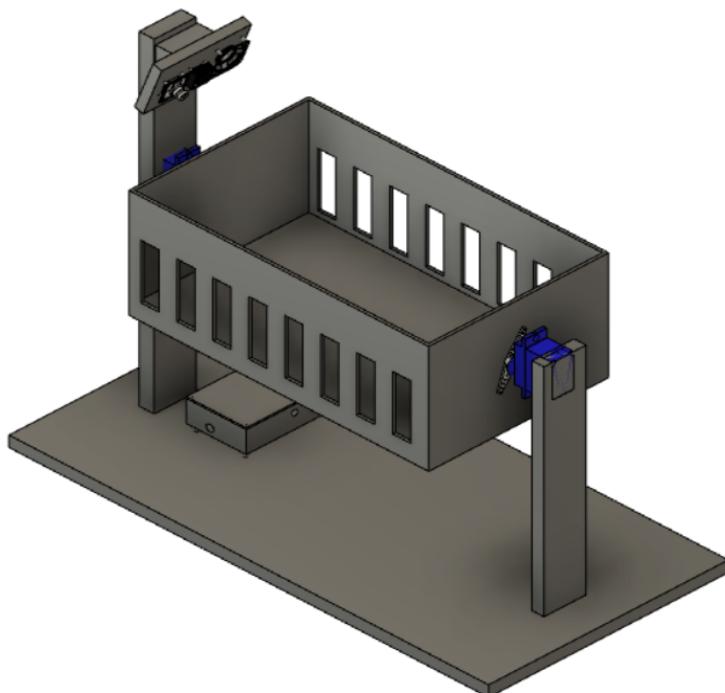


# SMART CRADLE

-Because you and baby deserve care

## USER MANUAL



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## 3RD YEAR PROJECT

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# USER MANUAL

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## 1.0 INTRODUCTION

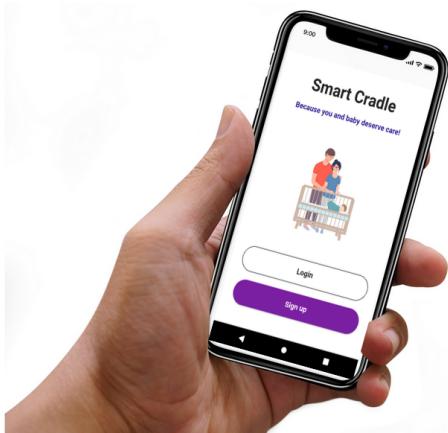
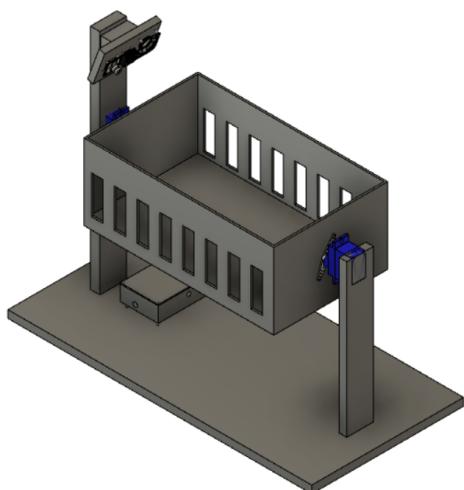
### 1.1 Why this Product ?

#### 1.1.1 Problem

As we are very well familiar with the hurdles faced by Parents to nurture their infant and especially in case if both the Parents are working,to give 24 hours of time for the baby in such cases is impossible. However, they still need to look after their babies,thereby increasing workload and stress.They either send their babies to their parents or hire a baby caregiver while they are working. So we came up with a solution for this problem.

#### 1.1.2 Our Solution

The proposed solution involves a smart cradle which can be controlled using the mobile application.Live monitoring of the baby,swing the cradle,playing music,switching on and off the fan ,checking the room temperature and cry detection are some of the features available in this Smart cradle.



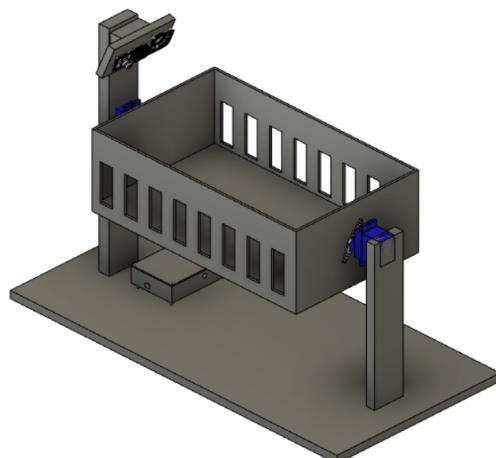
## 2 DEVICE INSTALLATION

### 2.1 Contents of the Smart Cradle

- *Cradle*
- *Fan*
- *Baby monitoring camera*
- *Mini Speaker*
- *Adjustable height fixers*
- *Electronics components box*

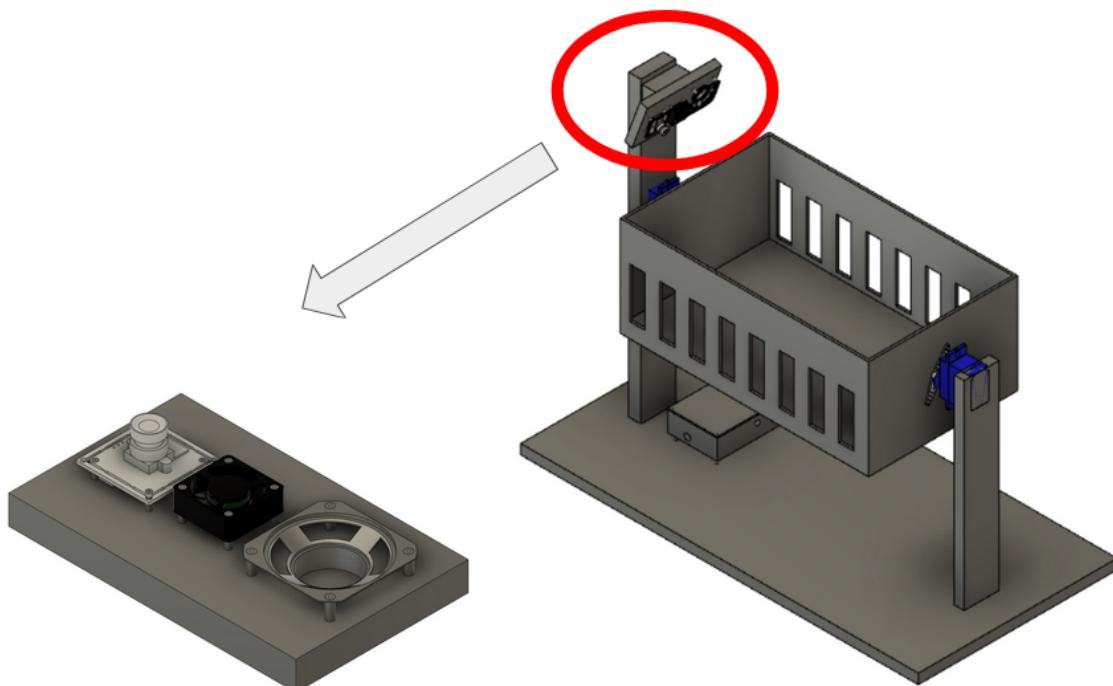
#### 2.1.1 Cradle

- We ensure baby safety standards and you will be at relief that you have chosen the product that will keep your baby safe
- Good depth of the cradle prevents the baby from escaping.
- Automatic and manual swing. Automatic swing with good motor quality.
- Cradle doesn't have any sharp edges

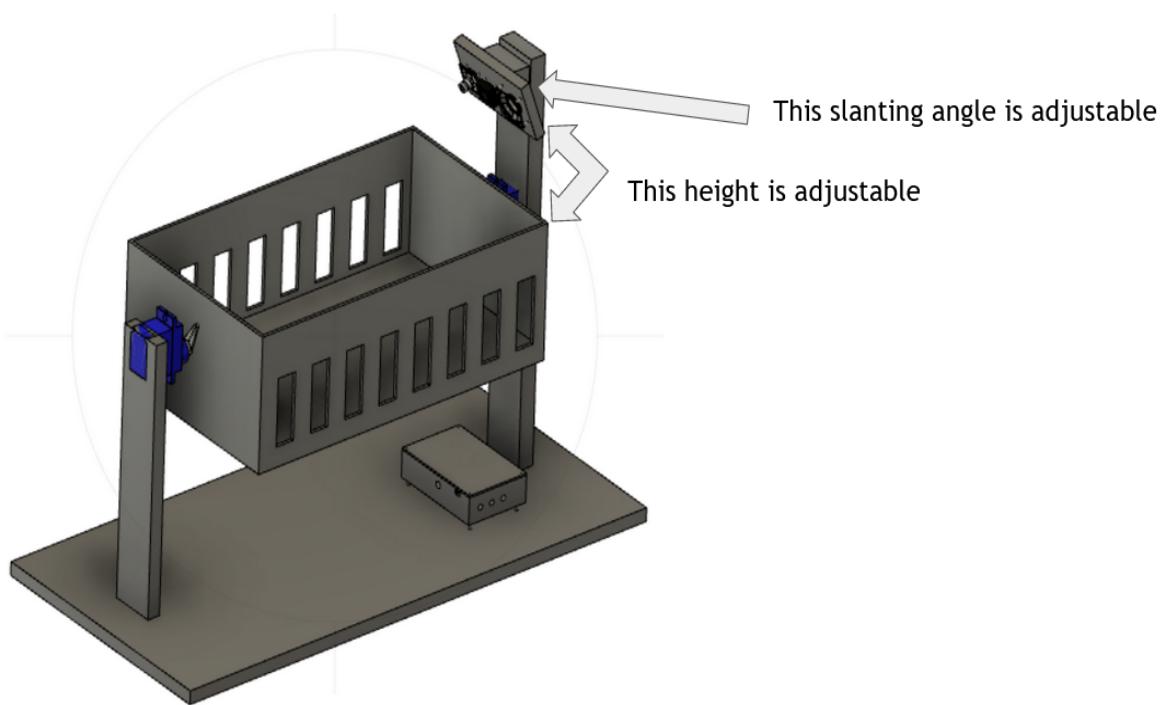


## 2.1.2 Fan,Mini Speaker,Baby monitoring Camera

All these components are fixed above the cradle and height to these are adjustable using the adjustable fixers. Therefore you no need to worry about safety since those equipment are not at a position which is reachable to your baby.

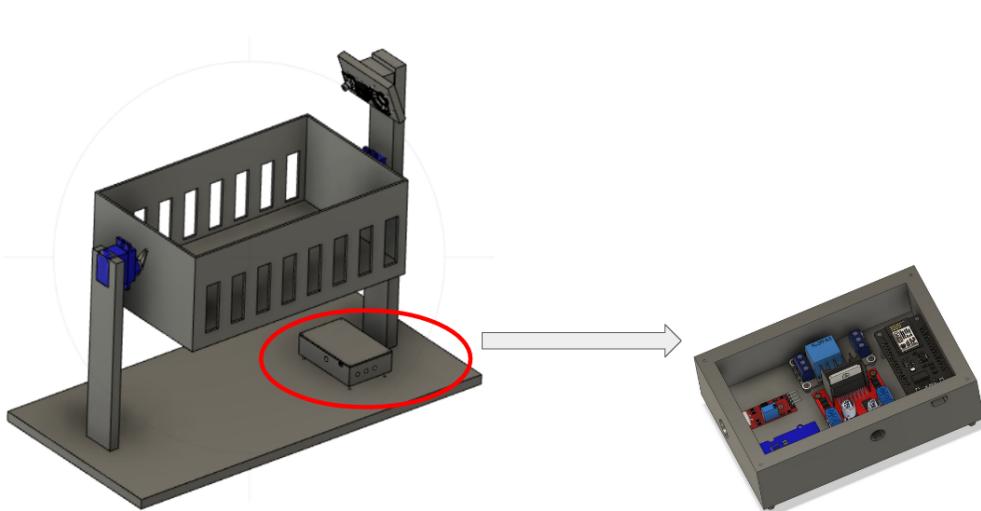


- All these three components are embedded into a single unit which can be removed and fixed according to the need of the user.
- The slanted angle can be changed accordingly.



### 2.1.3 Electronic components box

All the electronic components are placed inside this wooden box which has a lock also making sure that components are not exposed to the outside and baby.

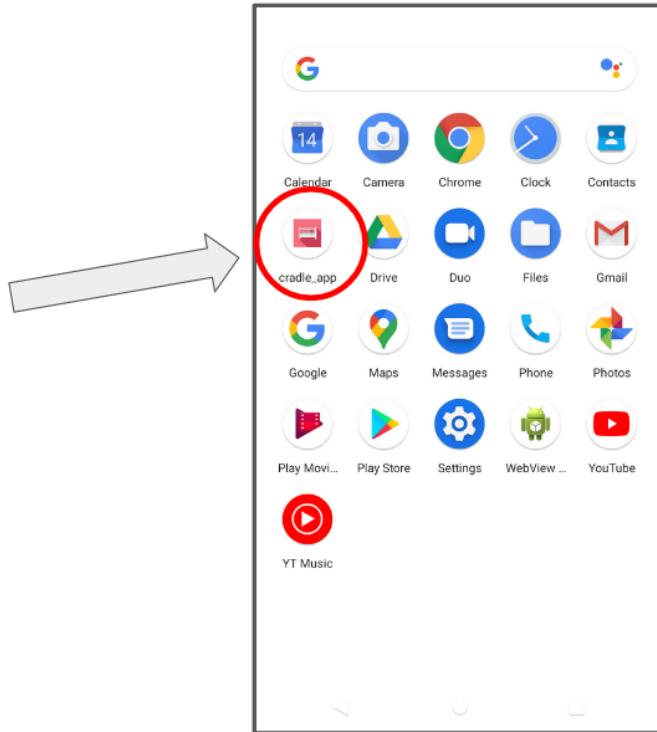


### 3. MOBILE APPLICATION

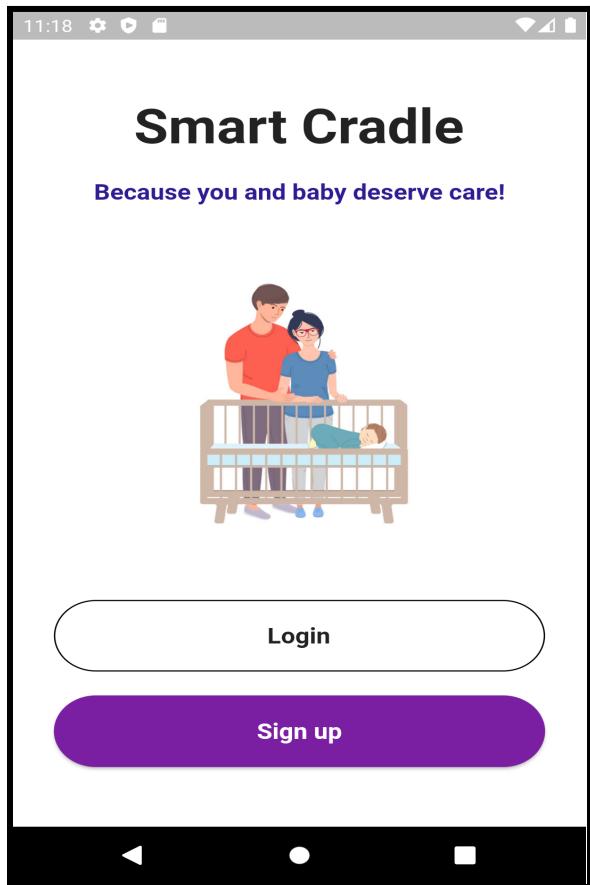
You can control the smart cradle easily using the mobile application. You can enjoy the following features,

- Live monitoring of the baby
- Playing Music
- Swing the cradle
- Turn on/off the fan
- Checking the room temperature

Launch the Cradle\_app  
Mobile application

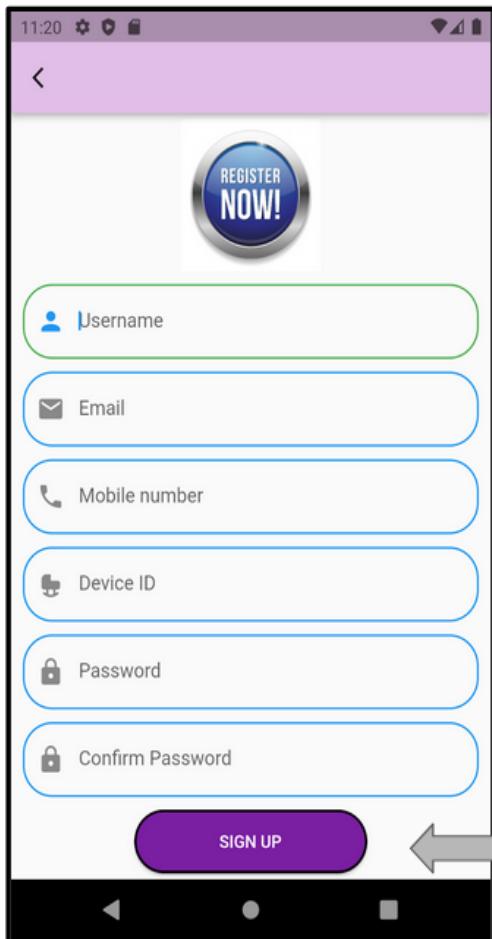


## Welcome to Smart Cradle



To use the features available in the app,you need to have an account,if you already have an account,you can login.Otherwise create a new account.

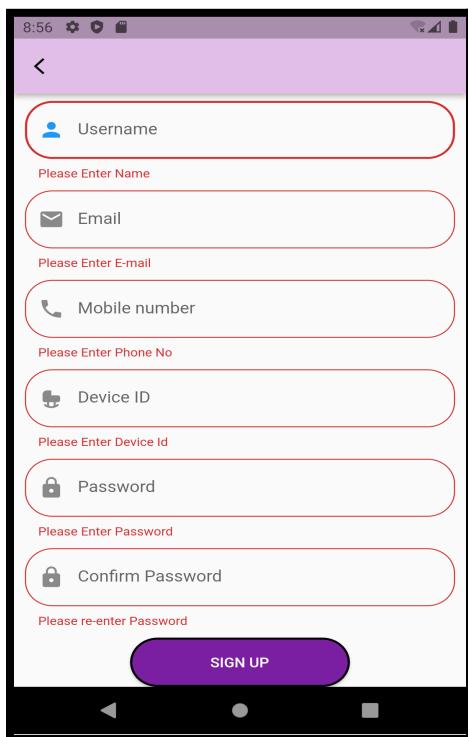
### 3.1 USER REGISTRATION



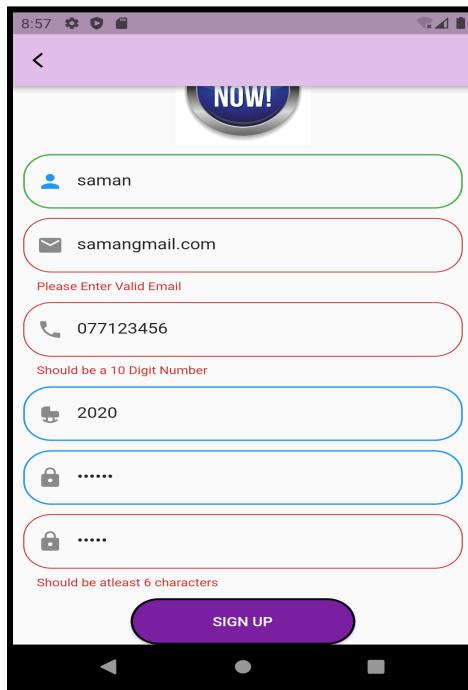
- ← Create an username
- ← Enter your Email address here
- ← Enter your Mobile number here
- ← Enter the **Device ID** which is mentioned in the device here
- ← Create a password of maximum of 6 characters
- ← Re-enter the password to confirm it
- ← Click here to submit your entered information

## *Tips to consider during the registration process:*

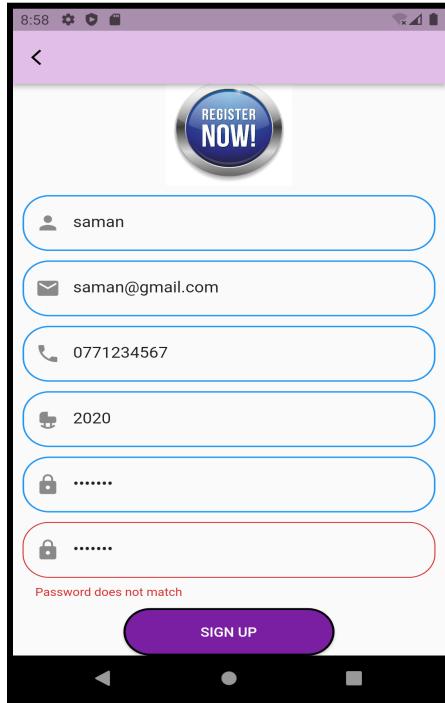
- Fill all the fields available in the form.



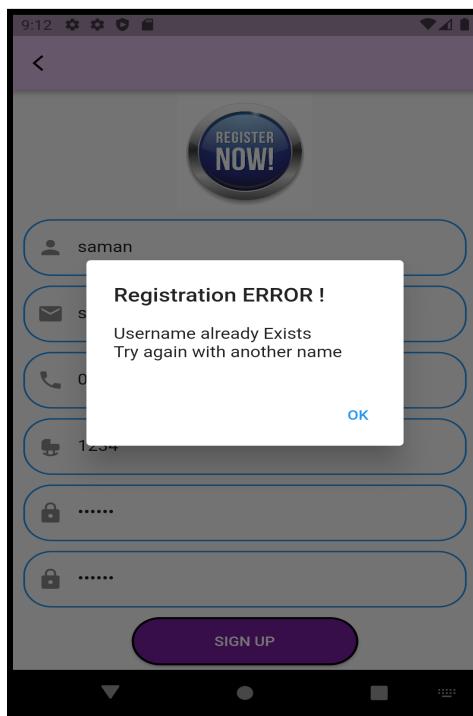
- Enter a valid email address, telephone number and create a password with a minimum of 6 characters.



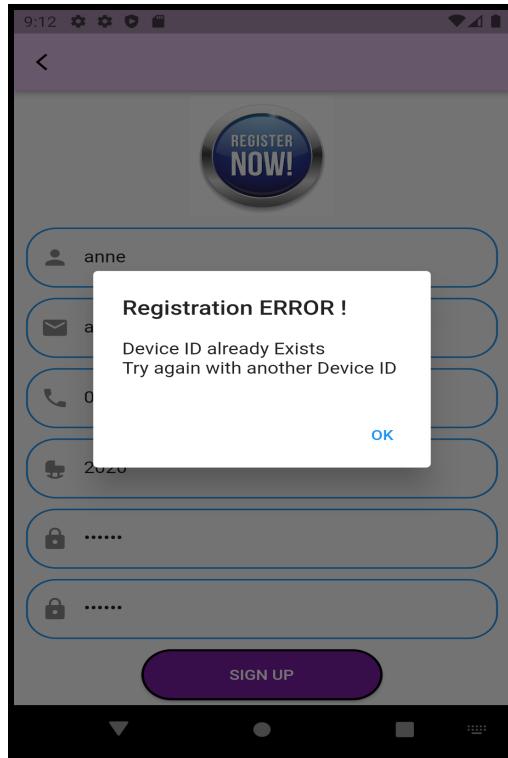
- Make sure to enter the password and confirmation password correctly.



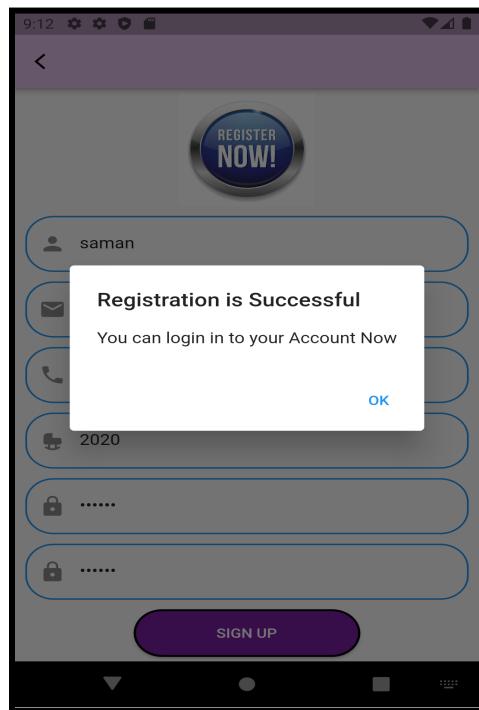
- Make sure to create a username which already doesn't exist. If your created username already exists in our database, it will show you an error alert box as follows.



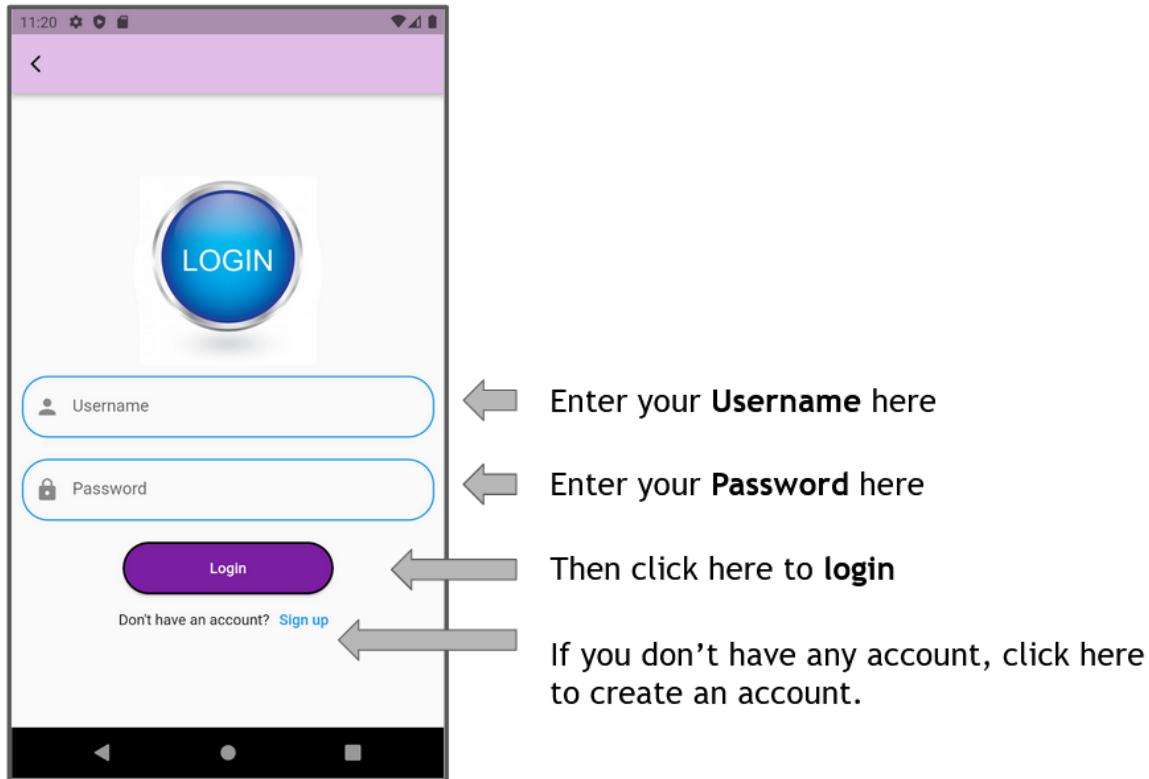
- Don't enter a device ID which is already registered.



- If you have followed the steps correctly, you can successfully register to our system.

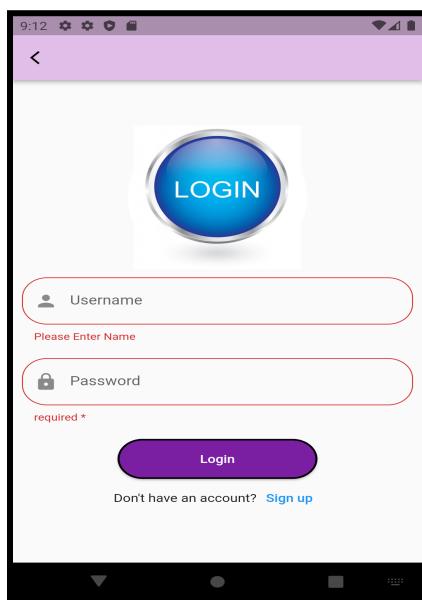


### 3.2 USER LOGIN

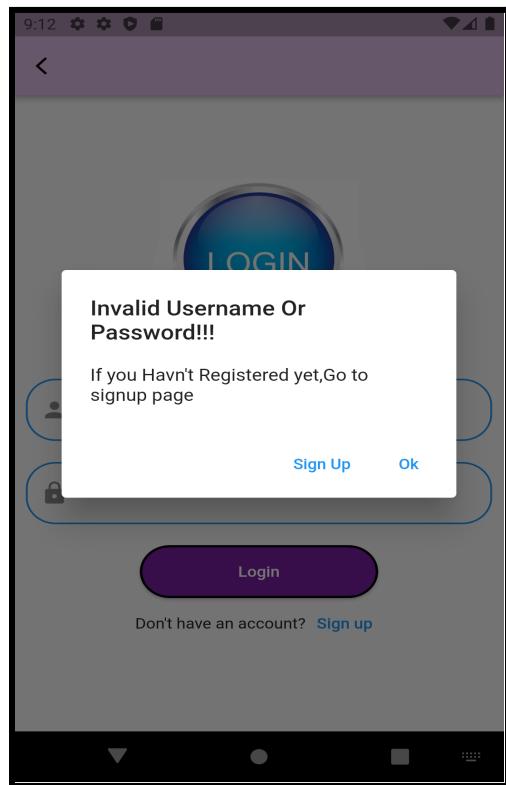


*Tips to consider during login :*

- Enter both username and password.

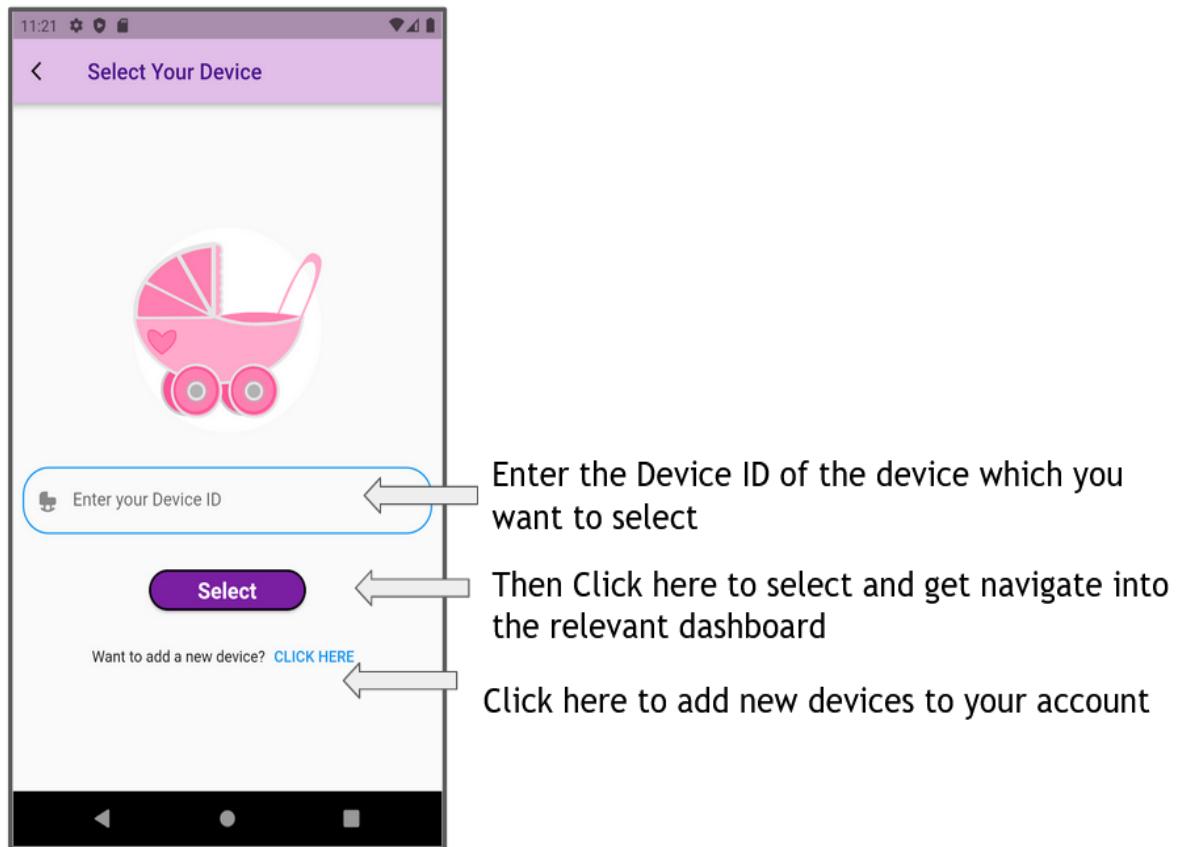


- Enter the username and password correctly. If you don't have any account you can sign up.



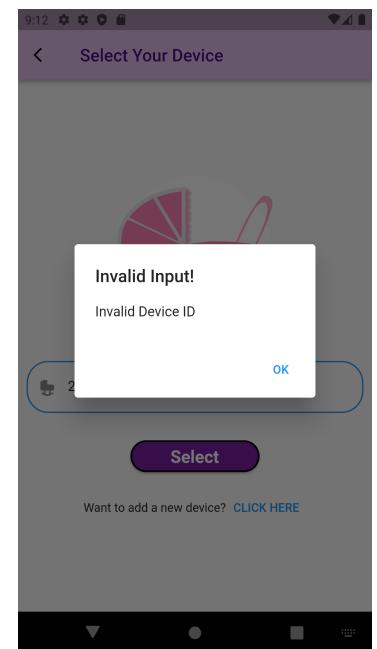
- After your successful login, you have to select your device giving the correct Device Id.

### 3.3 DEVICE SELECTION

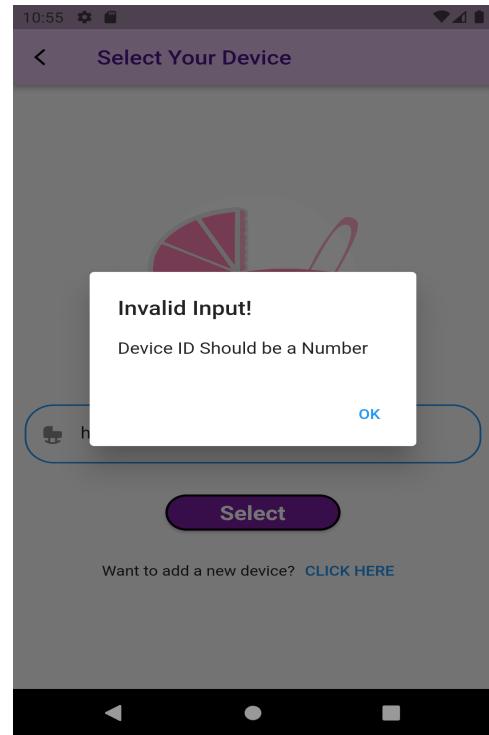


#### *Tips to Consider:*

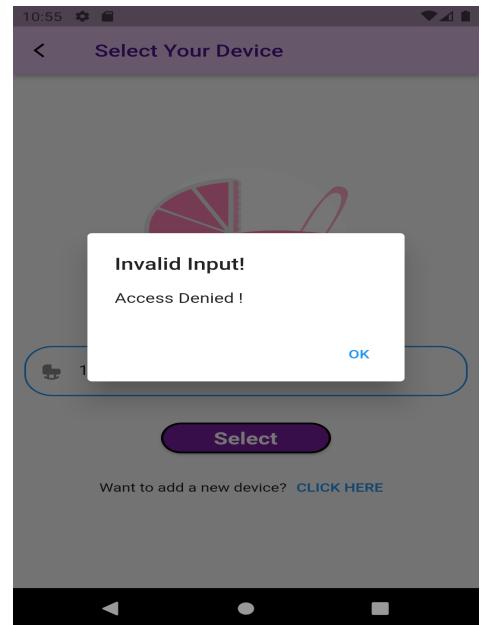
- Make sure to select a device which is already added to your device.
- If the device which you are going to select does not belong to your account, it will give you an error message as given in the figure



- Device ID is a number, therefore make sure to enter only numeric values.



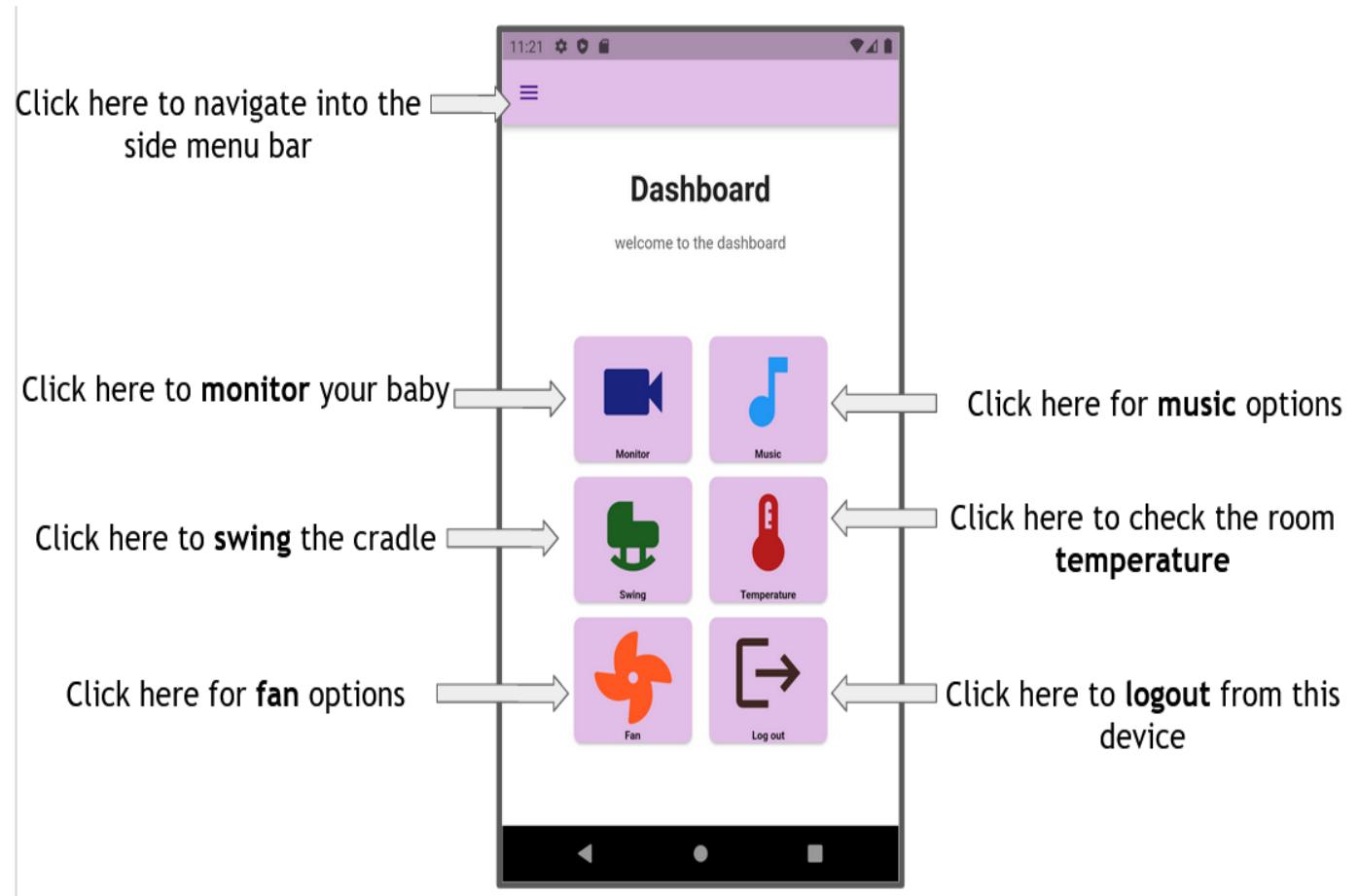
- You can only access devices in your account, otherwise Access is Denied.



❖ After you successfully select the device,you can navigate into the dashboard of the device.

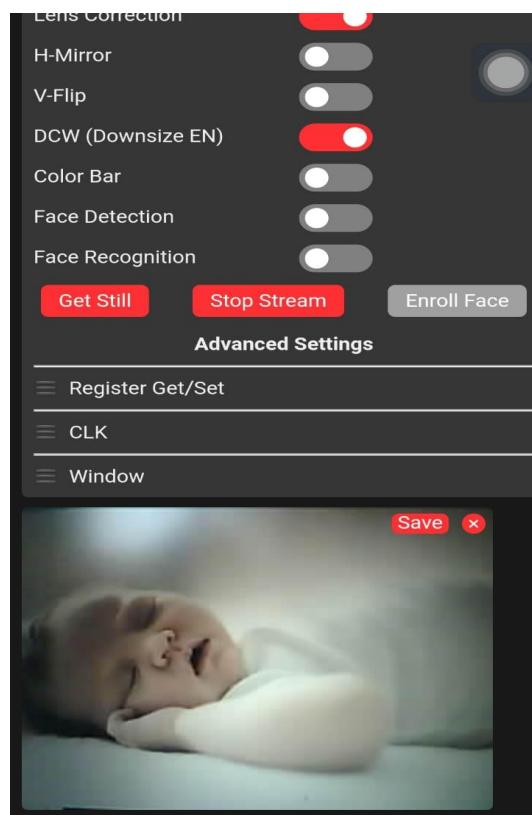
### 3.4 DASHBOARD

- Features of the smart cradle are indicated using icons making it easier for users to understand the functionalities.



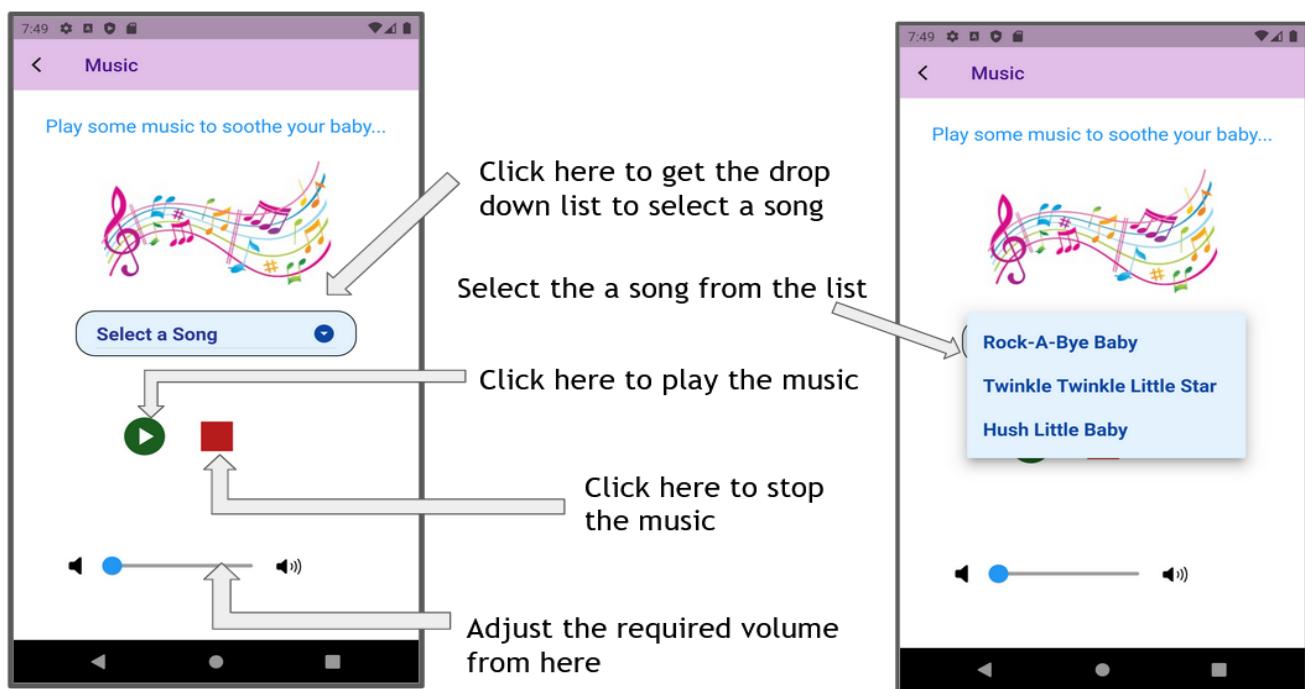
### 3.4.1 Monitor

Your baby needs constant attention, but you can't be in their room every hour of every day. That's why baby monitoring is useful. Through this monitor option you can get a live feedback of your baby.



### 3.4.2 Music

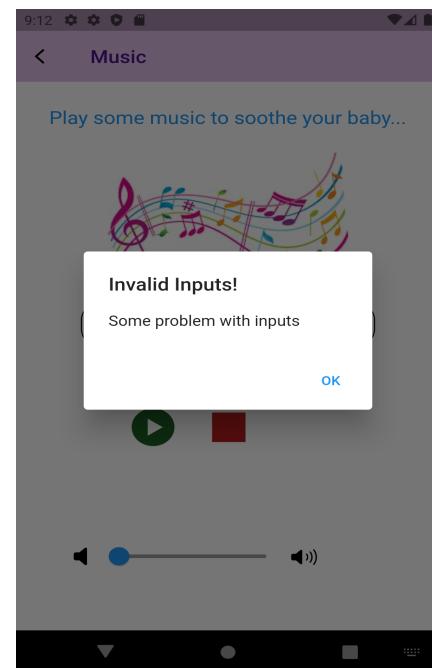
Music can be a great tool to make a baby stop crying or just a fun way to bond. So you can make use of this app to play some music to soothe your baby.



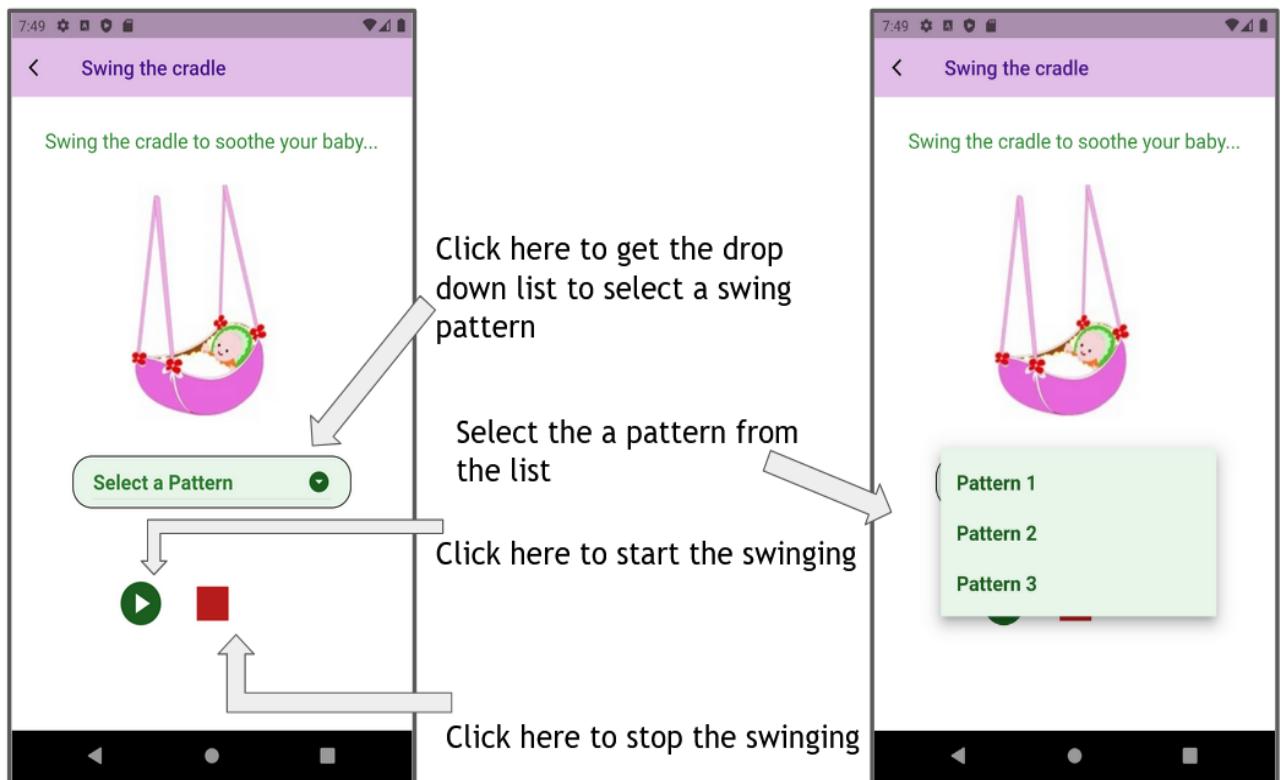
Cry detection unit will automatically play music.

*Tips to consider:*

- Make sure you select the required song from the list before clicking the play icon or stop icon , otherwise it will throw an error.



### 3.4.3 Swing



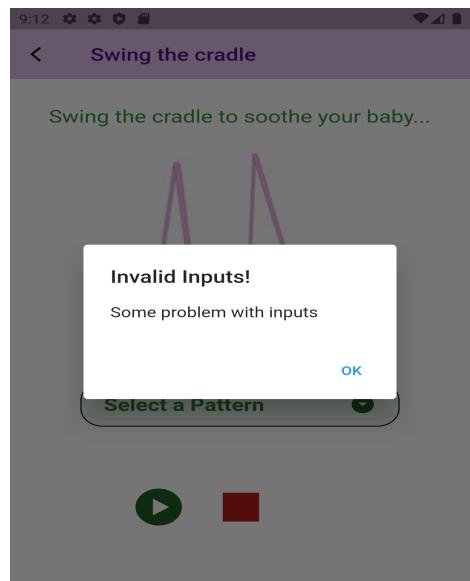
Pattern 1 -----low speed swing

Pattern 2 -----Medium speed swing

Pattern 3 -----High speed swing

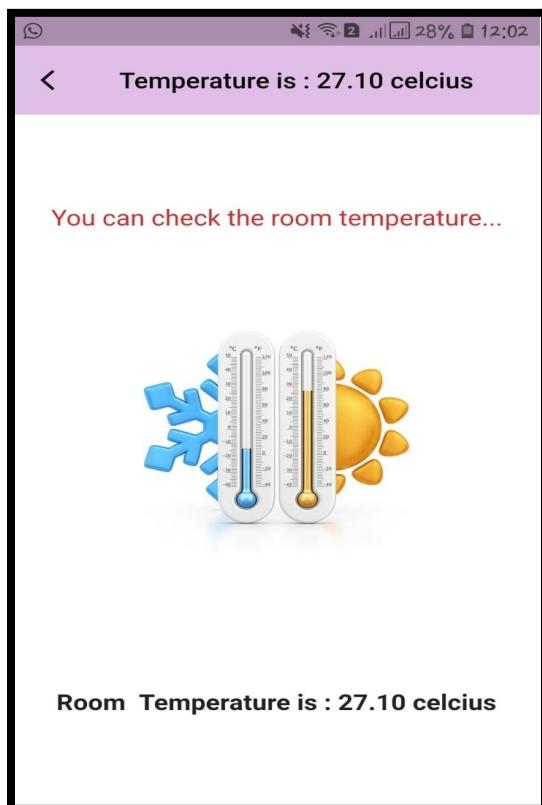
*Tips to consider:*

- Make sure you select the required pattern from the list before clicking the play icon or stop icon otherwise it will throw an error.



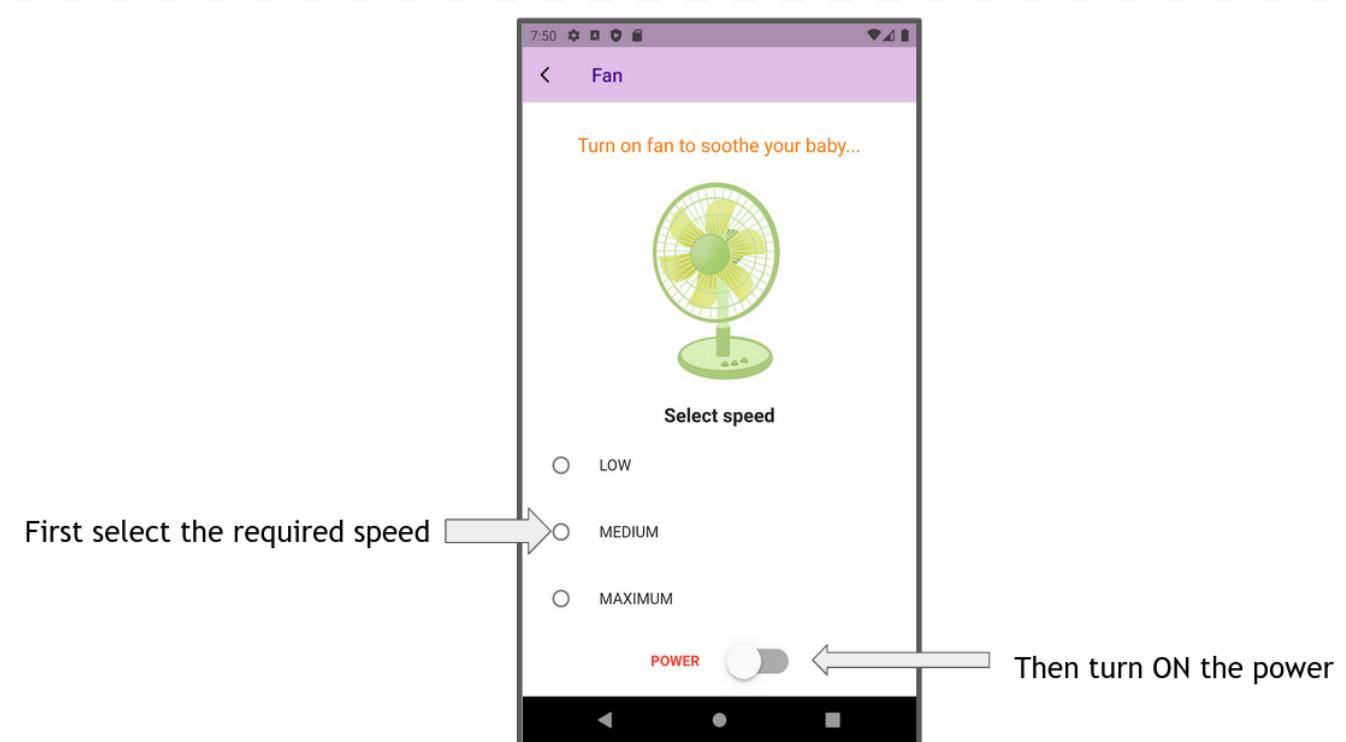
### 3.4.4 Temperature

You can check the room temperature at the place where the cradle is placed.



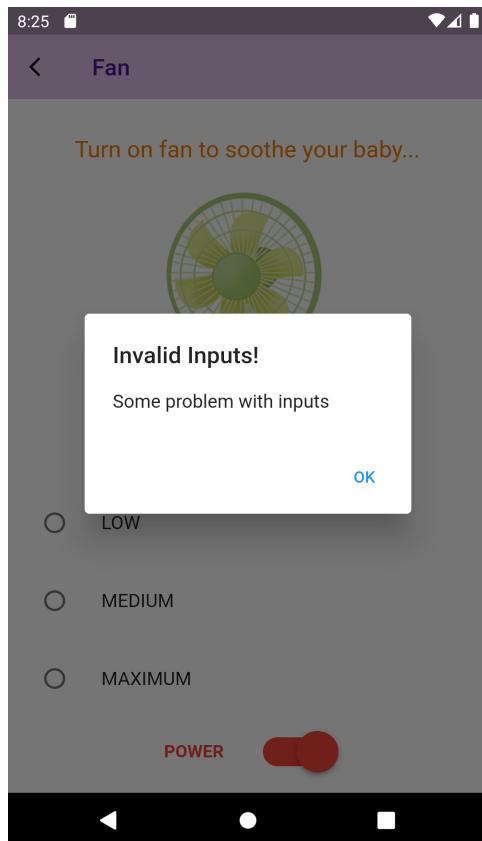
### 3.4.5 Fan

If you feel that the room temperature is too high for your baby,you can switch on the fan in the smart cradle easily using the mobile application.Simply follow the steps.

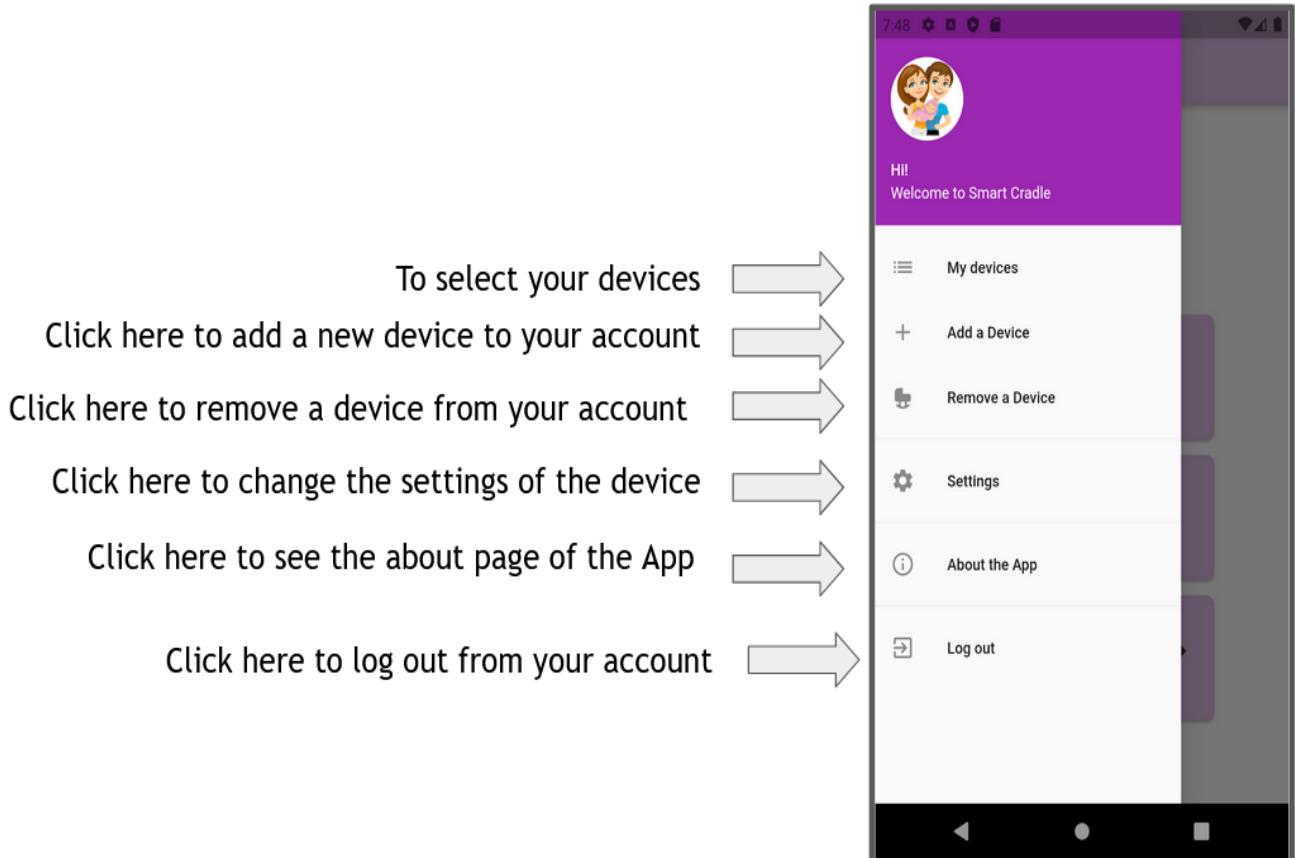


*Tips to consider:*

Make sure that you select the required speed before turning ON the power, otherwise you will get an error message as follows.



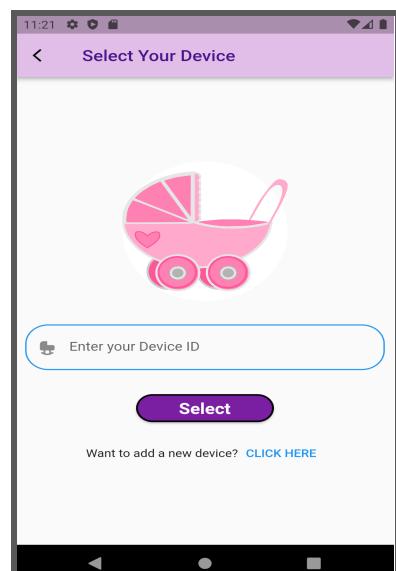
### 3.5 Side Menu Bar



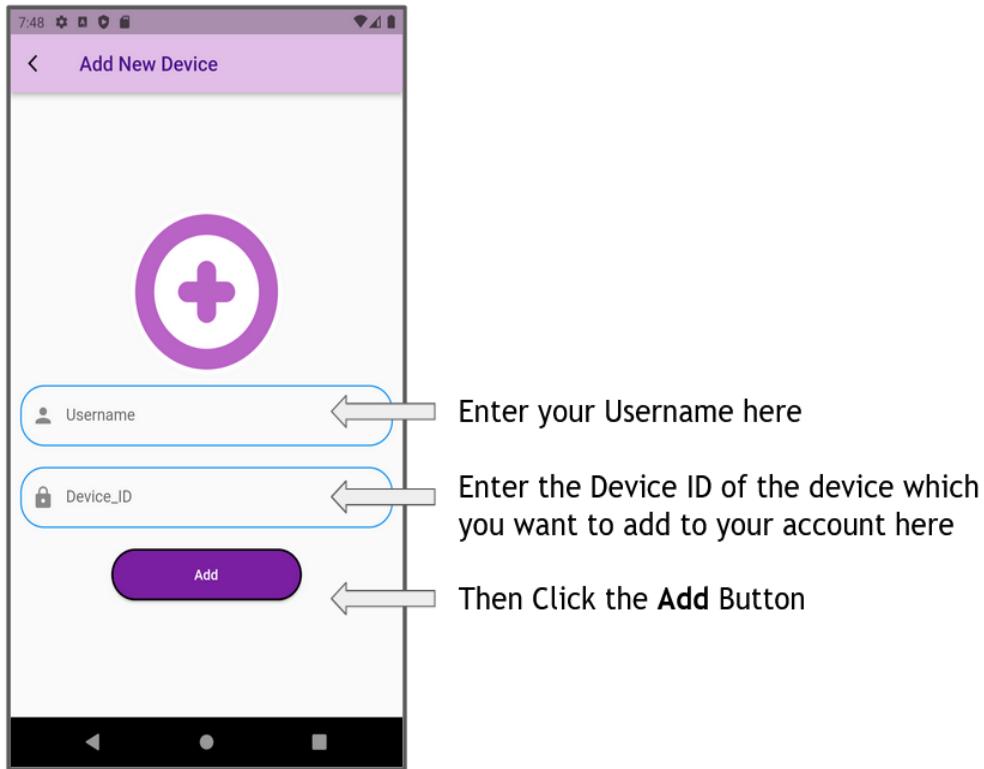
You can manage your account from the features available here.

#### 3.5.1 My Devices

You can select the device you want from here.  
Can easily switch between the devices.

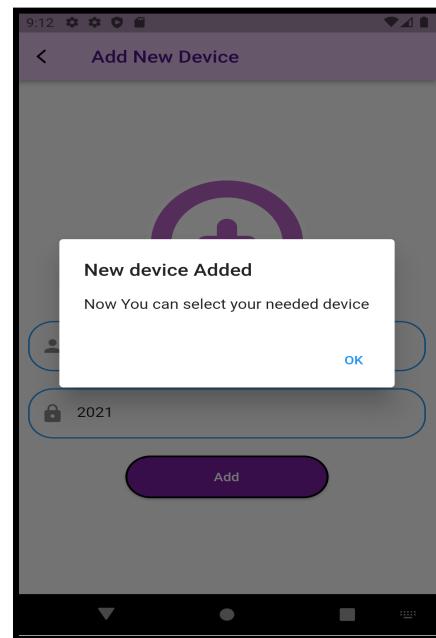


### 3.5.2 Add a Device



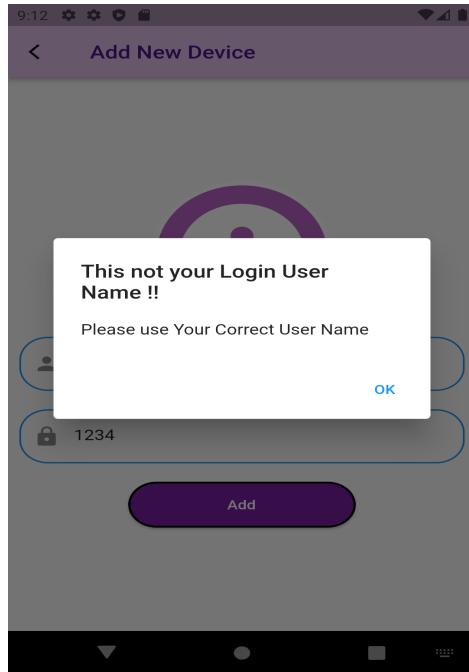
You can add several devices to the same account, so that you can manage more than one device easily.

- ❖ After a successful addition of a device you will receive the following notification.

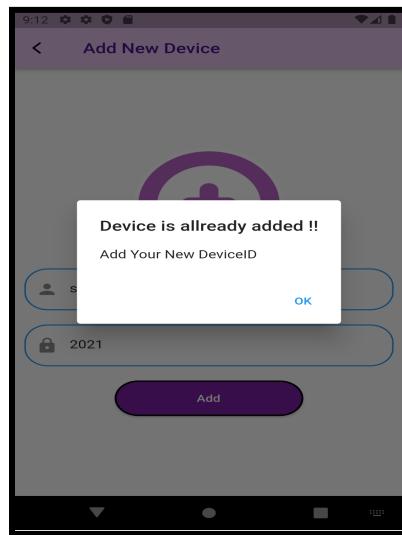


*Tips to consider:*

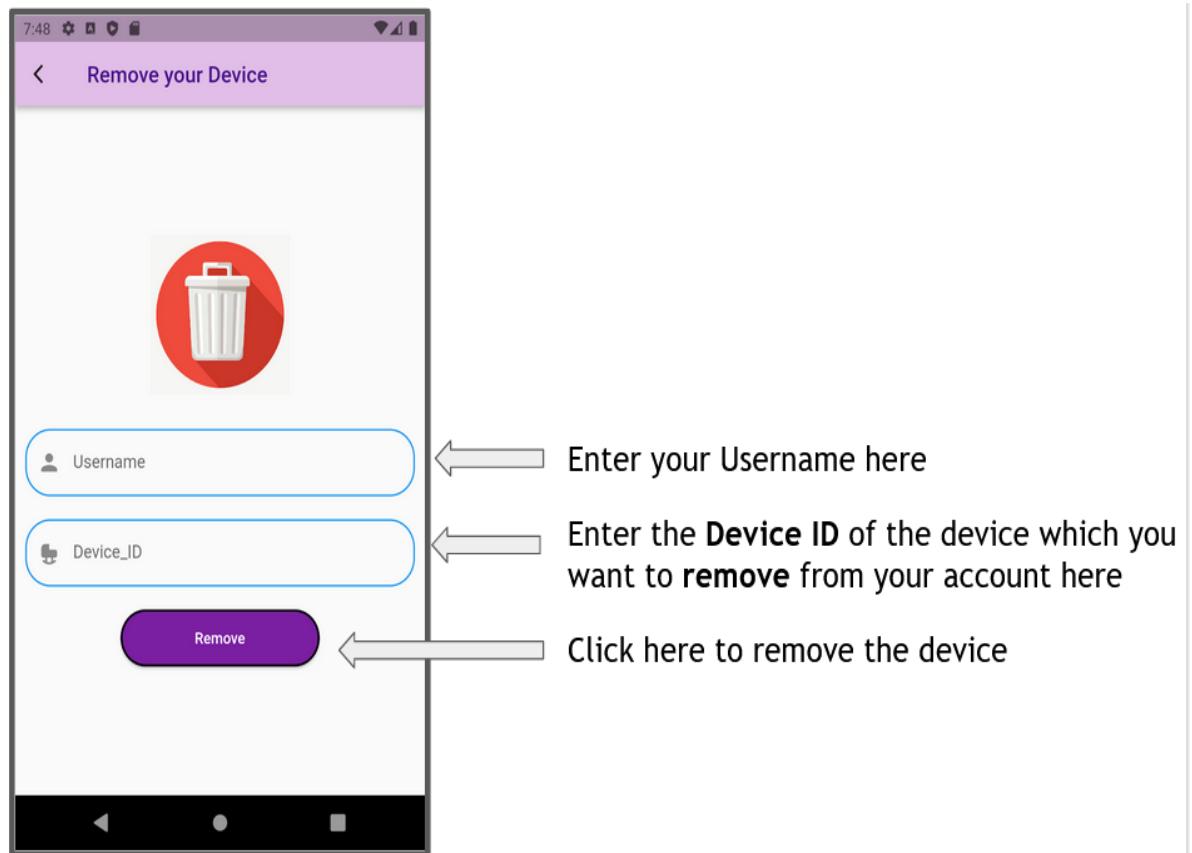
- Make sure that you enter your username correctly, otherwise it is possible to get an error message as follows.



- Make sure that your device Id is not added already, otherwise it is possible to get an error message as follows.

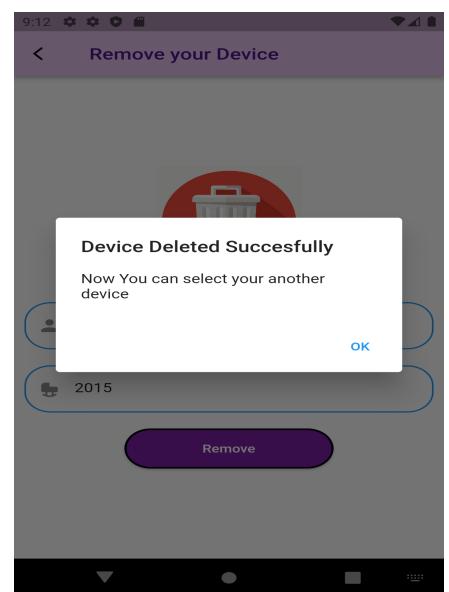


### 3.5.3 Remove a Device



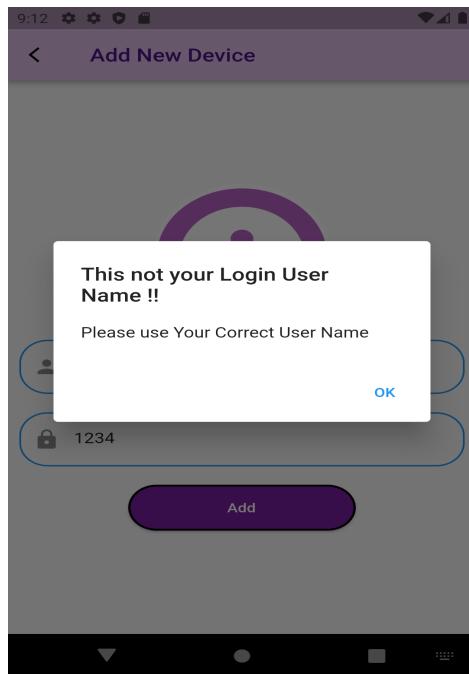
You can remove any device, if you don't want to keep that device in your account any more.

- ❖ After a successful removal you will be able to get the following notification.

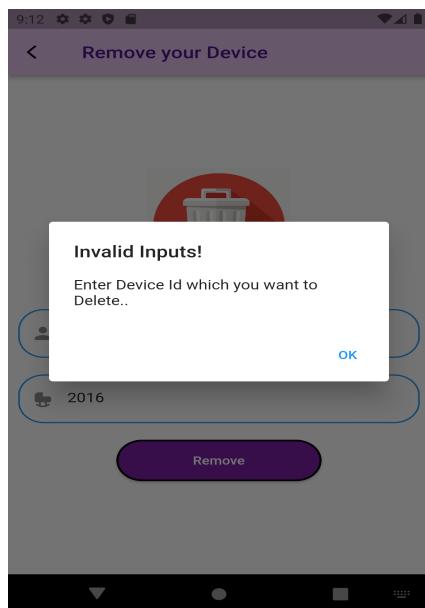


*Tips to consider:*

- Make sure that you enter your username correctly, otherwise it is possible to get an error message as follows.

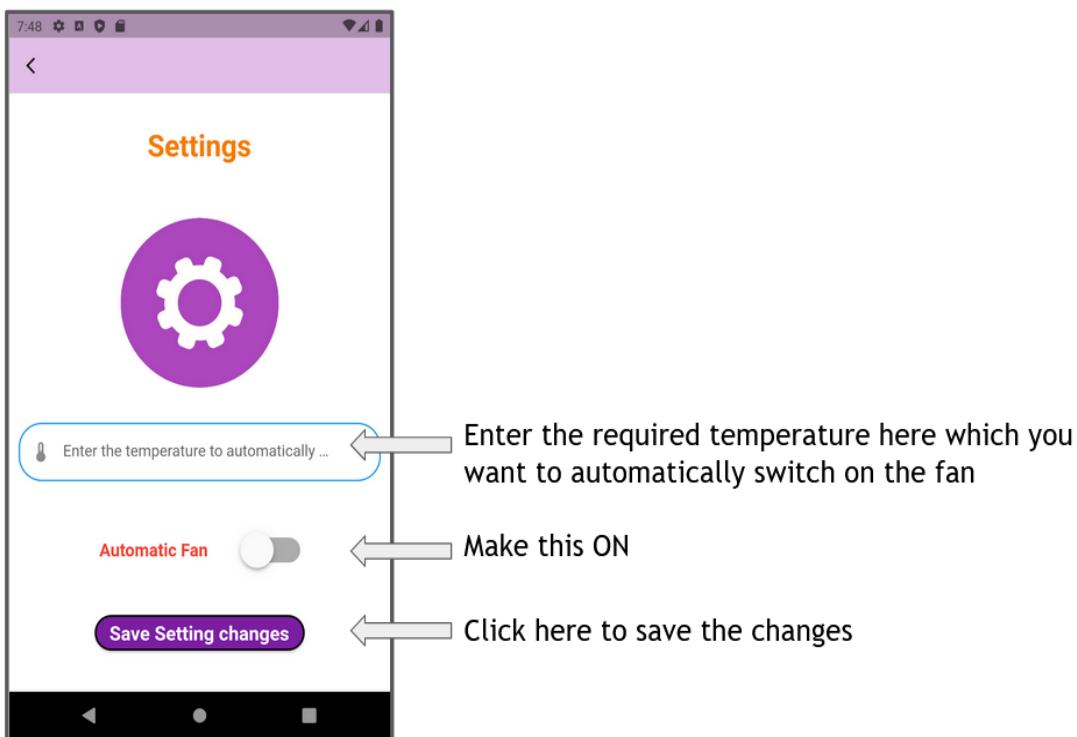


- Make sure that your device Id which you are going to delete exists in your account, otherwise it is possible to get an error message as follows.

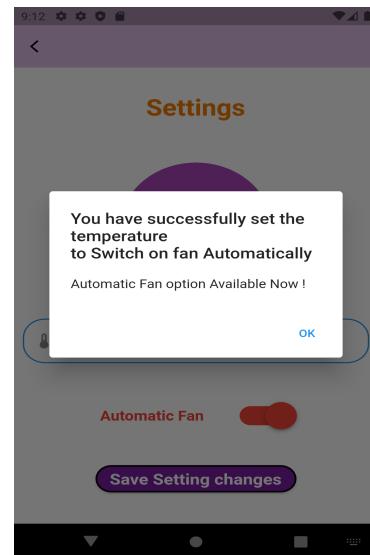


### 3.5.4 Settings

Using the settings option you can enable the Automatic fan option where you can set a threshold temperature value and if the room temperature exceeds that value it will automatically switch on the fan.

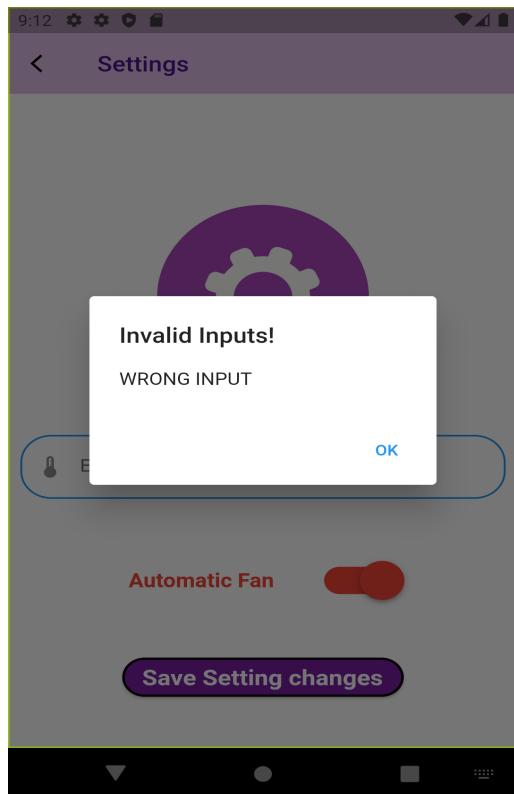


- ❖ After you successfully set the settings,you will get the following notification.



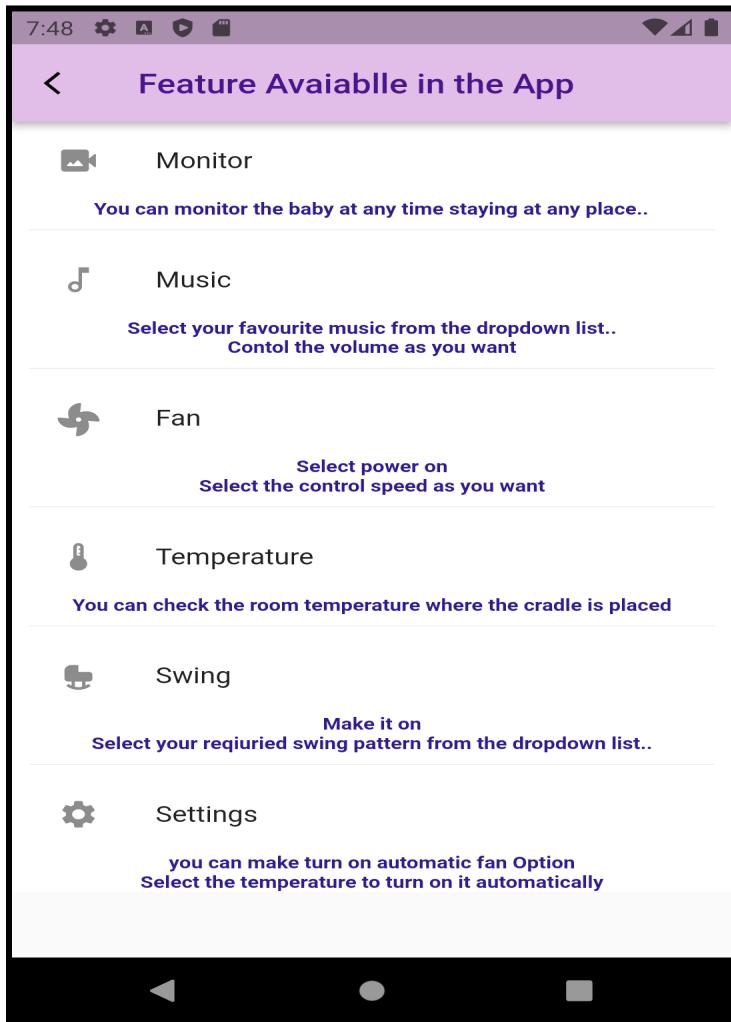
*Tips to consider:*

- Make sure to enter the threshold temperature value before you ON the automatic fan option. Otherwise you will get an error message as follows.



### 3.5.5 About

Using the about page you can get a basic idea about the functions available in the mobile application. It can be considered as a quick guide.



#### 4.SECURITY AND SAFETY

- All the electronic components are embedded inside a wooden box to improve the safety.
- All the components are at a place which is not reachable to the baby.
- Account is password protected and authorization is checked when performing each options. Therefore no unauthorized access to any third party.

*For further details, Visit our website*

<https://cepdnaclk.github.io/e17-3yp-Smart-Cradle/>