Server Preparation V4.1 with Current Sensor

Note: **1.** This document considers that web_app V3.5 is already installed.
2. This version needs active **internet** during installations.

Installation Steps.

1. Download web_app_hm_server.zip file.
2. Extract web_app_hm_server.zip by following steps
    a. Right Click -> Extract Here
    b. Enter password and click on 'OK'
3. The extracted directory will have the following structure:

```
web_app_hm_server
  ├── web_app                  [parent directory for web app]
  ├── precalculation.py        [script to precalculate graph values]
  ├── csv_info.py              [script for csv data generation]
  ├── operation_info.py        [script for operation information]
  ├── config.py
  ├── smoothing.py
  ├── smoothing_rts.py
  ├── updatedatabase.sql
  └── periodical_delete_rts.py
```

Note : Please take backup of old web_app, python scripts and database.

4. Please replace web_app and all other files with old files.
5. web_app
    a. In config folder index.js file contains mysql information.

```
database:{
        host    : 'localhost',
        user    : 'root',
        password : 'root',
        database : 'hmmasterdb',
        raw_table: 'raw_data',
        login_table : 'login',
    }
}
module.exports=config
```

Replace only user and password field with your mysql username and password.

1. config.py

```
host = '127.0.0.1'
user = 'kmcrane_ubuntu'
```

password = 'KM_poc1_12345678'
database = 'hmmasterdb'

Replace only user and password field with your mysql username and password.

6. Removing old entries from crontab.
    a. Open terminal.
    b. Open crontab.
    command
        crontab -e
        i. Remove following lines.
            1. 2 * * * * python3 /home/hmserver/web_app_hm_server/precalculation.py >> /home/hmserver/web_app_hm_server/precalc_log.log
            2. 2 6 * * * python3 /home/hmserver/web_app_hm_server/operation_info.py >> /home/hmserver/web_app_hm_server/ope_info_log.log
            3. 10 6 * * * python3 /home/hmserver/web_app_hm_server/csv_info.py >> /home/hmserver/web_app_hm_server/csv_info_log.log
            4. 1 9 * * * python3 /home/hmserver/web_app_hm_server/periodical_delete_rts.py >> /home/hmserver/web_app_hm_server/periodical_delete_rts.log
            5. * * * * * python3 /home/hmserver/web_app_hm_server/smoothing_rts.py >> /home/hmserver/web_app_hm_server/smoothing_rts_log.log
            6. * * * * * python3 /home/hmserver/web_app_hm_server/smoothing.py >> /home/hmserver/web_app_hm_server/smoothing_log.log
            Exit and save crontab by pressing 'ctrl+x' and after that enter 'y'.

7. Remove entry from /etc/rc.local
    a. Open terminal.
    b. Open /etc/rc.local file in edit mode
    command
        sudo nano /etc/rc.local
    c. Remove line containing "**npm start**" and "**pm2 start**" key word.
    d. Exit and save /etc/rc.local by pressing 'ctrl+x' and after that enter 'y'.

8. Restart PC.

9. Update database (updatedatabase.sql)
   Note: Please take backup of database before updating.
   a. Update database using following steps.
      i. Open terminal.
      ii. Open mysql command prompt using following command
      command
      mysql -u*database_username* -p*database_password*
      iii. Update database using following command.
      command
      source path_to_*updatedatabase.sql*_file/**updatedatabase**.sql

      iv. Exit MySQL by executing following command.
      command
      exit

10. Install new **dependencies**
    This step needs Internet.
    a. Redis Server.
       i. Open Terminal and execute following command
       command
       sudo apt-get install redis-server
    b. Redis Client for Python.
       i. Open Terminal and execute following command
       Command
       sudo pip3 install redis

11. Execute python scripts for first time
    Change paths according your PC
    a. python3 /home/hmserver/web_app_hm_server/precalculation.py >> /home/hmserver/web_app_hm_server/precalc_log.log

12. Set crontab
    a. Setting crontab
       i. Adding new entries in crontab.
          1. Open terminal.
          2. Open crontab.
          command
          crontab -e
          a. Please add following lines in crontab (change all paths according to your PC)

i. 2,12,22,32,42,52 * * * * python3 /home/hmserver/web_app_hm_server/precalculation.py >> /home/hmserver/web_app_hm_server/precalc_log.log
ii. 2 6 * * * python3 /home/hmserver/web_app_hm_server/operation_info.py >> /home/hmserver/web_app_hm_server/ope_info_log.log
iii. 10 6 * * * python3 /home/hmserver/web_app_hm_server/csv_info.py >> /home/hmserver/web_app_hm_server/csv_info_log.log
iv. 1 9 * * * python3 /home/hmserver/web_app_hm_server/periodical_delete_rts.py >> /home/hmserver/web_app_hm_server/periodical_delete_rts.log
v. * * * * * python3 /home/hmserver/web_app_hm_server/smoothing_rts.py >> /home/hmserver/web_app_hm_server/smoothing_rts_log.log
vi. * * * * * python3 /home/hmserver/web_app_hm_server/smoothing.py >> /home/hmserver/web_app_hm_server/smoothing_log.log

b. Exit and save crontab by pressing 'ctrl+x' and after that enter 'y'.

13. Installing web app
    a. For quick test
        i. Go to directory containing web_app as fallow
            1. Open terminal
            2. Execute following command
               command

pm2 start path_to_web_app_folder/web_app/bin/www --merge-logs --log-date-format="YYYY-MM-DD HH:mm Z" -l path_to_log_file/web_app.log

14. Test web app
    a. Open browser and type
       192.168.3.171:3001
       It will open login screen.
    b. Enter credentials used while setting database.
       It will open dashboard.

15. For auto start of web_app on server restart
    a. Open terminal.
    b. Open /etc/rc.local file in edit mode
       command
       sudo nano /etc/rc.local
    c. Remove line containing "**npm start**" and "**pm2 start**" key word.
    d. Add following lines before 'exit 0'

       pm2 start path_to_web_app_folder/web_app/bin/www --merge-logs --log-date-format="YYYY-MM-DD HH:mm Z" -l path_to_log_file/web_app.log

    e. Exit and save /etc/rc.local by pressing 'ctrl+x' and after that enter 'y'.
    f. Restart PC
    g. After 5 minutes test web app

16. Test web app
    a. Open browser and type
       192.168.3.171:3001
       It will open login screen.
    b. Enter credentials used while setting database.
       It will open dashboard.