**jalrakshak**

Jalrakshak is an app based on IoT Architecture to monitor and manage water consumption in a smart way.

**how to run server**

* install nodejs and run npm install in project folder
* install mysql and configure mysql following the steps in <https://www.digitalocean.com/community/tutorials/how-to-install-mysql-on-ubuntu-20-04>

Note: Use the below command to give privileges to mysql db user instead of authetication plugin or caching\_sha2\_password options:

CREATE USER 'sammy'@'localhost' IDENTIFIED WITH mysql\_native\_password BY 'password';

* cretae database jalrakshak
* configure database, username and password in config.json
* install and Secure the Mosquitto Server
* configure mqtt broker server, user and password details in config.json
* run npm start in project folder
* it will start server at port 8085 and mqtt broker will consume messages and store it in database

**how to validate the installation**

* open terminal session on jalrakshak-db server and run the below command

mosquitto\_sub -u jalmqttadmin -P SptGwd5% -v -t "#"

* open terminal session on jalrakshak-ui server or any other linux server on same network and run the below command

mosquitto\_pub -h -u -P -d -t WIOT/<esp\_id>/ -m '{"1b64c8":{"FLOW\_RATE":30,"TOTAL\_LITERS":2,"WATER\_LEVEL":250,"SV\_STATE":0}}'

* open a new terminal session on jalrakshak-db server and login to mysql command line
* set database to jalraksha

use jalrakshdb;

* list contents of table

select \* from jalrakshak\_<esp\_id>;