MoodLamp

we have an LED Moodlamp to control via a Mobile APP. a Cloud sever is used to send command from the app to the lamp and to receive status and store data.

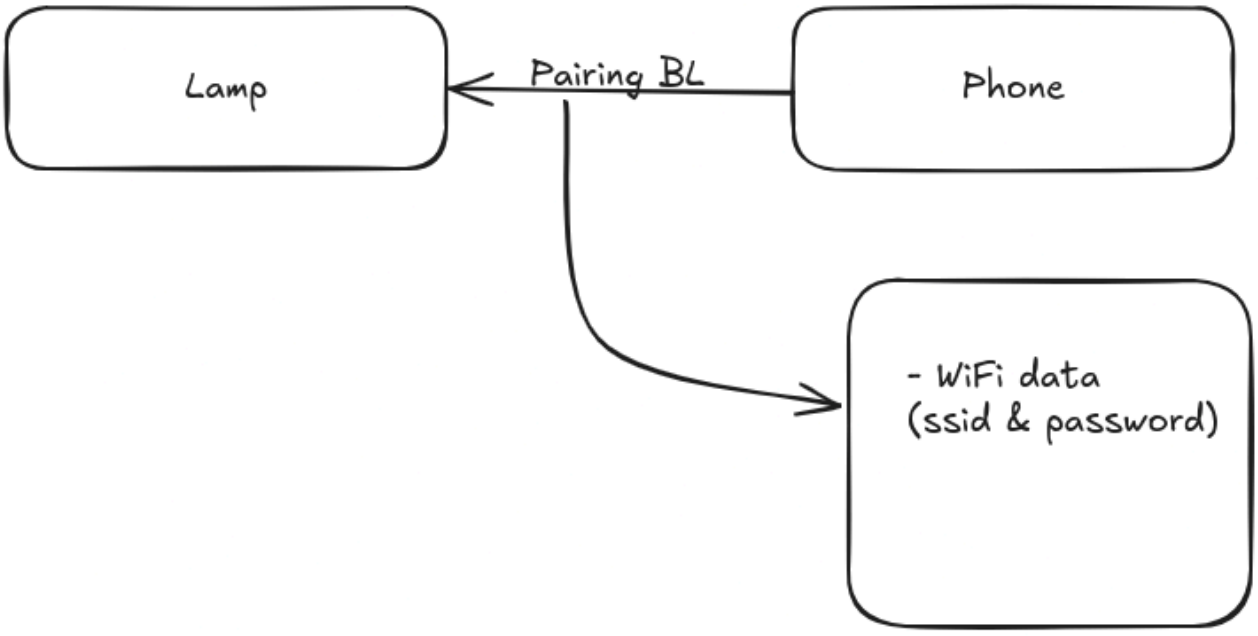
Functionalities

- ability to control/change WiFi (opt)
- Control LED Strip(color, brightness , animation light, set-sequence by user, create timing)
- Setup a an Alarm/timer mode. (opt)
- display Picture on LCD display (opt)

Design

Step 1:

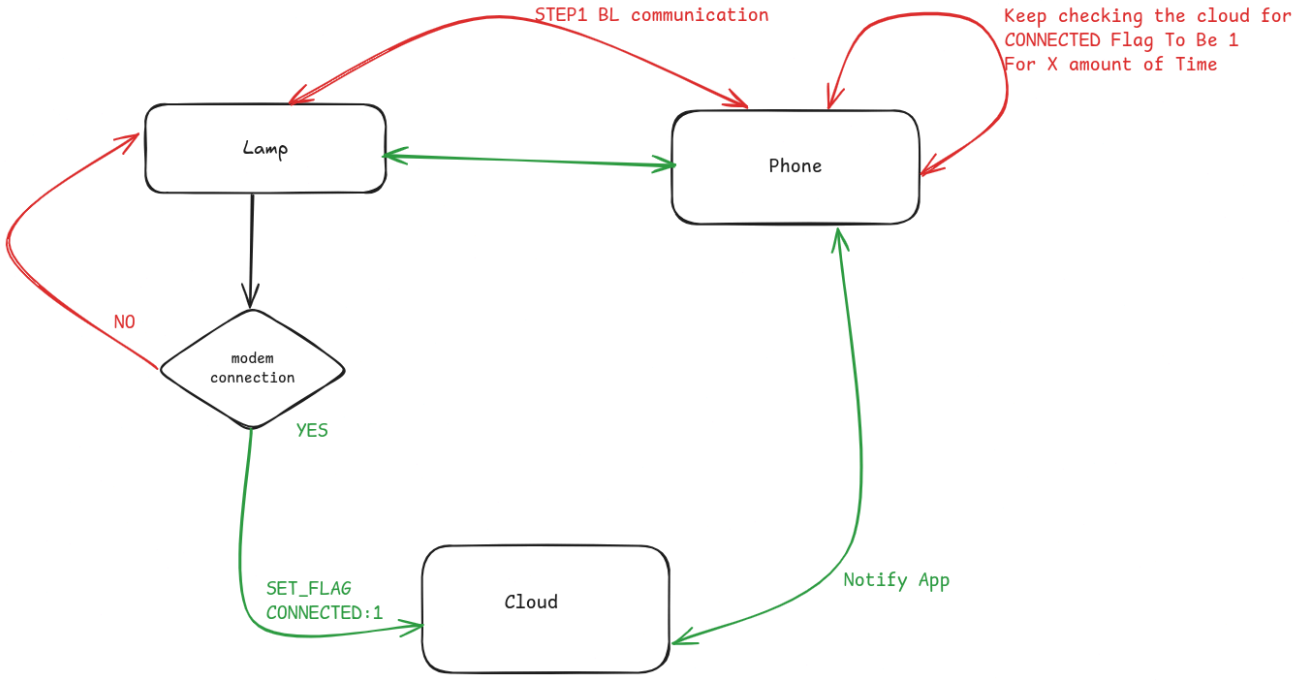
The phone pairs with the Lamp using Bl, then the phone will provide WiFi access point that the lamp needs to connect to



Step 2:

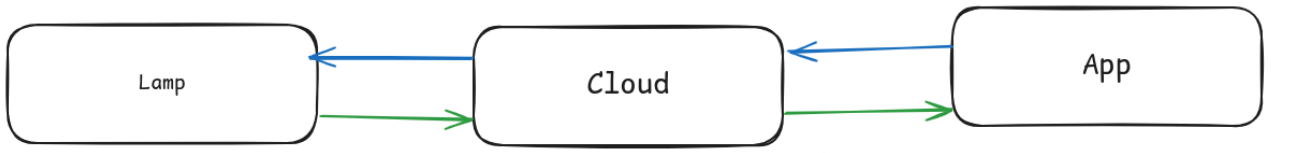
The Lamp establish connection with the Modem,
- IF success it will send to the Cloud FLAG: CON_SUCC
- ELSE: The Lamp will keep BL ON.

The phone will keep checking the "CONNECTED" of X amount of time, if not it will reastablish a connection with the LAMP via BL



Step 3:

- send commands from App to lamp.
- the app receive ACK from the lamp that the commands are set.
- figure out a way when the lamp disconnects or error happens how to set back the CONNECTED Flag to 0



Hardware-V1

ToDO

- Enhance hardware (case)
- solder all the electronics together on a Perfboard