#### **Documentation**

Command to be performed using mobile on relay (connected to nodeMCU):

1. On

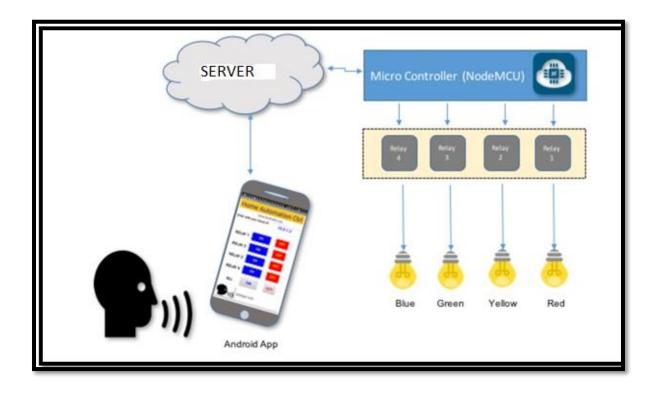
#### 2. Off

There exists only one mobile phone in a single network but the application can run on multiple mobile phones.

The devices that are to be controlled by mobile phones are connected with a relay and that relay is connected with NodeMCU and NodeMCU is connected to the network using a Wi-Fi router.

All the NodeMCU should be connected to the master server.

The mobile client in order to control the devices (that are connected with NodeMCU) should be connected to the master server.



## **Mobile to server Communication**

## Command Request

Properties	Type	Values	Optional
nodeID	Sring	node1	no
operation	Boolean	true	no

## Command Response

Properties	Туре	Values	Optional
operationStatus	String	Accepted	No
		Rejected	
		Not Implemented	
reason	String	Any	Yes
error	String	Any	Yes

## Sample JSON

## **Request:**

 $"typeId:1, id:avx7, dateTime:2020-01-07T20:20:40.384Z, message:CommandRequest, payload: \{``nodeID'':"node1", ``operation'':"true''\}''$ 

#### **Response:**

 $"typeId:2,id:avx7,dateTime:2020-01-07T20:20:40.384Z,payload: \{"operationStatus": "Accepted"\}"$ 

### SendListOfDevicesRequest

This will be an empty payload

## ${\bf Send List Of Devices Response}$

<b>Properties</b>	Type	Values	Optional
devices	List <string></string>	[node1,node2]	no

Sample JSON:

Request:

"typeId:1,id:avx7,dateTime:2020-01-

07T20:20:40.384Z,message:SendLIstOfDevicesRequest, payload{}"

Response:

"type Id: 1, id: avx7, date Time: 2020-01-07T20: 20: 40.384Z,

payload{"devices":"["node1","node2"]"}"

## **Server to NodeMCU Communication**

## **CommandRequest**

Properties	Type	Values	Optional
nodeID	Sring	node1	no
operation	Boolean	true	no

## CommandResponse

Properties	Type	Values	Optional
operationStatus	String	Accepted	No
		Rejected	
		Not Implemented	
reason	String	Any	Yes
error	String	Any	Yes

## **Sample JSON**

### **Request:**

"typeId:1,id:avx7,dateTime:2020-01-07T20:20:40.384Z,message:CommandRequest, payload:{"nodeID":"node1","operation":"true"}"

#### **Response:**

 $"typeId:2, id:avx7, dateTime:2020-01-07T20:20:40.384Z, payload: \{"operationStatus": avx7, dateTime:2020-01-07T20:20:40.384Z, payload: avx7, dateTime:2020-01-07T20:20:40.384Z, payload: avx7, dateTime:2020-01-07T20:20:40.384Z, payload: avx7, dateTime:2020-01-07T20:2020-01-07T20:2020-01-07T20:2020-01-07T20:2020-01-07T20:2020-01-07T20:2020-01-07T20:2020-01-07T20:2020-01-07T20:2020-01-07T20:2020-01-07T20:2020-07T20:2020-01-07T20:2020-07T20:2020-07T20:2020-01-07T20:2020-07T20:2020-07T20:2020-07T20:2020-07$ 

"Accepted"}"

# **NodeMCU** to server Communication

## Device Status Request

Properties	Type	Values	Optional
nodeId	String	node1	no
status	Boolean	false	no

Note: here status is to notify user that someone has powered on/off from AC (2-way switch)

# DeviceStatusResponse

It will send an empty payload.

## **Sample JSON**

## **Request:**

 $"typeId:1,id:avx7,dateTime:2020-01-07T20:20:40.384Z,message:CommandRequest, payload: \{"nodeID":"node1","status":"false"\}"$ 

## **Response:**

"typeId:2,id:avx7,dateTime:2020-01-07T20:20:40.384Z,payload:{}"

## **Server to Mobile Communication**

## Device Status Request

Properties	Type	Values	Optional
nodeId	String	node1	no
status	Boolean	false	no

Note: here status is to notify user that someone has powered on/off from AC (2-way switch)

# DeviceStatusResponse

It will send an empty payload.

## **Sample JSON**

## **Request:**

"typeId:1,id:avx7,dateTime:2020-01-07T20:20:40.384Z,message:CommandRequest, payload:{"nodeID":"node1","status":"false"}"

## **Response:**

"typeId:2,id:avx7,dateTime:2020-01-07T20:20:40.384Z,payload:{}"