BLUEROLL TEST PLAN

CSCE 361 | SPRING 2015

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1 Introduction

This document specifies the testing plan for BlueRoll. All testing is based on the System Requirements Specification. Sections that follow contain reference numbers to the System Requirements Specification (SRS). Section 2, Testing Requirements, which come from the SRS. Section 3, Test Cases, displays the test cases that satisfy each testing requirement and how to properly execute them.

2 Testing Requirements

2.1 Registering Bluetooth Devices

2.1.1 SRS 3.2.1.1.1

Run program with manually created/modified *.csv file to test functionality.

a. with proper formatting
b. with improper formatting

2.2 Roll Call

2.2.1 SRS 3.2.1.2.1

Run roll call to see if it executes.

2.2.2 SRS 3.2.1.2.2

Run roll call with devices at varying ranges.

2.2.3 SRS 3.2.1.2.3

Verify manually if roll call correctly matches bluetooth addresses within range to bluetooth addresses in rooster.csv.

2.2.4 SRS 3.2.1.2.4

Verify if student bluetooth addresses that are correctly marked as present, if matched, and absent, if not matched.

2.3 Semester Report

2.3.1 SRS 3.2.1.3.1

View Semester Report to confirm if all summary reports are compiles into a single Semester Report.

2.3.2 SRS 3.2.1.3.2

Open Semester Report and verify if last Summary Report were added.

3 Test Cases

This section details the test cases included in the BlueRoll test suite. Each test must be properly set up before executing the test. Each test identifies the testing requirement it satisfies from section 2, Test Requirements.

3.1 Registering Bluetooth Devices

3.1.1 Test 1

Purpose:

Test execution with correct roster.csv file format.

Setup:

Insert students correctly into roster.csv as detailed in the SRS.

Input:

Datla, Maanas Varma, 00EEBDD00E53

Kulwicki, Spencer, 907240E95B87

Salzman, Grady, 48D705895D06

Expected Outputs:

Maanas Varma Datla is present

Spencer Kulwicki is present

Grady Salzman is present

overall attendance is 100%

Testing Requirements Coverage:

Testing Requirement 2.1.1a

3.1.2 Test 2

Purpose:

Test execution with incorrect roster.csv file format.

Setup:

Insert students incorrectly into roster.csv (different from detailed in SRS).

Input:

Salzman, Grady, 48D705895D06

907240E95B87, Kulwicki, Spencer

Maanas, 00EEBDD00E53, Varma

Expected Outputs:

Grady Salzman is present

Kulwicki 907240E95B87 is absent

00EEBDD00E53 Maanas is absent

Testing Requirements Coverage:

Testing Requirement 2.1.1b

3.2 Roll Call

3.2.1 Test 3

Purpose:

Test execution by clicking Roll Call.

Setup:

Have properly formatted roster.csv file available.

Input and Expected Outputs

User Action	Result
Roll Call Clicked	*Summary Report Outputted*

Testing Requirements Coverage:

Testing Requirement 2.2.1

3.2.2 Test 4

Purpose:

Test functionality at maximum range of bluetooth devices 10 meters (given in SRS) is accurate.

Setup:

Place Bluetooth devices at varying ranges and execute Roll Call.

Input and Expected Outputs:

Distance of Bluetooth device	Device Recognized
x < 10 meters	True
x = 10 meters	True
x > 10 meters	False

Testing Requirements Coverage:

Testing Requirement 2.2.2

3.2.2 Test 5

Purpose:

Verify if Bluetooth addresses in roster.csv are correctly matched with nearby Bluetooth devices and the student is correctly marked as present (if matched) or absent (if unmatched).

Setup:

Have correctly formated roster.csv and some devices with corresponding Bluetooth addresses within range.

Inputs and Expected Outputs:

Student in roster.csv	Student Bluetooth device within range	Student marked as
Datla, Maanas Varma, 00EEBDD00E53	True	Present
Kulwicki, Spencer, 907240E95B87	False	Absent
Salzman, Grady, 48D705895D06	True	Present

Testing Requirements Coverage:

Testing Requirement 2.2.3 & 2.2.4

3.2.3 Test 6

Purpose:

Verify that semester report is viewable at any time

Setup:

Run Roll Call multiple times on different days and produce multiple summary reports.

Inputs and Expected Outputs:

Last Name	First Name	3/18/2015	3/19/2015	3/20/2015	3/21/2015	3/22/2015
Datla	Maanas Varma	P	A	A	A	A
Kulwicki	Spencer	P	A	A	A	A
Salzman	Grady	A	A	A	A	A

Testing Requirements Coverage:

Testing Requirement 2.3.1 & 2.3.2