Acceptance Test Document

Installation

Download and unzip project from: https://github.com/jessicayuen/scout/archive/master.zip

Scout mobile application
- Copy ScoutMobile/Scout.apk to an Android mobile device
- On the Android mobile device locate the Scout.apk and click to install

Scout web application
- Install Node.js
- Install npm
- Go to the ScoutWeb directory and run `node app.js`
- Run the website locally by going to http://localhost:3000

Tests

Estimote Beacon Connectivity Acceptance Testing

Story ID	R1
Description	Write services to communicate with the Estimote API to retrieve the BLE ID once in proximity
Set Up	N/A
Instructions	1. Log into the Android app with valid credentials. (R4) 2. After logging in, the phone should produce an exception if the following cases occur: ● If the phone in which the app is being run on doesn't have BLE capabilities then a toast will note: "Device does not have Bluetooth Low Energy" ● If the phone in which the app is being run on does have BLE capabilities but the bluetooth is

	turned off, then a notification asking to turn it on will appear.
	Otherwise if the phone in which the app is being run on does have BLE capabilities and the bluetooth is turned on, then nothing noticeable should happen.
	In all cases, the places page with a list of places should be shown next.
Expected Results	If Bluetooth is on, upon holding a BLE beacon near the phone should create a toast notification indicating that a beacon has been found and its MAC address (which should corresponding to the beacon data collected in the Parse database)

Android Registration Acceptance Testing

Story ID	R2
Description	As a customer, I'd like to register for the Scout rewards program using my smartphone application
Set Up	Open the Scout Application on an Android mobile device. The Android device will require Wifi connectivity.
Instructions	1. Press register in the home login screen 2. User enters their first name, last name, email, password, and password confirmation 3. User presses register
Expected Results	The Android application will display a list of businesses upon successful registration.

Android Rewards Acceptance Testing

Story ID	R4

Description	As a customer. I'd like to be able to view the number of points I have on my smartphone
Set Up	Open the Scout Application on an Android mobile device. The Android device will require Wifi connectivity.
Instructions	1. User logs into the Android application (R29) 2. User sees list of businesses (corresponding to all the businesses in Parse database) 3. Each listed business list item showed the correct number of points for the logged in users based on the Parse points table. 4. Click on a business, the rewards activity shows. 5. The rewards activity displays the correct points the user has for that business, the business name, and the list of rewards (Reward points and description are checked against Parse database)
Expected Results	The rewards activity displays the correct points the user has for that business, the business name, and the list of rewards.

Install BLE Sensor Acceptance Testing

Story ID	R7
Description	Install the Estimote BLEs into our testing area
Set Up	Install the Estimote demo Android app at https://play.google.com/store/apps/details?id=com.estimote.apps.main and the associated Estimote libraries
Instructions	Turn on the Estimote demo app and run any of the three tutorials
Expected Results	A beacon should be able to interface with the Estimote demo

Rewards Acceptance Testing

Story ID	R11
Description	As a business owner, I'd like to be able to add, remove, or edit the list of available rewards for my business
Set Up	Login with valid credentials (R31) and enter the rewards menu from the dashboard by clicking rewards.
Instructions	Adding rewards: ● Click add reward and fill in the form that appears. ● Click Submit. Editing rewards: ● Click the edit button next to any reward on the list. ● Edit any of the fields of the reward. ● Click Submit. Removing rewards: ● Click the remove button next to any reward on the list.
Expected Results	Adding rewards: ● The table refreshes and the submitted reward appears on the list. ● The reward is subsequently visible and accessible from the app. Editing rewards: ● The table refreshes with the updated information of the reward. ● The reward is also updated upon the next refresh for app instances. Removing rewards: ● The reward is removed from the list. ● The reward is no longer available upon next visit from the app.

Dashboard Charts Acceptance Testing

Story ID	R12

Description	Render the number of new customers for a specific business into a user understandable chart/graph
Set Up	Log into the application
Instructions	● Observe the graph ● Hover over the points on the graphs
Expected Results	● The graph loads and looks good ● The points hover is responsive and gives extra details

User Duration Analytics Acceptance Testing

Story ID	R15
Description	Render the duration of how long customers stay within the business
Set Up	Log into the application
Instructions	1. Login in on the home login screen 2. Be presented with a bar chart of how long users stay within the store
Expected Results	The page will display a bar chart of the user duration statistics

UI Polish Acceptance Testing

Story ID	R18
Description	As a customer, I want the mobile app's screen to screen transition to respond in less than one second
Set Up	Login with valid credentials
Instructions	1. Login into the application 2. Navigate around
Expected Results	Application should be fluid transitioning between activities, with minimal delay.

Web Dashboard Polish Acceptance Testing

Story ID	R19
Description	As a business owner, I want the web dashboard screen to screen transition to respond in less than one second
Set Up	Navigate to Scout web dashboard
Instructions	1. Log into the dashboard with a valid credential 2. Navigate between pages on the website
Expected Results	Transition between pages as well and of items should be fluid

Approximate Location Acceptance Testing

Story ID	R22
Description	As a business owner, I'd like to be able to know a customer's approximate location within a certain radius of the beacon
Set Up	Place physical Estimote bluetooth beacons 5 meters from the user's smartphone.
Instructions	Open the Scout Android smartphone application and login.
Expected Results	New records with the beacons RSSI, MeasuredPower and distance is inserted into the Parse cloud database.

Trilateration Acceptance Testing

Story ID	R23
Description	As a business owner, I'd like to trilaterate the users' approximate location within the store over time using the readings from the customers' smartphone

Set Up	Open the Scout Application on an Android mobile device. The Android device will require Wifi connectivity.
Instructions	1. Log into the application 2. move around the bluetooth beacons 3. check the coordinates on the parse website
Expected Results	Coordinates provided give a rough estimate of the user coordinate.

Customer Rewards Acceptance Testing

Story ID	R24
Description	As a customer, I'd like to be rewarded points for everyday I visit a business
Set Up	Open the Scout Application within a bluetooth beacon surrounded area.
Instructions	Log into the application and stay within a store for a duration
Expected Results	The customer should see their points count increment.

Collect Location Data in Background Acceptance Testing

Story ID	R26
Description	As a business owner, I want the app to run in the background to collect location data
Set Up	Open the Scout Application within a bluetooth beacon surrounded area.
Instructions	Log into the application
Expected Results	Location data should be collected within parse.

Customer Duration Analytics Acceptance Testing

Story ID	R27

Description	As a business owner, I want the average time a customer was in the store to be visible on my dashboard
Set Up	Start up the Scout web application
Instructions	1. Log into a merchant account
Expected Results	The merchant should be able to see the average duration of their customers on the dashboard.

Customer Duration Analytics Acceptance Testing

Story ID	R28
Description	As a business owner, I want the average time a customer was in the store to be visible on my dashboard
Set Up	Start up the Scout web application
Instructions	1. Log into a merchant account
Expected Results	The merchant should be able to see the average duration of their customers on the dashboard.

Android Login Acceptance Testing

Story ID	R29
Description	As a customer, I would like to be able to sign in to the mobile application
Set Up	Open the Scout Application on an Android mobile device. The Android device will require Wifi connectivity.
Instructions	1. User enters their valid credentials (email and password) in the login screen 2. Press the login button on screen to log into the Android app. 3. Successfully see list of businesses (corresponding to all the businesses in Parse database.

Expected Results	The Android application will display a list of businesses upon successful log in.

Android QR Generation Acceptance Testing

Story ID	R30
Description	As a customer, I'd like to be able to see a QR code when I click on a reward, that will be used as a unique id for reward redemption. A QR code is generated from the reward ID and the user ID.
Set Up	Open the Scout Application on an Android mobile device. The Android device will require Wifi connectivity and a valid Login (R29).
Instructions	Click on a reward (R4) from the list of rewards.
Expected Results	- A QR code is shown on the Activity layout. - The QR code should be a 500 x 500 combination of black and white pixels. - The QR code should be unique (i.e. look different from the QR codes generated from other rewards and other users).

Dashboard Login Acceptance Testing

Story ID	R31
Description	As a business owner, I want to be able to sign in into an online dashboard
Set Up	Enter the dashboard URL into a web browser.
Instructions	Incomplete Login: - Fill out a subset of all the required fields for the login, and click submit. Invalid Login: - Enter an incorrect password or username to the form and submit Valid Login:

	● Enter valid credentials to the login form.
Expected Results	Incomplete Login: ● The dashboard prompts the user to fill out the incomplete fields. The form is not submitted. Invalid Login: ● An error message is displayed and the dashboard prompts the user to correct the fields and resubmit. Valid Login: ● A business user gets redirected to the main dashboard page upon successful login

Android Defects Acceptance Testing

Story ID	R33
Description	As a customer, I want the minimum amount of defects in the mobile app
Set Up	Login to the mobile app
Instructions	Ensure the following are still functional: - Ensure points are successfully collected for the logged in user every minute - Ensure registration is successful - Ensure login is successful on a valid user - Ensure logout is successful upon login - Ensure Places Activity displays all businesses in Parse - Ensure clicking on a business will open up the Rewards Activity - Ensure the Rewards Activity displays all rewards for that business as verified against Parse

	- Ensure clicking on a reward will bring up the QR code
Expected Results	The above tests all pass

Web Application Polish Acceptance Testing

Story ID	R34
Description	As a business owner, I want a minimum amount of defects in the web dashboard
Set Up	Run node app.js in the ScoutWeb directory
Instructions	1. Visit the localhost URL provided by the node web application 2. Log into the web application 3. Browse through web application
Expected Results	The web application should not have any odd behavior such as hanging, crashing and 404.

Heatmap Acceptance Testing

Story ID	R35
Description	Customer data should be able to be seen on the heatmap.
Set Up	Valid data should already be gathered using the Android app. Login with valid credentials (R31) and enter the heatmap page from the dashboard by clicking heatmap.
Instructions	1. Login in on the home login screen 2. Navigate to the heatmap page
Expected Results	The page will display a heatmap and display the data in timed intervals

See Customer Movement in Heat Map Acceptance Testing

Story ID	R36
Description	As a business owner. I'd like to be able to see the movement of the customers on my dashboard within the heatmap
Set Up	Be in area surrounded by bluetooth beacons.
Instructions	1. Log into the Scout Application 2. Walk around area within beacons
Expected Results	The heatmap should be animated such that movement is shown.

Polished Navigable Mobile Interactive UI Acceptance Testing

Story ID	R37
Description	Splash screen before Android login. A user should be able to logout of the Android app.
Set Up	Log in to the Android app with a valid user.
Instructions	1. Start the app. 2. Select 'Logout' in the business directory context menu.
Expected Results	A splash screen should be seen with the Scout logo that lasts for about 1 second before login. The user should be logged out and no longer able to access the places activity.

Android Unit Tests Acceptance Testing

Story ID	R38
Description	As a business owner, I'd like a polished, navigable and interactive online dashboard user interface
Set Up	Load the web application on the desktop

Instructions	Browse through each page of the site
Expected Results	Each page of the website will contain interesting quirks to allow the user to stay interested.

Accumulate Points Acceptance Test

Story ID	R39
Description	As a business owner, I want to allow users to accumulate 1 point for every 5 consecutive minutes they are in my store
Set Up	Open the Scout Application on an Android mobile device within a store.
Instructions	1. Log into the android application 2. Wait 5 minutes
Expected Results	User should have gained 1 point after the 5 minutes.

Display User Login Error Toast

Story ID	R40
Description	As a business owner, I would like the ability to prevent users from logging into the same account on multiple smartphones at the same time
Set Up	Open the Scout Application on an Android mobile device. The Android device will require Wifi connectivity.
Instructions	3. Log into the android application 4. Log into the android application with same user and password in another device
Expected Results	User on the first device should be logged out and given a toast in the main screen.

Android UI Acceptance Testing

Story ID	R41
Description	As a customer, I would like the Android UI to be aesthetically pleasing.
Set Up	Open the Scout Application on an Android mobile device.
Instructions	1. Log into the application 2. View the Places Activity 3. Click on a business 4. View the Rewards Activity
Expected Results	Places Activity: The UI should list all businesses with a background image for each list item, and a transparent bar that displays the business name along with the points that the user has for. Rewards Activity: The UI should display the rewards activity with the business image, name, and points the current logged on user has on the top half. The list of rewards should be displayed below with an orange box around the points.

User Profile Dashboard

Story ID	R42
Description	Optional business image should be stored on the dashboard side on registration
Set Up	Log into the web dashboard
Instructions	1. Navigate to the dashboard website 2. Log in 3. Press profile page
Expected Results	Profile page should be displayed instead a 404 error. Profile page should have a profile image and it should be editable Profile page should have information regarding the business and all fields should be editable

Heatmap Acceptance Testing

Story ID	R43
Description	Heatmap data should be able to be filtered based on a time interval
Set Up	Valid data should already be gathered using the Android app. Login with valid credentials (R31) and enter the heatmap page from the dashboard by clicking heatmap.
Instructions	1. Login in on the home login screen 2. Navigate to the heatmap page 3. Adjust the slider below the heatmap
Expected Results	The page will display a heatmap and display only the data in the date(s) set in the slider

Background Data Collection Acceptance Testing

Story ID	R44
Description	User data within the store will be collected in the background of the application
Set Up	Log in to the mobile app
Instructions	1. Bluetooth must be turned on 2. User must log into the mobile application
Expected Results	Data will be added to the Parse database tables. Related data analytics will also be updated.

Mock Data Acceptance Testing

Story ID	R46
Description	Make a script to add mock data to parse database.
Set Up	Copy the script to a machine with node js installed

Instructions	run the script using node
Expected Results	Parse should be populated with mock data

Android Unit Tests Acceptance Testing

Story ID	R47
Description	Make unit tests for mobile application
Set Up	Open Android Studio
Instructions	Run all JUnit tests in Android Studio
Expected Results	The test cases should all pass

Automated Web Application UI Testing Acceptance Testing

Story ID	R48
Description	Automate user interface testing for web application
Set Up	Load a testing framework on the web application
Instructions	Run the automated tests
Expected Results	The test cases should all pass.