KASPER – ID4 PROJECT DOCUMENTATION

SOFTWARE DEVELOPMENT TEAM:

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Dev Lead: Kristof Mercier, Dylan Prefontaine

Test Lead: Jeremy Liau

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Test Team: Christopher May (Chris May), Ryan Tetland

Documentation: Arianne Butler

Contents

0.0 Important Links

Slack: https://cmpt371group1.slack.com/messages/C3N24Q5EC/

Trello:

- Front-end: https://trello.com/b/S2XiqLAm/dev-id4-front-end
- Back-end: https://trello.com/b/m9OtfvS1/dev-id4-back-end

Activity Log: https://docs.google.com/spreadsheets/d/1g3CfvlI1erdg2zaHZlVyh6uQ-rYQ6L5Cay0YIn2UETk/edit#gid=0

- Click on the bottom right tab labelled **Individual Activity Log** or the bottom right tab **Activity Log Totals**, for a break down of the activities

GitHub Project: https://github.com/CMPT371Team1/Project

GitHub ID4 Documentation: https://github.com/CMPT371Team1/Documentation

1.0 Requirements Document ID4

1.1 Front-end Requirements

- Form control validation for all remaining pages
- Fix description box in Add Listings
- Display currently added images during upload image process
- Make Favourites page the same style as Browse page
- Get front-end fully integrated with back-end (done, except for Sign Out, Edit Listing, Edit User, and Sign in with Facebook which were moved to ID5)
- Finalize and complete UI flow

1.2 Back-end Requirements

- Email verification
- Logout
- Contact Seller (done in back end only)
- Sign in / Sign up using Facebook (done in back-end only)
- Delete Listing
- Get the front-end fully integrated with the back-end for all API calls (done except message API)
- Get messages/edit messages/contact seller (done in the back-end only)

1.3 Mini Milestones for ID4

Development:
- Integrate the front and back-end ✓
  - o Not done for Sign Out, Edit Listing, Edit User, and Sign-In with Facebook ✗
- Finish messaging in the back-end ✓
- Finish all back-end API calls ✓

Testing:

- Do Peer Review board tasks (as many as possible) ✓
- Manual testing (Browser, Android) ✓
- Remove unused and out-of-date test files ✓
- Automate regression tests ✓
- Create separate configuration files for Firefox and Chrome testing ✓
- Get backend developers to create a test database for testing ✓
- Fix high priority bugs before Bug Party ✓
- Create new Use Cases for ID4, update old ones ✓
- Refactor and update E2E tests ✓
- Testing results and defect report ✓
- Fix smoke tests ✓
- Test matrix update ✓
- Path diagram update ✓
- Testing plan document update ✓
- Hallway Testing ✗
- Acceptance Testing ✗

Build:
- Get broken smoke tests working ✓
- Integrate test server with the build ✓
- Make the build more automated ✓
- Add GitHub release automation ✗
- Add style checking ✗

Documentation:

- Organize, compile, and edit all ID4 documentation ✓

2.0 Time Estimations

Gantt Diagram ID4:
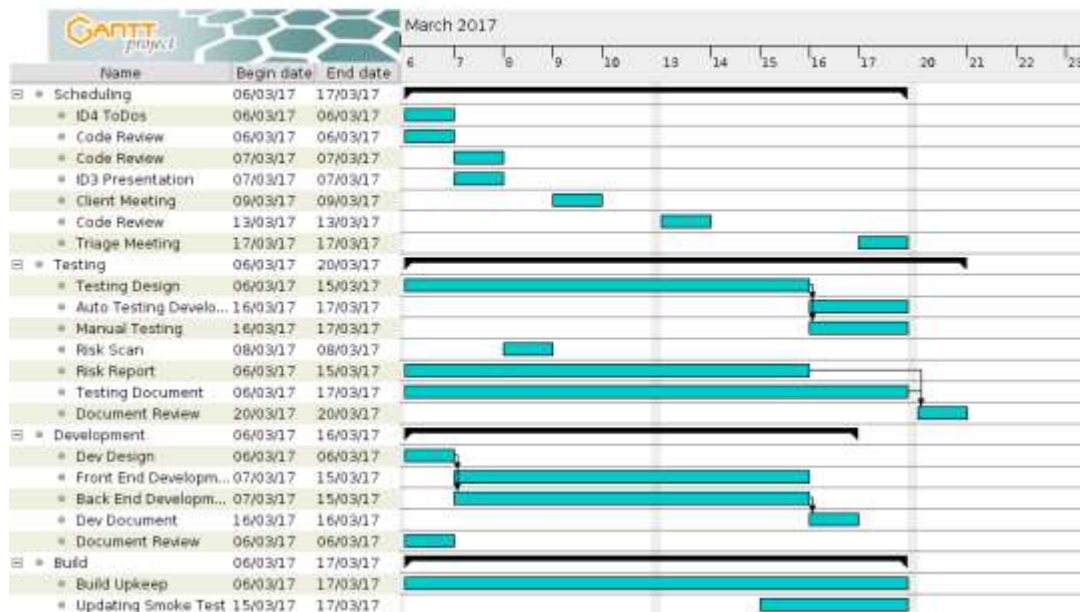
Gantt Diagram ID5:

To see time estimations on all individual tasks, please follow Activity Log link in section 0.0 of this document, and click on the bottom tab right labelled **Individual Activity Log**.

Trello cards contain a coloured label indicating the approximate estimation of each task. These estimates were approximated by the dev team.

The following image shows the colour coded time estimation scale with which each trello card will be rated.

3.0 Design

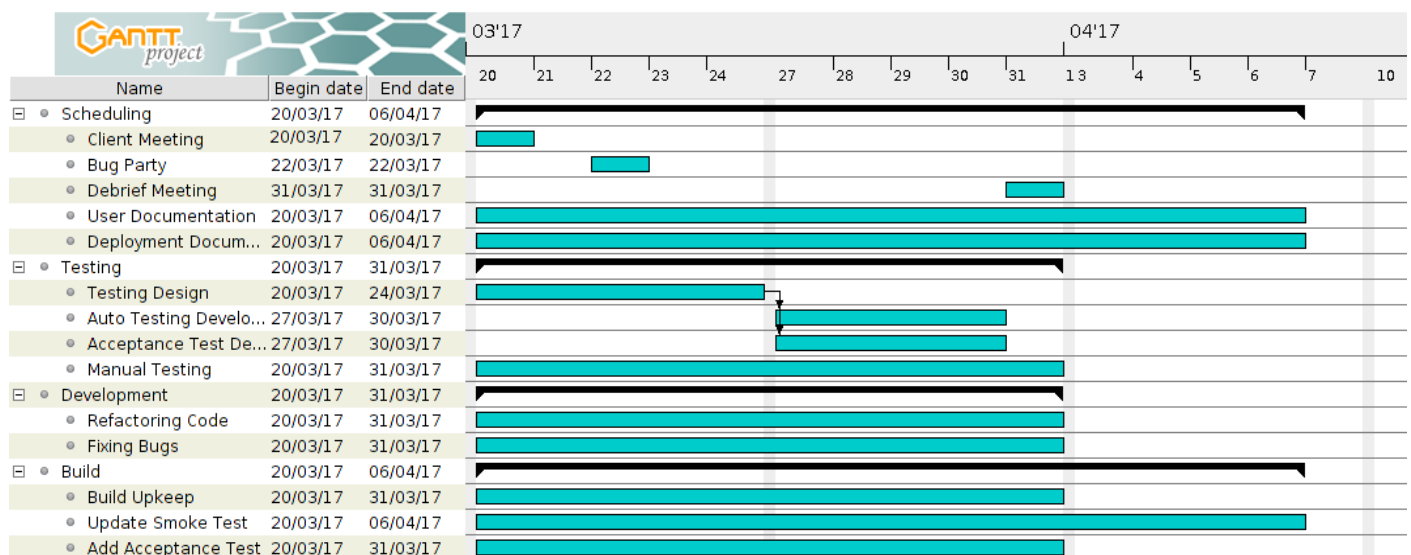## 3.1 API Document

The API document outlines the client server communication of our system. Our project contains a total of 18 API calls (calls to the server), 14 of which are integrated with the front-end. The API calls not yet linked with the front-end are the calls related to Facebook and messages.

Our API calls send a JSON body with relevant data. The server receives, parses, and processes the JSON using the database. When finished, the server will reply to the sender with a token containing the reply status and a JSON body with the requested information. The following link contains our updated ID4 API document and details on the various calls to our database.

Note: We are currently experiencing difficulty with this link. Please copy and paste it into your web browser.

> https://docs.google.com/document/d/1N4jt1_PgxPhXwdc1TcT7TBjFNOZqYO5L10ha3bpO5M8/edit#heading=h.1s skatsa28we

3.2 Development Unit Tests

The procedure to be followed by all developers for writing both front and back-end unit tests respectively, can be found at the following links:

Front-end Guide for Unit Testing:

https://github.com/CMPT371Team1/Project/wiki/Coding-Style-Example-(JavaScript)

Back-end Guide for Unit Testing:

https://github.com/CMPT371Team1/Project/wiki/Coding-Style-Guide-(Python)

4.0 Testing Document

4.1 Test Plan

4.1.1 Test Strategy

Critical Use-Cases ID4:
- Register New User, Filter Listings, Add Listing

Test Matrix:
- A better color system and key were formed for improved readability. A better description was also added to explain the challenges the test team encountered while testing the application both manually and automatically.

Manual Testing (Android and Browser):
- Testing the application on phone devices took priority over testing in the browser, since these are the main platforms our app will run on. Browser testing is mostly limited to End-to-End tests. A log of the manual tests done during ID4 is included in this document.

End-to-end testing:
- Many builds failed this ID, but not due to failing tests. The smoke test was being mistakenly run on the main database, rather than the test database as planned. This took a few days to figure out, and was eventually fixed.

Automated Regression tests:
- Regression tests were automated to check if bugs from previous ID's were re-appearing. So far, only 1 bug has appeared in the regression test: Square feet information is not being saved when saving a Listing without publishing.

Second Bug Party:

- The second bug party is planned for March 22nd /17. We'll be using this as an opportunity to find bugs that were missed by the test team in ID4, and to give an estimation of the remainder of bugs left in the application.

Hallway Testing:

- Testing with random volunteers is being planned for ID5. We'll set up a station and invite people to test our application in order to find bugs that were overlooked. Hallway testing will take place after most of the ID4 bugs have been fixed, and after the second bug party. Our goal is to have this test complete on March 29th /17. This will also help with our Acceptance testing for the external acceptance (Beta) testing of our application.

Acceptance Testing:

- Internal acceptance (Alpha) testing was done by the test team in ID4. Many of the features had major bugs that required fixing, so our goal is to fix these bugs, as well as hold our second bug party to find any others, before attempting the external acceptance test.

4.1.2 Training Requirements

- Testers learned how to run and reset the test database, change static data for easier end-to-end and manual testing, and decrease/increase randomization of users and Listings.
- Code refactoring was a high priority in ID4, so a large amount of time was spent reducing duplicate code using functions, adding better logging messages for easier debugging, and adding expectation statements (Jasmine's version of assertions).
- Testers learned how to install the Jasmine Logger to their local machines, to help them create better logging messages, and to have a better idea of where the code is breaking. This logger was also installed on the continuous integration system.

4.1.3 Documentation

Test Matrix:

Key:

Features	Unimplemented features	Tests	Tests access Features	Tests don't access Features

The Facebook Sign-In feature is currently implemented in the back-end, but not connected to the front-end. Therefore, the testers were unable to test its functionality. Tests shown in orange are high level descriptions. They test both the main success scenario of the functionality, as well as variations in an attempt to break them. A large amount of tests have been automated, but some of them (Browse page swiping, publishing Listings and filtering in the Browse filter page) have been done manually. Automated regression tests have been created to check for previous bugs re-appearing in the application.

	App Sign-In	Facebook Sign-In/Sign-up	Sign-Up	Browse Listings Filter	Publish New Listing	Save W/O Publishing Listing	My Profile/Change Password/Sign out	Browse	Favourites	My Listings
Sign In with existing user	✓	✓					✓			
Add a Listing (Signed In)	✓	✓			✓	✓				✓
Registering a new user		✓	✓							
Cycle listings (Signed In)	✓	✓		✓				✓	✓	✓
Edit account information	✓	✓	✓				✓			
Register an existing user		✓	✓							
Invalid Sign-In credentials	✓	✓								
Change account password	✓	✓	✓				✓			
Like/Dislike a listing(own listing, or other user's listing)	✓	✓		✓				✓	✓	✓

	App Sign-In	Facebook Sign-In/Sign-up	Sign-Up	Browse Listings Filter	Publish New Listing	Save W/O Publishing Listing	My Profile/Change Password/Sign out	Browse	Favourites	My Listings
Weak password given		✓	✓							
Navigation while signed-in				✓	✓	✓	✓	✓	✓	✓

Navigation while not signed-in	🟩	🟩	🟩	🟩	⬜	⬜	⬜	🟩	⬜	⬜
Edit Favourites	🟩	🟩	⬜	⬜	⬜	⬜	⬜	⬜	🟩	⬜
Delete Listing	🟩	🟩	⬜	⬜	⬜	⬜	⬜	⬜	🟩	🟩

4.1.4 Schedule

ID1:
Testing was mostly done manually on the front end of the application. The test team began creation of automated tests using Protractor. Tests and functionality were recorded in the test matrix, and all bugs were listed in detail in the defect report.

ID2:
The Test Team attempted to integrate automated end-to-end tests with TravisCI, updated the defect report, updated the flow charts to better reflect the new requirements/current state of the system, and re-created, simplified, and updated the test matrix.

ID3:
The first bug party was held. Continued updating of the test matrix, defect report, and flow charts was practiced. Testing on Android devices was successful, and brought new defects to the defect report which were unique to device use. The test matrix was updated much more thoroughly, with a better description of the state of our tests. End-to-end tests had to be updated once again, due to the changes in the front-end, and other requirements changes. The flow charts also changed significantly, showing access to new functionality and areas of the program not previously implemented. Protractor was successfully integrated with TravisCI, which was an issue we were having in ID2.

ID4:
Large amounts of testing have been done on the features that were previously unimplemented/bugged in ID3. Favourites page, Like/Dislike functionality, browsing, filtering, and publishing Listings were the main focus of testing. Many bugs were found, and the high priority ones were fixed quickly by collaborating with the developers. Some bugs still remain in the application, and will continue to be fixed throughout ID5. A better logging system was installed onto the project for easier debugging. A test database was created to replace testing on the actual database. This test database resets whenever we require it to, which helps with recreating bugs and cleaning out the system after playing around with user registration, listing creation, and saving information to a user, such as liked/disliked listings and profile information.

ID5:
- The second bug party has been planned for March 22nd
- Hallway testing is planned for March 29th
- Regression tests will be updated to ensure no bugs are re-introduced
- Polishing the application will be a high priority for this ID. Our goal is to eliminate as many bugs as possible, starting with the most critical ones

4.2 Manual Test Report

March 6th – 13th (Random manual tests during development)

Testers: Jeremy, Ryan, Chris May

Bugs Found:

- Liking/Disliking a listing by swiping on Browse page breaks cycling of listings on Listing details page
- Cannot remove listings from Favourites page
- Save button on My Profile page not functioning
- Sign-out button on My Profile page not functioning
- [App design] Add Edit button for Favourites/My Listings to display edit/delete listing options

March 14th (Bug fixing with developers):

Testers: Chris May

Bugs found:

- Province abbreviation is not being displayed on listing details
- Using filters while not signed in will result in an userID error

March 16th (During test team meeting after development phase):

Testers: Jeremy, Ryan, Chris May

Bugs found:

- App is creating a white screen, HTML code has an error
- Liking/Disliking a listing from the detailed listing page that is already in your favourites list gives a runtime error
- Bathroom filter stops functionality of other filters
- Add Listing page: Cannot publish listings
- Disliking a listing results to the listing being added to the user's favourites list
- Square feet information is not being saved when saving a listing without publishing
- Browse Page: Liking/Disliking should reset the listing to the default position when an error message is given
- Browse page should not be displaying listings already liked/disliked by the user. A refresh is required
- No warning is given when attempting to publish a listing without an image

March 17th (While fixing smoke tests)

Testers: Jeremy, ChrisMR

Bugs found:

- Immediately after registering a new user, pressing the My Profile button will redirect to Sign-in page
- Smoke tests aren't using the test database. Must switch from main database to test database.
- End-to-end tests are using main database users, which do not exist in the test database. Changing tests to use test users.

March 18th (During bug fixing session):

Testers: Jeremy, Tushita

Bugs found:

- Cannot delete published listing and saved unpublished listing by user
- Cannot publish a saved unpublished listing
- Cannot save edited changes to a saved unpublished listing
- [App design] Need a deletion confirmation when attempting to delete a listing (in Favourites and My Listings pages)
- [Regression] Square feet information is not being saved when saving a listing without publishing

4.3 Defect Report

Bugs which were not fixed during ID3:

Bug:	Like/Dislike on "Browse" page breaks cycling of Listings on details page
Reproducibility:	100%
Steps taken:	I. Like/Dislike any listing by swiping on the "Browse" page II. View detailed information of any listing, and attempt to cycle listings with arrow buttons
Variations:	None
Resolved:	Yes
Screenshot:	None

Bug:	Pop-up saying a list was liked or disliked pops up multiple times per swipe
Reproducibility:	100%
Steps taken:	I. Like/Dislike a listing on Browse page by swiping, either direction
Variations:	Swipe left for reproducing dislike pop-up Swipe right for reproducing like pop-up
Resolved:	Yes
Screenshot:	None

Bug:	While signed in to any account, being on the "My Profile" tab and selecting "My Profile" tab again will show the sign-in screen.
Reproducibility:	100%
Steps taken:	I. Sign in on any account II. Navigate to "My Profile" tab III. Select "My Profile" tab
Variations:	None
Resolved:	Yes
Screenshot:	None

Bug:	Liking/Disliking a listing on the Listing's detailed info page doesn't remove it from the list
Reproducibility:	100%
Steps taken:	I. Navigate to detailed info page of any listing II. Like/Dislike the listing
Variations:	Liking/Disliking on the "Browse" page correctly removes the listing.
Resolved:	Yes

Screenshot:	None

Bug:	Selecting a listing on the "Browse" page allows the user to navigate to the "My Listings tab" without being required to sign in first
Reproducibility:	100%
Steps taken:	I. Select any listing on the "Browse" page to navigate to the detailed info page II. Navigate to "My Listings" tab
Variations:	None
Resolved:	Yes
Screenshot:	None

Bug:	No error prompt when login information is incorrect
Reproducibility:	100%
Steps taken:	I. Navigate to "Sign In" page II. Attempt to sign in with invalid credentials
Variations:	None
Resolved:	Yes
Screenshot:	None

Bug:	Provinces in My Profile not properly aligned
Reproducibility:	100%
Steps taken:	I. Navigate to My Profile tab while signed in
Variations:	None
Resolved:	Yes
Screenshot:	None

Bug:	[Android] In "My Listings", Add Listing button is incorrectly on top right corner instead of top left
Reproducibility:	100%
Steps taken:	I. Select "Register Here" on "My Profile" tab II. Select on any input field
Variations:	None
Resolved:	Yes
Screenshot:	None

Bug:	[Android] While registering new user, input fields scroll out of view while typing
Reproducibility:	100%
Steps taken:	I. Select "Register Here" on "My Profile" tab II. Select on any input field
Variations:	None
Resolved:	No
Screenshot:	None

Bug:	Slide bars change size when switching from numbers to "No max" or "No min"
Reproducibility:	100%
Steps taken:	I. Navigate to filter screen and move slide bars to boundaries
Variations:	None
Resolved:	No
Screenshot:	None

Bugs found during ID4:

Bug:	Browse Page doesn't repopulate listings after disliking/liking
Reproducibility:	100%
Steps taken:	I. Like/Dislike listings on the Browse page (Listings must not already be in

	Favourites list of user)
Variations:	None
Resolved:	Yes
Screenshot:	None

Bug:	Immediately after registering a new user, pressing the My Profile button will redirect to Sign in page
Reproducibility:	100%
Steps taken:	I. Register a new user II. Press the My Profile tab
Variations:	None
Resolved:	Yes
Screenshot:	None

Bug:	Browse Page: Liking/Disliking should reset the listing to the default position when an error message is given
Reproducibility:	100%
Steps taken:	I. Swipe left or right on any listing in the Browse page while not signed in.
Variations:	Attempt to like/dislike own listing while signed in (Should not be allowable in the first place, but still accessible from My Listings page)
Resolved:	Yes
Screenshot:	None

Bug:	Browse page should not be displaying listings already liked/disliked by the user. A refresh is required.
Reproducibility:	100%
Steps taken:	I. Sign in, and like/dislike listings on a user. II. "Sign out" (refresh the page). Sign back in to the same user. Browse page will contain listings already disliked/liked.
Variations:	None
Resolved:	Yes
Screenshot:	None

Bug:	Browse page should not be displaying listings already

	liked/disliked by the user. A refresh is required.
Reproducibility:	100%
Steps taken:	I. Sign in, and like/dislike listings on a user. II. "Sign out" (refresh the page). III. Sign back in to the same user. IV. Browse page will contain listings already disliked/liked.
Variations:	None
Resolved:	Yes
Screenshot:	None

Bug:	Cannot remove listings from Favourites page
Reproducibility:	100%
Steps taken:	I. Attempt to remove any listing from favourite's page. II. Leave the favourites page. III. Re-navigate to the favourite's page. IV. The listing will re-appear.
Variations:	None
Resolved:	Yes
Screenshot:	None

Bug:	Liking/Disliking a listing by swiping on Browse page breaks cycling of listings on Listing details page
Reproducibility:	100%
Steps taken:	I. Swipe a listing on the Browse page in any direction. II. Move to details page of any listing. III. Attempt to cycle listings using arrow buttons.
Variations:	None
Resolved:	Yes
Screenshot:	None

Bug:	Disliking a listing results to the listing being added to the user's favourites list
Reproducibility:	100%
Steps taken:	I. Dislike any listing. II. Navigate to Favourite's list to find it there.
Variations:	None
Resolved:	Yes
Screenshot:	None

Bug:	Province abbreviation is not being displayed on Listing details page
Reproducibility:	100%
Steps taken:	I. Sign in to any account with a listing (or create one). II. Navigate to the listing details page. III. Abbreviation info is missing.
Variations:	None
Resolved:	Yes
Screenshot:	None

Bug:	Bathroom filter stops functionality of other filters
Reproducibility:	100%
Steps taken:	I. Set bathroom filter min and max to anything. II. Apply the filter.
Variations:	I. Before using the bathroom filter, all other filter functionality works. II. After using the bathroom filter, other filter functionality stops working. III. After applying the bathroom filter, any

	previous filter that had been used stays used until the bathroom filter is reset.
Resolved:	Yes
Screenshot:	None

Bug:	Add Listing page: Cannot publish listings
Reproducibility:	100%
Steps taken:	I. Attempt to publish a listing
Variations:	None
Resolved:	Yes
Screenshot:	None

Bug:	Square feet information is not being saved when saving a listing without publishing
Reproducibility:	100%
Steps taken:	I. Save a listing without publishing, including the square feet information. II. Navigate to the detailed info page of the listing. Square feet is always 0.
Variations:	None
Resolved:	No
Screenshot:	None

Bug:	Liking/Disliking a listing from the detailed listing page that is already in your favourites list gives a runtime error
Reproducibility:	100%
Steps taken:	I. Like/Dislike any listing that is already in your favourites list.
Variations:	None
Resolved:	No
Screenshot:	None

Bug:	Save and sign-out buttons on My Profile page are not functioning

Reproducibility:	100%
Steps taken:	I. Attempt to save any changes made to user info while logged in, attempt to sign out the user
Variations:	None
Resolved:	No
Screenshot:	None

Steps taken:	I. Edit an unpublished listing II. Change any information about the listing III. Attempt to save without publishing
Variations:	None
Resolved:	No
Screenshot:	None

|	
Bug:	No warning is given when attempting to publish a listing without an image
Reproducibility:	100%
Steps taken:	I. Attempt to publish a listing without an image
Variations:	None
Resolved:	No
Screenshot:	None

Bug:	Cannot delete published, and saved unpublished listings by user
Reproducibility:	100%
Steps taken:	I. Create a new listing II. Attempt to delete the listing made by the user
Variations:	None
Resolved:	No
Screenshot:	None

|	
Bug:	Cannot publish a saved unpublished listing
Reproducibility:	100%
Steps taken:	I. Create a new listing, save but don't publish it. II. Edit the listing, and attempt to publish it
Variations:	None
Resolved:	No
Screenshot:	None

Bug:	Cannot save edited changes to a saved unpublished listing
Reproducibility:	100%

4.4 State Transition Diagrams

4.4.1 Filter, Browse and Favourites screen diagram. Google Maps has been cut from implementation by the development team due to time constraints. Deletion confirmation will be added during ID5.
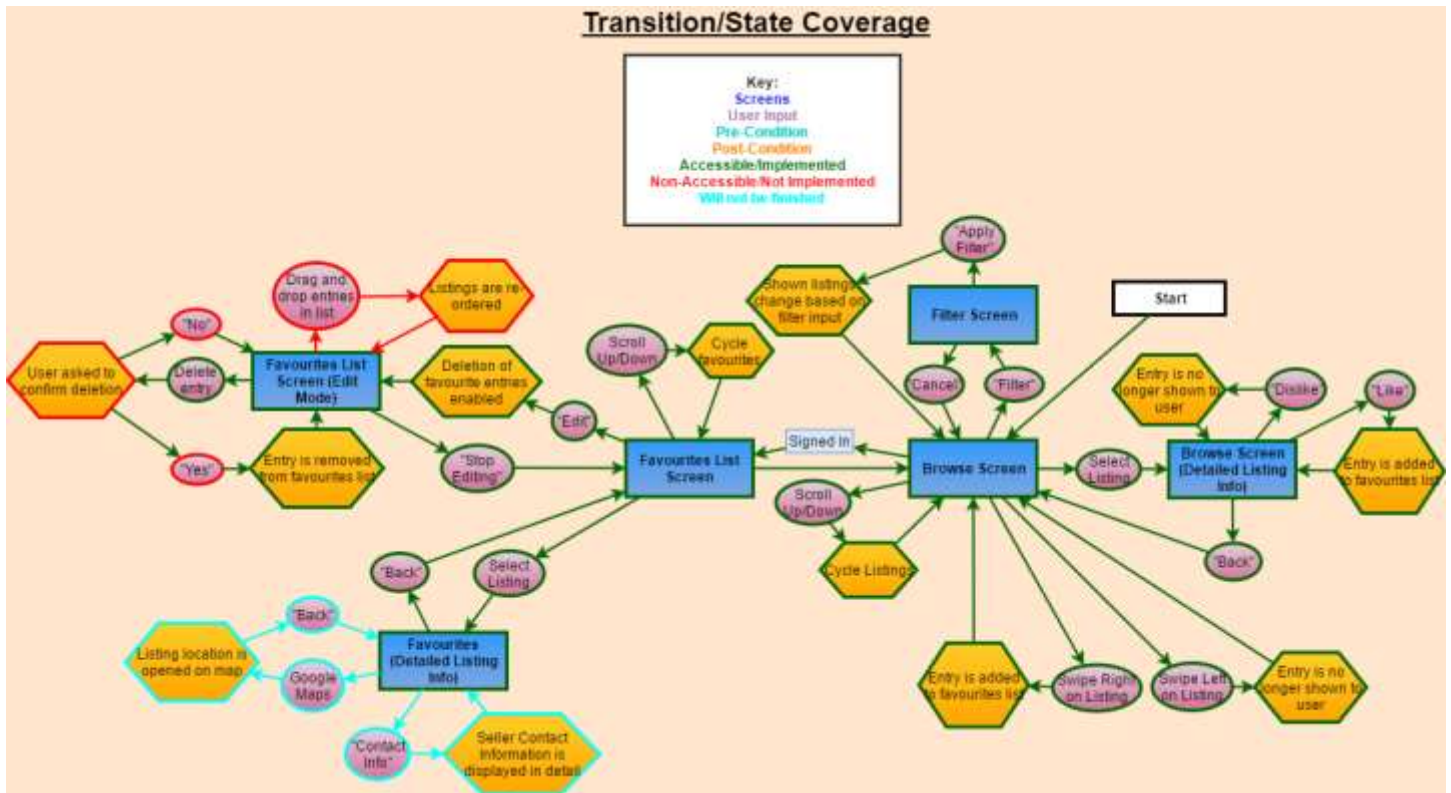
4.4.2 Sign-In, Sign-Up, My Profile, My Listings screen diagram. Sign-out and Save user information changes are currently bugged. Front-end of Facebook log-in has not been connected with back-end implementation, but may be feasible for ID5. Confirmation of deletion of own listings will be added in ID5.
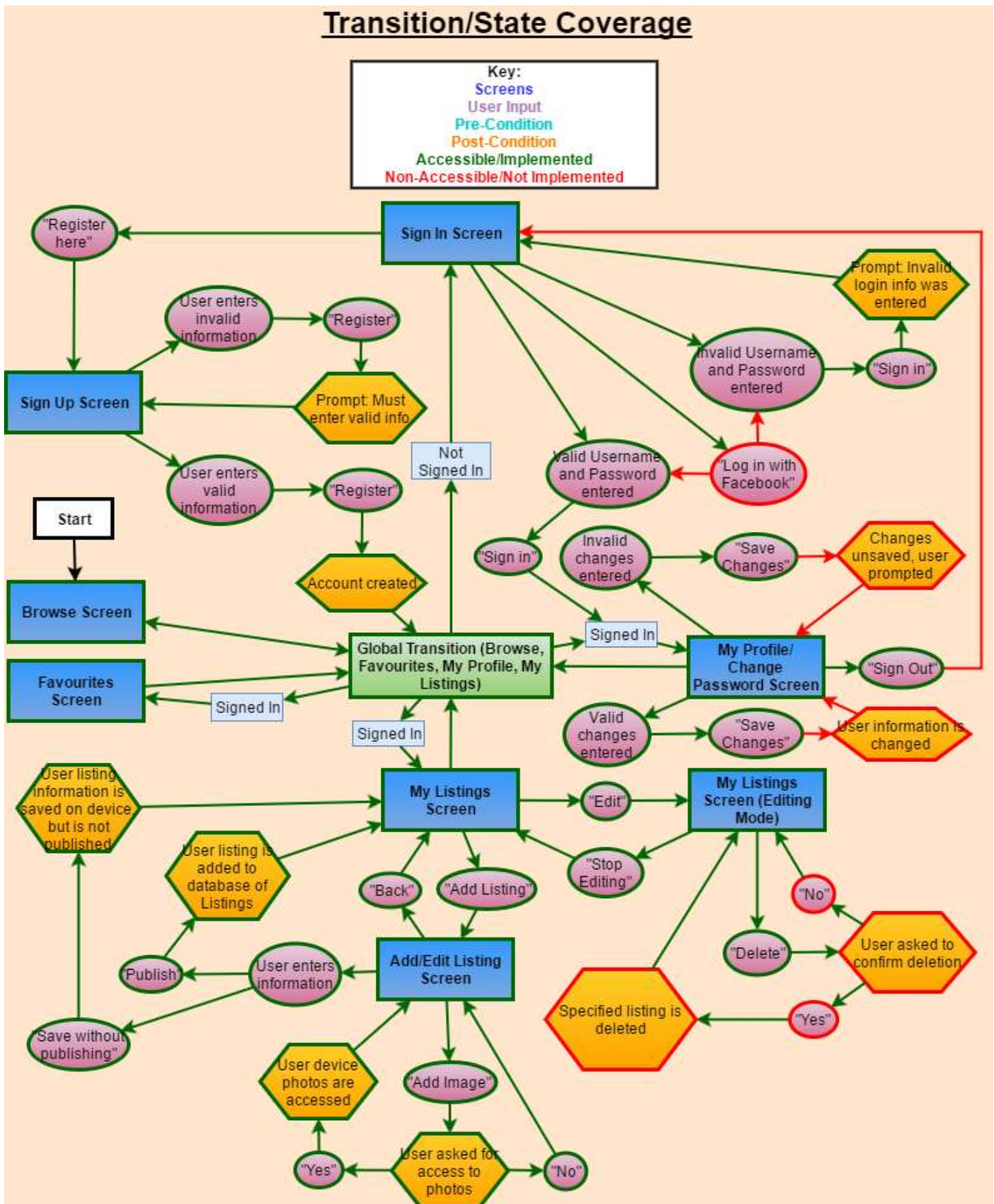
4.5 Critical Use Cases

The following critical use cases outline the low-level details of the most important features of our application.

Use Case Component	Description
Use Case Name	ID4: Attempt to register a new user
Primary Actor	New User
Pre-conditions	At entry point of app, on main browse screen
Success End Conditions	Either the new user is added to the database or it is identified that the e-mail is already in the database
Failed End Conditions	User is not registered
Main Success Scenario A: Actor S: System	I. A: Selects "My Profile" tab II. A: Selects "Register Here" button III. A: Inputs "testEmail@email.ca" in email field IV. A: Inputs "Password123" in password field V. A: Inputs "Password" in confirm password field VI. A: Selects "Next" button VII. S: Moves to next info screen VIII. A: Inputs "John" in first name field IX. A: Selects "Smith" in last name field X. A: Selects "3065551234" in phone number field XI. A: Selects "Next" button XII. S: Moves to next info screen XIII. A: Selects "Province" drop down list and selects "Alberta" XIV. A: Selects "OK" button XV. A: Inputs "Edmonton" into city field XVI. A: Clicks "finish" button XVII. S: Adds the new user to database if it is not already
Extensions	III. A: Inputs "wrongFormatEmail" into email field. Should fail. IV. A: Inputs "weakpassword" into password field. Should fail. IV. A: Inputs "NotMatchingPassword123" into password field A: Inputs "DifferentPassword123" into confirm password field. Should fail. X. A: Inputs "306555" into phoneNumber field. Should fail.
Priority	Critical
Response Time	< 1 second

Notes	The user is will only be registered if the specific test email has not already been used. If it has been used, it will be tested in the next part of the tests to make sure it can be logged into.

Use Case Component	Description
Use Case Name	ID4: Filter Listings
Primary Actor	Browser (Can be signed in, or not signed in)
Pre-conditions	On "Browse" page
Success End Conditions	Listings on "Browse" page are filtered to specifications provided
Failed End Conditions	Listings on "Browse" page are not filtered to specifications provided
Main Success Scenario A: Actor S: System	I. A: Selects "Filter" button II. A: Selects "Provinces" drop down III. A: Selects "Yukon" and selects the "OK" button IV. A: Drags the "Price" slider between "100 000 and 1 300 000" V. A: Drags the "Square feet" slider between "100 and 10 000" VI. A: Drags the "Bedrooms" slider between "2 and 8" VII. A: Drags the "Bathrooms" slider between "3 and 7" VIII. A: Selects the "Apply Filter" button IX. S: Displays the listings from the database within the filter criteria
Extensions	I. - VIII. A: Selects Cancel Button I. – VIII. A: Clicks outside of Filter pop up I. – VIII. A: Apply filters using no specifications
Priority	Critical
Response Time	< 1 second
Notes	

Use Case Component	Description
Use Case Name	ID4: Add Trailer Listing in Saskatchewan
Primary Actor	Seller
Pre-conditions	User is logged in
Success End Conditions	Listing is added to "Browse" page
Failed End Conditions	Listing is not added to "Browse" page
Main Success Scenario A: Actor S: System	I. A: Selects "My Listings" tab II. A: Selects "+" button to add a listing III. A: Selects "Province" dropdown list IV. A: Selects "Saskatchewan" province field V. A: Selects "OK" button VI. A: Inputs "Saskatoon" in city field VII. A: Inputs "123 First Street East" VIII. A: Inputs "fls 9u8" into Postal Code field IX. A: Inputs "130000" into price field X. Inputs "600" in Sq. Feet field XI. A: Inputs "5" in Bed Rooms field XII. A: Inputs "2" in Bath Rooms field XIII. A: Inputs "Nice trailer with a little dust. Fixer upper." XIV. A: Adds 1 Image to images XV. A: Selects "Publish" XVI. S: Attempts to Adds the listing to database
Extensions	
Priority	Critical
Response Time	< 1 second
Notes	Disallow < 0 in Price, Bedroom, Bathroom, Sq. Ft fields. Uploading images can only be done on mobile device.

Use Case Component	Description
Use Case Name	ID4: changing info of existing user
Primary Actor	User
Pre-conditions	User is already signed in
Success End Conditions	User's information has been saved to server
Failed End Conditions	User's information has not been saved
Main Success Scenario A: Actor S: System	• A: Selects: "My Profile" tab • A: Inputs "test1@test.com" in email field • A: Inputs "Tester #1" in First Name field

	• A: Inputs "Lastname" in last name field • A: Inputs "3633126691"Primary Phone field • A: Inputs "3065551234" secondary phone number field • A: Selects "Saskatchewan" in Province dropdown list • A: inputs "Smith" into lastname field • A: inputs "3065551234" into phoneNumber field • A: Selects "Province" province drop down list • A: Inputs "Saskatoon" in city field • A: clicks notifications button • A: clicks "Save" button • S: saves the new user information to the database
Extensions	
Priority	Critical
Response Time	< 1 second
Notes	-The notification button is not yet implemented

Regression Test	Description
Regression Test Name	ID4: Regression test: Functionality while not signed in: Using Browse and Filter functionality allows a non-logged-in user to use "My Profile", "My Listings", or "Favourites pages".
Primary Actor	Browser
Pre-conditions	User is not signed in, on the Browse page
Success End Conditions	The user is unable to access sign-in required functionality
Failed End Conditions	The user has access to sign-in only functionality
Main Success Scenario A: Actor S: System	I. A: Accesses a Listing on the "Browse" page, going to the detailed listing page II. A: Moves to "My Listings" III. S: The page notifies the user that signing-in is required to access the "My Listings" functionality
Extensions	Upon failure, the user has full access to sign-in only functionality.
Priority	Critical
Response Time	< 1 second
Notes	

Regression Test	Description
Regression Test Name	ID4: Regression test: Functionality while not signed in: "Confirm Password" field on register page allows incorrect matches.
Primary Actor	Browser
Pre-conditions	User is not signed in
Success End Conditions	The user is not allowed to get past the registration page without first specifying a valid password match.
Failed End Conditions	The user is able to continue registration
Main Success Scenario A: Actor S: System	I. A: Selects "My Profile" page II. A: Selects "Register" button III. A: Enters "test@test.com" into email field IV. A: Enters "Password123" into password field V. A: Enters "Password1234" into confirm password field VI. S: Prompts the user that the password and confirm password fields do not match
Extensions	Upon failure, the user is capable of registering a user that has incorrectly confirmed their password.
Priority	Critical
Response Time	< 1 second
Notes	

Regression Test	Description
Regression Test Name	ID4: Regression test: Functionality while not signed in: Multiple "My Profile" tab clicks removes all UI from the page
Primary Actor	Browser
Pre-conditions	User is not signed in
Success End Conditions	The "My Profile" page still has functionality, is not white/black screened, and DOM elements are not missing.
Failed End Conditions	The user sees a white/black screen on the "My Profile" page
Main Success Scenario A: Actor S: System	I. A: Repeatedly presses the "My Profile" global tab II. S: The system does nothing.
Extensions	Upon failure, the "My Profile" page turns white/black, losing all functionality. The user is still able to traverse to other tabs, which retain their functionality. No error is given to

	the user. The only way to revert the problem is to refresh the page.
Priority	Critical
Response Time	< 1 second
Notes	

Regression Test	Description
Regression Test Name	ID4: Regression test: Functionality while signing in: Test if a prompt is given after an incorrect login
Primary Actor	Browser
Pre-conditions	User is not signed in, on the Sign-In page
Success End Conditions	The user is given a prompt that the information provided is invalid for logging in
Failed End Conditions	The prompt does not display
Main Success Scenario A: Actor S: System	I. A: Inputs "test1@test.com" into email field II. A: Inputs "WrongPassword" into password field III. S: Displays prompt to user, explaining invalid log in failure
Extensions	Upon failure, the prompt is not displayed.
Priority	Critical
Response Time	< 1 second
Notes	

Regression Test	Description
Regression Test Name	ID4: Regression test: Functionality while signed in: Test if multiple "My Profile" tab clicks while signed in returns the user to the Sign-In screen
Primary Actor	Browser
Pre-conditions	User is signed in, on the "My Profile" page
Success End Conditions	The user stays on the "My Profile" page
Failed End Conditions	The user is redirected to the "Sign-in" page
Main Success Scenario A: Actor S: System	I. A: Repeatedly presses the "My Profile" global tab II. S: The system does nothing
Extensions	Upon failure, the user is redirect to the Sign-In page, but still has access to sign-in only functionality.
Priority	Critical
Response Time	< 1 second
Notes	

5.0 Coding Style Guide

The development team has put together a set of guidelines to serve our purposes. These guidelines highlight the salient features of the coding style to be followed by developers. Useful examples are provided for quick referencing.

For front-end development using Ionic, the coding guide and sample can be found at the following wiki page:

https://github.com/CMPT371Team1/Project/wiki/Coding-Style-Example-(JavaScript)

For back-end development using Python, the coding guide and sample can be found at the following wiki page:

https://github.com/CMPT371Team1/Project/wiki/Coding-Style-Guide-(Python)

6.0 Build Report

Smoke Test Status:

Front-end tests are implemented using protractor and are currently passing. Back-end smoke tests are also implemented and passing.

Build Status:

The builds for iOS and Android are undergoing light smoke tests, ensuring compilation. We are experiencing difficulty with setting up the build for these platforms, and are focusing on other priorities before the code freeze. Both the Linux build and the remote server are undergoing smoke tests. The server is being updated from our repository after successful builds. Integration of the test server was implemented in ID4, which involves refreshing the test server before running the end-to-end tests, as well as updating after successful builds. End-to-end smoke tests are being conducted using Protractor on the Firefox browser. The back-end is being tested with Python scripts. Thus far, all testing has been done on the browser version of our app; smoke tests are currently not in place for other platforms. Upon successful completion of the smoke tests, the build should push the source code to a branch dedicated to more rigorous forms of manual testing.

SDKs, Packages, and Tools:

All SDKs, packages, and tools employed in our build, as well as their version number, are subject to change. These frameworks are still in question due to lack of experience. These decisions will be made final once the build manager has a firm understanding of automated testing, deployment, server builds, and system builds.

Current list of SDK's, Packages, and Tools:

- Cordova CLI: 6.5.0
- Ionic Framework Version: 2.0.0-rc.5
- Ionic CLI Version: 2.2.1
- Ionic App Lib Version: 2.2.0
- Ionic App Scripts Version: 1.0.0

- npm: 3.10.10
- jdk: 1.8.0_121
- nvm: 0.32.0
- node: 6.9.4
- packages listed in package.json
- plus ~400 other Ionic dependency packages

- Android:
    - SDK Platform Android 7.1.1, API 25, revision 3
    - Android SDK Tools, revision 25.2.5
    - Android SDK Build-tools, revision 25.0.1
    - Android SDK Platform-tools, revision 25.0.3
    - Google Repository, revision 42
    - Android Support Repository, revision 42

- iOS:
    - OS: OS X El Capitan
    - Xcode version: Xcode 7.3.1 Build version 7D1014Server:

- Server:
    - Python 2.7
    - Google Cloud sdk v143.0.1
    - Python Extension for google cloud v1.9.50
    - Python Extension (Extra Libs) v1.9.49
    - Gulp v3.9.1
    - OpenSSH v6.6.1p1
    - Sshpass v1.05

- End-to-End Tests
    - Protractor v5.0.0
    - Firefox v47.0.1
    - Selenium v3.1
    - Jasmine v2.5.3

Corodova 6.5.0 requires both jdk 1.8 (or higher), as well as npm v2.2.1 and node v4.0.0. We will be using the most recent version of node and npm to reduce version conflicts. Google Cloud is required for the Google App engine; the platform our servers are built upon. The server uses Python 2.7, the most recent version of Google Cloud SDK, and Python extensions for Google Cloud SDK. Our end-to-end tests are driven by Protractor, which sends to Ionic through the Selenium server and is driven by Jasmine. We are currently testing our system on Firefox v47.0.1, because of compatibility issues with newer versions. We are using Gulp to create a config file which sets the database of our app to the test database, instead of the actual one, if the app is undergoing tests. This is to prevent filling the actual database with test data. Sshpass is used to provide a password and ssh on the command line, allowing us to automatically login to the database server and update the files. All developers and testers have been set up with the latest versions of the required tools. We are using Xcode 7.3.1 for the time being. The Ionic dependencies are extensive, and can be viewed in further detail at the following link:

https://ionicframework.com/docs/

Releases for our build can be found here:

7.0 Upcoming Requirements

7.1 ID5 Requirements (Quality Assurance)

- Replace descriptive text with icons
- Get a legitimate Kasper icon
- Thorough review of test cases for all back-end code

7.2 Incomplete Requirements

This section outlines unfinished requirements. These requirements will not be implemented this term and will be documented and passed on to future programmers in Programmer Documentation.

- Contact Seller (front-end only)
- Sign in / Sign up using Facebook (front-end only)
- Get messages/edit messages/contact seller (front-end only)
- Push notifications if something changes regarding a Listing saved in Favourites (a change in the database triggers a notification to the User's who have favourited that Listing)
- Integration with Google Maps (future)
- Add Google Maps section to Detail page (removed – future)
- Forgot password (future)
- Implement the message system in the front-end and integrate it with the backend (removed – future)
- Finalize method of ordering images
- Send a message to the seller including contact information
- Users can sign up to receive "hot list" notifications
    - Feature Listing (paid for by Sellers)
    - Newly added Listings
    - Price changes on Favourites
    - Based on previous search history
- Sellers receive notifications regarding personal Listings:
    - When a Listing is saved to Favourites
    - When someone requests a viewing
    - When someone sets a price watch
- Super Admin User
    - Log in as Super Admin
    - Add new Listing under any user
    - Edit any Listing
    - Remove any Listing

8.0 Triage Meeting ID4

Date: Friday, March 17th /17
Start Time: 1:30pm
End Time: 2:25pm
Location: Spinks320

Members Present: Tushita Patel (Project Lead), Kristof Mercier (Dev lead), Jeremy Liau (Test Lead), Chris Mykota-Reid (Build Manager)

Development:

All Trello tasks have been implemented, except for:

1. Google maps integration with front-end and back-end (but is setup for the database)
2. Buyer to Seller messaging on front-end (this API is implemented in the backend)
3. "Forgot Password" feature in both front and back-end

Due to the ID5 code freeze, the team has decided to document and abandon these requirements in favour of producing better quality code for the finished areas. The above requirements will not be delivered to the client.

Testing:

1. All ID4 tests will be performed (manual, end-to-end, etc.)
2. The test team has finalized plans for acceptance and hallway testing

Bugs / Defects:

High priority bugs to be fixed by the end of ID4 (Sunday, March 19th, /17)
Medium priority bugs to be fixed by the Bug Party (Wednesday, March 22nd, /17)
Low priority bugs will be fixed by the end of ID5

	STI	Decision	Severity	Priority	Fixed as of 03/18?
1.	Bathroom filter stops functionality of the other filters	This STI is probably appearing due to lack of back-end testing. It could be tricky to fix. Fixing this bug should be postponed until ID5.	Low	Low	✔
2.	Liking and Disliking while not signed in returns a runtime error on details page	Although fixing this bug is important, we estimate that fixing it will be too time consuming to prioritize during ID4.	High	Low	✔
3.	When a user is not signed in and they attempt to swipe right or left on a Listing, the Listing turns red or green	This is a front-end bug and could be easily fixed. It is a frequently occurring bug that should be prioritized.	High	High	✔
4.	Save button on My Profile page is not working while signed-in.	Although fixing this bug is of high importance, this STI could be postponed	High	Medium	✔

		to early next week because there are other, higher priority bugs.			
5.	Sign-out button on My Profile page is not working while signed-in.	Although fixing this bug is of high importance, this STI could be postponed to early next week because there are other, higher priority bugs.	High	Medium	
6.	Sign-in using Facebook is not implemented on the front-end.	This issue might not be too tricky to fix, but is important to the client. We should consider this bug of medium priority.	Low	Medium	
7.	Browse page does not add more Listings to the cycle when you Like/Dislike a Listing while signed in	This is an important issue because it is a major feature. It should be fixed as soon as possible.	High	High	✓
8.	No refresh after every sign in.	Might be an easy fix. Not an important issue, comparatively.	Low	Low	✓
9.	Disliking on the Browse Page still moves the Listing to Favourites.	Might be an easy fix. Although severe, it is of lower priority, comparatively.	High	Medium	✓
10.	Add Listing is unable to publish Listings.	Might be the same problem as postal code. Quite severe. Should be fixed as soon as possible.	High	High	✓
11.	There should be a "required image" pop-up when attempting to publish a Listing without at least one image. Currently not displayed.	Might be an easy fix. Not too severe.	Low	Low	✓
12.	My Listings and My Favourites page should have an Edit button on the top right of the app	Swiping left to get Delete/Edit options for a listing is not intuitive. This is a potential design change. Not a priority right now.	Low	Low	
13.	"Missing Postal code" even when it's been added.	Fixing of this STI depends on 9. This may be the same bug as 9, or a bug resulting from 9. This bug will be tracked after 9 is fixed.	Low	Unknown	✓
14.	Cannot remove Listings from Favourites list. Reappears.	Might be the same bug as 8, or a bug being caused by 8.	High	Medium	✓
15.	When registering a user on android, the text fields scroll all the way up.	This bug was identified at the end of ID and has not yet been fixed. It should be prioritized soon.	High	Medium	

Build:

1. Troubleshooting issues and regressions
2. Added test servers to implementation
3. Reset the test servers before running end-to-end smoke tests on the front-end
4. Shared build knowledge with Gaurav during pair programming sessions
5. Chrome smoke tests removed due to increasing complexity and bugs
6. Added installation of Jasmine Spec Reporter to the build
7. Added if-statements to the build for less manual modifications on release
8. Still looking into automated Style Checking and automated GitHub release