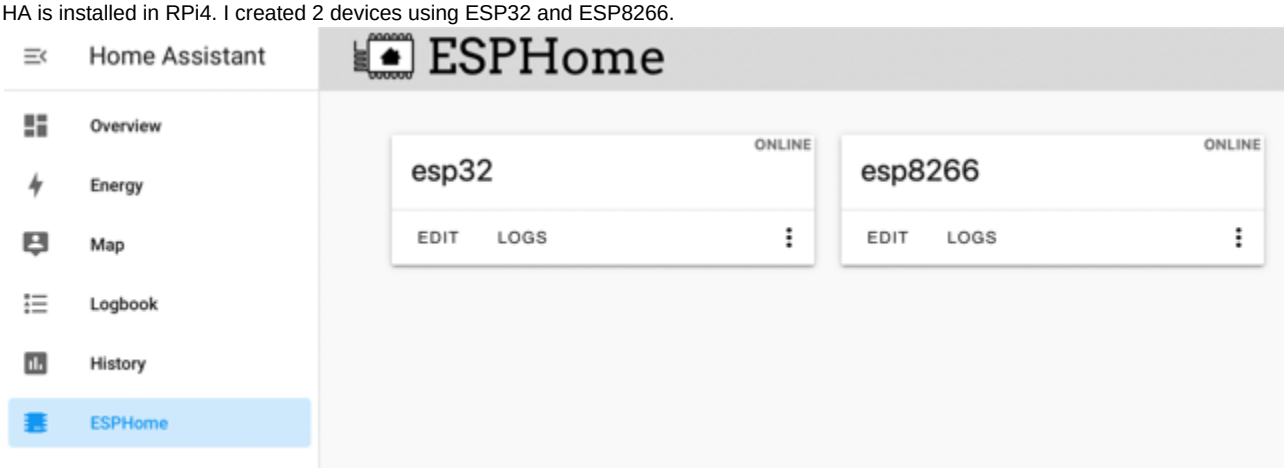
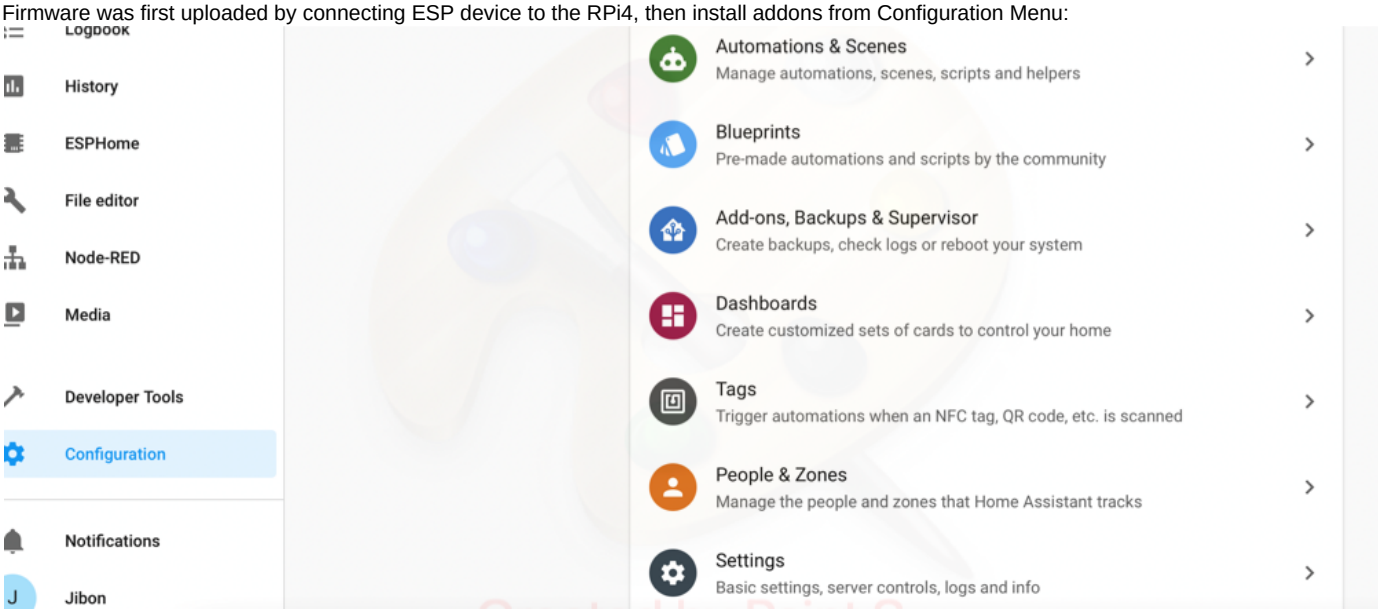
2nd Steps - Creating Devices and End Points / Entities

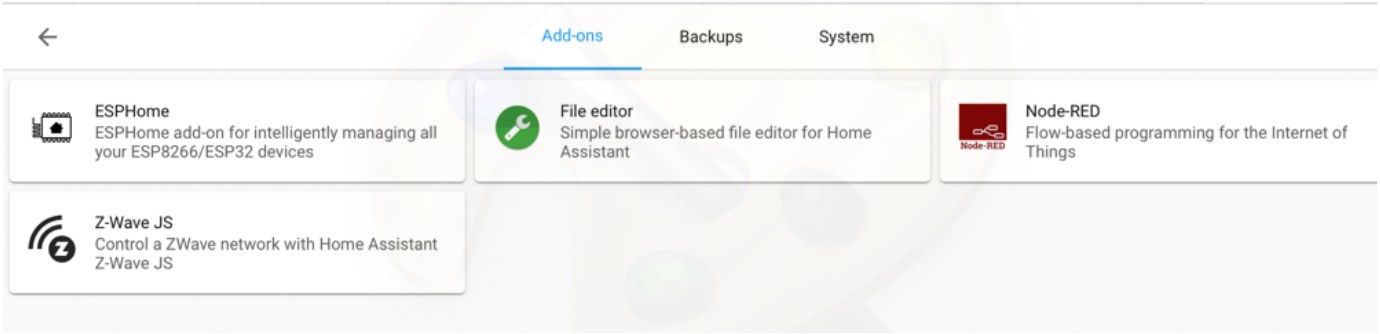
HA is installed in RPi4. I created 2 devices using ESP32 and ESP8266.



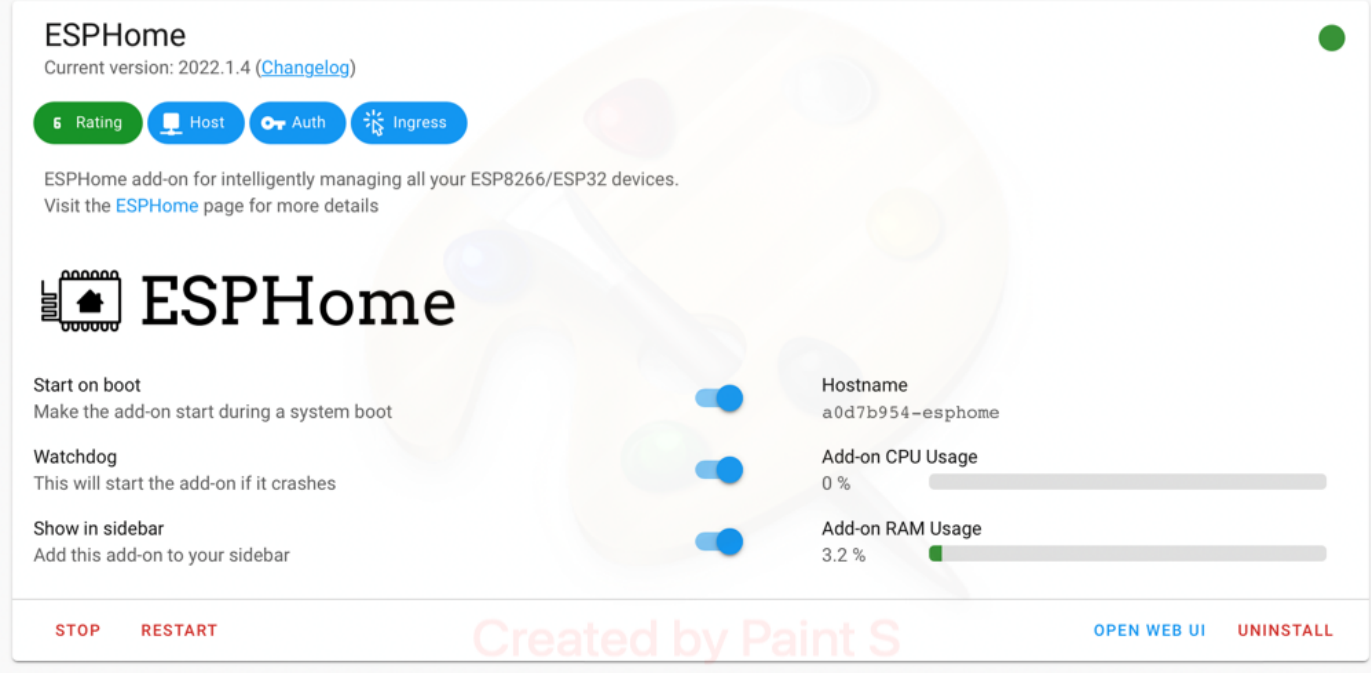
Firmware was first uploaded by connecting ESP device to the RPi4, then install addons from Configuration Menu:



Following



Enter to ESPHome:



Click to OPEN WEB UI:

ESPHome Dash will appear. At the bottom-right corner there is Add new Device Button. Click on this button to start the wizard. It is important to select the board type in the wizard or edit in script later. See below the initial 2 scripts:

For ESP32

```
# declare script name
esphome:
  name: esp32

# define parameters for this script
esp32:
# board type is ok because we’re getting input
  board: nodemcu-32s
  framework:
    type: arduino

# Enable logging
logger:

# Enable Home Assistant API
api:

ota:
  password: "517275055223d8eae7de0835606a68e1"

wifi:
  ssid: !secret wifi_ssid
  password: !secret wifi_password
```

```
  # Enable fallback hotspot (captive portal) in case wifi connection
fails
  ap:
    ssid: "Esp32 Fallback Hotspot"
    password: "ETvJcTZP4S1z"

captive_portal:

binary_sensor:
  - platform: gpio
    pin:
      number: 32
      mode: INPUT_PULLUP
      inverted: True
    name: "Living Room Window"
    device_class: window
    filters:
      - delayed_on: 10ms

# Example configuration entry
light:
  - platform: binary
    name: "Desk Lamp"
    output: light_output

output:
  - id: light_output
    platform: gpio
    pin: 23

# Code for remote

#remote_transmitter:
#  pin: GPIO33
#  carrier_duty_percent: 50%

# Individual switches
#switch:
#  - platform: template
#    name: "LG TV ON/Off"
#    turn_on_action:
#      remote_transmitter.transmit_lg:
#        data: 0x20DF10EF # power on/off
#        nbits: 32
```

For ESP8266 Nodemcu:

```
esphome:
  name: esp8266

esp8266:
  board: nodemcuv2

# Enable logging
logger:

# Enable Home Assistant API
api:

ota:
  password: "db8b1bd647ea4d4599a7a1fe8ee498d3"

wifi:
  ssid: !secret wifi_ssid
  password: !secret wifi_password

  # Enable fallback hotspot (captive portal) in case wifi connection
fails
  ap:
    ssid: "Esp8266 Fallback Hotspot"
    password: "Ib7giTom64VN"

captive_portal:

binary_sensor:
  - platform: gpio
    pin:
      number: D3
      mode: INPUT_PULLUP
      inverted: True
    name: "Living Room Window"
    device_class: window
    filters:
      - delayed_on: 10ms

# Example configuration entry
light:
  - platform: binary
    name: "Desk Lamp"
    output: light_output

output:
  - id: light_output
    platform: gpio
    pin: D2
```

Automations

In Devices and Services section under Configuration menu, enter a device in ESPHome. Click on
n Devices (ex 1 Devices), There is a section called Automation. We can add multiple automations. In each automation there are 4 section:

NAME OF AUTOMATION Triggers Conditions Actions

Concept of a state machine. It can build Trigger Action network between multi tier devices.