

Iteration for Sprint 5

Iteration Plan				Planned / Estimate			Actual		
Milestone	Assign	Dep	Activity	Start	End	Effort	Start	End	Effort
Iteration 5						41			
1	Justin		R37 - Heat map data should be able to be animated and filtered based on a time interval	Mar.28	Apr.1	6			
2	Thomas Justin		R34 - As a business owner, I want a minimum amount of defects in the web dashboard	Mar.30	Apr.6	3			
3	Jessica		R33 - As a customer, I want the minimum amount of defects in the mobile app	Mar.30	Apr.6	3			
4	Jim		R18 - As a customer, I want the mobile app's screen to screen transition to respond in less than one second	Mar.6	Apr.7	2			
5	Jim		R19 - As a business owner, I want the web dashboard screen to screen transition to respond in less than one second	Mar.5	Apr.6	3			
6	Jessica		R37 - As a customer, I'd like a polished, navigable and interactive smartphone user interface	Mar.6	Apr.7	6			

7	David Thomas		R38 - As a business owner, I'd like a polished, navigable and interactive online dashboard user interface	Mar.7	Mar.28	3			
8	Thomas		R46 - Make a script to add mock data to parse database.	Mar.30	Apr.2	4			
9	Jim Jessica		R47 - Make unit tests for mobile application	Mar.29	Apr.5	5			
10	Thomas		R48 - Automate user interface testing for web application	Mar.30	Apr.2	6			

Updated Iteration for Sprint 4

B - blocked

N/A - no longer needed

N/D - not done / partially done

Iteration Plan				Planned / Estimate			Actual		
Milestone	Assign	Dep	Activity	Start	End	Effort	Start	End	Effort
Iteration 4						50			36.5
1	Jim	3	R42 - Optional business image should be stored on the dashboard side on registration	Mar.14	Mar.15	3	Mar.24	Mar.24	1.5
2	Jim	1	R42 - Business image should be rendered in the Place's activity for each business	Mar.14	Mar.15	3	Mar.23	Mar.24	1
3	Jim		R42 - Create and polish up the	Mar.18	Mar.21	4	Mar.24	Mar.25	3

			business profile page						
4	Justin		R36 - Integrate heatmap with actual data	Mar.14	Mar.21	4	Mar.24	Mar.26	10
5	Justin		R37 - Heatmap data should be able to be animated and filtered based on a time interval	Mar.21	Mar.28	6	Mar.24	N/D	N/D
6	Jessica		R33 - Investigate and fix why the Android app is crashing on resume.	Mar.20	Mar.22	3	Mar.24	Mar.24	2
7	Jessica		R45 - User should be given the option to disable Bluetooth tracking.	Mar.18	Mar.20	3	N/A	N/A	N/A
8	Jessica		R37 - Logout button should be synced to logout, and the menu should be on all relevant activities.	Mar.20	Mar.22	2	Mar.24	Mar.24	2
9	Thomas		R15 - Display time interval data in a meaningful fashion on the business dashboard	Mar.15	Mar.17	3	N/A	N/A	N/A
10	Thomas		R44 - Modify the data collected by the service to match how it is displayed on parse database	Mar.18	Mar.23	7	Mar.18	Mar.21	7
11	David		R27 - Utilizing the API that communicates with the Parse backend, create a JSON that	Mar.21	Mar.24	4	Mar.26	Mar.26	2

			calculates the average time a customer is in a store						
12	David		R27 - Display the average time in a meaningful way on the dashboard	Mar.22	Mar.25	4	Mar.26	Mar.26	2
13	Jessica		R37 - Add a splash screen before login with the Scout logo.	March.20	Mar.22	2	Mar.24	Mar.24	1
14	David		R28 - Display number of points per customer in the dashboard	Mar.22	Mar.24	3	Mar.26	Mar.26	2

Updated Release Plan & Requirements Updates

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	8	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
43	As a business owner, I'd like to be able to choose a time interval in which to display the heatmap of my store.	Medium	11	4
44	As a business owner, I would like the service to be collecting user movement and duration data.	High	10	4
45	As a customer, I would like to disable Bluetooth tracking	High	10	4
46	Make a script to add mock data to parse database.	High	5	5
47	Make unit tests for mobile application	High	8	5

48	Automate user interface testing for web application	High	8	5
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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.		
4		R42 - As a business owner, I would like to store a image of my business, and have it show in the Android app.	
		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	
		R43 - As a business owner, I'd like to be able to choose a time interval in which to display the heatmap of my store.	
		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	
	R46 - Make a script to add mock data to parse database.		
	R47 - Make unit tests for mobile application		
		R48 - Automate user interface testing for web application	

Meeting Minutes

Mar. 20, 2015 Dev Meeting

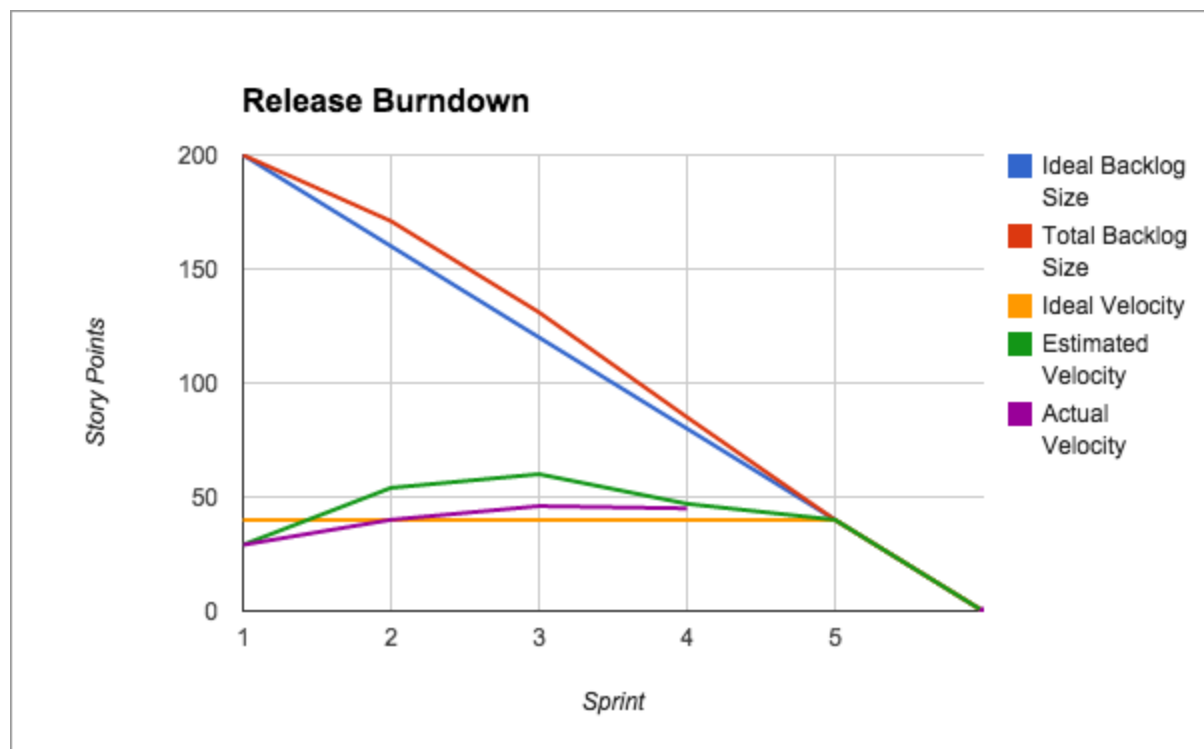
- TA mentioned that unit tests must be provided at the end; suggested Selenium.
- Fix inconsistencies between different Sprint deliverables (i.e. Iteration plan and user stories).

Mar. 27, 2015 Client Meeting

- Live demo of data collection and plotting on Heatmap.
- Demoing of QR code.
- Discussion of potential new data charts.
- Discussion of potential demo approaches.
- Confirmed the focus of next sprint should be on polish and a unified demo.

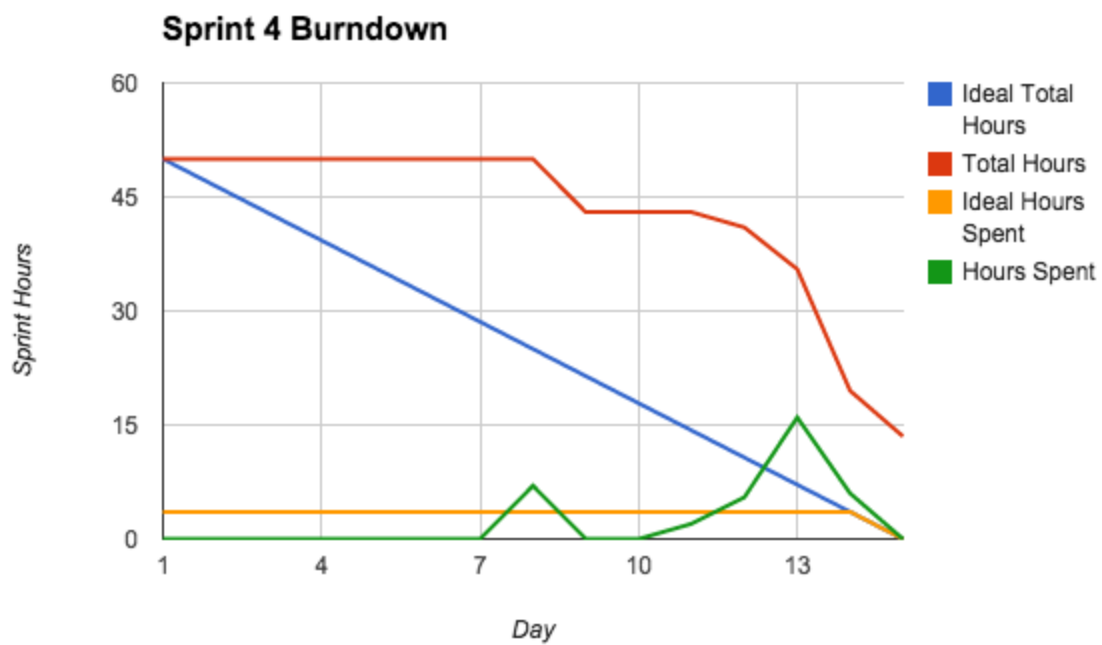
Release burndown chart/data

Release Burndown						
Project	Scout		Last Updated		3/27/2015	
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	200	160	120	80	40	0
Total Backlog Size	200	171	131	85	40	0
Ideal Velocity	40	40	40	40	40	0
Estimated Velocity	29	54	60	47	40	0
Actual Velocity	29	40	46	45	--	0



Iteration Burndown chart/data

Sprint Burndown															
Sprint		Total Hours					Time Period								
4		50					From	3/14/2015			To	3/27/2015			
Date	3/14/2015	3/15/2015	3/16/2015	3/17/2015	3/18/2015	3/19/2015	3/20/2015	3/21/2015	3/22/2015	3/23/2015	3/24/2015	3/25/2015	3/26/2015	3/27/2015	3/28/2015
Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Ideal Total Hours	50	46.43	42.86	39.29	35.71	32.14	28.57	25.00	21.43	17.86	14.29	10.71	7.14	3.57	0
Total Hours	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	43.0	43.0	43.0	41.0	35.5	19.5	13.5
Ideal Hours Spent	3.57	3.57	3.57	3.57	3.57	3.57	3.57	3.57	3.57	3.57	3.57	3.57	3.57	3.57	0.00
Hours Spent	0	0	0	0	0	0	0	7	0	0	2	5.5	16	6	0

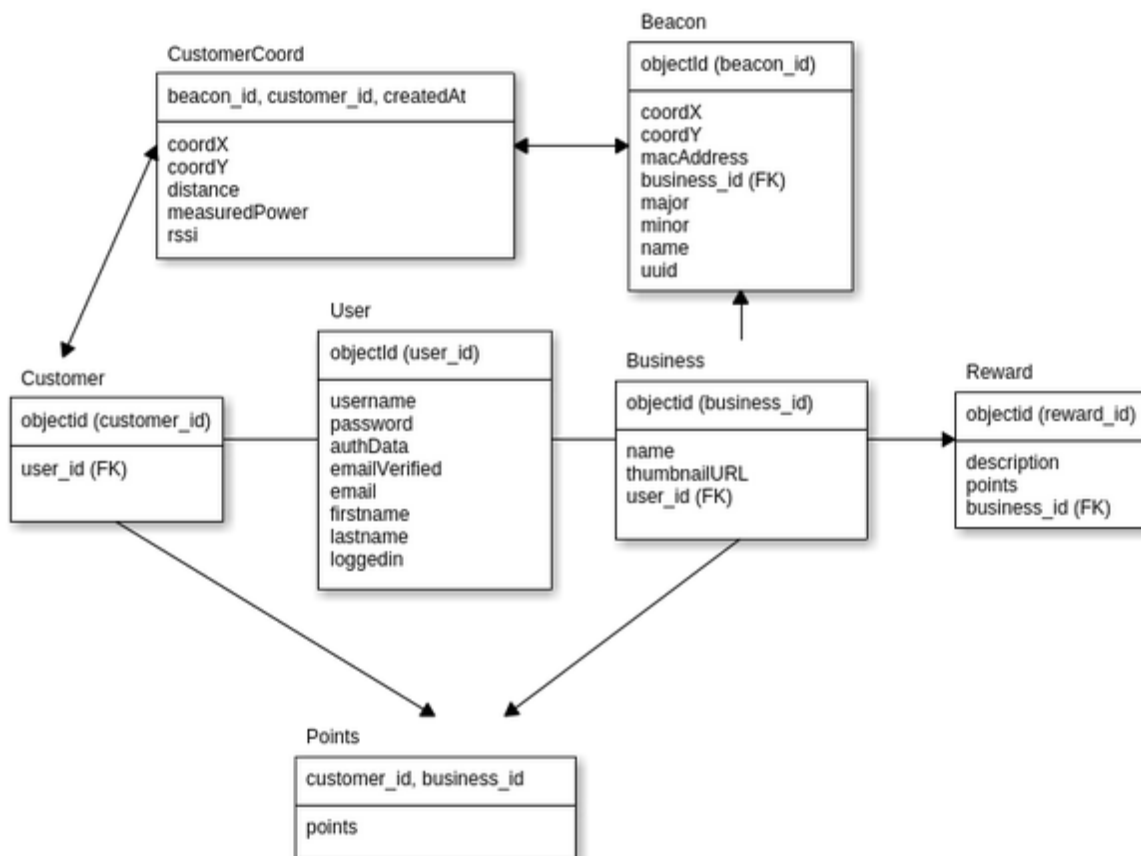


Architecture

ER Diagram

Hi Res Link:

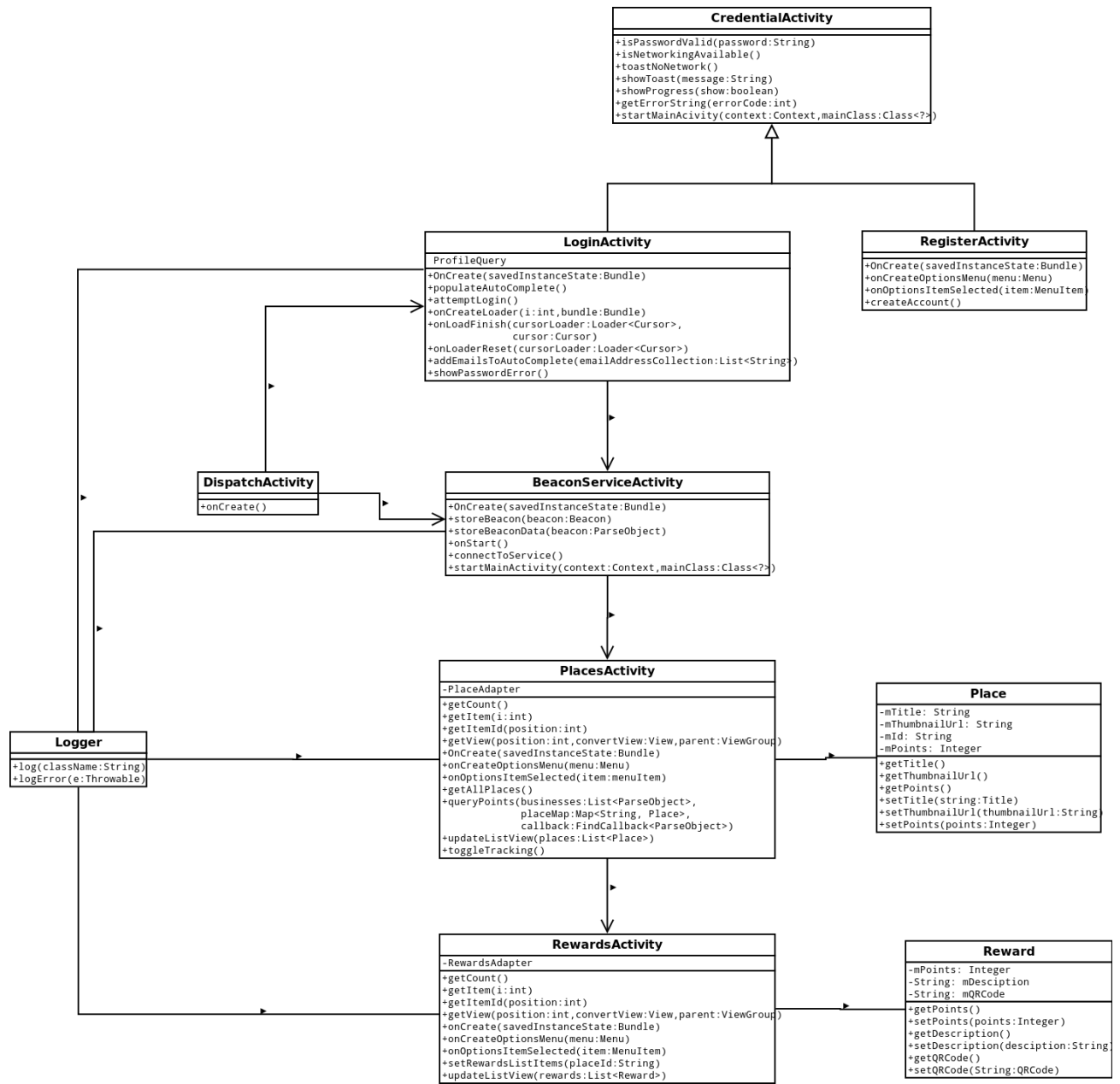
<https://raw.githubusercontent.com/jessicayuen/scout/master/docs/v2-er-diagram.png>



Mobile App UML Diagram

Hi Res Link:

<https://raw.githubusercontent.com/jessicayuen/401-Scout/master/docs/v2-uml-mobile.png>



Acceptance tests

Sprint 5

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	<ol style="list-style-type: none">1. Login in on the home login screen2. Navigate to the heatmap page3. 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

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	<ol style="list-style-type: none">1. Login into the application2. 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	<ol style="list-style-type: none"> 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

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	<ol style="list-style-type: none"> 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.

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 node js supported machine
Instructions	run node mockdata.js

Expected Results	Parse should be populated with mock data
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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.

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

Android Defects Acceptance Testing

Story ID	R33
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Description	As a customer, I want the minimum amount of defects in the mobile app
Set Up	Login to the mobile app
Instructions	<p>Ensure the following are still functional:</p> <ul style="list-style-type: none"> - 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

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.
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Sprint 4

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	<ol style="list-style-type: none"> 4. Login in on the home login screen 5. Navigate to the heatmap page
Expected Results	The page will display a heatmap and display the data in timed intervals

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	<ol style="list-style-type: none"> 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

Dashboard Charts Acceptance Testing

Story ID	R12
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Description	Render the number of new customers for a specific business into a user understandable chart/graph
Set Up	Log into the application
Instructions	<ul style="list-style-type: none"> • Observe the graph • Hover over the points on the graphs
Expected Results	<ul style="list-style-type: none"> • The graph loads and looks good • The points hover is responsive and gives extra details

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	<ol style="list-style-type: none"> 1. Navigate to the dashboard website 2. Log in 3. Press profile page
Expected Results	<p>Profile page should be displayed instead a 404 error.</p> <p>Profile page should have a profile image and it should be editable</p> <p>Profile page should have information regarding the business and all fields should be editable</p>

Android Logout Acceptance Testing

Story ID	R37
Description	A user should be able to logout of the Android app.
Set Up	Log in to the Android app with a valid user.
Instructions	<ol style="list-style-type: none"> 1. Select 'Logout' in the business directory context menu.

Expected Results	The user should be logged out and no longer able to access the places activity.
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Android Toggle Bluetooth Tracking Acceptance Testing

Story ID	R45
Description	A user should be able to toggle a menu button to disable and enable Bluetooth tracking.
Set Up	Log in to the Android app with a valid user.
Instructions	1. Select 'Toggle Bluetooth' in the context menu.
Expected Results	If Bluetooth is disabled, points should no longer accumulate for the current user. Otherwise, points should re-accumulate every minute for the current user.

Android Splash Screen Acceptance Testing

Story ID	R37
Description	Splash screen before Android login.
Set Up	-
Instructions	1. Start the app.
Expected Results	A splash screen should be seen with the Scout logo that lasts for about 1 second before login.

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	<ol style="list-style-type: none"> 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.
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Any management requests/feedback addressed

- Ensured there are no inconsistencies between deliverables.