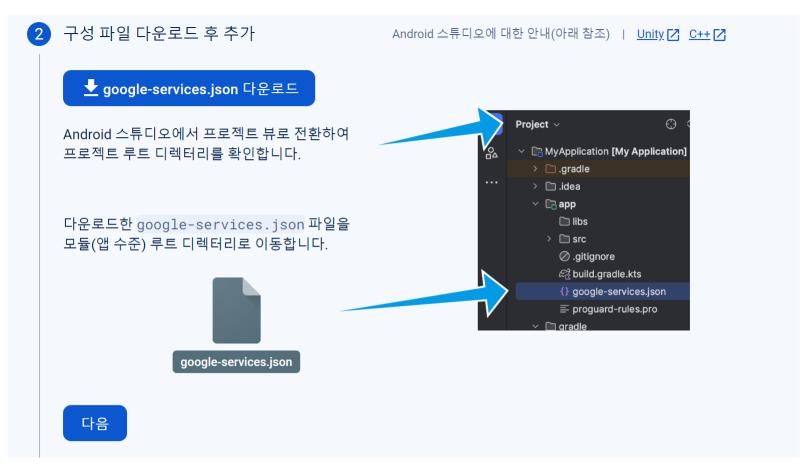
```
// gradlew에 실행 권한 부여
                  sh 'chmod +x gradlew'
                  // JAR 파일 빌드
                  sh './gradlew clean build'
   stage('Build and Deploy Docker Image') {
       steps {
          script {
              // Docker Compose를 사용하여 Docker 이미지 빌드 및 실행
              sh 'docker-compose -f docker-compose.yml up -d --build'
   }
}
post {
   success {
      echo 'Build and deployment successful.'
   failure {
      echo 'Build or deployment failed.'
   cleanup {
       script {
         .
// 모든 경우에 사용하지 않는 이미지 삭제
          sh 'docker image prune -af'
  }
```

2. 외부 서비스

FireBase Cloude Messaging



포팅 메뉴얼

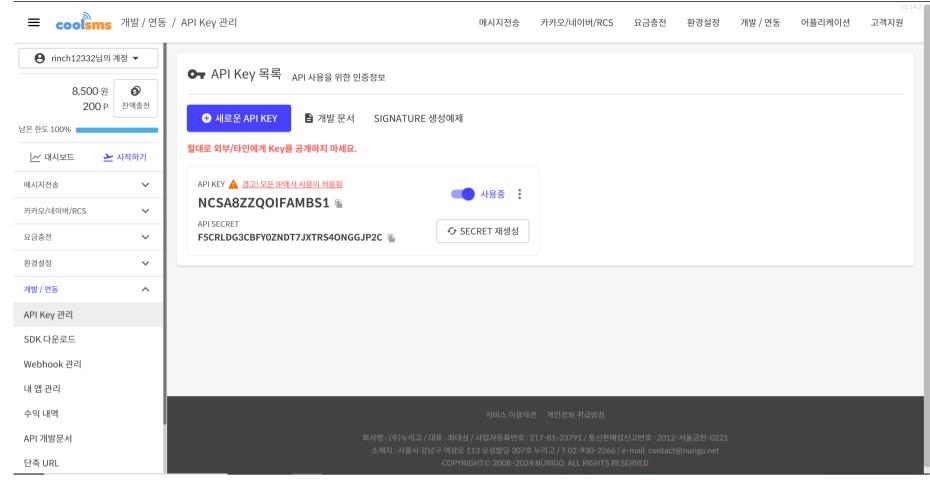




• 문자 전송 서비스 (쿨에스엠에스)

https://console.coolsms.co.kr/ 회원가입 후 API 키 발급 및 SECRET 생성

포팅 메뉴얼



• 카카오 모빌리티

https://developers.kakao.com/ 에서 APP 등록 및 API Key 발급

https://developers.kakaomobility.com/product/api 문서 참고해서 API 호출

포팅 메뉴얼