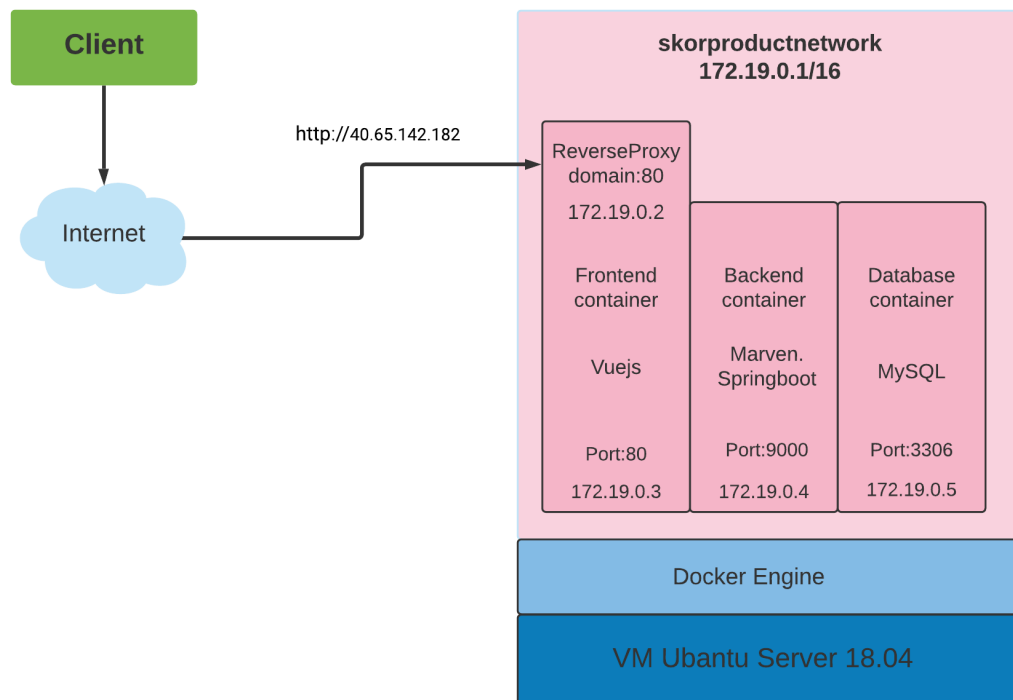


Devops

1. Architecture Diagram



2. Screenshots of docker container lists

```
int221@IntegratedProject1:~/Devops/Demo$ docker ps -a
CONTAINER ID   IMAGE          COMMAND                  CREATED        STATUS        PORTS                               NAMES
f200caf5120f   nginx         "/docker-entrypoint..." 16 minutes ago Up 15 minutes 0.0.0.0:80->80/tcp, :::80->80/tcp   reverseproxy
5a14fad5caac   demo_frontend "nginx -g 'daemon of..." 16 minutes ago Up 15 minutes 80/tcp                               frontend
5e7f69e1fc58   demo_backend  "java -jar skor-back..." 16 minutes ago Up 15 minutes 9000/tcp                             backend
c5c0e9848fbd   demo_database "docker-entrypoint.s..." 16 minutes ago Up 15 minutes 3306/tcp, 33060/tcp                 database
int221@IntegratedProject1:~/Devops/Demo$
```

3. Screenshots of docker network inspect

```
int221@IntegratedProject1:~/Devops/Demo$ docker network inspect network skorproductnetwork
[
  {
    "Name": "skorproductnetwork",
    "Id": "445f684e2007564a6960974404318f5bb67e1b3a5446385214224d3b8ad09b67",
    "Created": "2021-05-10T16:46:13.739542481Z",
    "Scope": "local",
    "Driver": "bridge",
    "EnableIPv6": false,
    "IPAM": {
      "Driver": "default",
      "Options": {},
      "Config": [
        {
          "Subnet": "172.19.0.0/16",
          "Gateway": "172.19.0.1"
        }
      ]
    },
    "Internal": false,
    "Attachable": false,
    "Ingress": false,
    "ConfigFrom": {
      "Network": ""
    },
    "ConfigOnly": false,
    "Containers": {
      "5a14fad5caac8c4ad570eee7cf27752c49b3188d90a62519b24dc8fe0f8b8054": {
        "Name": "frontend",
        "EndpointID": "61b05ef3ec6b08ce9ee970acc9cf75976205160528642c4039126ea9d60e368c",
        "MacAddress": "02:42:ac:13:00:03",
        "IPv4Address": "172.19.0.3/16",
        "IPv6Address": ""
      },
      "5e7f69e1fc5833f6bae2483d53665465b78e388559c56889d6b0380ae84e9f41": {
        "Name": "backend",
        "EndpointID": "d26fb6043a780bdcabda024655c915303c6948a69a686cfb500d947096dd035b8",
        "MacAddress": "02:42:ac:13:00:04",
        "IPv4Address": "172.19.0.4/16",
        "IPv6Address": ""
      },
      "c5c0e9848fbd061198787d56df609c8233eb0128679a17ca29048d6236c48b0": {
        "Name": "database",
        "EndpointID": "72767be9f5e582a477b414b9996e68d1776bd0d7fcd13f9d5bc34285dce6c32f",

```

4. Dockerfile

- Frontend

```
FROM node:12.2.0-alpine as build
WORKDIR /app
ENV PATH /app/node_modules/.bin:$PATH
COPY package.json /app/package.json
RUN npm install --silent
RUN npm install @vue/cli@3.7.0 -g
COPY . /app
RUN npm run build

# production environment
FROM nginx:1.16.0-alpine
COPY --from=build /app/dist /usr/share/nginx/html
RUN rm /etc/nginx/conf.d/default.conf
COPY nginx/nginx.conf /etc/nginx/conf.d
EXPOSE 80
CMD ["nginx", "-g", "daemon off;"]
```

- Backend

```
FROM maven:3.8.1-jdk-11 AS BUILD
WORKDIR /build/
COPY pom.xml /build/
COPY src /build/src/
RUN mvn clean package

FROM openjdk:11
WORKDIR /app
COPY public/images public/images
COPY --from=BUILD /build/target/skor-backend.jar /app
EXPOSE 9000

ENTRYPOINT ["java", "-jar", "skor-backend.jar"]
```

- Database

```
FROM mysql
COPY ./scrip ./scrip
ENV MYSQL_ROOT_PASSWORD=database221mysql
EXPOSE 3306:3306
```

5. Docker-compose

```
version: '3'
services:
  database:
    build: ./database
    restart: always
    container_name: database
    volumes:
      - ./database/scrip/:/docker-entrypoint-initdb.d
      - ./database/scrip/mysql-data:/var/lib/mysql
  backend:
    build: ./backend
    restart: always
    container_name: backend
    volumes:
      - ./backend/public/images:/public/images
    depends_on:
      - database
  frontend:
    build: ./frontend
    restart: always
    container_name: frontend
    depends_on:
      - database
      - backend

reverseproxy:
  image: nginx
  restart: always
  container_name: reverseproxy
  volumes:
    - ./reverseproxy/nginx.conf:/etc/nginx/conf.d/default.conf
  depends_on:
    - database
    - backend
    - frontend
  ports:
    - "80:80"

networks:
  default:
    external:
      name: skorproductnetwork
```