Software Test Document

(ANSI/IEEE Standard 829-1983)

## Test Plan Identifier:

* SLTP01

## Features to be tested:

* Security module of the app (F001).
* Database controller (F002).
* Text Analyzer (F003).
* Fiware Apis (F004).
* Speech to text feature (F005).

## Features Not to Be Tested

* Network controller in app.

Reason:

* Api’s already have their own test suits.
* Framework used for transmitting the data over network (Volley) is tested by Android developers.

## Approach:

* Unit testing was used for (f001).
* Instrumentation testing was used for (f002, f003).
* Api testing for (f004).
* Manual testing for UI testing and (f005).
* Tools:
* Unit testing -> Junit, InstrumentationRegistry.
* Api testing -> Postman.

**System Unit tests:**

**F001:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test Cases | | | |  |
| **ID** | **Test Case** | **Input Value** | **Expected Output** | **Pass/Fail** |
| F001.1 | Name: correctEncryption.  Checks to see that  Function encrypt produces correct encryption value | 1234 | 03ac674216f3e15c761ee1a5e255f06  7953623c8b388b4459e13f978d7c846f4 | pass |
| F001.2 | Name: wrongEncryption  Checks to see that  Function encrypt produces incorrect encryption value | Text123 | wrong | pass |
| F001.3 | Name: isValid  input string won’t cause sql injection | hello | true | pass |
| F001.4 | Name: isInvalid  input string will cause sql injection | selEct \* from Sensor | false | pass |

**The following tests are ran inside an android emulator device.**

**F002:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test Cases | | | |  |
| **ID** | **Test Case** | **Input Value** | **Expected Output** | **Pass/Fail** |
| F002.1 | Name: validSensor.  Input string contains a valid sensor in database | temperature | Sensor001 | pass |
| F002.2 | Name: invalidSensor  Input string doesn’t contain a valid sensor in database | Light | Sensor001 | pass |
| F002.3 | Name: validCommand  Input string contains a valid command in database | Open device | Open | pass |
| F002.4 | Name : invalidCommand  Input string doesn’t contain a valid command in database | Hello | Open | pass |
| F002.5 | Name: validActuator | Open the light | Light001 | pass |
| F002.6 | Name: invalidActuator | Open the Temperature | Light001 | pass |

**F003:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test Cases | | | |  |
| **ID** | **Test Case** | **Input Value** | **Expected Output** | **Pass/Fail** |
| F003.1 | Name: isSuitable.  Input string contains a valid Actuator and command that match together | Light001 , on | true | pass |
| F003.2 | Name: isNotSuitable  Input string contains a valid Actuator and command that don’t match together | Light001 , get | false | pass |