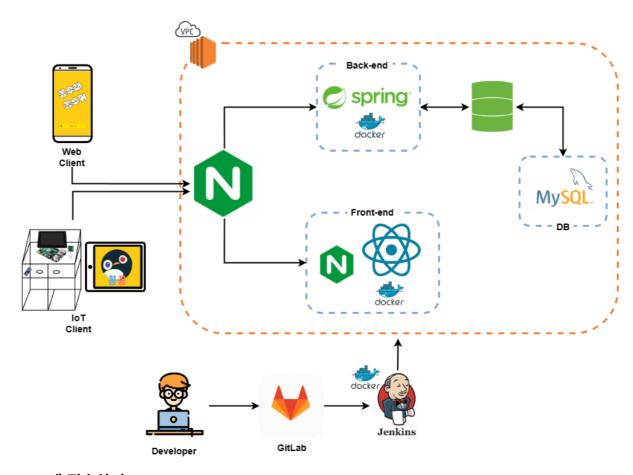
시스템 아키텍처

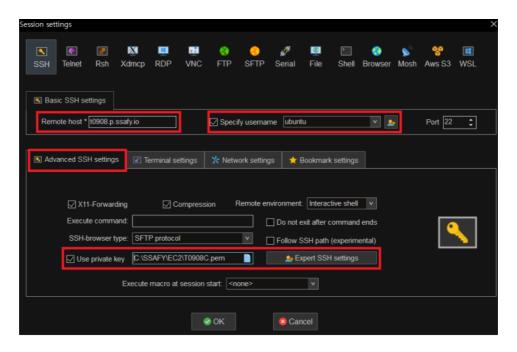


EC2에 접속하기

▼ 터미널에 ssh -i I9A304T.pem ubuntu@i9a304.p.ssafy.io 입력 후 접속

SSAFY@DESKTOP-BLHP263 MINGW64 ~/Downloads \$ ssh -i I9A304T.pem ubuntu@i9a304.p.ssafy.io Welcome to Ubuntu 20.04 LTS (GNU/Linux 5.4.0-1018-aws x86_64)

▼ MobaXterm을 통한 SSH 접속



• 서버 설정 후

```
➤ SSH session to ubuntu@i9A304.p.ssafy.io
? Direct SSH : ✓
? SSH compression : ✓
? SSH-browser : ✓
? X11-forwarding : ✓ (remote display is forwarded through SSH)
```

다음과 같이 접속할 수 있습니다.

SSAFY EC2 초기설정

EC2 패키지 버전 관리

EC2 서버에 접속 후 다음 명령어로 설치된 패키지 목록을 최신으로 업데이트 해야합니다.

```
sudo apt-get update // 인스턴스에 설치된 패키지 목록을 최신화
sudo apt-get upgrade // 인스턴스에 설치된 패키지들을 최신 버전으로 업데이트
```

EC2 Time zone 설정

```
sudo timedatectl set-timezone Asia/Seoul
```

EC2 보안

```
sudo apt install ufw // ufw 설치하기
sudo ufw default deny incoming // 모든 인바운드 연결 차단
sudo ufw default allow outgoing // 모든 아웃바운드 연결 허용
sudo ufw allow ssh // 22번 포트 허용
sudo ufw allow http // 80번 포트 허용
sudo ufw allow https // 443번 포트 허용
```

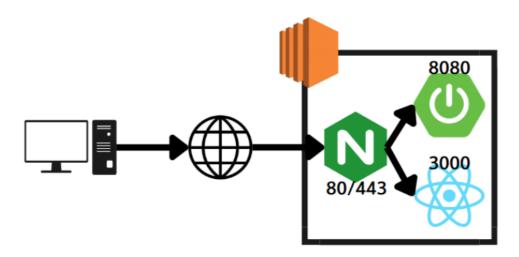
모든 포트를 허용했다면 다음 명령어를 통해 방화벽을 켭니다.

```
sudo ufw enable
```

이제 다른 사용자들은 22, 80, 443번 포트로만 서버에 접근할 수 있습니다.

배포 과정

Nginx를 통한 서버 구축



위는 동일한 서버 구조에 Nginx를 이용한 리버스 프록시를 적용한 것입니다.

- 1. 이제 클라이언트는 언제나 Nginx를 통해 서버에 접근합니다. Nginx는 들어온 요청이 어디로 가야 하는 지를 확인하고, 올바른 서버에 요청을 전달합니다.
- 2. 클라이언트는 이제 서버의 포트가 무엇인지 알 수 없습니다. 포트를 알아낸다 하더라도 방화벽이나 보안 정책을 통해 포트를 막아 두었다면 포트를 통해 서버에 직접 접근할 수 없습니다.
- 3. SSL/TLS 인증도 모두 Nginx에서 처리할 수 있습니다. 즉, 복잡한 Https 설정을 Nginx에서 관리할 수 있게 됩니다.
- 4. Nginx는 서버가 많아졌을 때 로드 밸런싱 역할도 수행할 수 있습니다.

Nginx를 서버에 직접 설치

```
sudo apt-get update
sudo apt-get upgrade
sudo apt-get install nginx
```

Nginx 리버스 프록시 설정하기

/etc/nginx/conf.d 폴더에 default.conf 파일을 생성합니다.

sudo vim default.conf

```
upstream frontend {
    server localhost:3000;
}

upstream backend {
    server localhost:8080;
}

server {
    listen 80;
    server_name 19a304.p.ssafy.io;
    location /api {
    rewrite '/api(/.*)$ $1 break;
    proxy_pass http://backend;
    proxy_nttp_version 1.1;
    proxy_set_header Upgrade $http_upgrade;
    proxy_set_header Connection "upgrade";
    proxy_set_header K-Real-IP $remote_addr;
    proxy_set_header X-Forwarded-For $proxy_add_x_forwarded_for;
```

```
proxy_set_header X-Forwarded-Proto $scheme;
}
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;
}
}
```

Docker 설치하기

도커 설치를 위해 필요한 패키지 설치

```
sudo apt-get -y install apt-transport-https ca-certificates curl gnupg-agent software-properties-common
```

도커에 대한 GPG Kev를 등록합니다.

```
curl -fsSL https://download.docker.com/linux/ubuntu/gpg | sudo apt-key add
이를 이용하면 도커 패키지가 신뢰할 수 있는 출처에서 왔음을 시스템이 알 수 있습니다.
```

다음으로 도커 레포지토리를 등록합니다.

```
sudo add-apt-repository "deb [arch=amd64] https://download.docker.com/linux/ubuntu $(lsb_release -cs) s table"
```

이후 도커를 설치합니다

```
sudo apt-get update && sudo apt-get install docker-ce docker-ce-cli containerd.io
```

다음의 명령어를 입력해 docker 그룹에 사용자를 추가하고 도커 서비스를 재시작합니다.

```
sudo usermod -aG docker ubuntu
sudo service docker restart
```

Docker-Compose 설치하기

다음의 명령어를 입력해 필요한 패키지를 먼저 설치합니다.

```
sudo apt install jq
```

다음의 명령어를 통해 Docker Compose 버전을 찾습니다.

```
DCVERSION=$(curl --silent https://api.github.com/repos/docker/compose/releases/latest | jq .name -r)
찾은 명령어는 환경 변수에 저장하여 사용하기 용이하도록 합니다.
```

다음 명령어를 입력해 Docker Compose 의 목표 경로를 지정합니다.

```
DCDESTINATION=/usr/bin/docker-compose
```

이후 Docker Compose 의 최신 버전 바이너리를 다운로드 받고, 이를 목표 경로에 저장합니다

```
sudo curl -L https://github.com/docker/compose/releases/download/${DCVERSION}/docker-compose-$(uname -s)-$(uname -m) -o $DCDESTINATION
```

이제 다음 명령어를 입력해 바이너리 파일에 모든 사용자가 사용할 수 있도록 실행 권한을 부여합니다.

```
sudo chmod 755 $DCDESTINATION
```

MySQL 컨테이너 실행하기

Docker 네트워크 생성하기

```
docker network create deploy
```

docker-compose를 이용해 MariaDB 컨테이너 띄우기

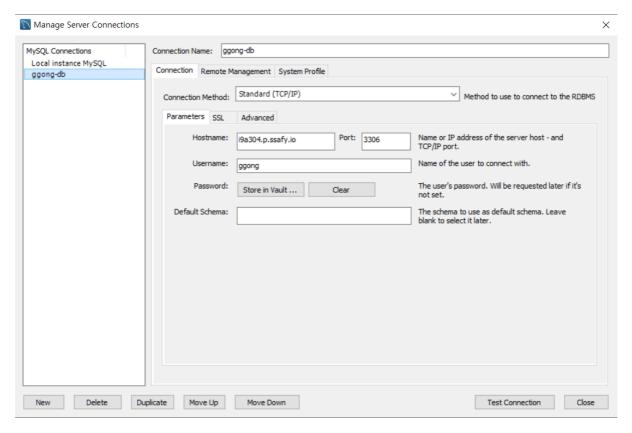
mysqldb 디렉토리를 만들고, 해당 디렉토리에서 docker-compose.yml 파일을 생성

```
mkdir mariadb
cd mariadb
sudo vim docker-compose.yml
```

sudo docker-compose up -d //detach 모드로 실행

```
ubuntu@ip-172-26-15-97:~$ docker ps
CONTAINER ID IMAGE COMMAND CREATED STATUS
PORTS
4e622bb5d3ac mysql:latest "docker-entrypoint.s..." 7 days ago Up 7 days
0.0.0.0:3306->3306/tcp, :::3306->3306/tcp, 33060/tcp ggong-db
```

MySQL workbench에 추가하기





DB에 접속 후 다음과 같이 확인할 수 있습니다.

▼ DB 생성 쿼리 및 더미 데이터 추가 쿼리

```
DROP DATABASE IF EXISTS ggong;

create database IF NOT EXISTS ggong;

use ggong;

CREATE TABLE 'user' (
    "user_no' BIGINT NOT NULL AUTO_INCREMENT,
    "nickname' VARCHAR(45) NOT NULL,
    "age_range' VARCHAR(45) NOT NULL,
    "gender' VARCHAR(45) NOT NULL,
    "email' VARCHAR(45) NOT NULL,
    "favorite_cigarette' VARCHAR(45) NULL,
    "QR' VARCHAR(100) NULL,
    "user_rating' VARCHAR(45) DEFAULT 'seed',
    PRIMARY KEY ('user_no')
)ENGINE = InnoDB DEFAULT CHARACTER SET utf8mb4;
```

```
INSERT INTO user(nickname, age_range, gender, email)
VALUES
('민막사', '30대', '남성', 'doctormin@naver.com'), ('전박사', '20대', '남성', 'jeon@naver.com'), ('서보하', '50대', '여성', 'boha@naver.com'), ('곽교원', '60대', '여성', 'kyowon@naver.com'), ('송해하', '30대', '남성', 'haeha@naver.com'), ('편고지', '30대', '여성', 'goji@naver.com'), ('장조유', '20대', '남성', 'joyou@naver.com'),
('문정령', '20대', '남성', 'jeongryung@naver.com'),
('황해언', '50대', '여성', 'haeyeon@naver.com'),
('권성린', '40대', '남성', 'sungrin@naver.com'),
('양휘진', '20대', '남성', 'huijin@naver.com'),
('곽세수', '20대', '남성', 'saesu@naver.com'),
('김초은', '30대', '여성', 'choeun@naver.com'),
('조휘준', '30대', '여성', 'huijun@naver.com'),
('류휘나', '20대', '남성', 'huina@naver.com'),
 ('유명소', '20대', '여성', 'myungso@naver.com')
('유명소', '20대', '대성', 'myungso@naver.com'),
('은정윤', '50대', '여성', 'jeongyoon@naver.com'),
('우윤율', '40대', '여성', 'yoonyul@naver.com'),
('박교문', '40대', '남성', 'kyoyun@naver.com'),
('하가승', '30대', '남성', 'gaseung@naver.com'),
('한경화', '20대', '남성', 'gyeonghwa@naver.com'),
('장가승', '20대', '여성', 'gaseung2@naver.com');
select * from user;
CREATE TABLE `machine` (
    `machine_no` BIGINT NOT NULL AUTO_INCREMENT,
   `latitude` double NOT NULL,
    `longitude` double NOT NULL,
   `name` VARCHAR(45) NOT NULL,
   `SN` VARCHAR(45) NOT NULL,
   `area_gu`VARCHAR(45) NOT NULL,
     PRIMARY KEY (`machine_no`)
)ENGINE = InnoDB DEFAULT CHARACTER SET utf8mb4;
INSERT INTO machine(latitude, longitude, name, SN, area_gu)
VALUES
(0, 0, '빈 머신', '0', '존재 안함'),
(37.45982, 126.951905, '서울대학교', 'univ01', '관악구'), (37.590799, 127.027777, '고려대학교', 'univ02', '성북구'), (37.565784, 126.938572, '연세대학교', 'univ03', '서대문구'), (37.588227, 126.993606, '성균관대학교', 'univ04', '종로구'), (37.557232, 127.045322, '한양대학교', 'univ05', '성동구'),
(37.526114, 126.926816, 'LG에너지솔루션', 'com01', '영등포구'),
(37.489375, 126.994335, '현대차', 'com02', '서초구'),
(37.486204, 127.010074, '기아', 'com03', '서초구'),
(37.501334, 127.039706, '멀티캠퍼스', 'com04', '강남구'),
(37.516615, 127.100841, '삼성물산(주)', 'com05', '송파구');
CREATE TABLE `favoritemachine`
    `favoritemachine_no` BIGINT NOT NULL AUTO_INCREMENT,
    `user_no` BIGINT NOT NULL,
    `machine_no` BIGINT NOT NULL,
     PRIMARY KEY (`favoritemachine_no`),
      FOREIGN KEY (`user_no`) REFERENCES `user` (`user_no`),
      FOREIGN KEY (`machine_no`) REFERENCES `machine` (`machine_no`)
)ENGINE = InnoDB DEFAULT CHARACTER SET utf8mb4;
-- INSERT INTO favoritemachine(user_no, machine_no)
-- VALUES
-- (1, 1),
-- (1, 9),
-- (2, 1);
-- INSERT INTO favoritemachine(user_no, machine_no)
-- VALUE
-- (5, 1);
CREATE TABLE `question` (
     question_ID BIGINT NOT NULL AUTO_INCREMENT,
    `content` VARCHAR(45) NOT NULL,
    group` INT NOT NULL,
    `category` VARCHAR(45) NOT NULL,
   `optionA` VARCHAR(45) NOT NULL,
`optionB` VARCHAR(45) NOT NULL,
    `type` ENUM('공통','대학','기업') NOT NULL,
      PRIMARY KEY (`question_ID`)
) ENGINE = InnoDB DEFAULT CHARACTER SET utf8mb4;
{\tt INSERT\ INTO\ question(content,\ `group`,\ category,\ optionA,\ optionB,\ `type`)}
VALUES
```

```
('민초 vs 반민초', 3, '음식', '민초', '반민초', '공통'),
('부먹 vs 찍먹', 3, '음식', '부먹', '찍먹', '공통'),
('소주 vs 맥주', 3, '음식', '소주', '맥주', '공통'),
('감자 vs 고구마', 3, '음식', '보자', '고구마', '공통'),
('물냉 vs 비냉', 3, '음식', '물냉', '비냉', '공통'),
('잠수 이별 vs 환승 이별', 3, '일반', '참수 이별', '환승 이별', '공통'),
('랜덤으로 다시 태어나기 vs 그냥 살기', 3, '일반', '랜덤으로 다시 태어나기', '그냥 살기', '공통'),
('데시 vs 한구', 3, '스포츠', '축구', '야구', '공통'),
('데시 vs 호날두', 3, '스포츠', '대시', '호날두', '공통'),
('이어없이 1년 살기', 3, '일반', '핸드폰', '천구', '공통'),
('주점 vs 연예인 공연', 3, '축제', '주점', '연예인 공연', '대학'),
('매일 1교시 vs 매일 3시간씩 공강', '국주', '대학'),
('대당 vs 폴강', 3, '학업', '명강', '포강', '대학'),
('너 싫은 조원은?', 3, '학업', '명강', '대학'),
('더 싫은 조원은?', 3, '학업', '전 애인', '프리라이더', '대학'),
('더 싫은 조원은?', 3, '학업', '전 애인', '프리라이더', '대학'),
('너 싫은 중메는?', 3, '학업', '전 아인', '프리라이더', '대학'),
('목제 때 선호하는 연예인?', 3, '축제', '씨이', '카포에라', '대학'),
('왕복 4시간 통학 vs 통금 9시 기숙사', '내이', '카포에라', '대학'),
('당복 4시간 통학 vs 통금 9시 기숙사', 3, '생활', '왕복 4시간 통학', '통금 9시 기숙사', '대학'),
('다루 시험 4개 vs 중강 후 레포트 4개', 3, '학업', '하루 시험 4개', '중강 후 레포트 4개', '대학'),
      ('당복 4시간 통학 vs 통금 9시 기숙사', 3, '생활', '앵인의 전 애인과 팀플', '전 애인과 전부 급강', '대학'),
('더 싫은 상황은?', 3, '생활', '애인의 전 애인과 팀플', '전 애인과 전부 급강', '대학'),
('대면 수업 vs 비대면 수업', 3, '학업', '대면 수업', '비대면 수업', '대학'),
('대면 수업 vs 비대면 수업', 3, '학업', '대면 수업', '비대면 수업', '대학'),
('근 vs 상사 잔소리', 3, '회사생활', '가능', '불가능', '기업'),
('근무 중 이어폰 끼기', 3, '회사생활', '가능', '불가능', '기업'),
('직장 내 슬리퍼 착용', 3, '회사생활', '가능', '불가능', '기업'),
('면본 2천 17시 칼퇴 vs 연봉 5천 휴일 x', 3, '회사생활', '안원 5천 17시 칼퇴근', '면봉 5천 휴일 x', '기업'),
('만원 2천 17시 칼퇴 vs 연봉 5천 휴일 x', 3, '회사생활', '안원병 2천 17시 칼퇴근', '면봉 5천 휴일 x', '기업'),
('인원 강하는데 성격 나쁜 사람 vs 일 못하는데 성격 종은 사람', 3, '회사생활', '만원버스 30분 출퇴근', '덩병 1천 부스 90분 출퇴근', '기업'),
('인과 참 계속 오는 업무 전화 vs 퇴근 10분 전 업무받아 야근', 3, '회사생활', '안원하는데 성격 나쁜 사람', '일 못하는데 성격 동은 사람', '기업'),
('전 양신이 사수 vs 전 애인이 동기', 3, '회사생활', '전 상인이 주는 하기 싫은 일', '돈 적게 주는 하고 싶은 일', '부장잔소리', '기업'),
('전 애인이 사수 vs 전 애인이 동기', 3, '회사생활', '전 애인이 사수', '전 애인이 동기', '기업'),
('결요일 연차 vs 금요일 연차', 3, '회사생활', '월요일 연차', '금요일 연차', '기업'),
('후라이드 치킨 vs 양념 치킨', 2, '음식', '후라이드 치킨', '양념 치킨', '공통'),
('대리가노 vs 라데', 2, '음식', '대장면', '경롱'),
('본장째' vs 김치찌개', 2, '음식', '대장면', '경롱'),
('된장찌개 vs 김치찌개', 2, '음식', '보장찌개', '김치찌개', '공통'),
('된장찌개 vs 김치찌개', 2, '음식', '토망 토마토', '토마토만 토', '공통'),
('된장찌개 vs 김치찌개', 2, '음식', '보장찌개', '김치찌개', '공통'),
('된장찌개 vs 김치찌개', 2, '음식', '토망 토마토', '토마토만 토', '공통'),
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('된장요기 2, 일본 뿐이라면', 2, '생활', '나비넥타이 연미복', '잊어진 청바지', '공통'),
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('당고 상원 등안 20 보안 ' '현대'의 대본', '대어의 됩통', '대어도 먹어도 배고름', '공통'),
('남자자도 피고 vs 먹어도 먹어도 배고름', 2, '일반', '자도자도 피근', '먹어도 먹어도 배고름', '공통'),
('더 성은 상황으', '오 '생활', '현에의 집 등" '저 에이의 현 애이의 팀름' '대한')
          ('자도자도 피곤 vs 먹어도 먹어도 배고픔', 2, '일반', '자도자도 피곤', '먹어도 먹어도 배고픔', '공통'),
        ('사도사도 피곤 vs 먹어도 먹어도 매고음', 2, '일반', '사도사도 피곤', '먹어도 매고음', '공동'),
('더 싫은 상황은?', 2, '생활', '현 애인의 전 애인과 팀플', '전 애인의 현 애인과 팀플', '대학'),
('왕복 4시간 통학 vs 상극인 룸메와 살기', 2, '생활', '왕복 4시간 통학', '상극인 룸메와 살기', '대학'),
('선호하는 수업은?', 2, '학업', '도움 되지만 학점 짠 수업', '도움 안되지만 학점 후한 수업', '대학'),
('월요일 공강 vs 금요일 공강', 2, '생활', '월요일 공강', '금요일 공강', '대학'),
('하나만 들고다녀야 한다면?', 2, '생활', '가방 (노트북X)', '노트북 (가방X)', '대학'),
('절신의 전 애인과 과CC vs 절친이 나의 전 애인과 과CC ', 2, '생활', '절친의 전 애인과 과CC', '절친이 나의 전 애인과 과CC', '대학'),
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        ('출 마시고 00하기', 2, '생활', '교수님께 전화', '전 애인에게 전화', '대화'),
('축제 무대에서 00하기', 2, '생활', '고백하고 차이기', '고백받고 차기', '대화'),
('더 최악은?', 2, '화업', '아무것도 모르는데 개인과제', '조별과제 본인 하드캐리', '대화'),
('수강신청 중 더 최악은?', 2, '화업', '불안정한 와이파이', '핸드폰으로 수강신청', '대화'),
('더 싫은 조원은?', 2, '화업', '참수타는 조원', '일 못하는 조원', '대화'),
('대화 입화 전으로 돌아간다면?', 2, '일반', '전공 바꾼다', '전공 안 바꾼다', '기업'),
('휴가 시즌에 당신이라면?', 2, '회사생활', '2주 연속 쉬기 (무급')', '안 쉬고 일급 2배', '기업'),
('연봉 절반 오전 근무만(겸직가능) VS 연봉 2배 365일 근무(칼퇴본가)', 2, '회사생활', '연봉 절반 오전 근무만(겸직가능)', '부장잔소리', '기업'),
        ('연봉 절반 오전 근무만(검직가능) vs 연봉 2배 365일 근무(칼티불가)', 2, '회사생활', '연봉 절반 오전 근무만(검직가능)', '부장잔소리', '기업'), ('업무가 산처럼 쌓였을 때 선호하는 것은?', 2, '회사생활', '신입충원(칼퇴가능)', '주말 및 야근 수당 두배', '기업'), ('야근 잦은데 가고 싶은 부서 vs 항상 칼퇴지만 가기 싫은 부서', 2, '회사생활', '야근 잦은데 가고 싶은 부서', '항상 칼퇴지만 가기 싫은 부서', '기업'), ('최고 사양 태블릿으로 업무 vs 10년전 PC로 업무', 2, '회사생활', '최고 사양 태블릿으로 업무', '10년전 PC로 업무', '기업'), ('프로젝트 실패 시', 2, '회사생활', '위로와 격려', '냉정한 피드백', '기업'), ('라떼 선배 vs MZ 후배', 2, '회사생활', '라떼 선배', 'MZ 후배', '기업'), ('상사 가족 모임에 혼자 참석 vs 본인 가족 모임에 상사 초청', '기업'), ('상사 가족 모임에 혼자 참석 vs 본인 가족 모임에 상사 초청', '기업'), ('사사건건 간섭하는 사수 vs 안 알려주는 사수', 2, '회사생활', '사사건건 간섭하는 사수', '안 알려주는 사수', '기업'), ('시켜야만 일 하는 사람 vs 일을 만드는 사람', 2, '회사생활', '시켜야만 일 하는 사람', '일을 만드는 사람', '기업');
          select * from question;
          CREATE TABLE `vote` (
                              `vote_no` BIGINT NOT NULL AUTO_INCREMENT,
                              `user_no` BIGINT,
                              `machine_no` BIGINT NOT NULL,
                              `question_ID` BIGINT NOT NULL,
                              `vote_date` TIMESTAMP NOT NULL,
                              `answer` INT NOT NULL,
                          PRIMARY KEY(`vote_no`),
                          FOREIGN KEY (`user_no`) REFERENCES `user` (`user_no`),
                          FOREIGN KEY ('machine_no') REFERENCES 'machine' ('machine_no'), FOREIGN KEY ('question_ID') REFERENCES 'question' ('question_ID')
          )ENGINE=InnoDB DEFAULT CHARACTER SET utf8mb4;
          INSERT INTO vote(user_no, machine_no, question_ID, vote_date, answer)
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 update vote set user_no = 2 where user_no = 1 and vote_no != 1;
 update vote set machine_no = 2 where machine_no = 1 and vote_no != 1;
   - update vote set user_no = 26 where user_no = 1 and machine_no = 9;
 update vote set answer = 0 where answer = 2;
 select * from vote;
```

```
CREATE TABLE `product` (
     `product_no` BIGINT NOT NULL AUTO_INCREMENT,
     pin` VARCHAR(60) NOT NULL,
     `price` INT NOT NULL,
    PRIMARY KEY(`product_no`)
)ENGINE=InnoDB DEFAULT CHARACTER SET utf8mb4;
INSERT INTO product(pin, price)
VALUES
('', 0),
('AAAA-1111-AAAA-1111', 5000),
('BBBB-2222-BBBB-2222', 5000).
('CCCC-3333-CCCC-3333', 5000),
('DDDD-4444-DDDD-4444', 10000),
('EEEE-5555-EEEE-5555', 10000),
('FFFF-6666-FFFF-6666', 10000),
('GGGG-7777-GGGG-7777', 50000),
('HHHH-8888-HHHH-8888', 50000),
('IIII-9999-IIII-9999', 50000);
select * from product;
CREATE TABLE `buy` (
   `buy_no` BIGINT NOT NULL AUTO_INCREMENT,
     `buy_time` TIMESTAMP NOT NULL,
     `user_no` BIGINT NOT NULL,
     `product_no` BIGINT NOT NULL,
     PRIMARY KEY(`buy_no`),
    FOREIGN KEY (`user_no`) REFERENCES `user` (`user_no`),
    \label{lem:foreign} \textit{FOREIGN KEY (`product\_no`)} \ \textit{REFERENCES `product` (`product\_no`)}
)ENGINE=InnoDB DEFAULT CHARACTER SET utf8mb4:
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select * from buy;
CREATE TABLE `point` (
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      point` INT NOT NULL,
     `balance_point` INT NOT NULL,
     `vote_no` BIGINT,
`user_no` BIGINT NOT NULL,
     `buy_no` BIGINT,
     PRIMARY KEY(`point_no`),
    FOREIGN KEY (`vote_no`) REFERENCES `vote` (`vote_no`),
    FOREIGN KEY (`user_no`) REFERENCES `user` (`user_no`),
    FOREIGN KEY (`buy_no`) REFERENCES `buy` (`buy_no`)
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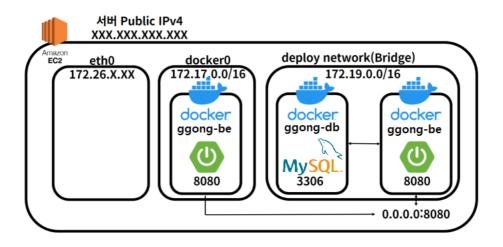
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 ('2023-07-21 12:12:12', 10, 4450, 445, 1, null),
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 ('2023-07-21 14:14:14', 10, 4470, 447, 1, null),
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 ('2023-07-21 18:18:18', 10, 4510, 451, 1, null),
 ('2023-07-21 19:19:19', 10, 4520, 452, 1, null),
 ('2023-07-21 20:20:20', 10, 4530, 453, 1, null),
 ('2023-07-21 21:21:21', 10, 4540, 454, 1, null),
 ('2023-07-21 22:22:22', 10, 4550, 455, 1, null),
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```

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 ('2023-07-22 17:17:17', 10, 4740, 474, 1, null),
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 ('2023-07-23 14:14:14', 10, 4950, 495, 1, null),
 ('2023-07-23 15:15:15', 10, 4960, 496, 1, null),
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 ('2023-07-23 23:23:23', 10, 5040, 504, 1, null),
 ('2023-07-24 00:00:55', 10, 5050, 505, 1, null),
 ('2023-08-04 12:31:56', -5000, 50, null, 1, 2);
 -- (event_time, point, balance_point, vote_no, user_no, buy_no)
 update point set buy_no = 1 where buy_no is null;
 update point set vote_no = 1 where vote_no is null;
 -- update point set user_no = 26 where user_no = 1;
 select * from point;
```

EC2 상황



프로젝트 git clone 하기

EC2 서버에 접속 후 입력

```
git clone https://lab.ssafy.com/s09-webmobile3-sub2/S09P12A304.git
```

Backend

보안을 위해 .gitignore에 아래 두 가지 파일을 제외하고 push를 했기 때문에

ubuntu@ip-172-26-15-97:~/S09P12A304/BackEnd/ggong/src/main/resources\$

해당 위치에 두 가지 파일을 추가한다.

OAuth2 로그인의 REST API key와 Client key 등이 포함된 application-oauth.yml

```
spring:
 security:
   oauth2:
     client:
       registration:
          kakao:
           client-id: f0d3fd02cc0dcc16579ddcca90b8a0c6
           client-secret: SXChuKXafezU752veeh1Mj32ye7LXSox
            redirect-uri: http://i9a304.p.ssafy.io:8080/api/login/oauth2/code/kakao
           client-authentication-method: POST
           authorization-grant-type: authorization_code
            scope: profile_nickname, account_email, gender, age_range
           client-name: Kakao
       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
```

JWT secretKey와 Access Token 과 Refresh Token의 주기 설정한 application-jwt.yml

```
jwt:
secretKey: 'dasdasf234fuhvertsv34789yhiuFDSIUFGYDTE5r~~~~~'
access:
expiration: 3600000 # 1시간(60분) (1000L(ms -> s) * 60L(s -> m) * 60L(m -> h))
header: Authorization

refresh:
expiration: 1209600000 # (1000L(ms -> s) * 60L(s -> m) * 60L(m -> h) * 24L(h -> 하루) * 14(2주))
header: Authorization-refresh
```

해당 디렉토리에서 gradlew 파일에 chmod +x로 권한을 부여한 후

```
ubuntu@ip-172-26-15-97:~/S09P12A304/BackEnd/ggong$ ls
build build.gradle gradle gradlew gradlew.bat settings.gradle src
```

```
./gradlew build
```

```
ubuntu@ip-172-26-15-97:~/S09P12A304/BackEnd/ggong/build/libs$ ls
ggong-0.0.1-SNAPSHOT-plain.jar ggong-0.0.1-SNAPSHOT.jar nohup.out
```

디렉토리 이동 후 백그라운드에서 Backend jar파일이 계속 실행되고 있도록 다음과 같이 입력합니다.

```
nohup java -jar ggong-0.0.1-SNAPSHOT.jar &
```

해당 코드로 Backend 로그를 확인할 수 있습니다.

```
cat nohup.out
```

Frontend

```
ubuntu@ip-172-26-15-97:~/S09P12A304/FrontEnd/ggong$ ls
README.md package-lock.json public tailwind.config.js
node_modules package.json src
```

npm i //npm을 install 합니다. npm start //Frontend 서버가 실행됩니다.

Kakao Developers Login 동의 항목

