

# 3. 개발 환경

## Language / Frameworks

### 1. Back-end

- [Node.js](#)
  - [Express.js](#) (http server)
    - [Passport.js](#) (OAuth)
  - [Knex.js](#) (database query builder)
  - [Socket.IO](#) (websocket server)

### 2. Front-end

- [Quasar Framework](#) (hybrid web app framework)
  - [Apache Cordova](#) (mobile app framework)

## 개발 환경 설치

### 1. MariaDB

- Ubuntu Linux 22.04  
<https://linuxize.com/post/how-to-install-mariadb-on-ubuntu-18-04/>

```

sudo apt install mariadb-server
sudo service mysql start
sudo mysql_secure_installation

sudo mysql -u root -p

CREATE USER 'admin'@localhost IDENTIFIED BY 'password';
SELECT User FROM mysql.user;

GRANT ALL ON *.* TO 'admin'@'localhost' IDENTIFIED BY 'password' WITH GRANT OPTION;
# or

# creating database
CREATE DATABASE gsynccloud CHARACTER SET utf8mb4 COLLATE utf8mb4_unicode_ci;
GRANT ALL PRIVILEGES ON *.* TO 'admin'@localhost IDENTIFIED BY 'password';
FLUSH PRIVILEGES;
exit

sudo vim /etc/mysql/conf.d/mysql.cnf
[mysqld]
default_time_zone='+00:00' # use UTC time

```

## 2. redis

- Ubuntu Linux 22.04

<https://www.digitalocean.com/community/tutorials/how-to-install-and-secure-redis-on-ubuntu-18-04>

```

sudo apt install redis-server
sudo vi /etc/redis/redis.conf
requirepass a2f7fe32a4c54fa1a01dd865f42de523
sudo service redis-server start

```

## 3. Node.js

- Ubuntu Linux 22.04

```

sudo apt-get install curl software-properties-common
curl -sL https://deb.nodesource.com/setup_14.x | sudo -E bash -
sudo apt-get install nodejs

```

- Windows, MacOS

<https://nodejs.org/> download & install

## 4. Quasar Framework

- Linux, Windows, MacOS 공통

```
npm install -g @quasar/cli
```

## 5. Cordova Framework

- 먼저 설치할 것
  - Android Studio (공통)
  - MacOS: Xcode
- Linux, Windows, MacOS 공통

```
npm i -g cordova
```

```
npm i -g @quasar/icongenie
```