

## eFSI IoT Dashboard reference document

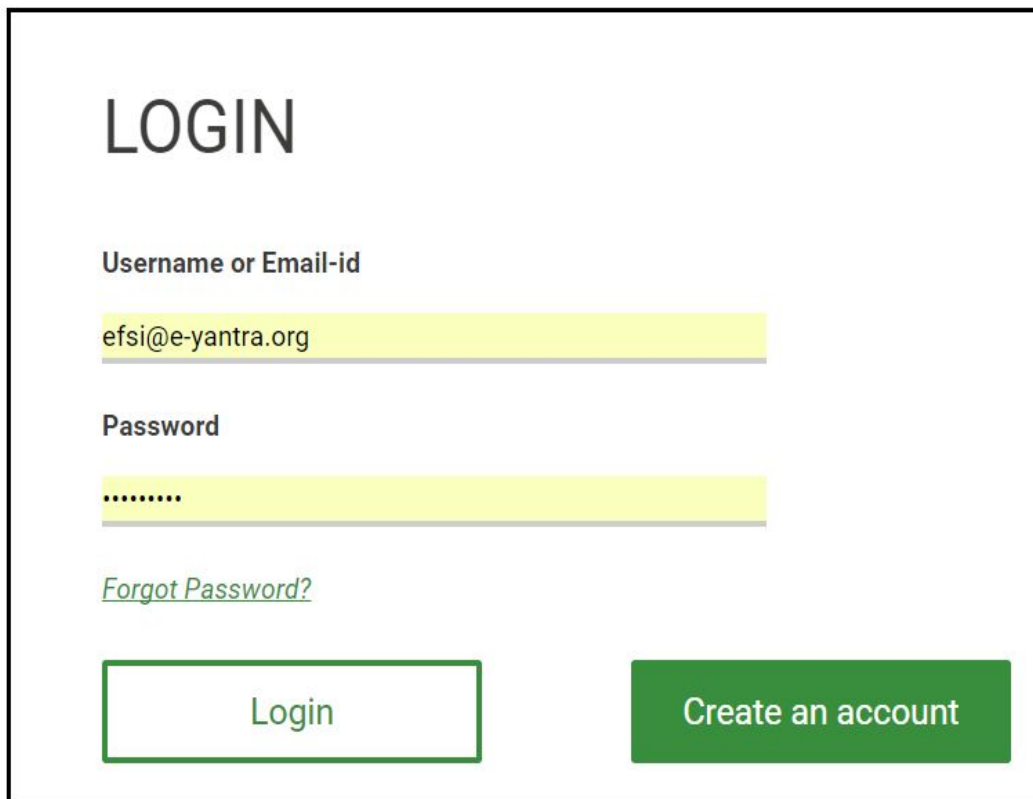
### Outline:

This document will aid us in using the IoT Server/Dashboard running on the RPi which is pre-installed in the raspbian OS image, that we used to set up in completing Task 2.1.

### 1. Launching RPi server

- There is already installed and running IoT dashboard on the RPi image provided to you.
- **Important:** To access the dashboard you need to be on the same network as the RPi.
- On your Desktop/Laptop on the same network, type on the browser, the IP address of RPi with port 9091
  - *eg: rpi\_ip\_address:9091*
- If everything went well you should see a login page on your browser, and use the following credentials to login:
  - Login: **efsi@e-yantra.org**
  - Password: **Efsi@2017**

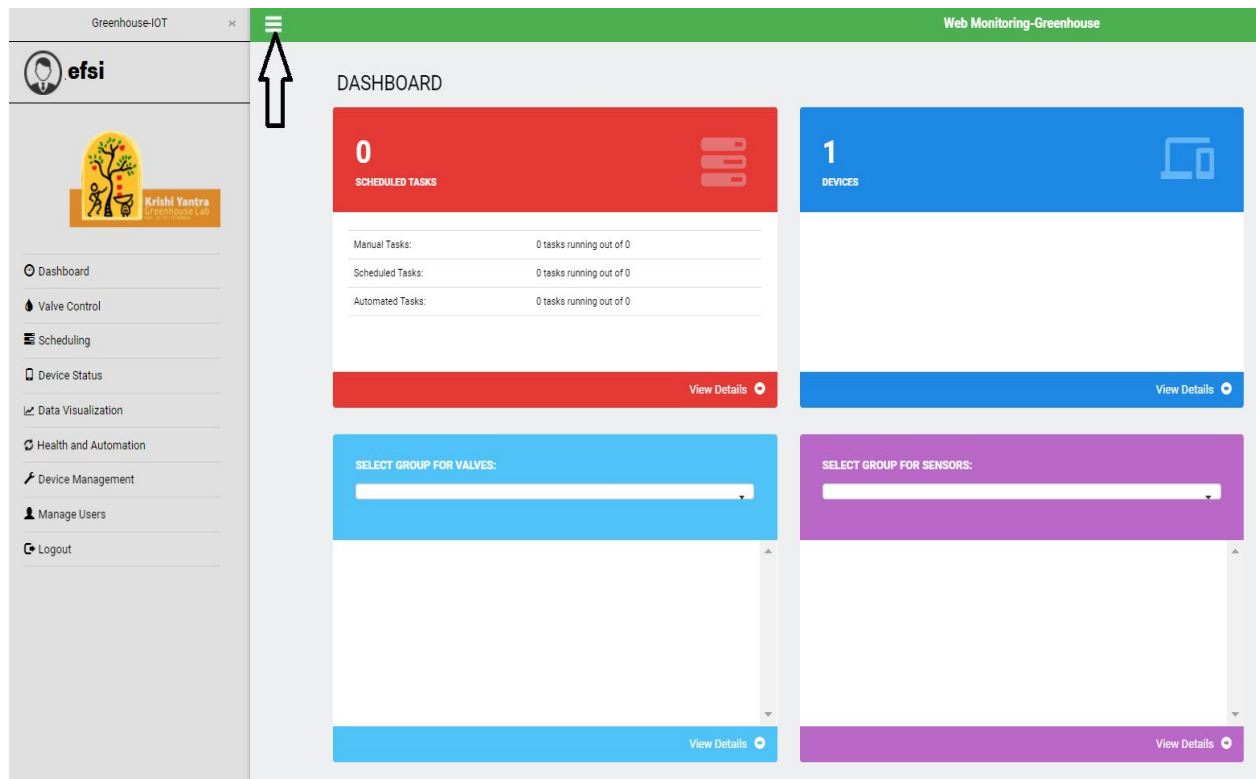
After successful login, You will be redirected to the Dashboard.



The screenshot shows a login page with the title "LOGIN" in large, bold, black letters. Below the title, there are two input fields: "Username or Email-id" and "Password". The "Username or Email-id" field contains the text "efsi@e-yantra.org". The "Password" field contains a series of dots. Below the password field, there is a link that says "Forgot Password?". At the bottom of the page, there are two buttons: "Login" and "Create an account". The "Login" button is outlined in green, and the "Create an account" button is solid green.

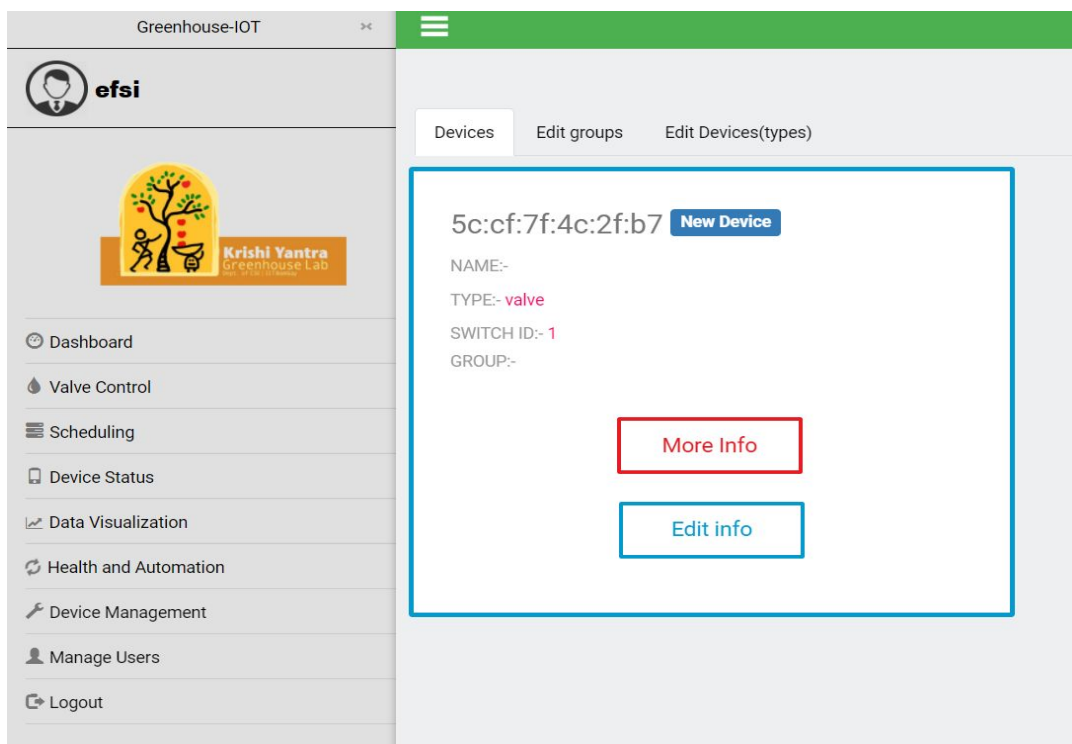
### 2. Dashboard:

The Dashboard will look like below, it consists of panels denoting the devices, tasks scheduled for the devices, Users, Groups for the devices etc.



**3. Device Management:** Click on the menu icon on left top corner and select **Device Management** tab. The device information such as Device Name, Group Name, etc are required to be given by the user in order to **identity** the device. In order to provide the above details, click the **Edit Info** Button. **To proceed further, it is necessary to assign a group to the device and a device name.**

**Note: The Valves and sensors must be added in different groups.**



**5c:cf:7f:4c:2f:b7**

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Name:  
Device 1

---

Description:  
Device 1

---

Region ID:

---

Group (for device):  
Wireless-Valve ▾

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Latitude:


---

Longitude:

---

Elevation(mtrs):

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Save Changes
Cancel

**4. Valve Control:** In order to control the valve (i.e Switch the Valve ON/OFF), Select **Valve control** Tab from the side menu. To view the devices, select a group name provided by you in initial stage.

- The **colour seen on the panel** indicates the current state of the device.  
**Red Colour:** It Indicates the device is currently offline.  
**Green Colour:** It Indicates the device is currently online.
- The **Colour seen on the button** to switch ON/OFF indicates the current state(ON/OFF) of the valve.  
**Red Colour:** It Indicates the valve switch is currently off.  
**Green Colour:** It Indicates the valve switch is currently on.

### CONTROLLING VALVES

Wireless-Valve ▾

Group Selected : Wireless-Valve

Duration (in mins)

10 ▾

📶
Updated:a few seconds ago

## 5c:cf:7f:4c:2f:b7

### Device 1

Switch-Id: 1

## CONTROLLING VALVES

Wireless-Valve ▾

Group Selected : **Wireless-Valve**

Duration (in mins)

10 ▾



Updated:a few seconds ago

**5c:cf:7f:4c:2f:b7**

Device 1

Switch-Id: 1



## CONTROLLING VALVES

Wireless-Valve ▾

Group Selected : **Wireless-Valve**

Duration (in mins)

10 ▾



Updated:a few seconds ago

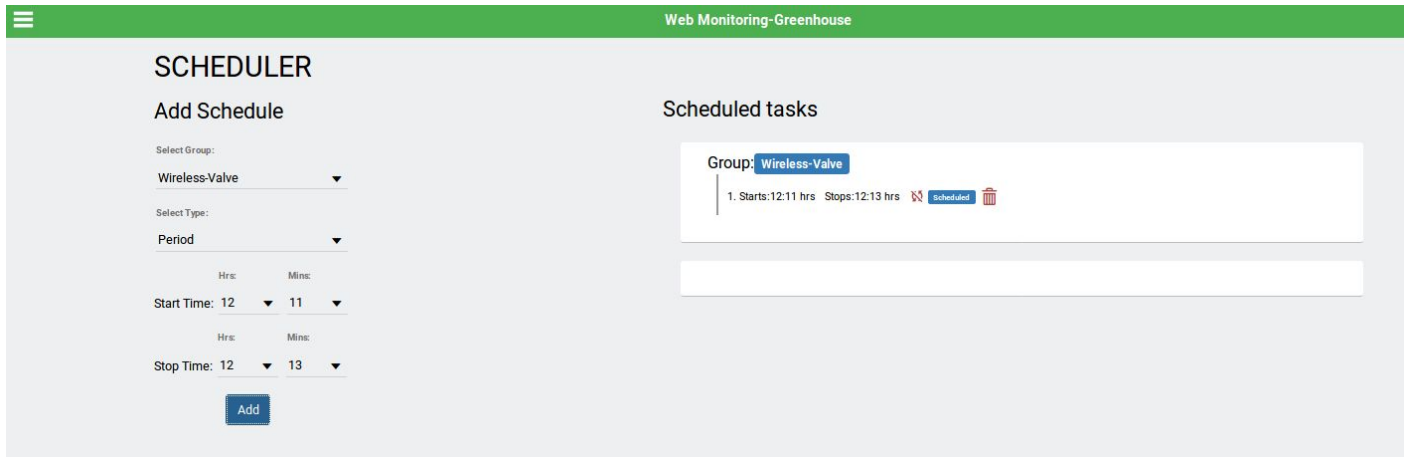
**5c:cf:7f:4c:2f:b7**

Device 1

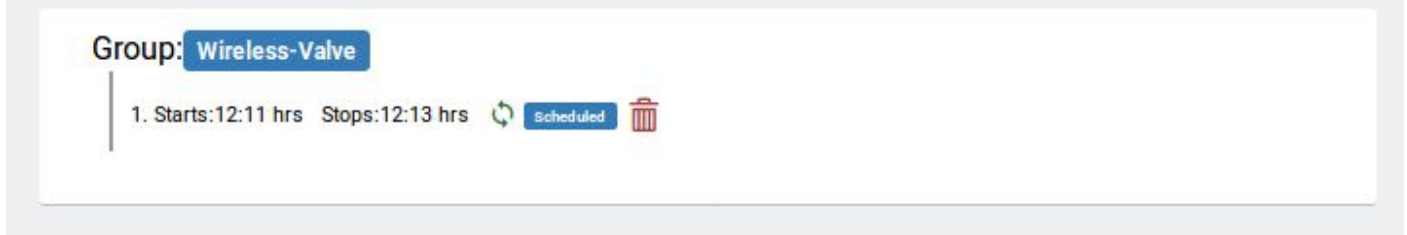
Switch-Id: 1



**5. Task Scheduling:** The scheduling of the devices (i.e Valves/Actuators) can be done through “**Task Scheduling**”. An entire Group that may have more than one device added to it can be scheduled for a specific Period/Duration. The Task will automatically execute on everyday basis on the given Period/Duration.



## Scheduled tasks



## FAQ's

### 1. No Connection to Mqtt Server, Trying to reconnect.

If One encounters this error on the web page, do the following,

Open the Terminal/MobaXterm, go to the following path and type the given command on the prompt

**sudo node mosca-mysql-server.js**

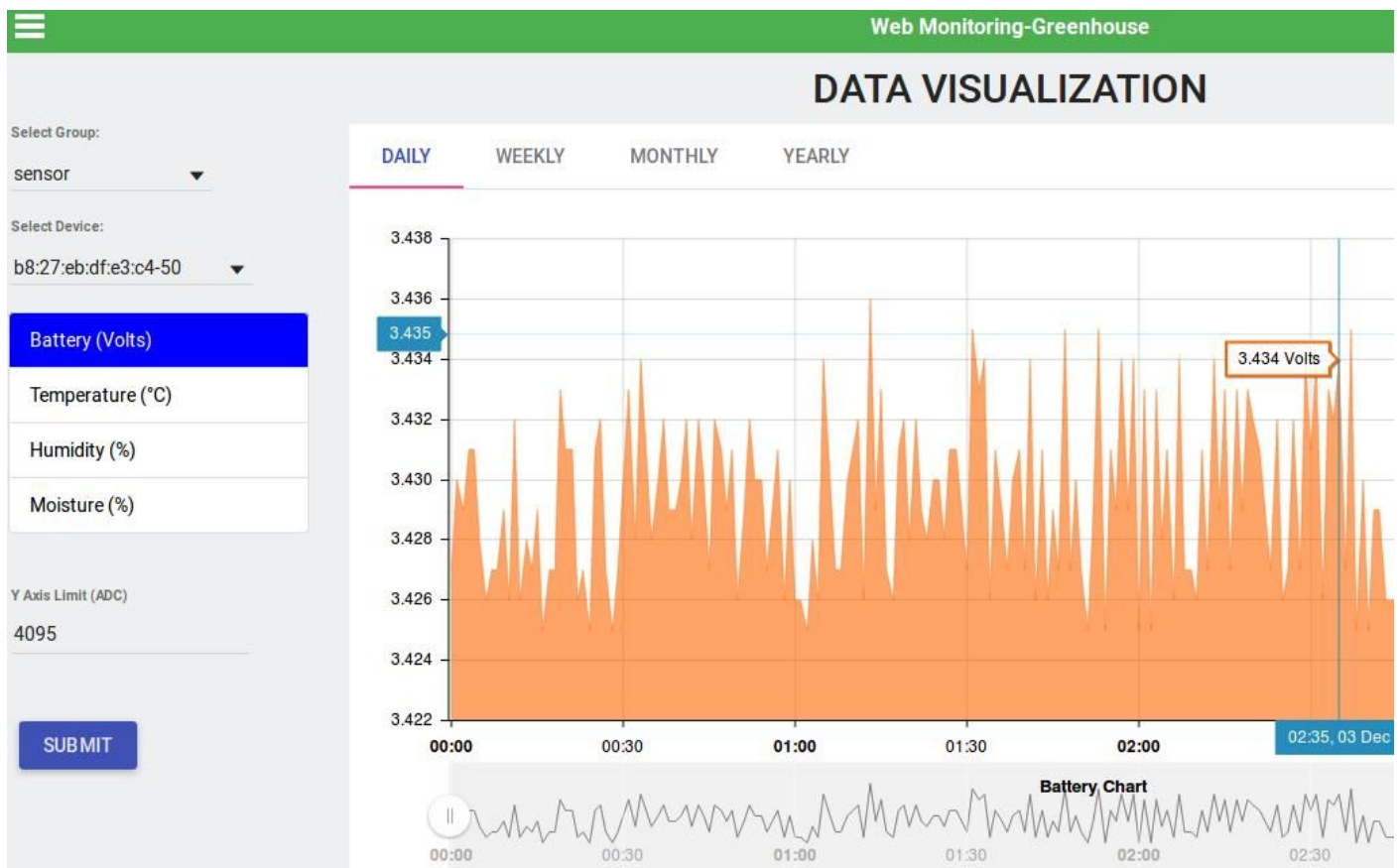
### NOTE:

1. The above message is also visible if there is no proper internet connection.
2. Do not run the above file manually until the above error is encountered.

## Data Visualization:

1. In order to visualize the data given by different Valves/sensors with respect to Battery, Temperature, Moisture and Humidity in the form of line charts, Click on “**Data Visualization**” tab present on the sidebar.
2. Select the Group from the dropdown list.
3. The devices that you added in the respective group selected will be displayed in the dropdown list below.
4. Select the Device Id of interest in order to view the data.
5. You will be able to see only Battery Status for **Valves/ Actuators** and Battery Status, Temperature, Humidity & Moisture for **Sensors**.

The below screen shows the graph for battery status of the selected device.



The below screen shows the graph for humidity status of the selected device.



Similarly, the graph can be seen for other parameters( Moisture, Temperature) of devices.

6. The graph can be viewed on Daily, Weekly, Monthly and Yearly basis by selecting the appropriate tab . The Date, Week, Month and Year can be selected by using the buttons given on top left corner of the graph.