Iteration Plan for Sprint 2 - All

B - blocked

N/A - no longer needed

N/D - not done / partially done

Iteration Plan			**Planned / Estimate**			**Actual**		
Milestone	Assigned	Activity	Start	End	Effort	Start	End	Effort
Iteration 2					100			59
1	Thomas	R22 - Write a API to detect when the application is within the range of a beacon	Feb.16	Feb.19	9	Feb. 21	Feb.27	4
2	Thomas	R22 - Obtain an id from the beacon that the user approached	Feb.16	Feb.18	3	Feb. 21	Feb.22	1
3	Thomas	R22 - Send the beacon id and the user that accessed it to the server	Feb.16	Feb.18	4	Feb. 21	Feb.23	2
4	Thomas	R22 - Setup parse table for BLE	Feb.16	Feb.18	2	Feb. 21	Feb.22	1
5	Thomas	R22 - Detect and record the signal strength/distance between the beacon and user to parse	Feb.16	Feb.18	3	Feb. 21	Feb.27	13
6	Jim	R23 - Design and implement the trilateration algorithm to pinpoint user's geolocation on mobile	Feb.16	Feb.25	12	Feb.24	Feb.25	3
7	Jim	R23 - Store the geolocation data on the database	Feb.16	Feb.18	3	Feb.25	Feb.25	1
8	Jim	R23 - Create parse table for geolocations and add this to the ER diagram	Feb.16	Feb.16	2	Feb.25	Feb.25	1
9	David	R26 - Optimize the	Feb.16	Feb.21	4	N/A	N/A	N/A

		application when it is running in the background such that the battery consumption should be low						
10	Justin	R26 - Create a meaningful way to indicate that the user has passed a scout beacon (either as a notification or toast)	Feb.16	Feb.17	3	Feb 16	Feb 17	3
11	David	R38 - Add a homepage to the dashboard such that when logged in the owner is notified of which customers are in their business, and how many points	Feb.16	Feb.20	6	Feb.26	Feb.26	11
12	Jessica	R24 - Implement points algorithm into the mobile application for users to start collecting points	Feb.16	Feb.25	4	B	B	B
13	Jessica	R24 - Users should be rewarded each time he/she visits a specific scout associated store	Feb.22	Feb.24	4	B	B	B
14	Jessica	R24 - Android app should refresh rewards on resume	Feb.16	Feb.19	3	N/A	N/A	N/A
15	Jim	R40 - Prevent users from logging into multiple devices at once	Feb.16	Feb.19	3	Feb.20	Feb.20	2
16	Jim	R40 - Display a meaningful message whenever user fails to login due to active session with another device	Feb.16	Feb.19	2	Feb.21	Feb.21	2
17	Jessica	R30 - Generate a unique QR when adding a reward in the dashboard	Feb.16	Feb.19	4	N/A	N/A	N/A
18	Jessica	R30 - Create a QR activity in Android when a user clicks on a reward for redemption.	Feb.19	Feb.25	6	Feb.20	Feb.26	10

19	Justin	R15 - Use BLE to collect the time the user spent in the store and record this in parse	Feb.19	Feb.25	8	Feb 19	N/D	4
20	Justin	R15 - Display actual parse data on the homepage in a user understandable fashion	Feb.19	Feb.25	6	Feb 19	N/D	1
21	David	R12 - Render the number of new customers for a specific business into a user understandable chart/graph	Feb.18	Feb.25	9	B	B	B

Iteration Plan for Sprint 3 - All

Iteration Plan				**Planned / Estimate**			**Actual**		
Milestone	Assign	Dep	Activity	Start	End	Effort	Start	End	Effort
Iteration 3						62			
1	Jessica		R24 - Beacon Service should implement the observer pattern to notify listeners when a customer has communicated with the beacon, every X seconds.	Mar.2	Mar.7	3			
2	Jessica	1	R24 - Users should be rewarded each time he/she visits a specific scout associated store	Mar.8	Mar.12	4			
3	David		R12 - Render the number of new customers for a specific business into a user understandable chart/graph	Mar.12	Mar.12	6			
4	Jim		R42 - Optional business image should be stored on the dashboard side on registration	Mar.11	Mar.12	2			

5	Jim	4	R42 - Business image should be rendered in the Place's activity for each business	Mar.10	Mar.10	2			
6	Jessica		R41 - UI for places and rewards should be more aesthetically pleasing	Mar.2	Mar.12	5			
7	Jim		R23 - Rework the trilateration algorithm such that meaningful user positions are collected instead of random data.	Mar.4	Mar.5	6			
8	Jim		R40 - Display a meaningful message whenever user fails to login due to active session with another device	Mar. 3	Mar.3	2			
9	Thomas		R35 - Determine a proper JSON representation of the customer data based on Parse.	Mar.2	Mar.5	4			
10	Thomas	9	R35 - Create an API to generate the JSON.	Mar.2	Mar.5	3			
11	Jim		R15 - Use BLE to collect the time the user spent in the store and record this in parse	Mar.12	Mar.13	4			
12	Thomas		R15 - Display time interval data in a meaningful fashion on the business dashboard	Mar.2	Mar.5	6			
13	Justin	10	R35 - Create the heatmap visualization based on the JSON data.	Mar. 5	Mar 10	15			

Updated Release Plan & Requirements Updates

Please view → Requirement Document

Release Plan:

Story ID	User Story	Priority	Story Points	Sprint
1	As a customer, I'd like to sign in and interface with a business using a smartphone application	High	5	1
2	As a customer, I'd like to register for the Scout rewards program using the Scout application on my smartphone	Medium	3	1
4	As a customer, I'd like to be able to view the number of points I have on my smartphone	Medium	3	1
7	As a business owner, I'd like to be able to install BLE sensors to interact with customer smartphones	High	8	1
11	As a business owner, I'd like to be able to add, remove, or edit the list of available rewards for my business	Medium	3	1
12	As a business owner, I'd like to use an online dashboard to view the number of new customers at my store	Medium	3	2
15	As a business owner, I'd like to know how long specific customers have stayed in my business, and how many points such customers have	High	8	3
18	As a customer, I want the mobile app to be responsive, more specifically, the screen to screen transition shall occur in less than one second	Low	5	5
19	As a business owner, I want the web dashboard screen to screen transition to respond in less than one second	Low	5	5
22	As a business owner, I'd like to be able to know a customer's approximate location within a certain radius of the beacon	High	8	3
23	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	High	13	3
24	As a customer, I'd like to be rewarded points for every day I visit a business	Medium	3	3

26	As a business owner, I want the app to run in the background to collect spatio-temporal data	High	8	2
27	As a business owner, I want the average time a customer was in the store to be visible on my dashboard	Medium	2	4
28	As a business owner, I want the total number of points I have given customers to be visible on my dashboard	Medium	2	4
29	As a customer, I would like to be able to sign in to the mobile application	High	2	1
30	As a customer, I want to be able to redeem my points for rewards defined by the business owner via a scannable QR code	Medium	3	2
31	As a business owner, I want to be able to sign in onto an online dashboard	High	5	1
33	As a customer, I want a minimum amount of defects in the mobile app	Low	5	5
34	As a business owner, I want a minimum amount of defects in the web dashboard	Low	5	5
35	As a business owner, I'd like to be able to visually see a heat map of my store, as delineated by the beacons, on the web dashboard	High	21	3
36	As a business owner, I'd like to be able to see the movement of the customers on my dashboard within the heat map	High	21	4
37	As a customer, I'd like a polished, navigable and interactive smartphone user interface	Low	5	5
38	As a business owner, I'd like a polished, navigable and interactive online dashboard user interface	Low	5	5
39	As a business owner, I want to allow users to accumulate 1 point for every 5 consecutive minutes they are in my store	Medium	8	3
40	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	Medium	3	2

41	As a customer, I would like the Android UI to be aesthetically pleasing.	Medium	5	3
42	As a business owner, I would like to store an image of my business, and have it show in the Android app.	Medium	4	3

Release Story Map:

Sprint	Smartphone App	Dashboard	BLE Beacon
1	R1 - As a customer, I'd like to sign in with the business with a smartphone application		
	R2 - As a customer, I'd like to register for the Scout rewards program using my smartphone application		
			R7 - As a business owner, I'd like to be able to install BLE sensors to interact with customer smartphones
		R31 - As a business owner, I want to be able to sign in into an online dashboard	
	R29 - As a customer, I would like to be able to sign in to the mobile application		
		R11 - As a business owner, I'd like to be able to add, remove, or edit the list of available rewards for my business	
	R4 - As a customer. I'd like to be able to view the number of points I have on my smartphone		
2	R26 - As a business owner, I want the app to		

	run in the background to collect the data		
			R38 - As a business owner, I'd like a polished, navigable and interactive online dashboard user interface
	R40 - As a business owner, I would like the ability to prevent users from logging into the same account on multiple phones at the same time		
	R30 - As a customer, I want to be able to redeem my points for rewards defined by the business owner via a scannable QR code		
		R12 - As a business owner, I'd like to use an online dashboard to view the number of new customers at my store	
3		R35 - As a business owner, I'd like to be able to visually see a heat map of my store on the web dashboard	
		R15 - As a business owner, I'd like to know how long customers have stayed in my business, and how many points such customers have	
			R23 - As a business owner, I'd like to utilize the hardware's ability to trilaterate the user's approximate movement within the store

	R24 - As a customer, I'd like to be rewarded points for visiting a business and on a daily basis.		
			R22 - As a business owner, I'd like to be able to know a customer's approximate location within a certain radius of the beacon
	R39 - As a business owner, I want to allow users to accumulate 1 point for every minute they are in my store		
	R41 - As a customer, I would like the Android UI to be aesthetically pleasing.		
		R42 - As a business owner, I would like to store a image of my business, and have it show in the Android app.	
4		R36 - As a business owner, I'd like to be able to see the movement of the customers on my dashboard within the heat map	
		R28 - As a business owner, I want to know the number of points I have given customers visible on my dashboard	
		R27 - As a business owner, I want the average time a customer was in the store to be visible on my dashboard	

5		R34 - As a business owner, I want a minimum amount of defects in the web dashboard	
	R33 - As a customer, I want the minimum amount of defects in the mobile app		
	R18 - As a customer, I want the mobile app's screen to screen transition to respond in less than one second		
		R19 - As a business owner, I want the web dashboard screen to screen transition to respond in less than one second	
	R37 - As a customer, I'd like a polished, navigable and interactive smartphone user interface		
		R38 - As a business owner, I'd like a polished, navigable and interactive online dashboard user interface	

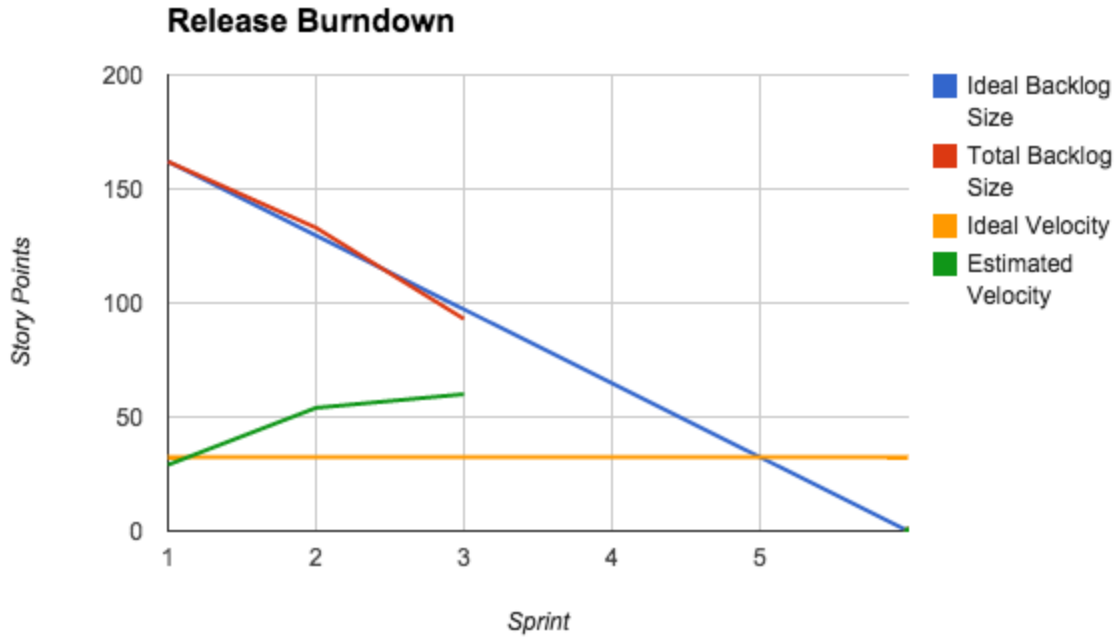
Meeting Minutes

Feb. 27, 2015 Client Meeting

- Demoed dashboard, trilateration, and back-end data(base)
- Discussed trilateration techniques and introduced possibility of 3D trilateration
- Suggested further scalability with the heat map (ie. real time tracking)
- Discussed capabilities bluetooth technology
- Showed Kyle source code

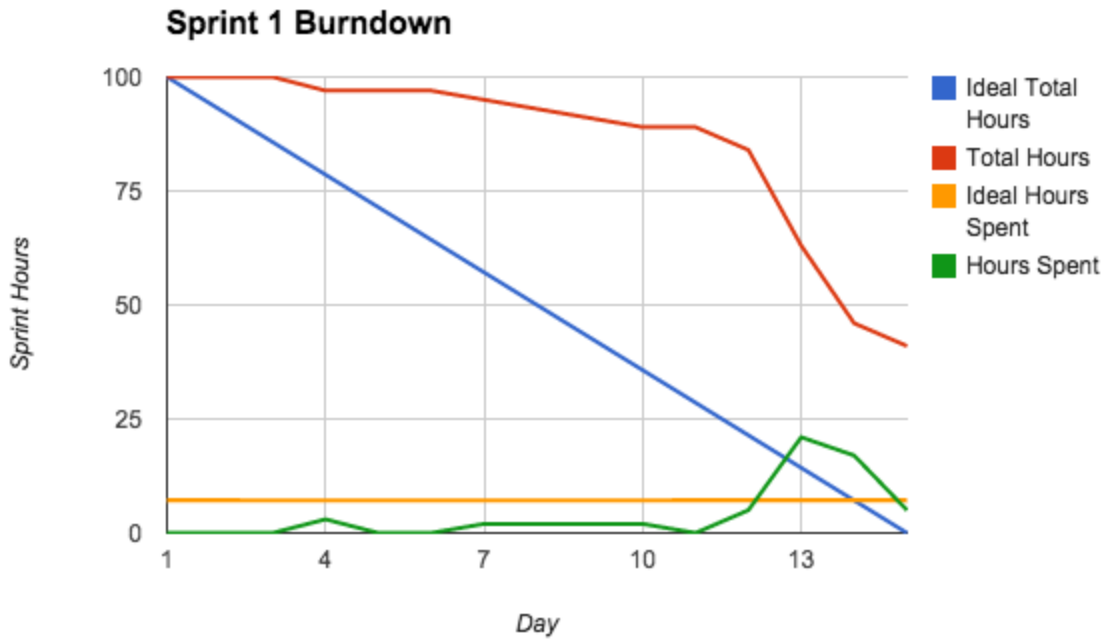
Release burndown chart/data

Release Burndown						
Project	Scout		**Last Updated**		2/12/2015	
Sprint	1	2	3	4	5	6
Sprint Start	1/31/2015	2/14/2015	2/28/2015	3/14/2015	3/28/2015	--
Sprint End	2/13/2015	2/27/2015	3/13/2015	3/27/2015	4/10/2015	--
Ideal Backlog Size	162	129.6	97.2	64.8	32.4	0
Total Backlog Size	162	133	93			0
Ideal Velocity	32.4	32.4	32.4	32.4	32.4	32.4
Estimated Velocity	29	54	60			0
Actual Velocity	29	40				0

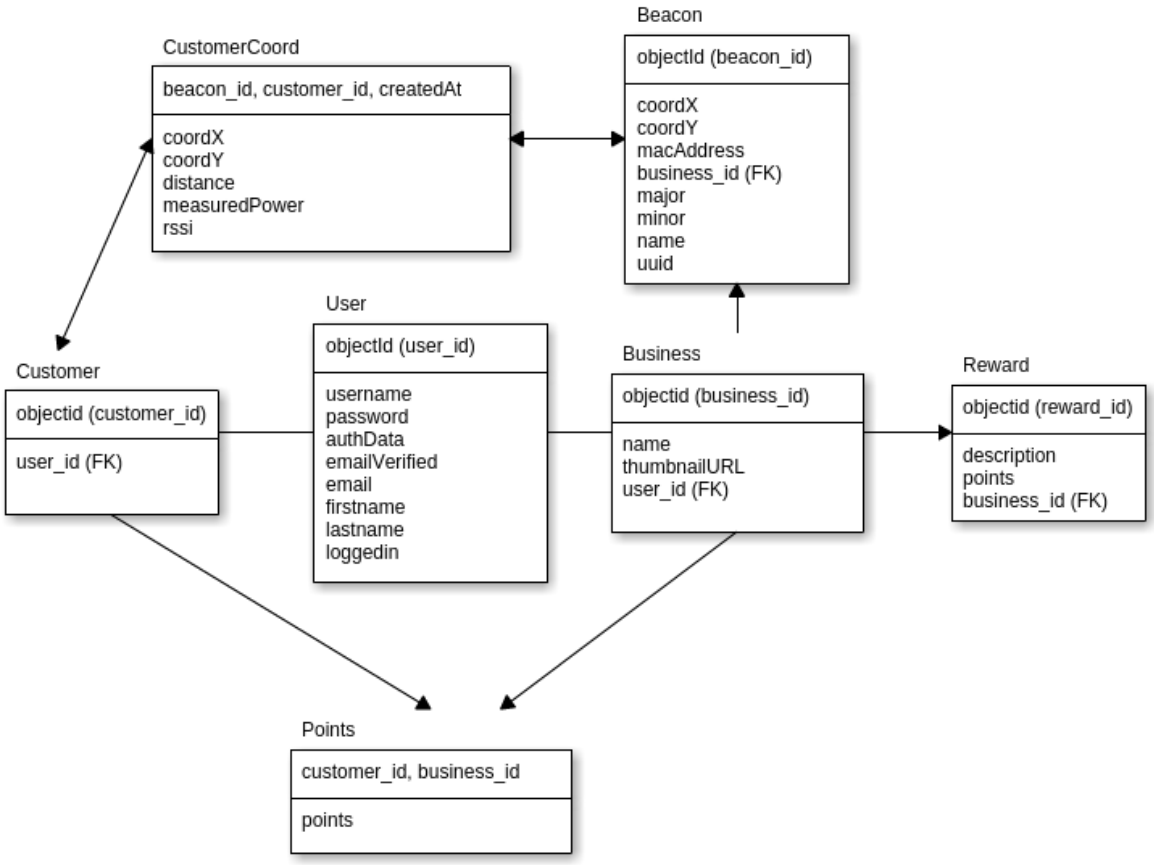


Iteration Burndown chart/data

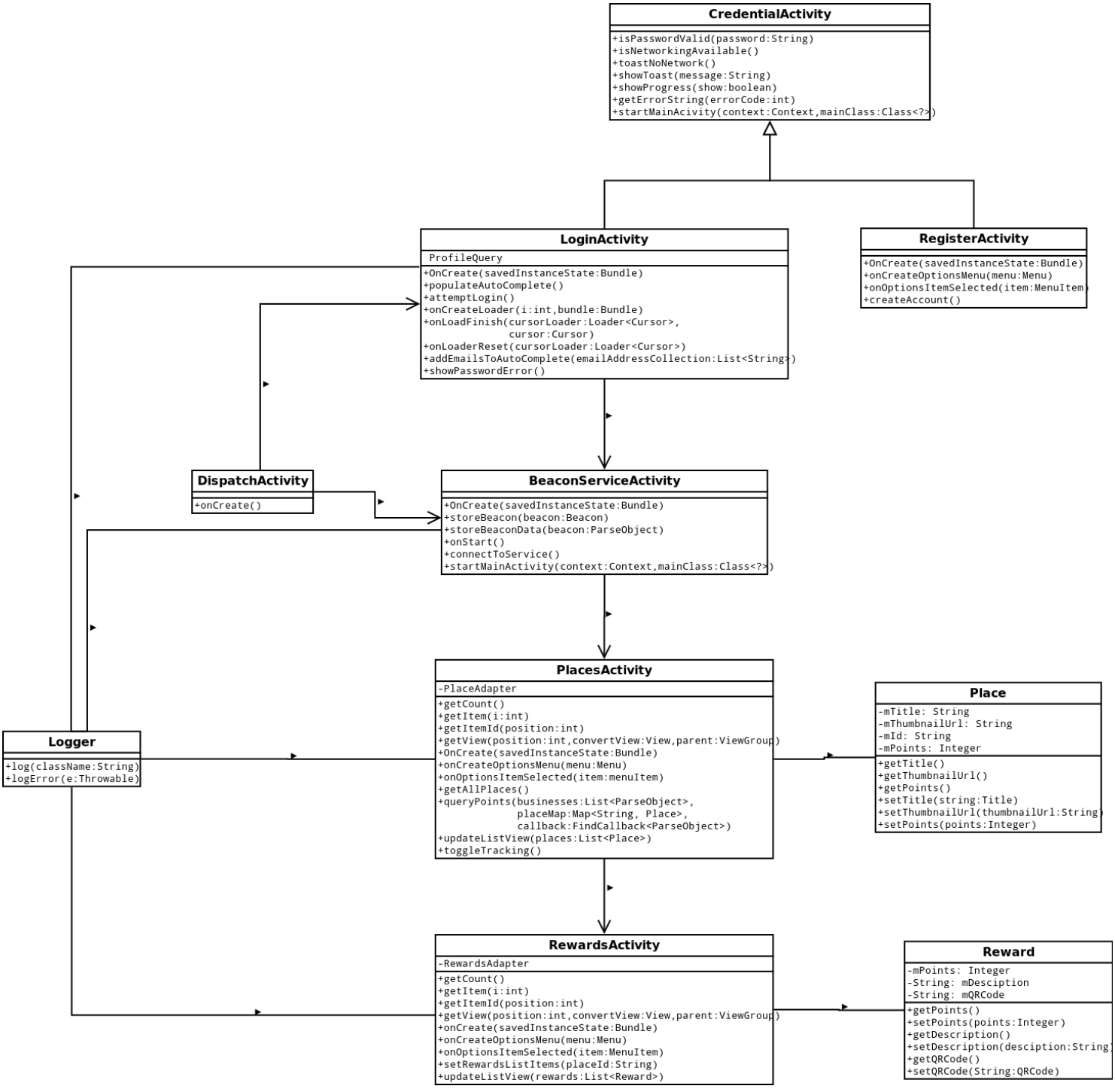
Sprint Burndown															
Sprint		Story Points				Time Period									
1		29				From		2/14/2015			To		2/27/2015		
Date	2/14/2015	2/15/2015	2/16/2015	2/17/2015	2/18/2015	2/19/2015	2/20/2015	2/21/2015	2/22/2015	2/23/2015	2/24/2015	2/25/2015	2/26/2015	2/27/2015	2/28/2015
Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Ideal Total Hours	100	92.857143	85.714286	78.571429	71.428572	64.285715	57.142858	50.000001	42.857144	35.714287	28.57143	21.428573	14.285716	7.142859	0
Total Hours	100	100	100	97	97	97	95	93	91	89	89	84	63	46	41
Ideal Hours Spent	7.14	7.14	7.14	7.14	7.14	7.14	7.14	7.14	7.14	7.14	7.14	7.14	7.14	7.14	7.14
Hours Spent	0	0	0	3	0	0	2	2	2	2	0	5	21	17	5



Architecture - Jessica (ER), Justin (UML)

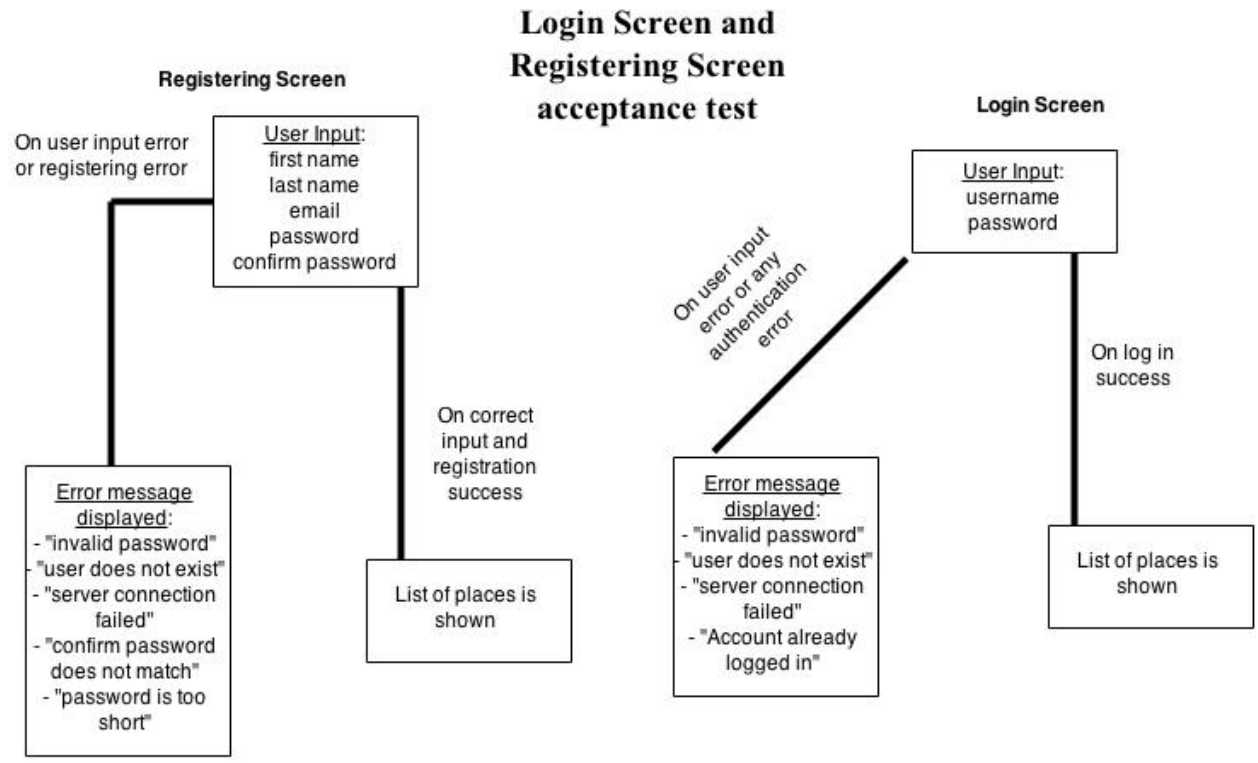


Mobile App UML Diagram



Hi Res Link:
https://raw.githubusercontent.com/jessicayuen/401-Scout/master/docs/v2-uml-mobile.png

Acceptance tests - All



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 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 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.

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)

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

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

Dashboard 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 also then 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.

Android QR Generation Acceptance Testing

Story ID	R18
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).

Unique Login Acceptance Testing

Story ID	R40
Description	As a business owner, I would like the ability to prevent users from logging into the same account on multiple phones at the same time
Set Up	Log into the application under one user and log into the same user using another device

Instructions	Go to the rewards page after login into both devices and fresh the rewards page on the first device logged in.
Expected Results	First device logged in should be displaying the login page since it was forced to log out.

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.

Any management requests/feedback addressed

- Effort is no longer out of 100; more closely reflects actual effort in hours.