*Florida International University*

*School of Computing and Information Sciences*

Software Engineering Focus

Feature Document

User Story ID 199

**Name:** Extract Data from Android App

**Team Member(s):** Galo Romero

**Project:** Biosensing 2.0

**Product Owner(s)**: Shekhar Bhansali, Yogeswaran Umasankar

**Mentor(s)**: Vishal Chopade, Apurva Sonawane

**Instructor**: Masoud Sadjadi

**User Story Name:**

* Description: As an app developer, I want to get the data from BLE device so that it can be displayed in app.

Acceptance Criteria

* Android app is able to collect data from BLE device.
* Data is collected as raw data.

**Use Case**

* Name: Extract data from Android app.
* Actor: App developer.
* Preconditions:

1. Android app is installed on mobile device.
2. Android app was successfully connected to BLE device.

* Description <Flow of events>:

1. App developer queries for data available from the BLE device.
2. BLE device sends back a list of UUIDs pertaining to different services and characteristics.
3. The list of UUIDs is shown on Android app.
4. App developer chooses a specific service.
5. A list of characteristics of the service is shown from a drop down list.
6. App developer chooses a specific characteristic.
7. Data of the chosen characteristic is displayed.

**Use Case Diagram**

UseCaseDiagram.png

**Sequence Diagram**

SequenceDiagram.png

**Class Diagram**

ClassDiagram.png

**Unit Test**

* Test case ID: 199-001 (Sunny Day)
* Description/Summary of Test:
* Test if Android app can retrieve data from BLE device.
* Pre-condition:
* The Android app is already connect to a BLE device.
* Expected Results:
* Android app displays services and characteristics.
* Actual Result:
* Services and characteristics are displayed.
* Status (Fail/Pass):
* Pass.
* Test case ID: 199-002 (Rainy Day)
* Description/Summary of Test:
* Display data from unknown UUIDs as HEX.
* Pre-condition:
* The Android app is already connect to a BLE device.
* Expected Results:
* Android app displays data in HEX format.
* Actual Result:
* Android app displays data in HEX format.
* Status (Fail/Pass):
* Pass.

**Visual User Guide**

