



Notes:

- Always manage WiFi connections especially if your chip is battery powered.
- Dont do any heavy lifting in any callback functions. Ex mqtt reply, just copy the data, set a flag and exit. Always process data in the loop().
- Use timer watchdogs for periodic computation.
- Always yield() or delay() whenever possible, only in loop() and not in callback functions.
- Dont use STA and AP mode simultaneously Use AP mode for first few minutes after startup for user to connect to AP and go to <http://192.168.4.1/config> to change anything. After that proceed with whatever you want in STA mode.
- Keep your configJSON < 1K and any JSON download/upload to 512B due to memory constraints.
- I prefer using json for communication over web, as long as your data is small. Both for http and mqtt.

`http://mywebsite.com/get_lb_config?devid=myESPRelay_111`

Reply format:

```
{"error": "SUCCESS", "result": {"version": "config_v1.067", "balancer": "192.168.1.100", "token": "your token"}}
```

`http://mywebsite.com/node_ping?devid=myESPRelay_111`

Ex Reply format:

```
{
  "error": "SUCCESS",
  "result": {
    "telemetry": false,
    "reboot": false,
    "update": false,
    "newconfig": false,
    "armedforany": true,
    "gpiochanged": false,
    "userGpio": {
      "valid": false
    }
  },
  "esp01Pin0": 1
}
```

Notes:

- This is a simple example of how you http request URL could be structured and how the response JSON structure might look like.
- Ultimately, its your requirement and you can go with any approach you like. Due to memory constraints on the ESP8266, you will have to keep the responses small as possible.