

The first step to develop this app is to understand how device will communicate through BLE, After studying the SDK of device then I was able to understand that the device will first broadcast its presence and shares the service UUID, Mac address and few more details. Then we can use BLE library of JAVA to connect to it and fetch the device ID, Services the device offers. Each service is mapped to respective unique service ID we can use these UUID to get the reading of the peripherals.

### Connecting to Device :

JAVA BLE library offers few modules .

```
ble.connect(deviceID,RxUUID,TxUUID)
```

This function will connect to the device of specified deviceID and the device will broadcast its parameters and list of all services available .using ble.StartNotification() we can fetch the data that was broadcasted by the device.

### Fetching particular Data from Pheriperal:

```
ble.write(deviceID,serviceID,dataBuffer)
```

This function will writes the data to the device and invokes specific peripherals and gets the data like heart rate, blood oxygen etc...