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**USER GUIDE**

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**1. PUSH BUTTON OPERATION:**

1. Single time press: work as a switch if your device is on than it will change the stat to off.
2. Long press about more than 5 second: device is in hotspot mode and waiting for Programing Device ID. [only for manufacturing process]
3. Long press about more than 10 second: factory reset mode, device will erase all the information which is stored in memory and only have Device-ID which is given at the time of manufacturing.

**NOTE:**

1. If device light is blinking for 3 seconds, it means device has no data about network.
2. If device light is blinking for 2 seconds means device is trying to connect with the given Wi-Fi credential.
3. If device light is continuous on means device is successfully connected with the given network and with the MQTT server.
4. If device light is off, it means device is not connected with the given credential. After 15 second if device light is get turned on constantly that means your device is connected successfully with the given Wi-Fi credential.

**2. Steps for Programing Device Id into the Device:**

1. If device light is on and if you pressed the push button than device light will turn off after 2 second and again get turn on when time is beyond 5 second at that time release the pressed button for giving the Device Id to the Device.
2. Device will generate one Wi-Fi name: “Abtech\_001” with the given password: “100\_hcetbA” and led is blink for every 1/2 second.
3. Now connect Android device to that network and open Prog\_ID Application in Android device. Same way you can add more device and can see on you store by login with your store credential.

**3. Steps for usage of Device:**

1. **Follow below wiring instruction to connect the device.** [**Fig. 1**]

Input    Output

N ————N

L————-L

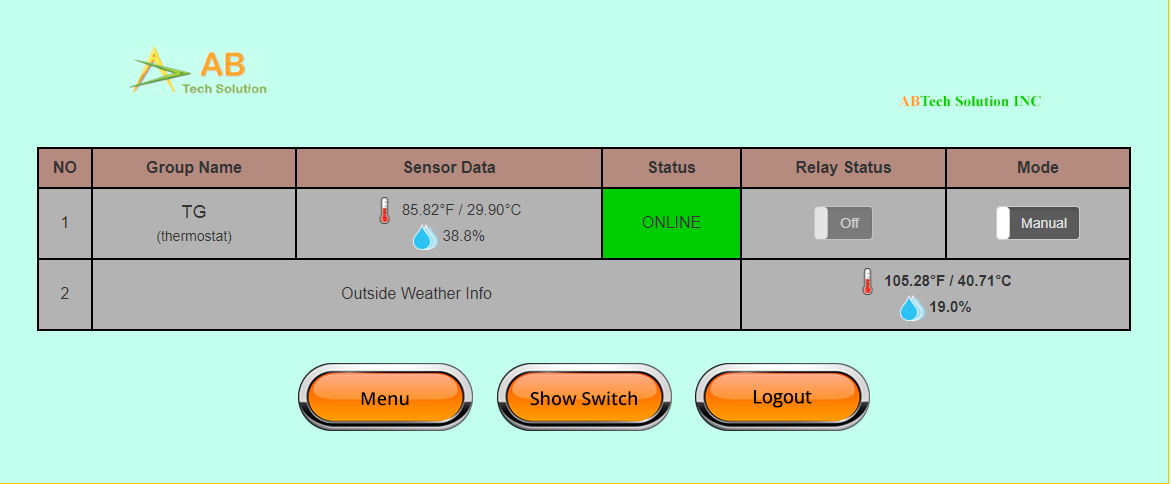
1. **Add device to the server Fig. 1**
   1. Power up the device after you complete the installation.
   2. For giving the Wi-Fi credential and register the device with the server follow this steps.
      1. Open Local Display Application in Android device.
      2. Click on Menu button.
      3. Click on Device Configuration Button.
      4. Need to give Wi-Fi change permission, give that permission.
      5. Again go on Device Configuration Screen.
      6. Hotspot will get generated, device will connect (restart your SONOFF device by turn off the power of device and again turn it on) with this connection and device will be shown with the information in Device Configuration window.
      7. Now you can give the Wi-Fi credential, device name and store name to the device so that device can be registered for your store.
2. If you want to change the Wi-Fi credential any time than you can follow the same steps given above.

**4. OPERATION IN WEBSITE:**

1. Login to the store by clicking on given link:

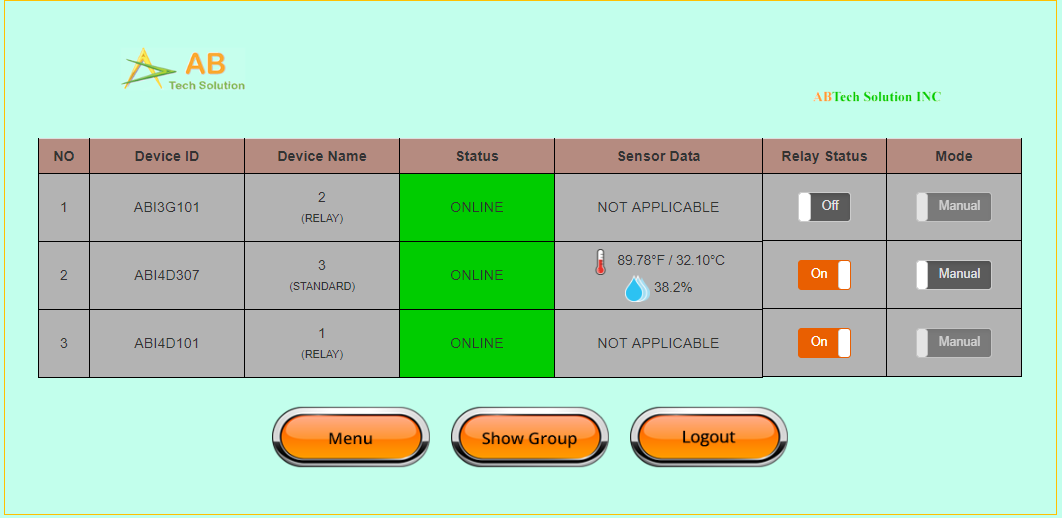
<https://smartpos-demo.abtechteam.com:7443/admin/login.php>

1. Now you can see the dashboard to which you can see all the group list and you can do operation like on/off and auto/manual mode. [**Fig. 2**]



**Fig. 2**

1. By clicking on the show switch button you can see the single switch which is not in any group. You can go back to the group window by clicking on show group button. [**Fig. 3**]



**Fig. 3**

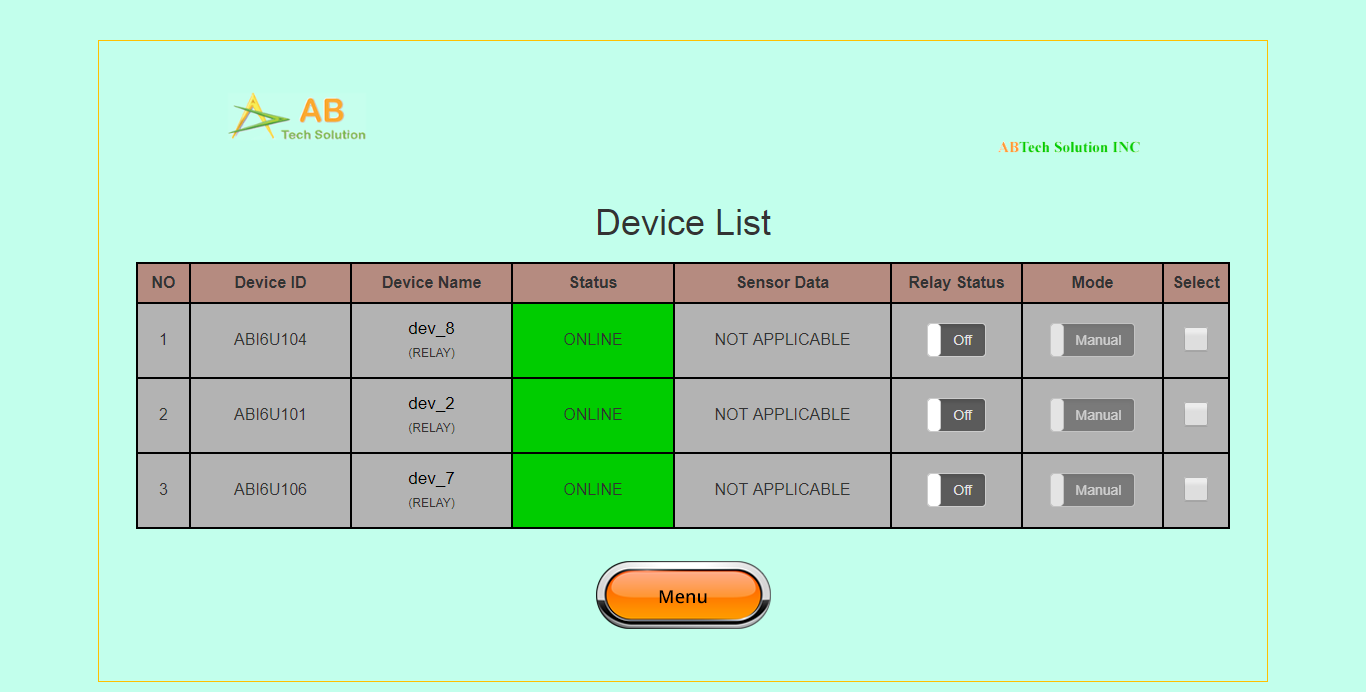
1. Click on Menu button you can see advance option. User can see the button based on user profile. [**Fig. 4**]



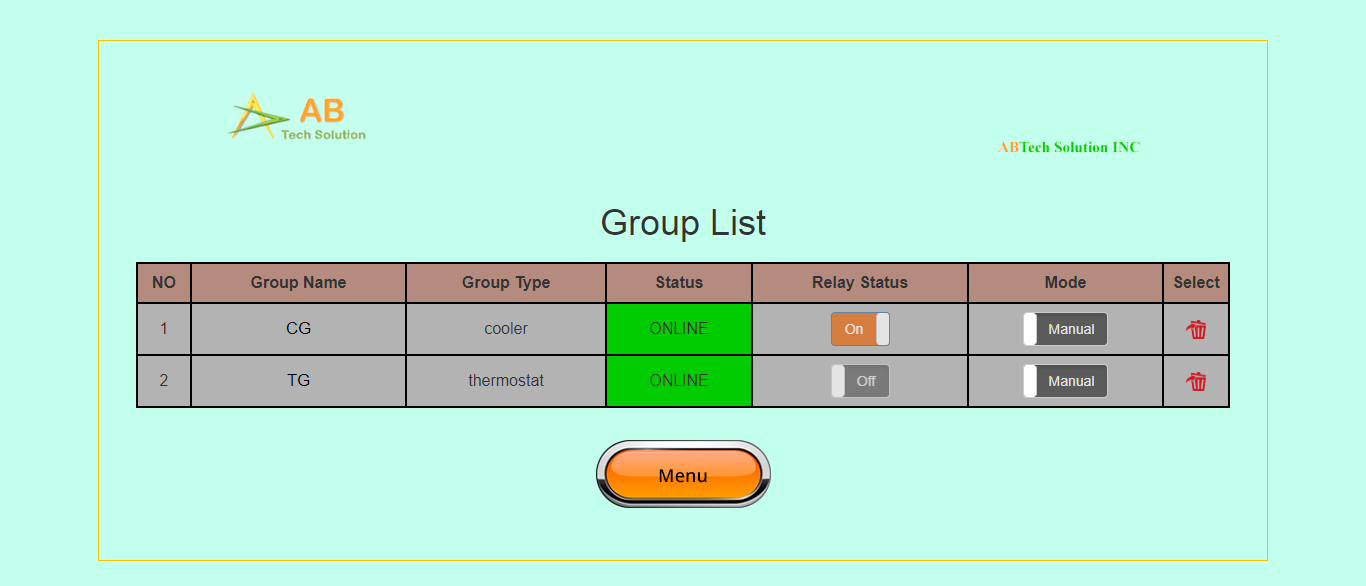
**Fig. 4**

**4.1 BUTTON INFORMATION**

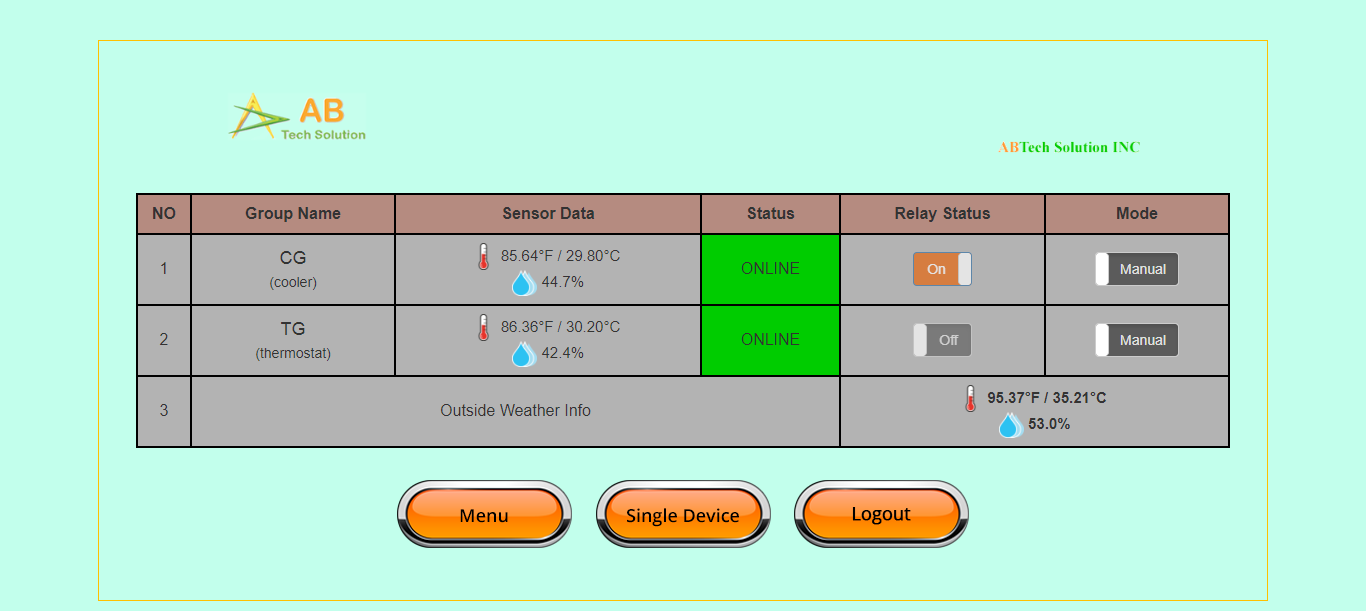
1. Device List: Consist of all non-group device / single switch.



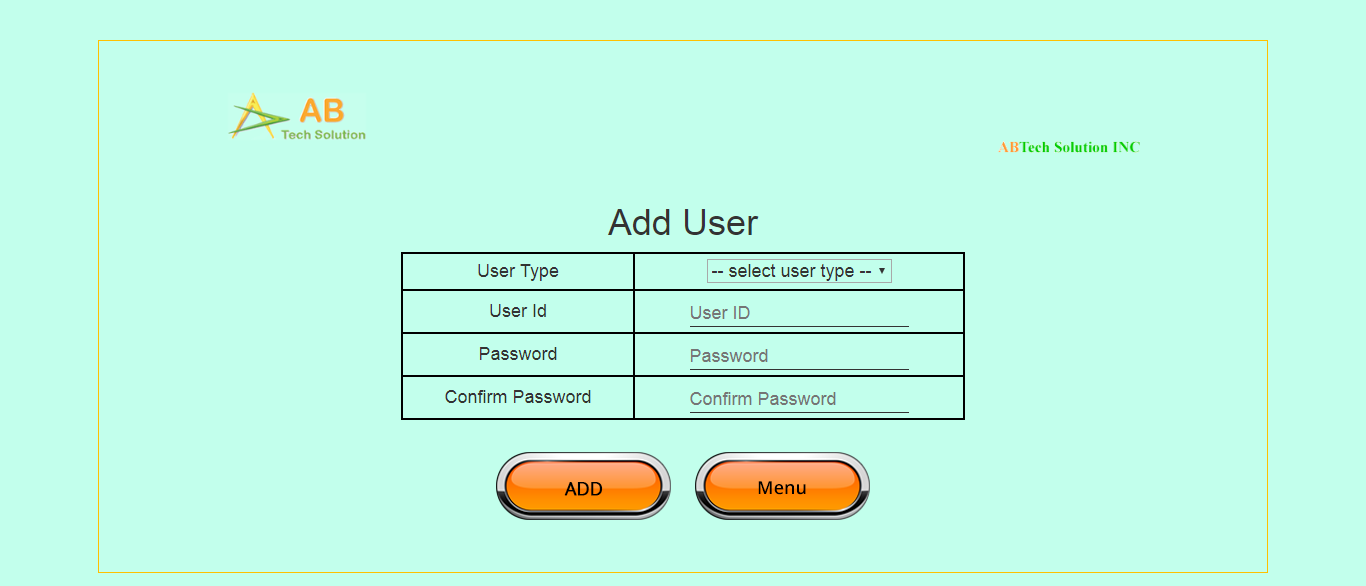
1. Group List: Consist of all group with detailed information about programing and controlling.



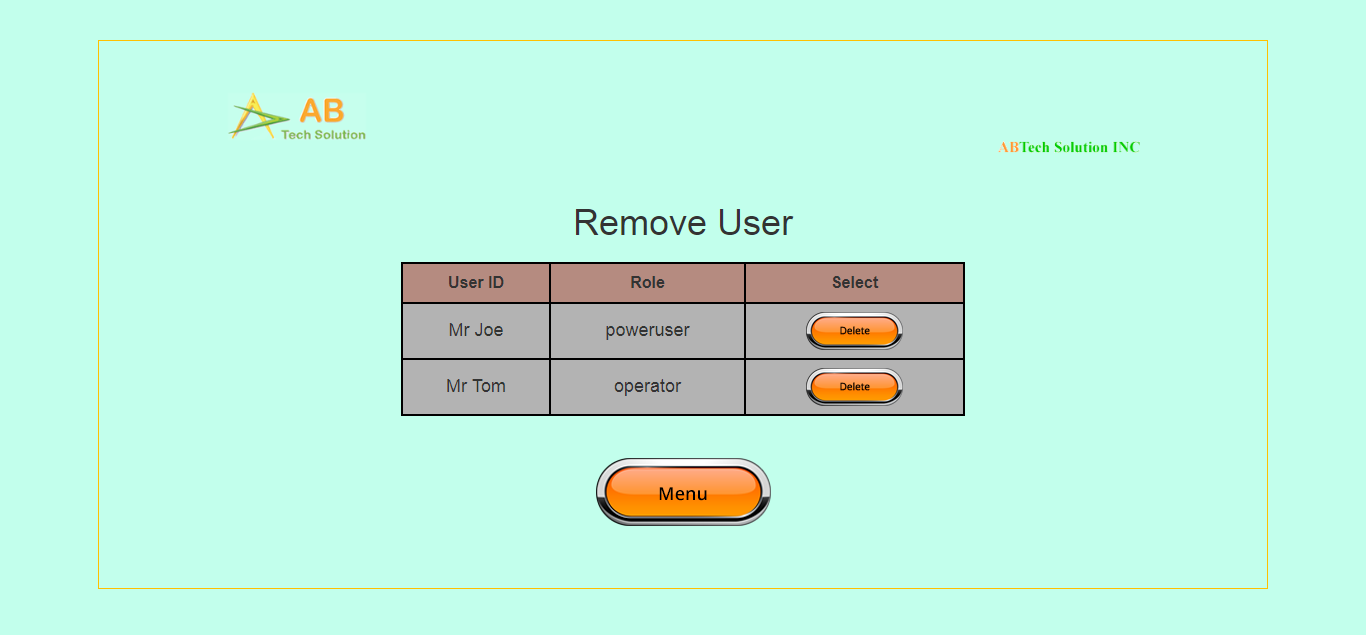
1. Dashboard: going back to the dashboard.



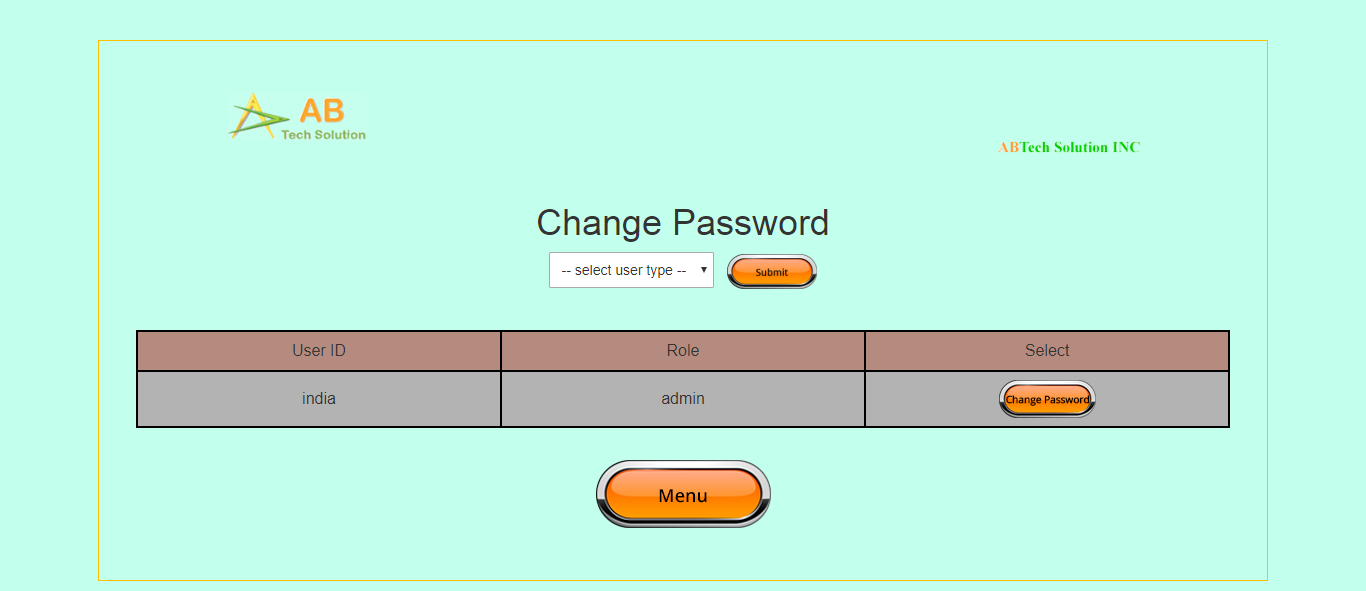
1. Add User: Admin can add other user for the store and user can be added for two different profile [1] power user [2] operator.



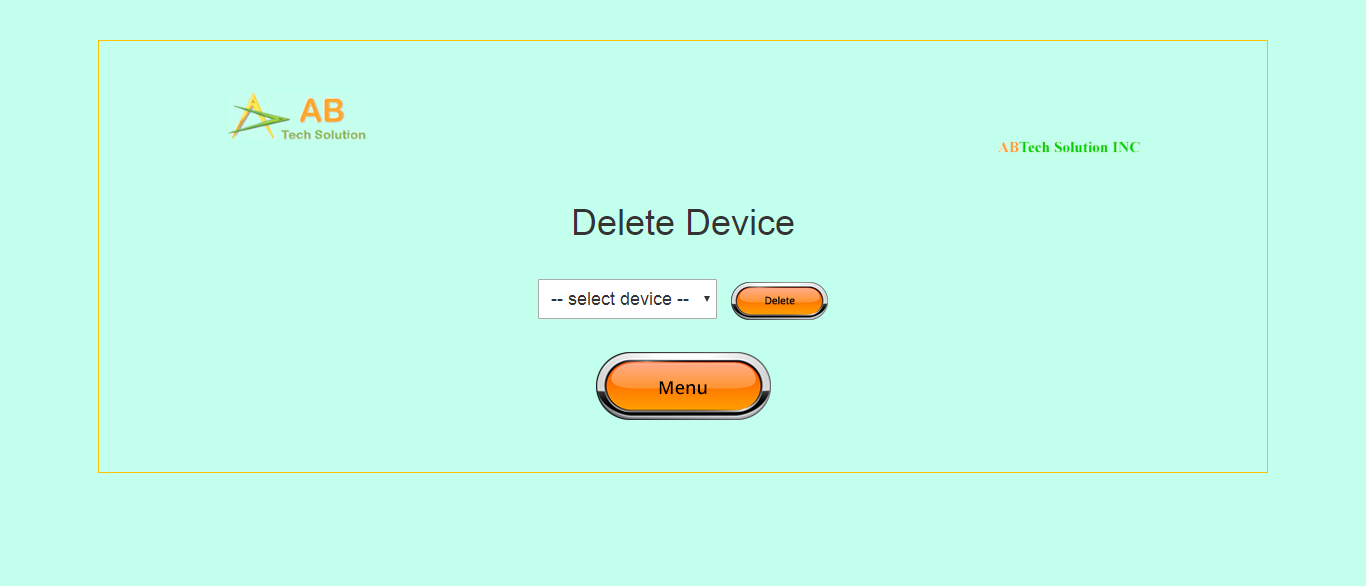
1. Remove User: Admin can remove existing user of the store.



1. Change password: Admin can change password of existing user.



1. Delete Device: Admin can Delete the exist device of the store.



1. All Device: Admin can see all device and can check for update of firmware.



Single Device Management:

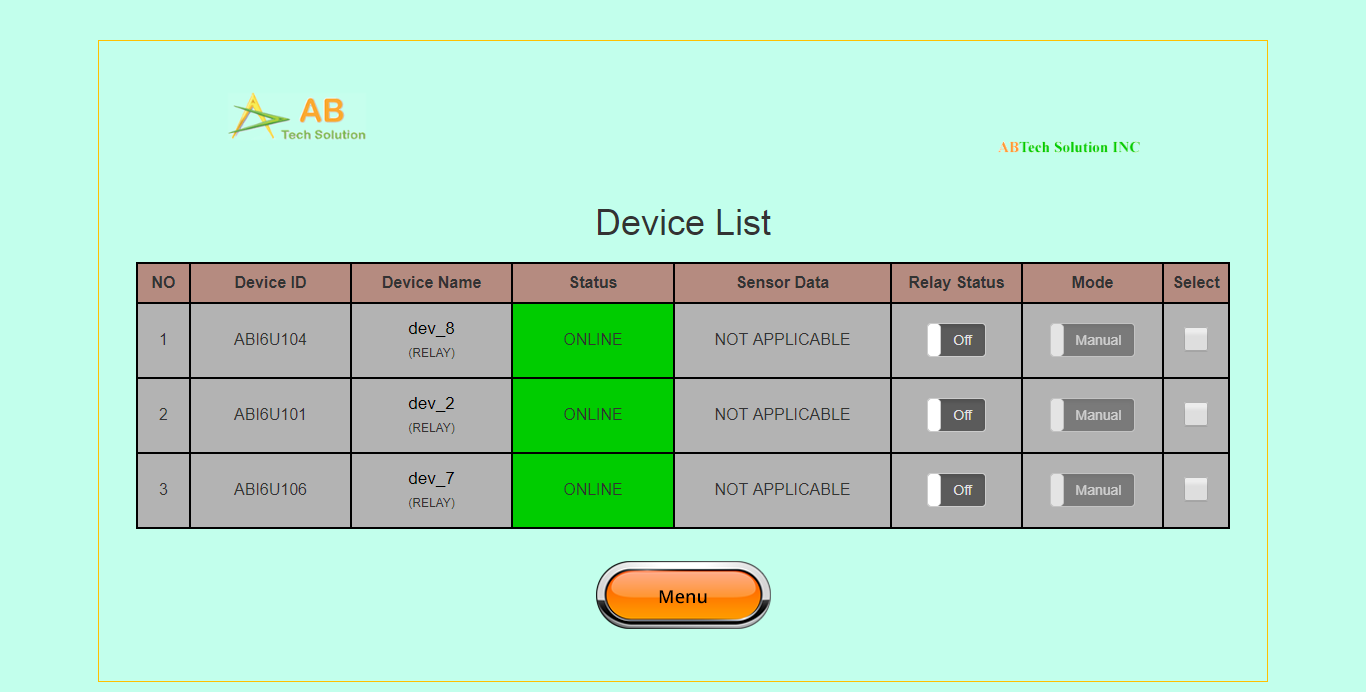
Type Device Profile:

[1] Standard Device: consist of one relay and one sensor.

[2] Relay Device: Consist of only Relay.

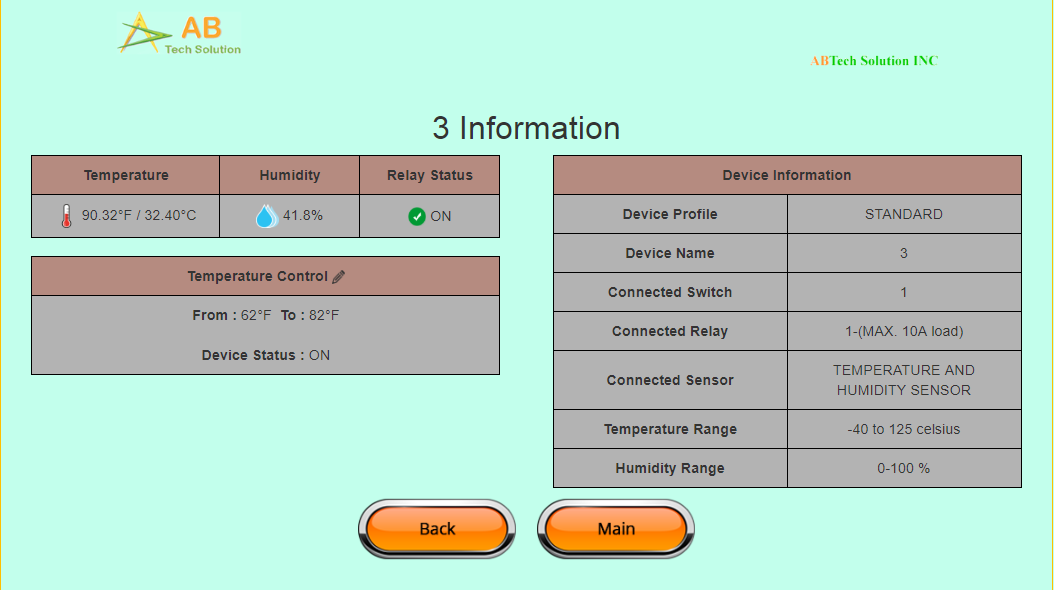
[3] Sensor Device: Consist of only sensor.

* User can see all non-group [single device] device by pressing Device list button from Menu. [**Fig. 5**]
* User can make mode change based on device profile. If device is standard than only mode operation will active. [**Fig. 5**]



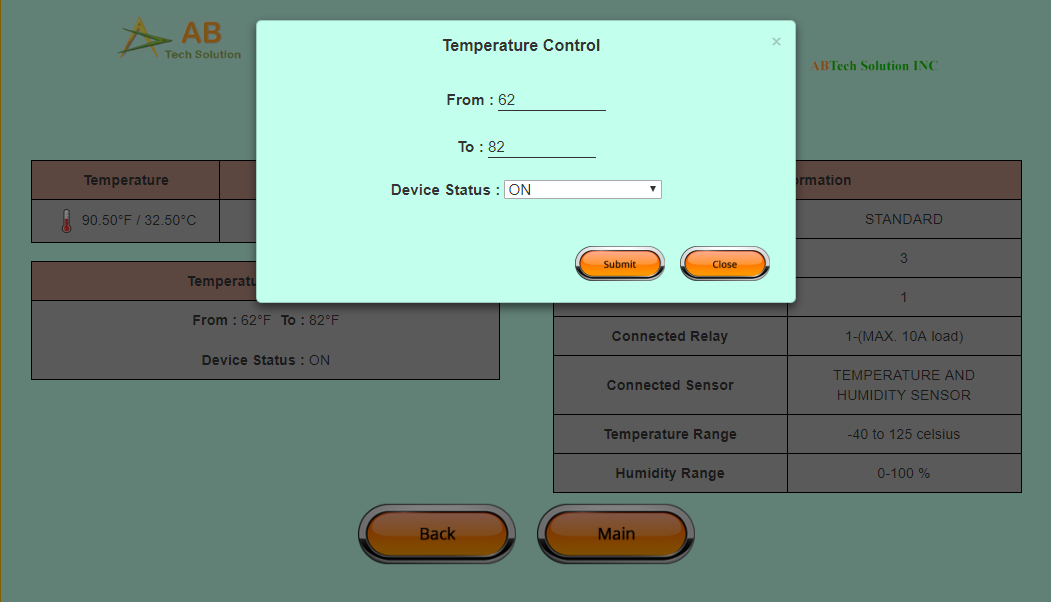
**Fig. 5**

* User can make device on/off by clicking on on/off button of Relay status Column. [**Fig. 5**]



**Fig. 6**

* For standard device user can add device in auto mode based on temperature sensor value. Here in above picture device name: “3” is standard device so we can make mode operation by clicking on mode button.
* User can change mode setting by clicking on device name. [**Fig. 6**]



**Fig. 7**

* Temperature control window is for auto mode settings. User can add condition like “From 70 oF to 90 0F relay should be ON”. (Must be from value < to value)
* By clicking on device name user can see more details about that device.
* By clicking on pencil icon you can change the value of temperature. [**Fig. 7**]

**4.2 Group Information**

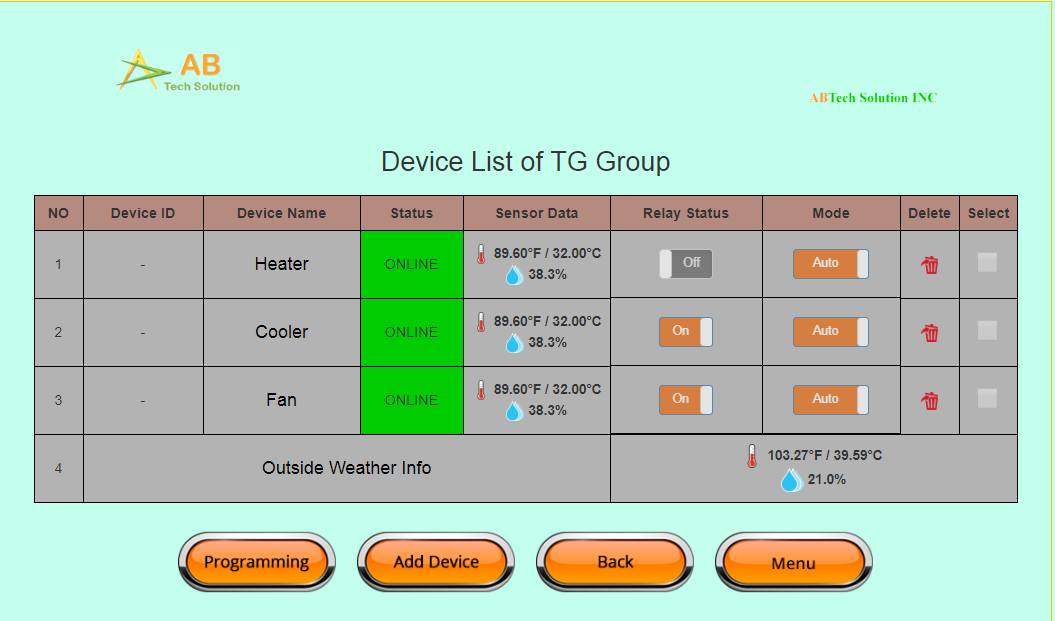
1. There are three different category of group which is explained below.
   1. Thermostat/HVAC Group
   2. Cooler Group
   3. Lighting Group

* User can make a group by clicking on more than two check box shown in device list window than click on make group button. [**Fig. 8**]



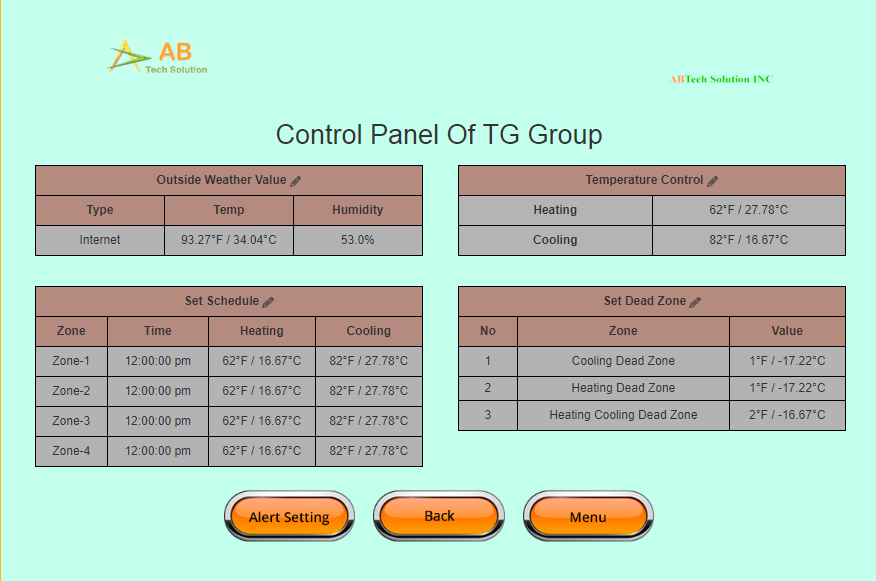
Fig. 8

* + 1. **Thermostat/HVAC Group [TG Group]:**
    - This group consist of three subgroup category [1] Heater [2] cooler [3] Fan. User need to make this subgroup compulsory for programing this devices. [Fig. 9]



**Fig. 9**

* + - User can make this subgroup by clicking on check box then click on make sub group button. [**Fig. 9**]
    - After making all subgroup user can now program the group buy clicking on programing button. [**Fig. 9**]



**Fig. 10**

* + - In Programing window which is shown above is containing outside weather information and temperature control withhold mode and temperature control in auto mode means scheduler mode. [**Fig. 10**]
    - By clicking on pencil icon user can edit all details of particular table.
    - **Outside weather source:**
      * If user have a particular sensor for outside weather than user can setup that sensor for outside weather. [**Fig. 10**]
    - **Temperature control:**
      * This is for manual mode setup means only one value of heating and cooling temperature will work for changing the state of relay according to the value. [**Fig. 10**]
    - **Scheduler Control:**
      * This is for Auto mode setup, user can set group temperature based on different time and control it. [**Fig. 10**]
      * By clicking on pencil icon user can edit all information of time and temperature and submit those data to the device. [**Fig. 10**]
    - **Dead Zone setting:**
      * Dead zone value is for adding some additional value to the set temperature value for auto and manual mode. [**Fig. 10**]
      * Here three types of dead zone is available
        + Cooling dead zone [CDZ]: This will change value of cooling temperature. [**Fig. 10**]

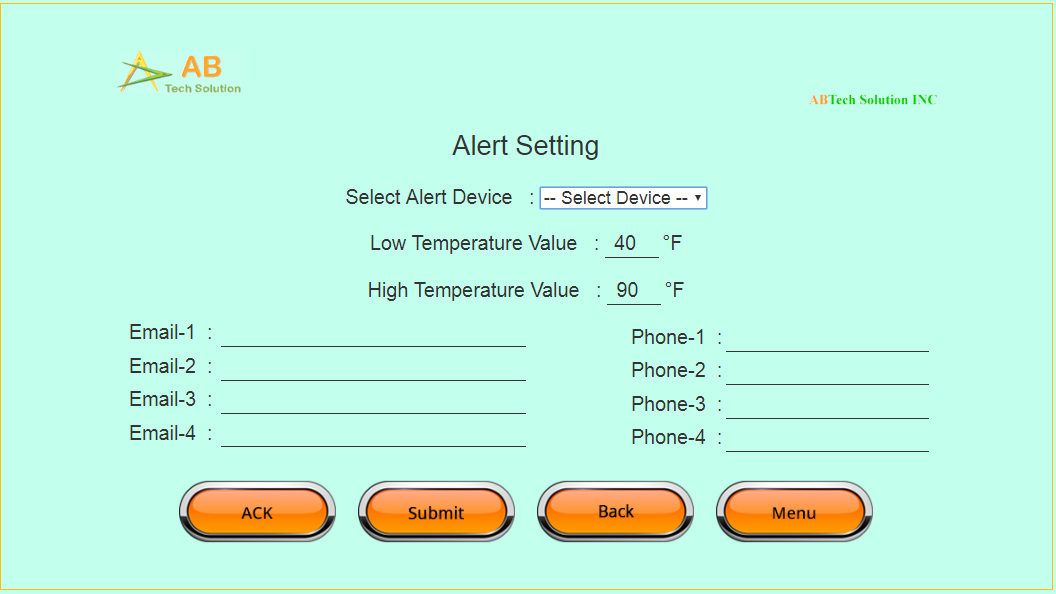
For e.g. cooling temperature is: 81 F, CDZ is: 2 F than final temperature is 83 F [81F + 2F].

* + - * + Heating dead zone [HDZ]: This will change value of cooling temperature. [**Fig. 10**]

For e.g. Heating temperature is: 81 F, HDZ is: 2 F than final temperature is 79 F [81F - 2F].

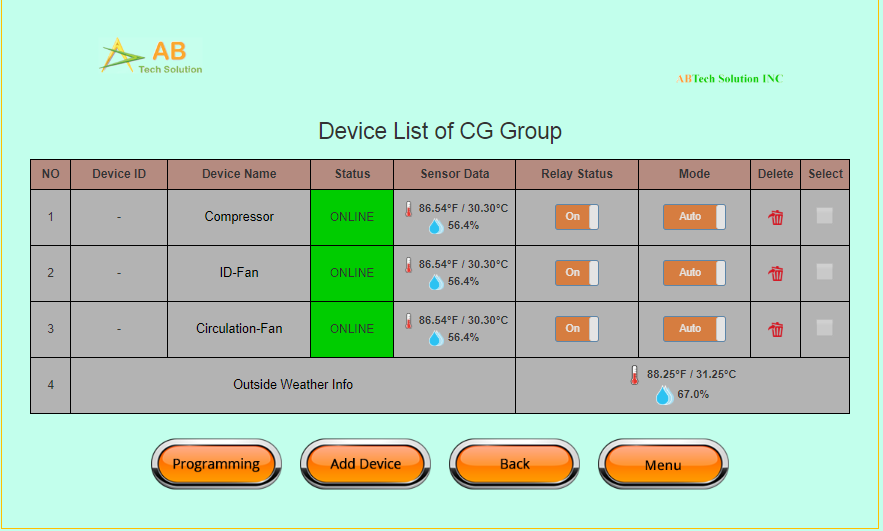
* + - * + Heating Cooling Dead Zone [HCDZ]: This will change value of cooling temperature. This is minimum difference between HDZ and CDZ. [**Fig. 10**]

**Alert Setting:**



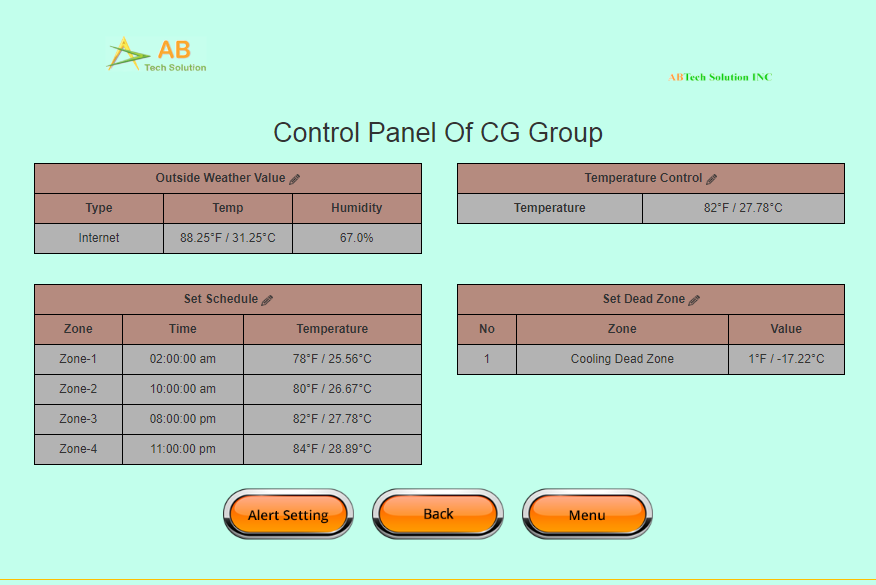
**Fig. 11**

* Here user can create alert message for if temperature is beyond limit. [**Fig. 11**]
* User can set low temperature limit and high temperature limit. [**Fig. 11**]
* User can add email number and mobile number to get alert acknowledgement. [**Fig. 11**]
* User can make acknowledge message by clicking on ACK button so that mail and messages will not repeat for next 2 hour, otherwise messages will repeat after every 15 minute time. [**Fig. 11**]
  + 1. **Cooler Group [CG Group]:**
    - This group consist of three subgroup category [1] Compressor [2] circulation Fan [3] ID-Fan. User need to make this subgroup compulsory for programing this devices. [**Fig. 12**]



**Fig. 12**

* + - User can make this subgroup by clicking on check box then click on make sub group button. [**Fig. 12**]
    - After making all subgroup user can now program the group buy clicking on programing button. [**Fig. 12**]

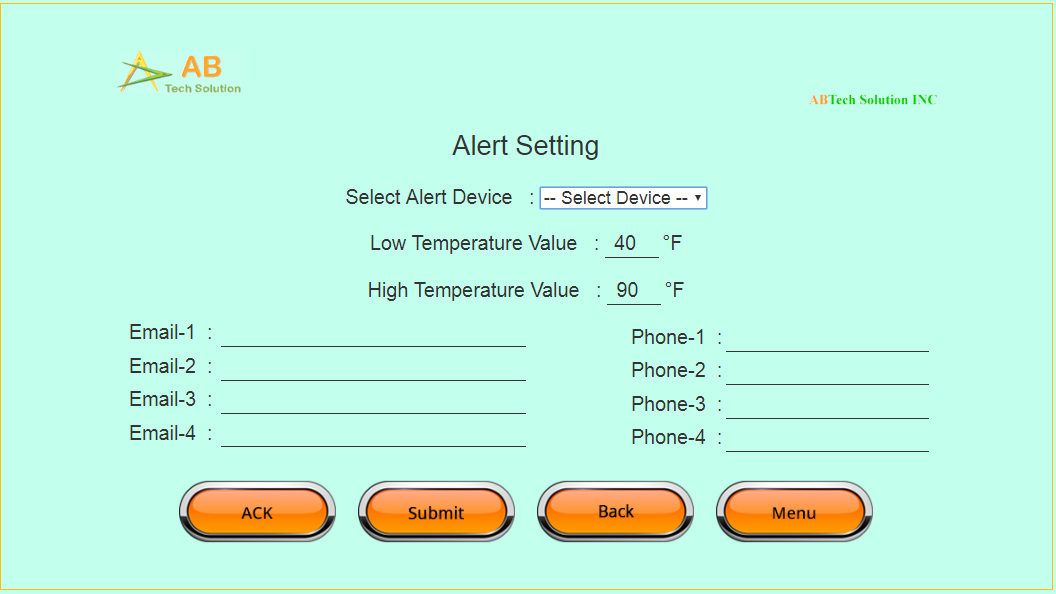
****

**Fig. 13**

* In Programing window which is shown above is containing outside weather information and temperature control withhold mode and temperature control in auto mode means scheduler mode. [**Fig. 13**]
* By clicking on pencil icon user can edit all details of particular table. [**Fig. 13**]
  + - **Outside weather source:**
      * If user have a particular sensor for outside weather than user can setup that sensor for outside weather. [**Fig. 13**]
    - **Temperature control [MANUAL MODE SETUP] :**
      * This is for manual mode setup means only one value of temperature will work for changing the state of relay according to the value. [**Fig. 13**]
    - **Scheduler Control [AUTO MODE SETUP]:**
      * This is for Auto mode setup, user can set group temperature based on different time and control it. [**Fig. 13**]
      * By clicking on pencil icon user can edit all information of time and temperature and submit those data to the device. [**Fig. 13**]
    - **Dead Zone setting:**
      * Dead zone value is for adding some additional value to the set temperature value for auto and manual mode. [**Fig. 13**]
      * Here one types of dead zone is available [**Fig. 13**]
        + Cooling dead zone [CDZ]: This will change value of cooling temperature.

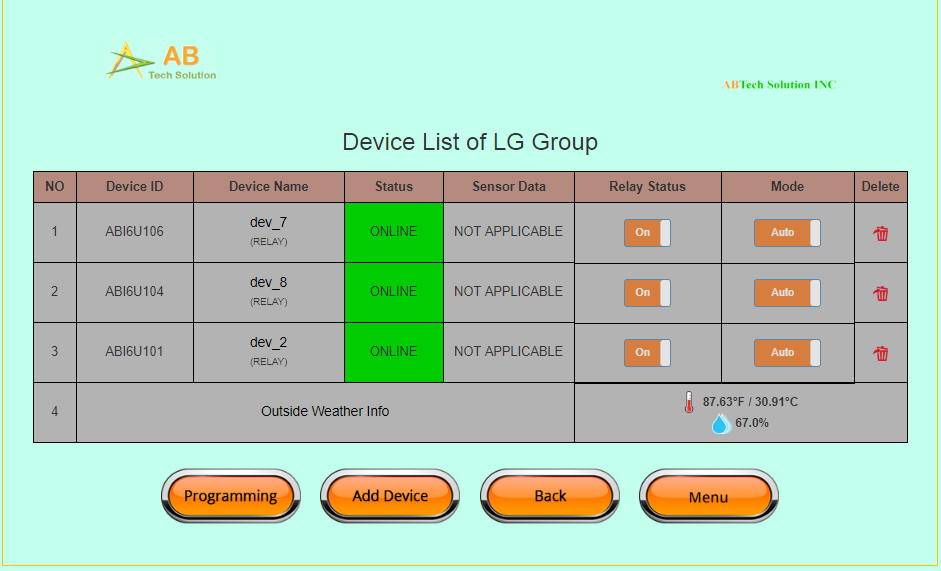
For e.g. cooling temperature is: 81 F, CDZ is: 2 F than final temperature is 83 F [81F + 2F].

**Alert Setting:**



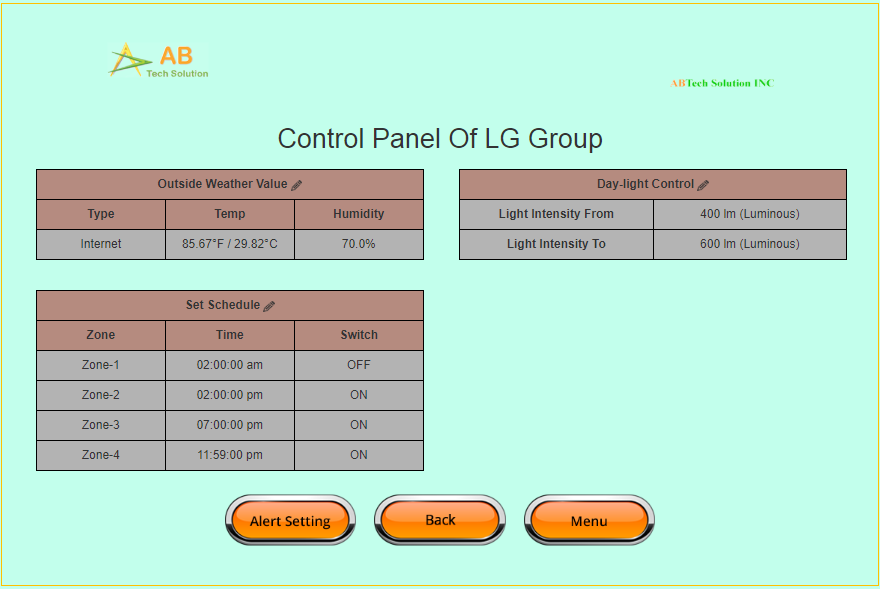
**Fig. 14**

* Here user can create alert message for if temperature is beyond limit. [**Fig. 14**]
* User can set low temperature limit and high temperature limit. [**Fig. 14**]
* User can add email number and mobile number to get alert acknowledgement. [**Fig. 14**]
* User can make acknowledge message by clicking on ACK button so that mail and messages will not repeat for next 2 hour, otherwise messages will repeat after every 15 minute time. [**Fig. 14**]
  + 1. **Lighting Group:**
* This group is for controlling lighting and other devices with one switch. [**Fig. 15**]



**Fig. 15**

**Programing Screen of Lighting Group:**



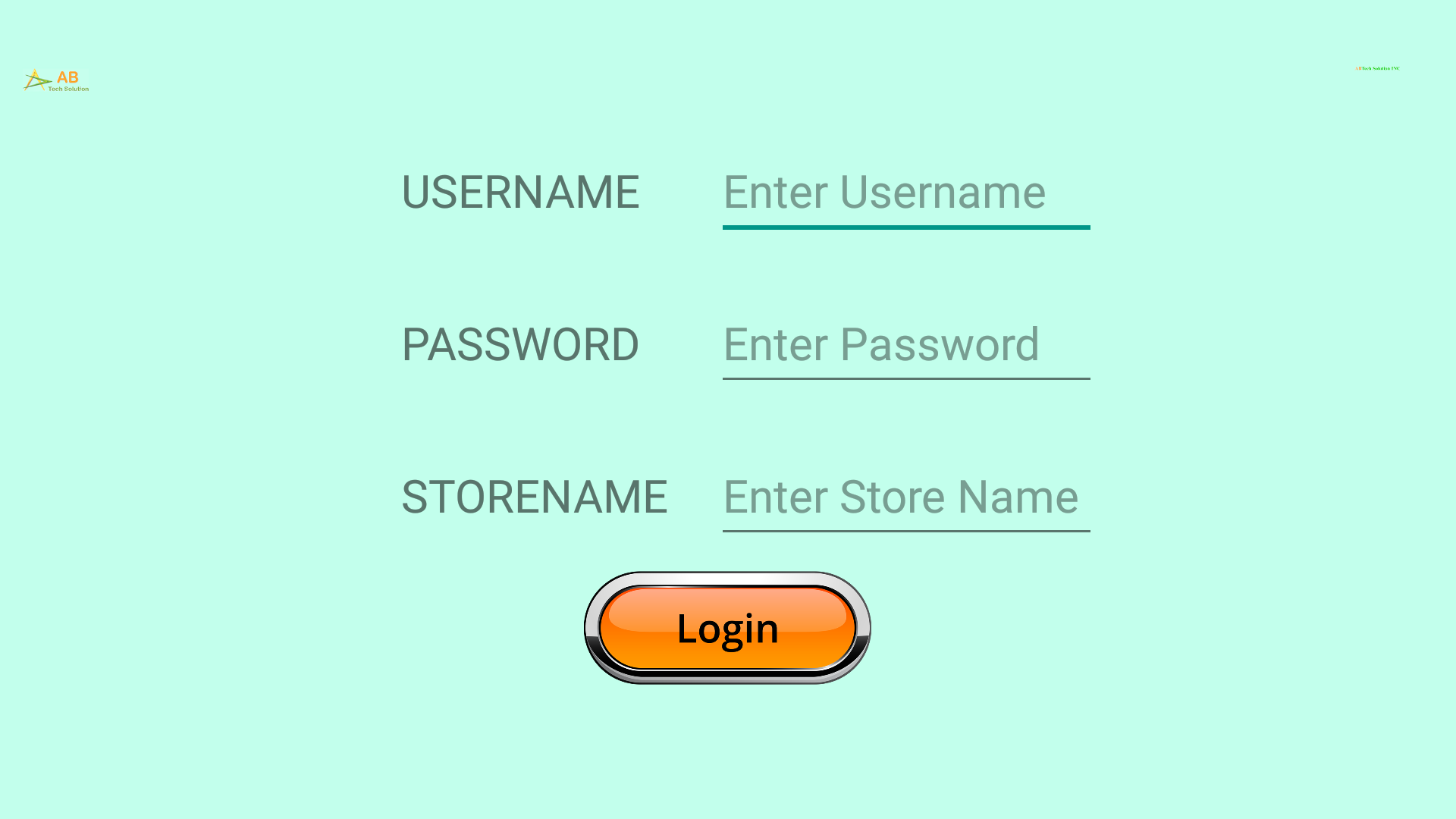
**Fig. 16**

* User can setup timing based group on/off from scheduler window. [**Fig. 16**]

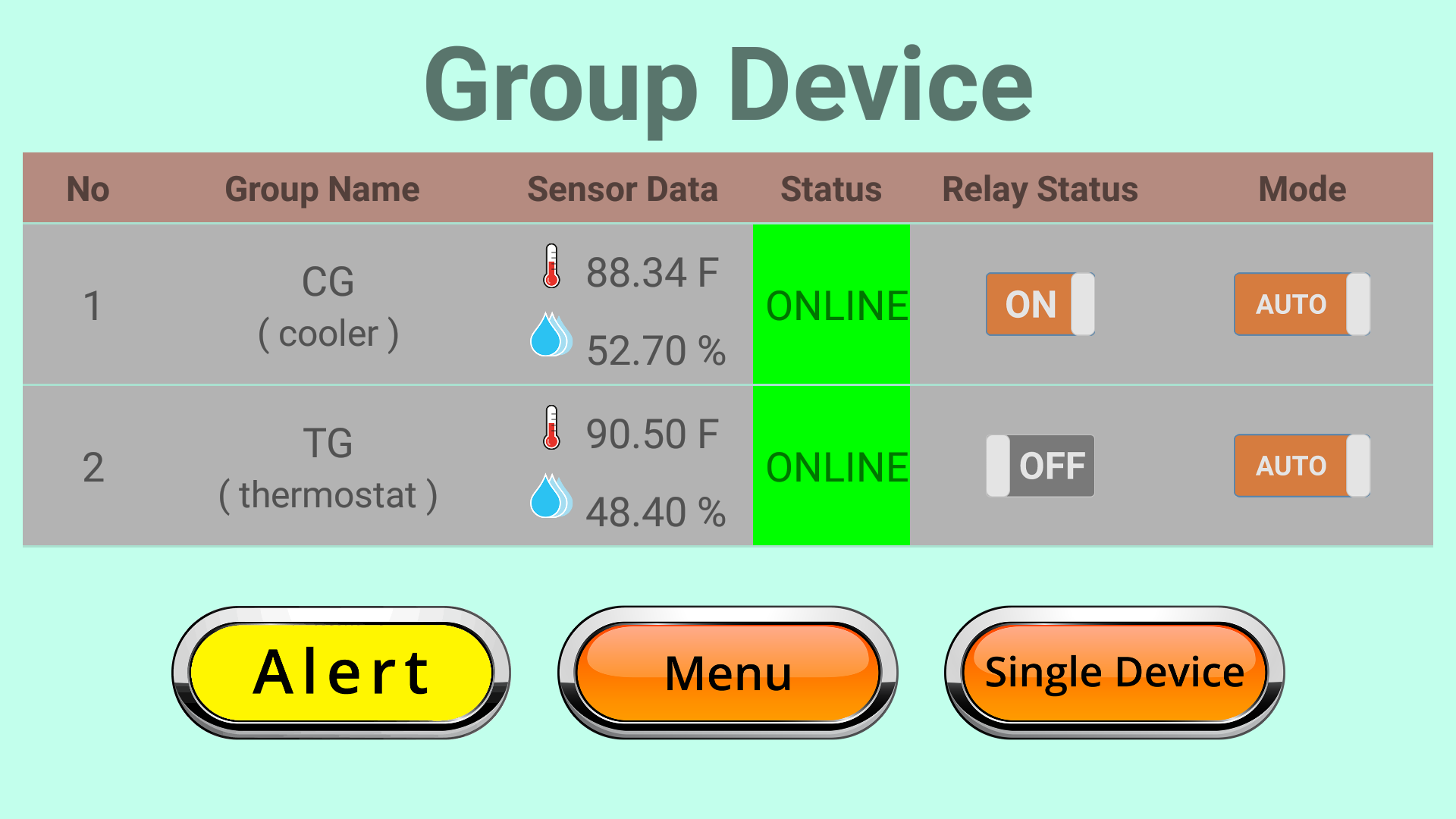
**Android Local Display Application:**

* User can use this application in same way which we use in website side.
* This application provides controlling of device even Internet is not available.
* Mobile need to be connected with the same wifi network to which all devices is connected.
* Than user can access application by entering storename, username and password.
* User interface is same as web interface.
* All screen are listed below.

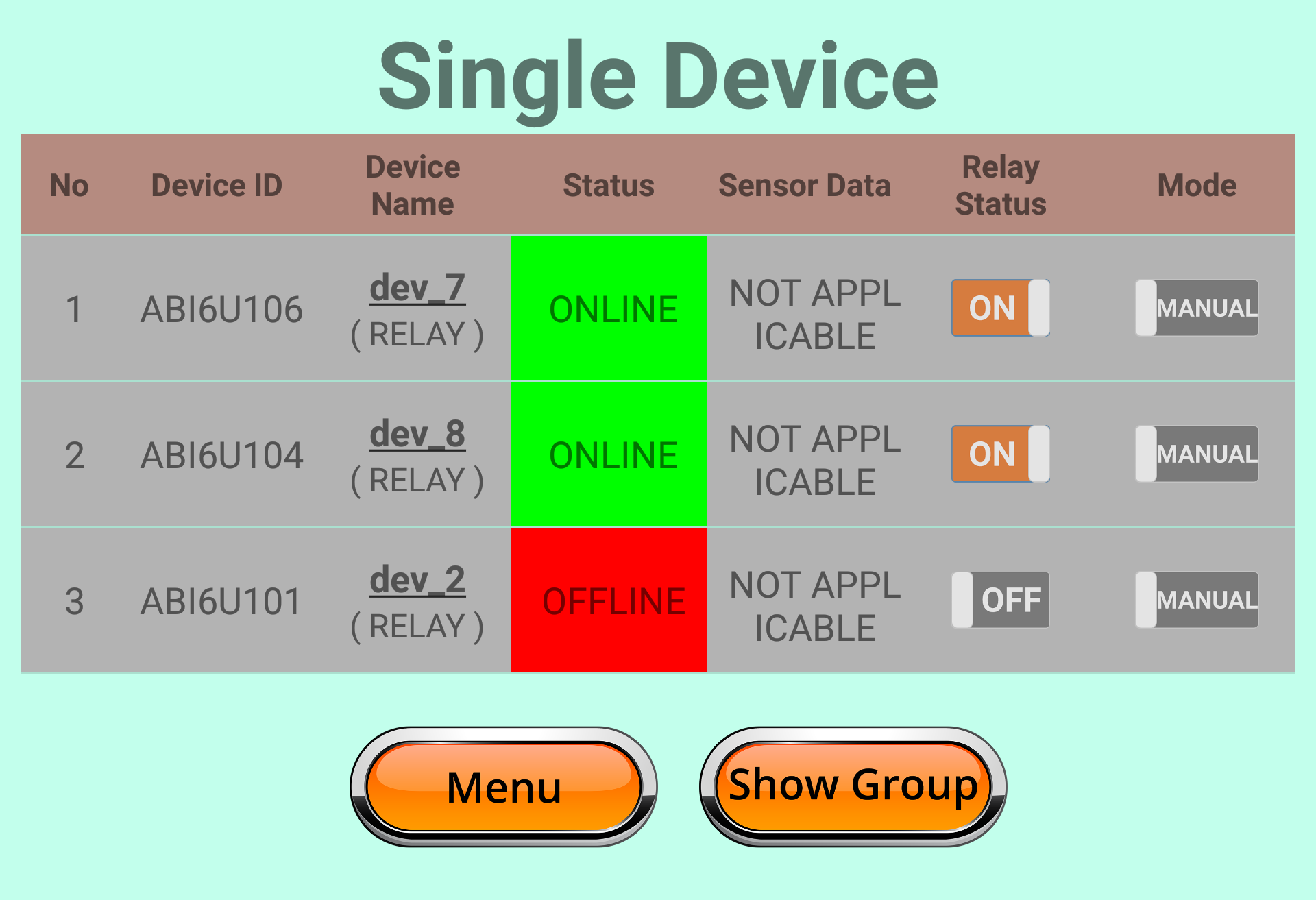
1. Login screen:



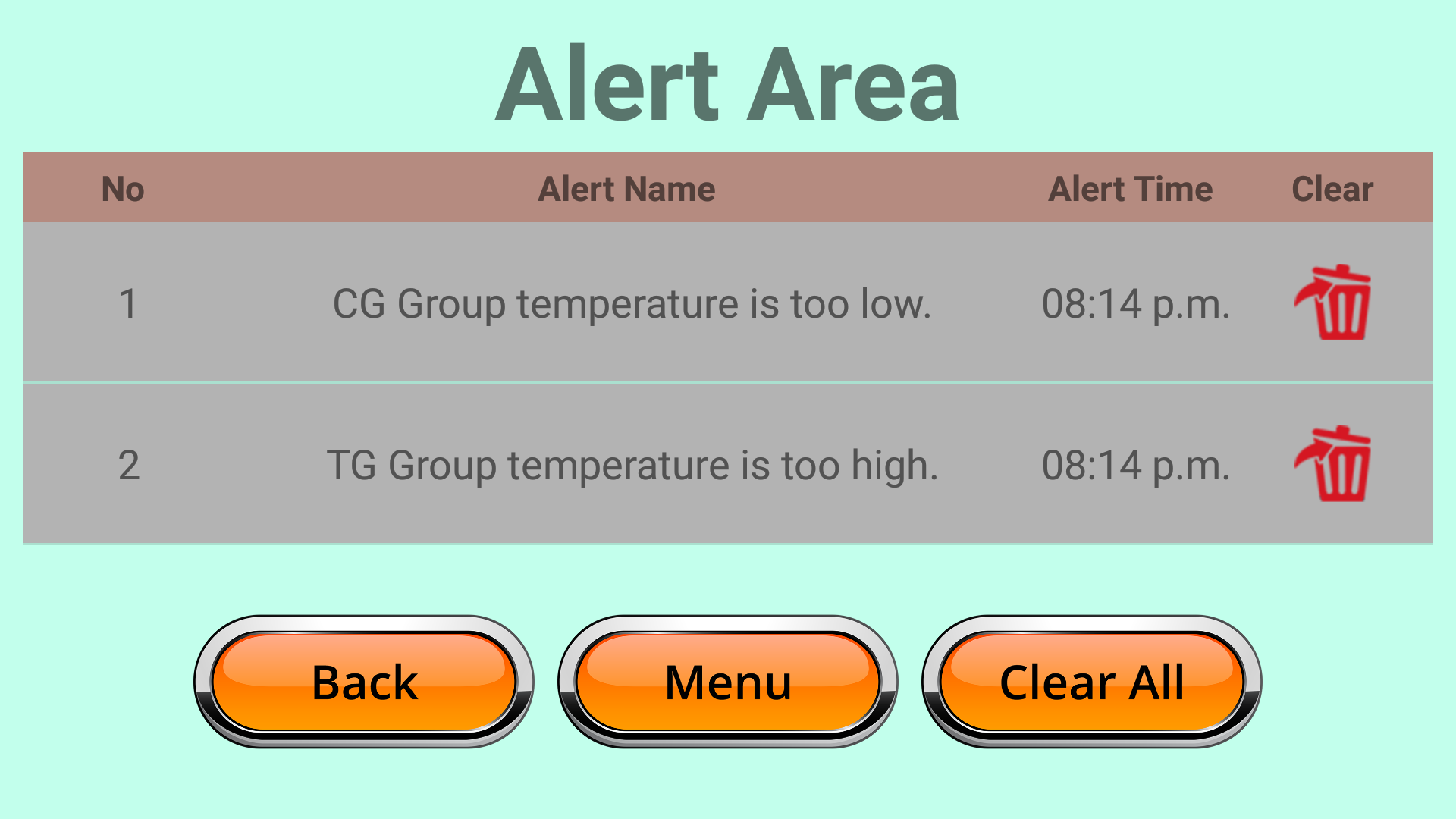
1. Dashboard screen:



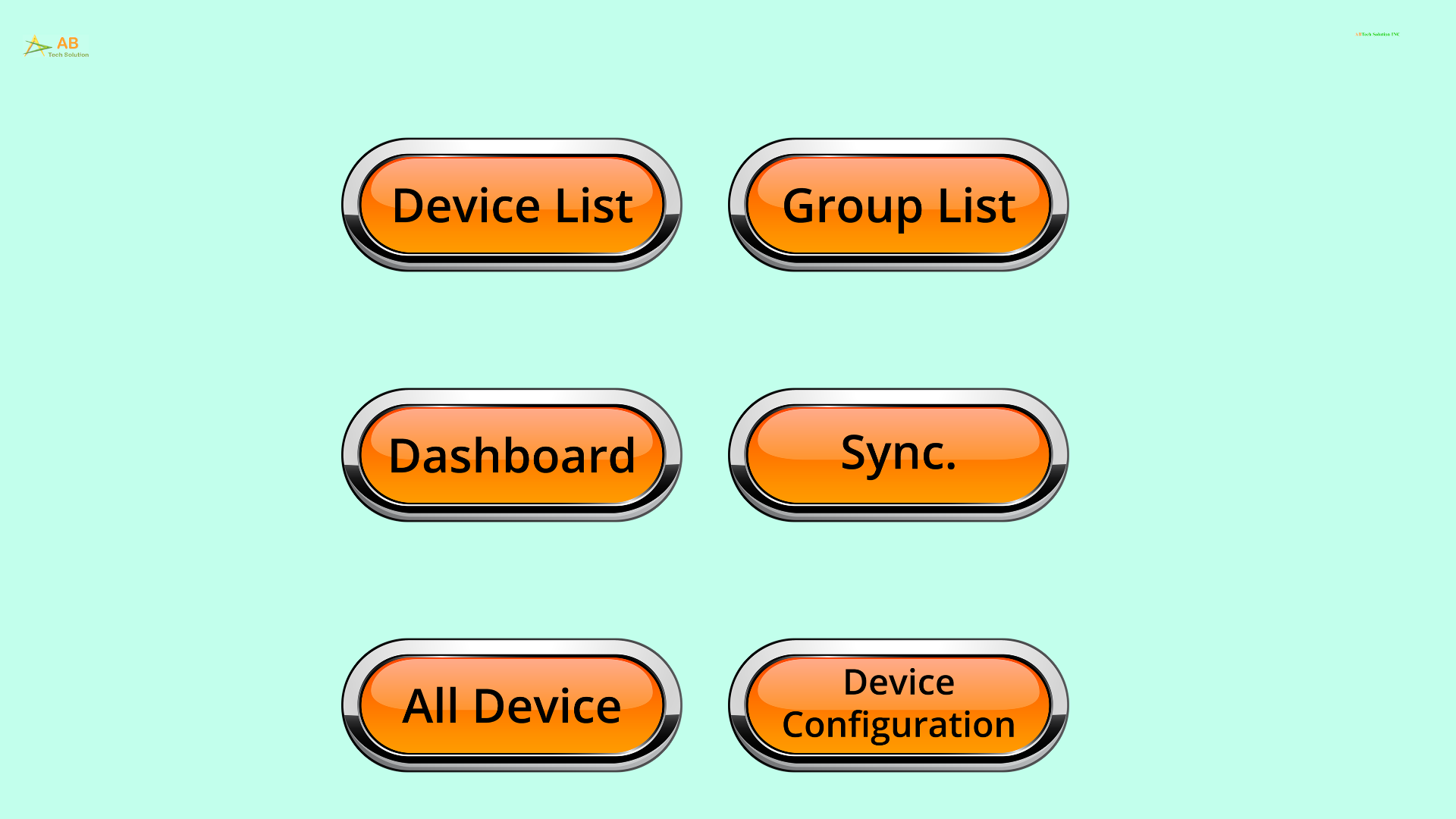
1. Single device screen:

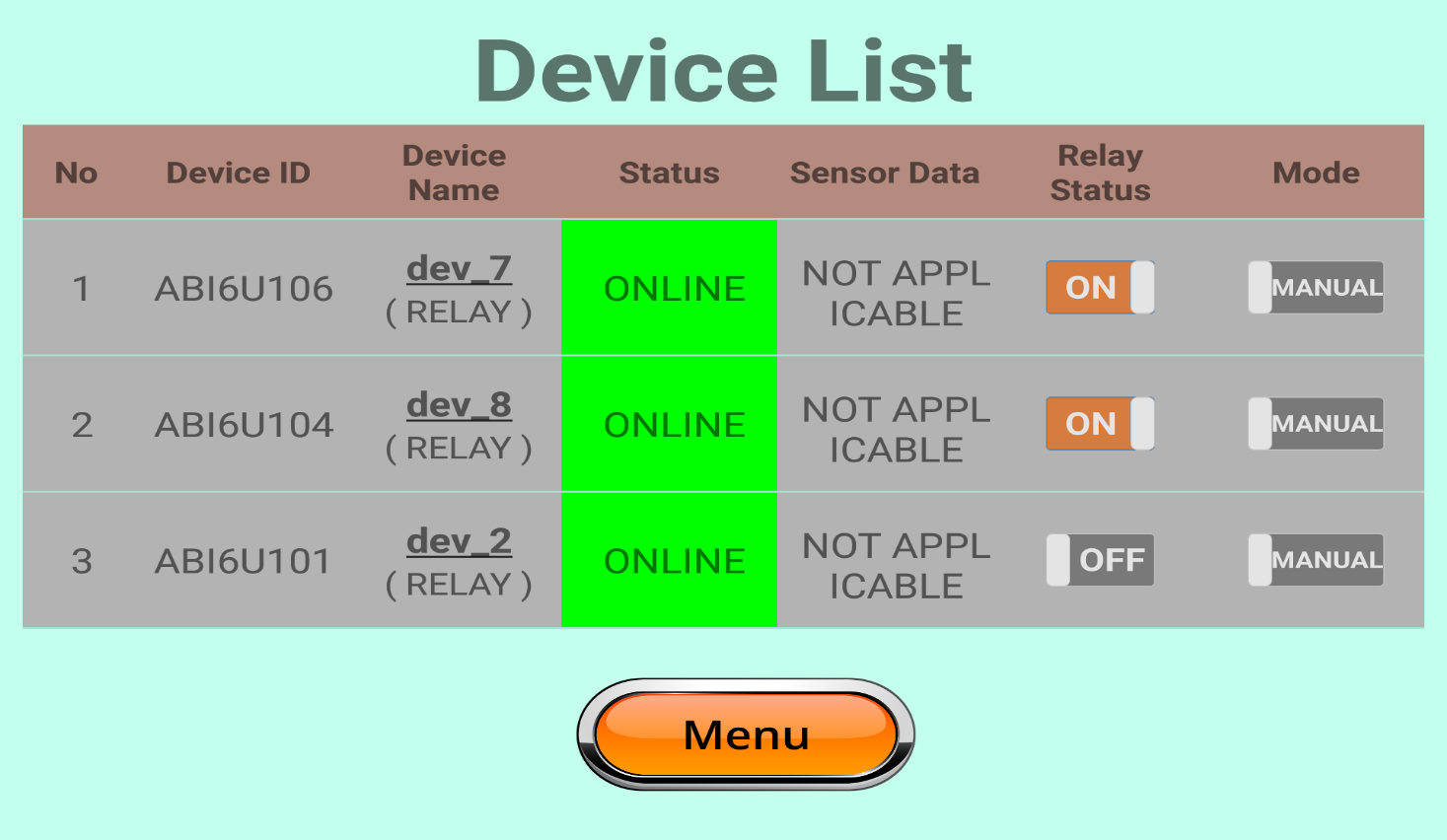


1. Alert screen:



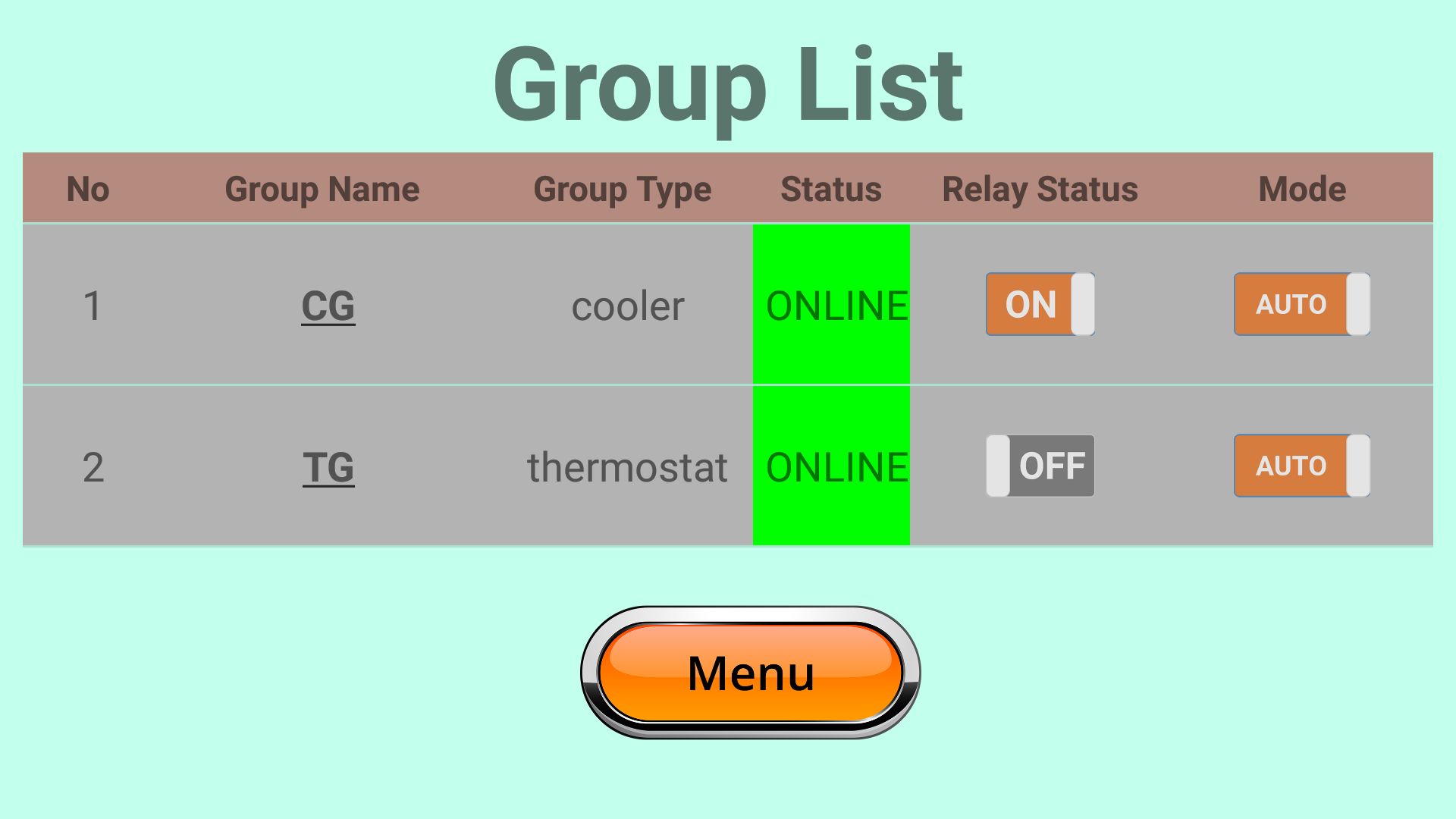
1. Menu screen:



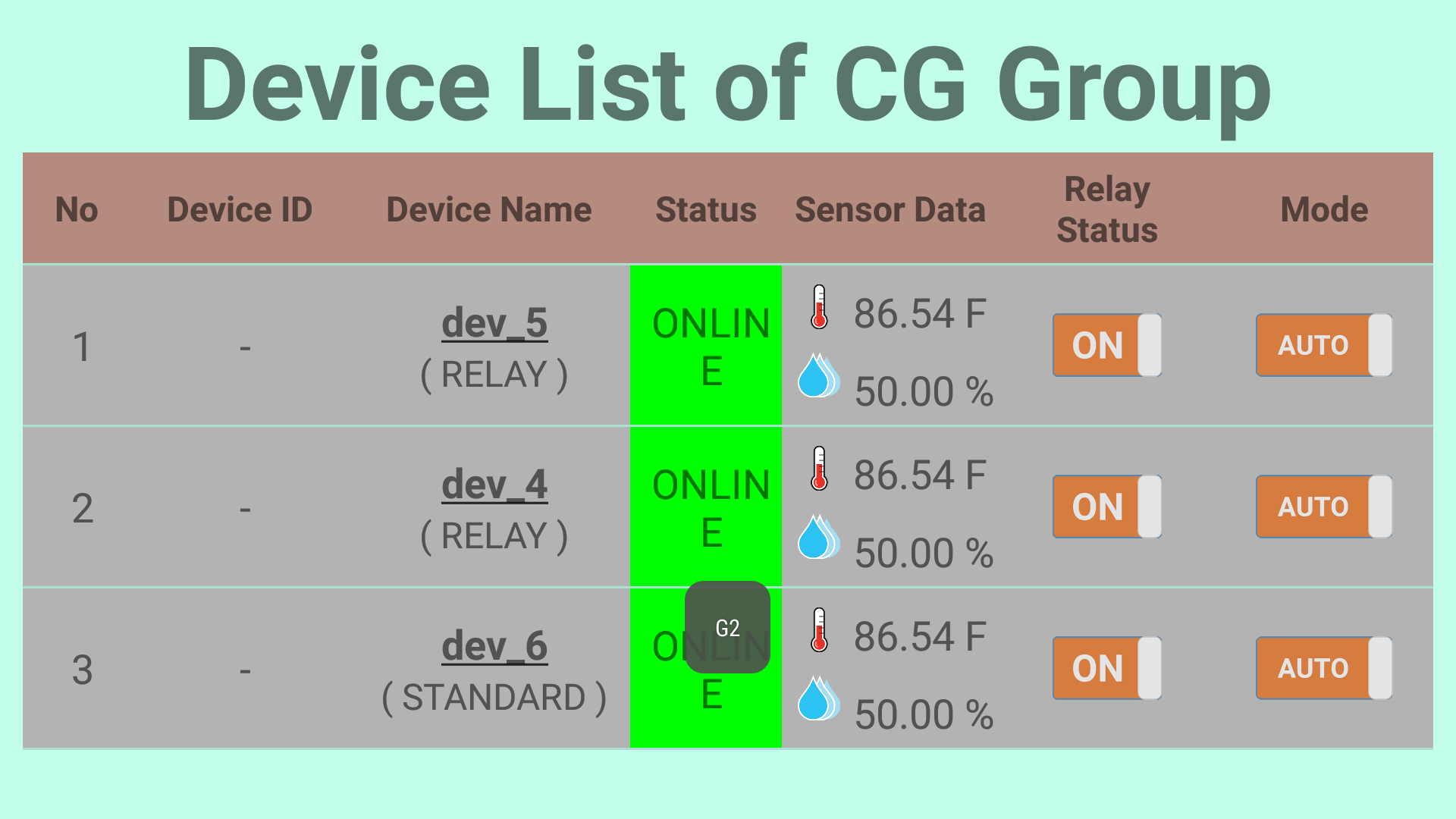
1. Device list screen: 
2. Device information screen



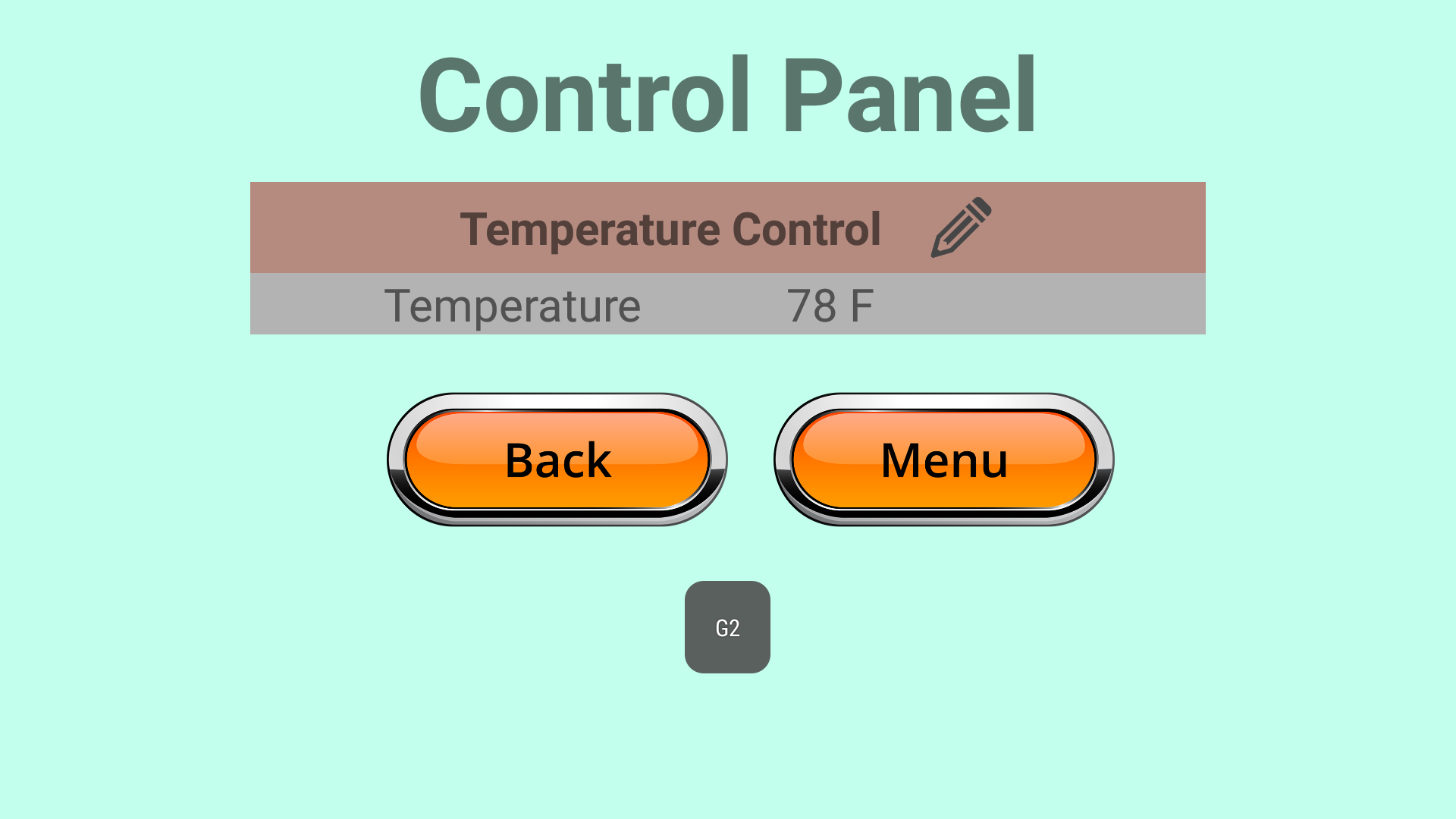
1. Group list screen:



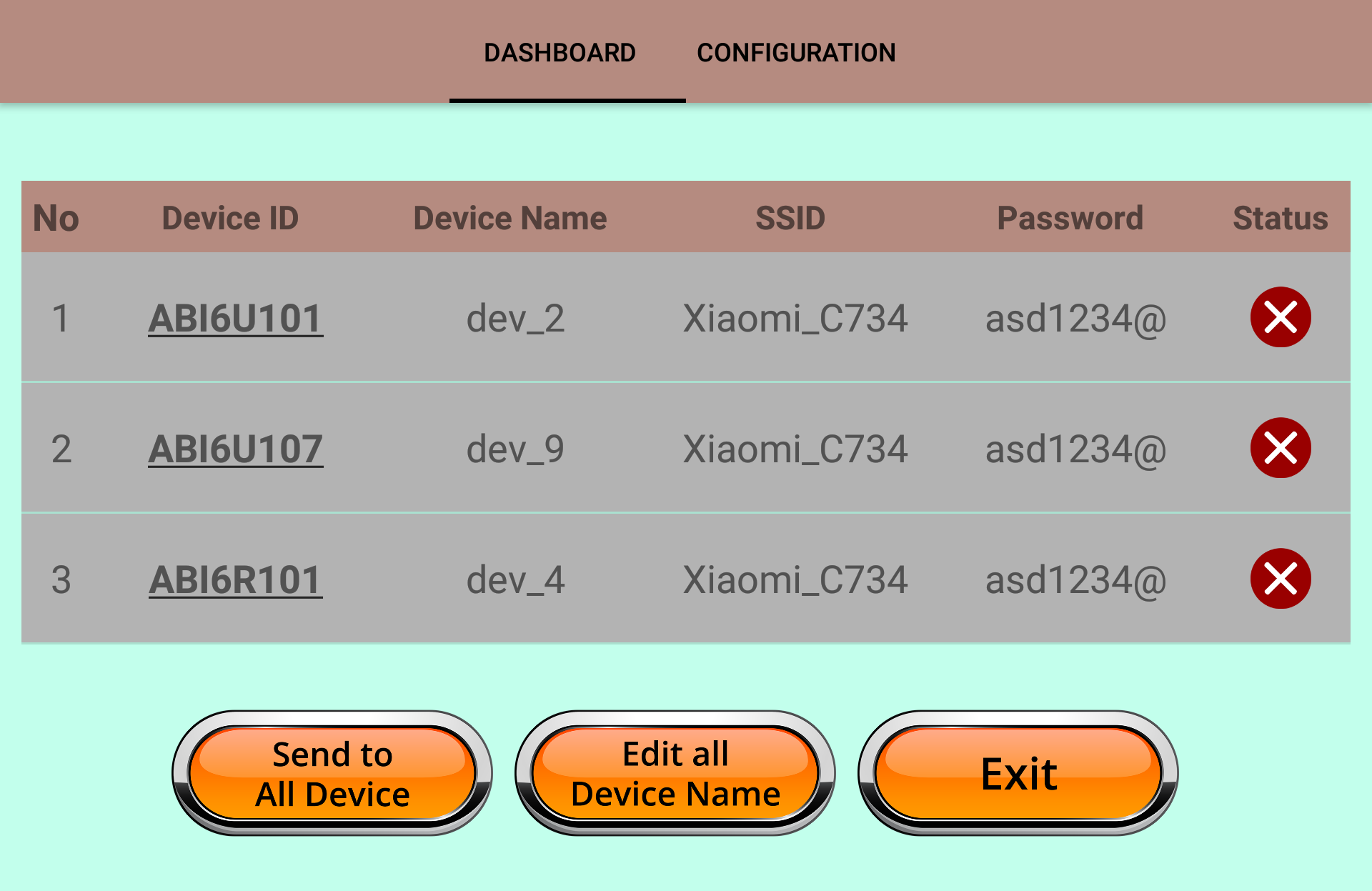
1. Group list info screen:



1. Group program screen:



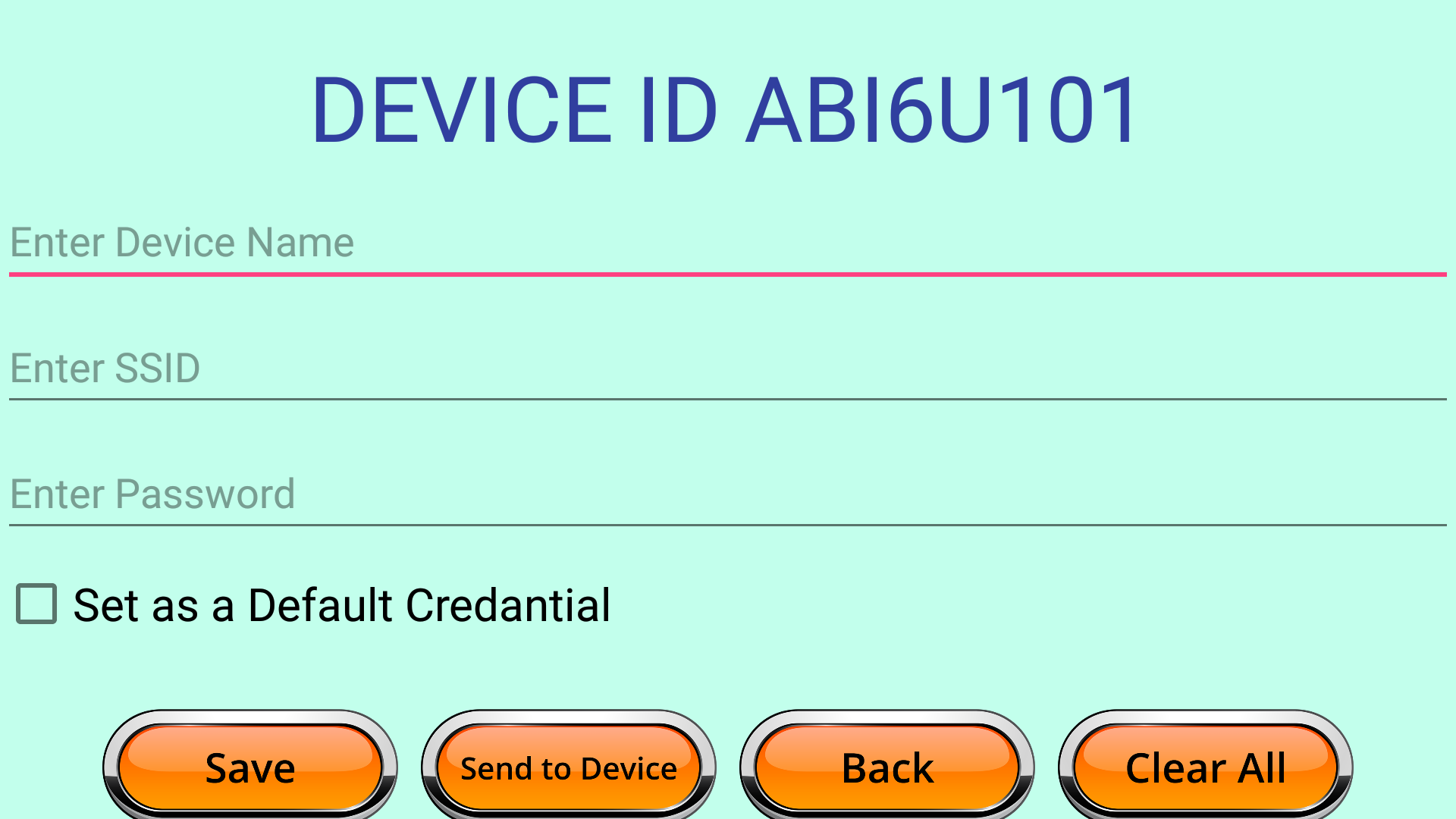
1. Device Configuration:



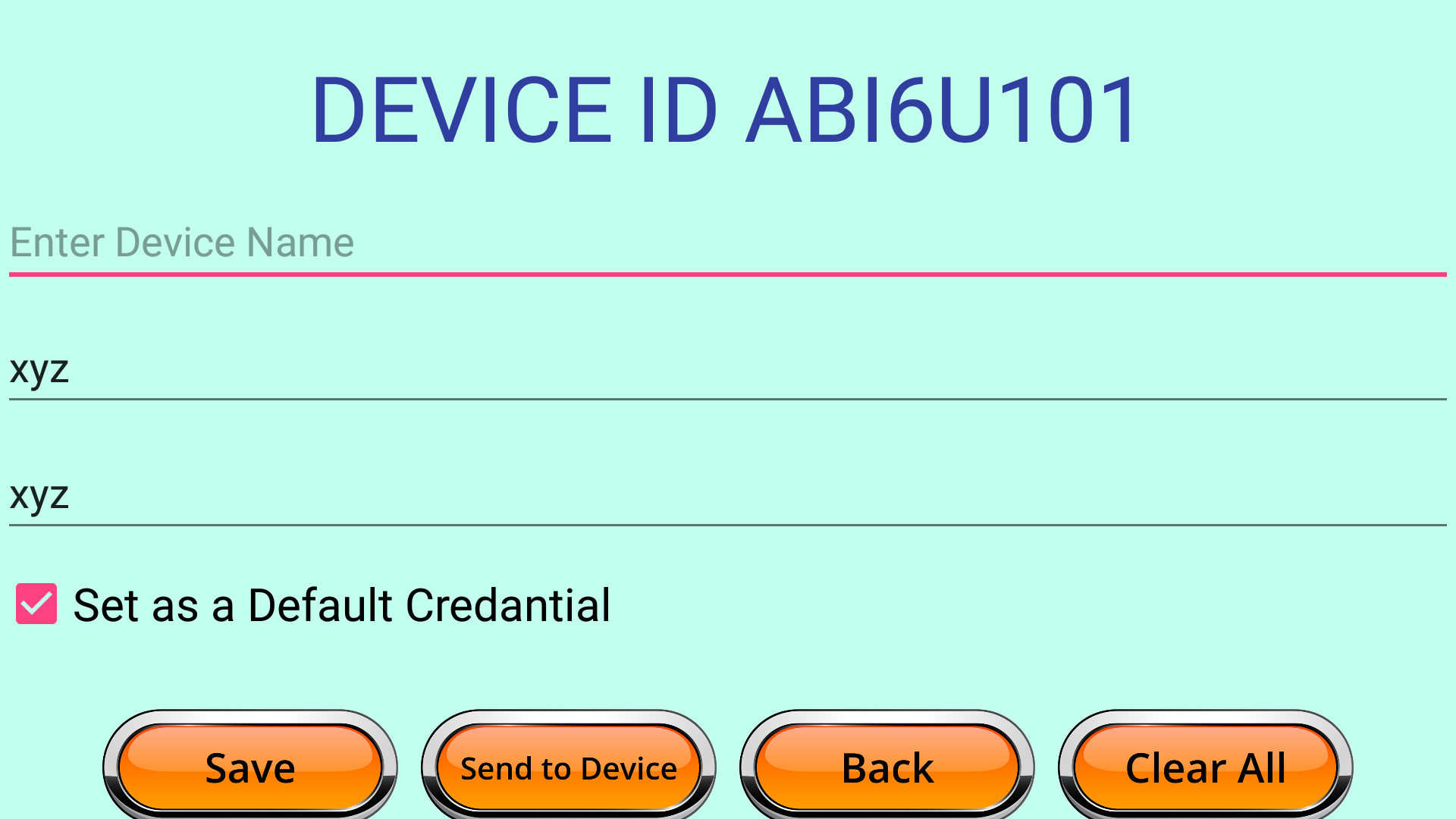
1. Edit all device name:



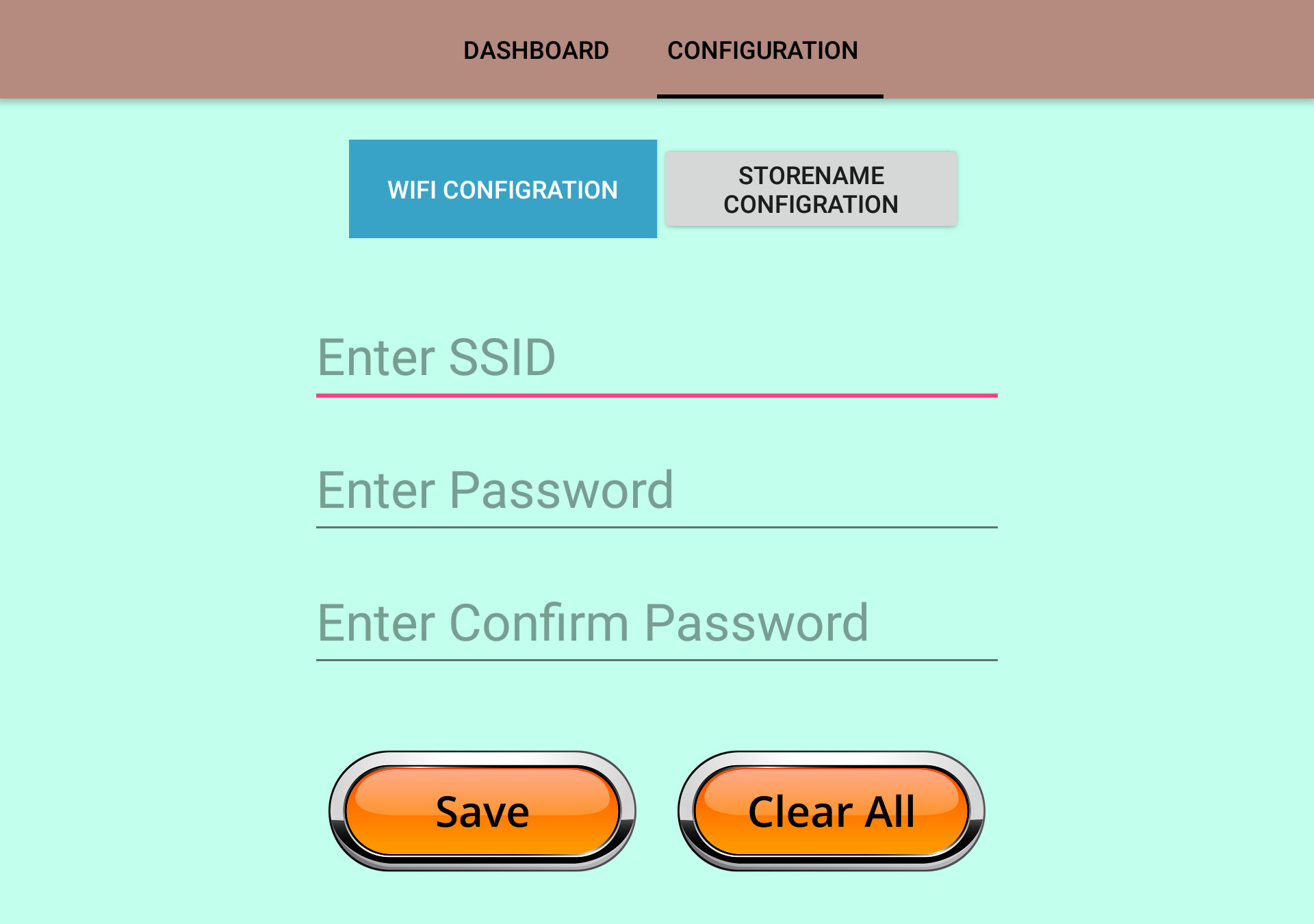
1. Device edit data- normal:



1. Device edit data- default credential:



1. Configuration window- wifi configuration:



1. Configuration window- store name configuration:

