COM1001: Introduction to Software Engineering: Team Report

Members: Nathanael Heath, Jordan Marsh, Euodia Dodd, Faaria Shahzadi, Liang Wong, Mikhail Ivoylov

Details on how to run and access your system

The exact command(s) needed to start your system:

cd project
bundle install
ruby app.rb

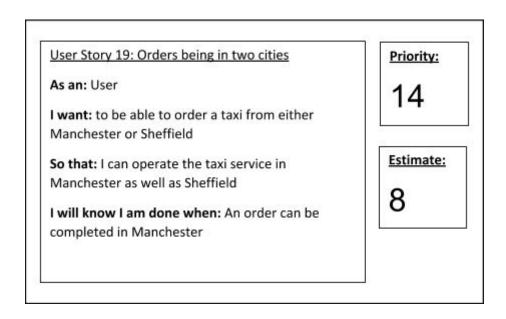Any usernames or passwords required to access parts of your application are as follows:

- For the user login:
  Twitter handle: @example
  Password: password

- For the admin login:
  Username: username
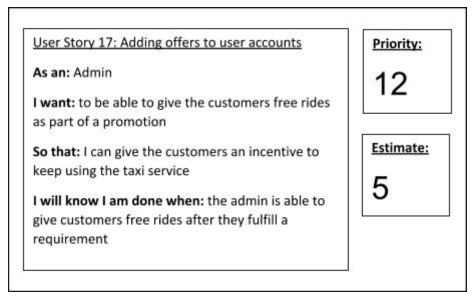 Password: password

Resubmitted User Stories

The unchanged user stories are in appendix 1 at the end of the document. One user story was added this iteration:

User Story 19: Orders being in two cities

As an: User

I want: to be able to order a taxi from either Manchester or Sheffield

So that: I can operate the taxi service in Manchester as well as Sheffield

I will know I am done when: An order can be completed in Manchester

Priority:
14

Estimate:
8

Stories we planned to tackle this iteration:

<div>

User Story 12: Reset user passwords

As an: Admin

I want: to be able to reset user passwords

So that: the users can set a new one if they want to change their current one or have forgotten their old one

I will know I am done when: the user is able to log in with the generic password they are provided with.

Priority:

11

Estimate:

8

</div>

We implemented this feature in this iteration but there are still some bugs with it.

<div>

User Story 17: Adding offers to user accounts

As an: Admin

I want: to be able to give the customers free rides as part of a promotion

So that: I can give the customers an incentive to keep using the taxi service

I will know I am done when: the admin is able to give customers free rides after they fulfill a requirement

Priority:

12

Estimate:

5

</div>

We implemented this story by adding a page on the admin side to apply offer codes to certain orders.
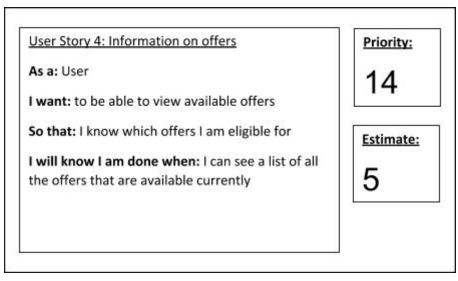
User Story 18: Categorisation of tweets

As an: Admin

I want: to be able to sort the tweets in terms of required action to be taken.

So that: I can identify which tweets are active, complete and those that are not orders.

I will know I am done when: I can see the list of tweets and have the ability to filter the ones that I need. I will also be able to click on a tweet to change its categorisation.

Priority:

13

Estimate:

8

We added buttons on the admin dashboard to delete incoming tweets or mark them as completed orders.

User Story 4: Information on offers

As a: User

I want: to be able to view available offers

So that: I know which offers I am eligible for

I will know I am done when: I can see a list of all the offers that are available currently
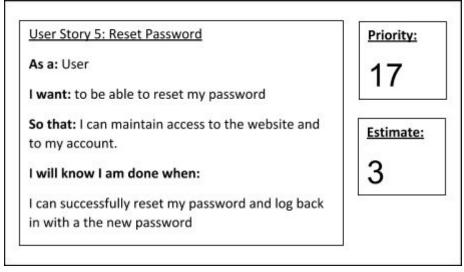
Priority:

14

Estimate:

5

We added an offers page on the user side so that users can see any current offers that they can use when they make an order.

User Story 10: Change destination by tweeting

As a: User

I want: to have the option of changing destination through twitter

So that: if my situation or plans change I can change the destination of taxi

I will know I am done when: I can tweet at the tweet-a-taxi account to change the destination of my taxi.

Priority:

15

Estimate:

3

We implemented this by making it possible to delete and then read orders with a different destination.

User Story 5: Reset Password

As a: User

I want: to be able to reset my password

So that: I can maintain access to the website and to my account.

I will know I am done when:

I can successfully reset my password and log back in with a the new password

Priority:

17

Estimate:

3

This is linked with user story 12 (the admin side of resetting passwords). We didn't fully implement this because there are still serious bugs with this feature.

User Story 15: Take location from tweet

As a: User

I want: to be able to directly take a user's location if it is embedded in the tweet.

So that: time is saved if the user forgets to include their location.

I will know I am done when: I am able to take a user's location directly from their tweet and use this as their starting location.
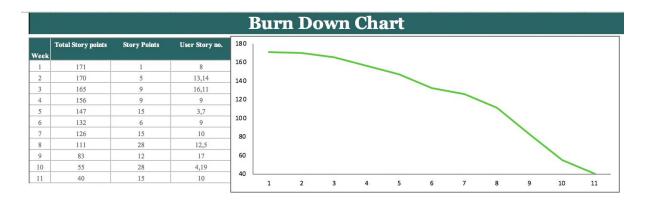
Priority:

18

Estimate:

21

We did not complete user story 15 in this iteration because we took too long on some of the other stories meaning that we felt that we did not have enough time to implement it fully without creating more bugs.

Workload

Members	Tasks
Jordan	- Made offers page so offers can be created and accepted by admins. - Offers can be redeemed and reviewed by users. - Added the cities information to the database. - Orders can now be attributed to each city and can be searched by the user.
Nathanael	- Worked with the database - Fixed bugs
Faaria	- Orders can be marked as complete or cancelled by the admin - Fixed bugs - Changed the views and layout of the website - Cucumber testing
Euodia	- Tweets displayed in conversation style - Fixed some bugs - MiniTests - Cookies for accessing pages when logged in
Michael	- Made create admin page - Fixed minor bugs - Added admin password hashing for database security

Liang	- Did the burndown chart

Burn Down Chart

Burn Down Chart

Week	Total Story points	Story Points	User Story no.
1	171	1	8
2	170	5	13,14
3	165	9	16,11
4	156	9	9
5	147	15	3,7
6	132	6	9
7	126	15	10
8	111	28	12,5
9	83	12	17
10	55	28	4,19
11	40	15	10

Cucumber

Our cucumber testing aimed to get good coverage of the code a test the core features of the app. A core feature is the navigation. We tested that each link goes to the page that we want through navigation and each page shows the correct content. Another core feature is the forms within our project. Our cucumber testing shows evidence of a test of each form to be submitted so that when the user submits a form, we can know for sure that the outcome will be what we expected. The forms within our project such as creating a new order to be added into the database and tweeting from the website were tested to check whether they work or not. More test cases were used in the case of the login page so that all possibilities for the form were tested and to test the form was validated properly.

The features included:

Navigation through the website for both admin and user, checking that the links on the website transfer to the correct pages. Checking that the error messages that appear are accurate and as expected.

User features:


```
Scenario: Filtering history                          # features/user.feature:83
  Given I have logged in as a user                   # features/step_definitions/web_steps.rb:38
  When I follow "History" within "nav"               # features/step_definitions/web_steps.rb:62
  When I fill in "city" with "Manchester"            # features/step_definitions/web_steps.rb:68
  When I press "Search"                              # features/step_definitions/web_steps.rb:56
  Then I should not see "Sheffield" within "tbody"   # features/step_definitions/web_steps.rb:158

Scenario: Should only see my history                 # features/user.feature:91
  Given I have logged in as a user                   # features/step_definitions/web_steps.rb:38
  When I follow "History" within "nav"               # features/step_definitions/web_steps.rb:62
  Then I should not see "@test" within "tbody"       # features/step_definitions/web_steps.rb:158
```

```
Scenario: User viewing their history                              # features/user.feature:43
  Given I have logged in as a user                                # features/step_definitions/web_steps.rb:38
  When I press "History"                                          # features/step_definitions/web_steps.rb:56
  Then I should see "@example" within "tbody"                     # features/step_definitions/web_steps.rb:137
  And I should not see "@example_handle" within "tbody"           # features/step_definitions/web_steps.rb:158

Scenario: Clicking button to view cars # features/user.feature:49
  Given I have logged in as a user       # features/step_definitions/web_steps.rb:38
  When I press "Car Information"         # features/step_definitions/web_steps.rb:56
  Then I should be on the cars page      # features/step_definitions/web_steps.rb:225

Scenario: Clicking cars button to view cars # features/user.feature:54
  Given I have logged in as a user           # features/step_definitions/web_steps.rb:38
  When I press "Offers Information"           # features/step_definitions/web_steps.rb:56
  Then I should be on the offers page        # features/step_definitions/web_steps.rb:225

Scenario: Home button on nav bar            # features/user.feature:59
  Given I have logged in as a user           # features/step_definitions/web_steps.rb:38
  When I follow "Home" within "nav"          # features/step_definitions/web_steps.rb:62
  Then I should be on the user homepage      # features/step_definitions/web_steps.rb:225

Scenario: Creating a new account                     # features/user.feature:65
  Given I am on the create new account page           # features/step_definitions/web_steps.rb:12
  When I fill in "name" with "Jane Doe"               # features/step_definitions/web_steps.rb:68
  When I fill in "handle" with "@twitterhandle"       # features/step_definitions/web_steps.rb:68
  When I fill in "password1" with "password123"       # features/step_definitions/web_steps.rb:68
  When I fill in "password2" with "password123"       # features/step_definitions/web_steps.rb:68
  When I press "Create"                               # features/step_definitions/web_steps.rb:56
  Then I should be on the new account page            # features/step_definitions/web_steps.rb:225
```

```
Scenario: Clicking cars button to view cars # features/user.feature:19
  Given I have logged in as a user           # features/step_definitions/web_steps.rb:38
  When I press "Offers Information"           # features/step_definitions/web_steps.rb:56
  Then I should be on the offers page        # features/step_definitions/web_steps.rb:225

Scenario: Home button on nav bar            # features/user.feature:25
  Given I have logged in as a user           # features/step_definitions/web_steps.rb:38
  When I follow "Home" within "nav"          # features/step_definitions/web_steps.rb:62
  Then I should be on the user homepage      # features/step_definitions/web_steps.rb:225

Scenario: Invalid code                                                                              # featur
es/user.feature:30
  Given I have logged in as a user                                                                  # featur
es/step_definitions/web_steps.rb:38
  When I follow "Offers" within "nav"                                                               # featur
es/step_definitions/web_steps.rb:62
  When I fill in "code" with "1234"                                                                 # featur
es/step_definitions/web_steps.rb:68
  When I press "Redeem"                                                                             # featur
es/step_definitions/web_steps.rb:56
  Then I should see "Code does not exist or is already redeemed, please enter another code" within "p" # featur
es/step_definitions/web_steps.rb:137

Scenario: Clicking history button to view user history # features/user.feature:38
  Given I have logged in as a user                      # features/step_definitions/web_steps.rb:38
  When I press "History"                                # features/step_definitions/web_steps.rb:56
  Then I should be on the user history page             # features/step_definitions/web_steps.rb:225
```

```
Feature: User navigation through the website

  Scenario: Clicking history button to view user history  # features/user.feature:3
    Given I have logged in as a user                       # features/step_definitions/web_steps.rb:38
    When I press "History"                                 # features/step_definitions/web_steps.rb:56
    Then I should be on the user history page               # features/step_definitions/web_steps.rb:225

  Scenario: User viewing their history                     # features/user.feature:8
    Given I have logged in as a user                       # features/step_definitions/web_steps.rb:38
    When I press "History"                                 # features/step_definitions/web_steps.rb:56
    Then I should see "@example" within "tbody"            # features/step_definitions/web_steps.rb:137
    And I should not see "@example_handle" within "tbody"  # features/step_definitions/web_steps.rb:158

  Scenario: Clicking button to view cars  # features/user.feature:14
    Given I have logged in as a user       # features/step_definitions/web_steps.rb:38
    When I press "Car Information"          # features/step_definitions/web_steps.rb:56
    Then I should be on the cars page       # features/step_definitions/web_steps.rb:225
```

Login features for admin and users:

```
Feature: login

 Scenario: Correct password entered for user # features/login.feature:3
   Given I am on the user login page          # features/step_definitions/web_steps.rb:12
   When I fill in "handle" with "@example"    # features/step_definitions/web_steps.rb:68
   When I fill in "password" with "password"  # features/step_definitions/web_steps.rb:68
   When I press "Submit"                      # features/step_definitions/web_steps.rb:56
   Then I should be on the user account page  # features/step_definitions/web_steps.rb:225

 Scenario: Incorrect information entered                                              # features/login.feature:10
   Given I am on the user login page                                                  # features/step_definitions/web
_steps.rb:12
   When I fill in "password" with ""                                                  # features/step_definitions/web
_steps.rb:68
   When I fill in "handle" with ""                                                    # features/step_definitions/web
_steps.rb:68
   When I press "Submit"                                                              # features/step_definitions/web
_steps.rb:56
   Then I should see "Incorrect username/password, please try again." within "p"      # features/step_definitions/web
_steps.rb:137

 Scenario: Correct password entered for admin # features/login.feature:17
   Given I am on the admin login page          # features/step_definitions/web_steps.rb:12
   When I fill in "username" with "username"   # features/step_definitions/web_steps.rb:68
   When I fill in "password" with "password"   # features/step_definitions/web_steps.rb:68
   When I press "Submit"                       # features/step_definitions/web_steps.rb:56
   Then I should be on the admin homepage      # features/step_definitions/web_steps.rb:225
```

```
 Scenario: Incorrect information entered for admin                                    # features/login.feature:24
   Given I am on the admin login page                                                 # features/step_definitions/web
steps.rb:12
   When I fill in "password" with ""                                                  # features/step_definitions/web
steps.rb:68
   When I fill in "username" with ""                                                  # features/step_definitions/web
steps.rb:68
   When I press "Submit"                                                              # features/step_definitions/web
steps.rb:56
   Then I should see "Incorrect username/password, please try again." within "p"      # features/step_definitions/web
steps.rb:137

 Scenario: Logging out                  # features/login.feature:31
   Given I have logged in as a user      # features/step_definitions/web_steps.rb:38
   When I press "Logout"                 # features/step_definitions/web_steps.rb:56
   Then I should be on the splash page   # features/step_definitions/web_steps.rb:225

 Scenario: Logging out                  # features/login.feature:36
   Given I have logged in as an admin    # features/step_definitions/web_steps.rb:16
   When I press "Logout"                 # features/step_definitions/web_steps.rb:56
   Then I should be on the splash page   # features/step_definitions/web_steps.rb:225
```

```
Scenario: Invalid order information                                    # features/admin.feature:3
  Given I have logged in as an admin                                   # features/step_definitions/web_steps.rb
16
  When I press "New Order"                                             # features/step_definitions/web_steps.rb
56
  When I fill in "Origin" with ""                                      # features/step_definitions/web_steps.rb
68
  When I fill in "Destination" with ""                                 # features/step_definitions/web_steps.rb
68
  When I fill in "Car" with ""                                         # features/step_definitions/web_steps.rb
68
  When I fill in "Twitter Handle" with ""                             # features/step_definitions/web_steps.rb
68
  When I fill in "City" with ""                                        # features/step_definitions/web_steps.rb
68
  When I press "Create Order"                                          # features/step_definitions/web_steps.rb
56
  Then I should see "Please enter origin." within "body"              # features/step_definitions/web_steps.rb
137
  And I should see "Please enter destination." within "body"          # features/step_definitions/web_steps.rb
137
  And I should see "Please enter car." within "body"                  # features/step_definitions/web_steps.rb
137
  And I should see "Please enter user's twitter handle." within "body" # features/step_definitions/web_steps.rb
137
  And I should see "Please enter city." within "body"                 # features/step_definitions/web_steps.rb
137
```

```
Scenario: Creating admin account                        # features/admin.feature:18
  Given I have logged in as an admin                     # features/step_definitions/web_steps.rb:16
  When I follow "Create Admin" within "nav"              # features/step_definitions/web_steps.rb:62
  When I fill in "name" with ""                          # features/step_definitions/web_steps.rb:68
  When I fill in "username" with ""                      # features/step_definitions/web_steps.rb:68
  When I fill in "password1" with ""                     # features/step_definitions/web_steps.rb:68
  When I fill in "passwordRepeat" with ""                # features/step_definitions/web_steps.rb:68
  When I press "Create"                                  # features/step_definitions/web_steps.rb:56
  Then I should see "Please enter name." within "body"   # features/step_definitions/web_steps.rb:137
  And I should see "Invalid twitter handle." within "body" # features/step_definitions/web_steps.rb:137
  And I should see "Please enter password." within "body" # features/step_definitions/web_steps.rb:137
  And I should see "Passwords do not match." within "body" # features/step_definitions/web_steps.rb:137
```

Tests for creating an account successfully and test for creating an account with two passwords that don't match

```
Scenario: Creating a new account                   # features/forms.feature:29
  Given I am on the create new account page        # features/step_definitions/web_steps.rb:12
  When I fill in "name" with "Jane Doe"            # features/step_definitions/web_steps.rb:56
  When I fill in "handle" with "@twitterhandle"   # features/step_definitions/web_steps.rb:56
  When I fill in "password1" with "password123"   # features/step_definitions/web_steps.rb:56
  When I fill in "password2" with "password123"   # features/step_definitions/web_steps.rb:56
  When I press "Create"                            # features/step_definitions/web_steps.rb:44
  Then I should be on the new account page         # features/step_definitions/web_steps.rb:213

Scenario: Inputting two passwords that dont match                       # features/forms.feature:
38
  Given I am on the create new account page                             # features/step_definitio
ns/web_steps.rb:12
  When I fill in "name" with "Jane Doe"                                 # features/step_definitio
ns/web_steps.rb:56
  When I fill in "handle" with "@twitterhandle"                         # features/step_definitio
ns/web_steps.rb:56
  When I fill in "password1" with "password123"                         # features/step_definitio
ns/web_steps.rb:56
  When I fill in "password2" with "password"                            # features/step_definitio
ns/web_steps.rb:56
  When I press "Create"                                                 # features/step_definitio
ns/web_steps.rb:44
  Then I should see "There were errors in your form, please try again." within "body" # features/step_definitio
ns/web_steps.rb:125
```

Manual Testing:

We also carried out manual testing for some of our other features. For example, we manually tested whether the feature for marking orders as complete or cancelling orders was functional. This was difficult to test automatically which is why we carried out these checks manually. When testing for this feature we were also able to ensure the completed orders showed up when admin users checked the order history.

Code coverage

```
28 scenarios (2 failed, 26 passed)
140 steps (2 failed, 5 skipped, 133 passed)
0m3.052s
Coverage report generated for Cucumber Features to /home/codio/workspace/project/coverage. 282 / 422 LOC (66.82%)
 covered.
```

All Files (66.82% covered at 4.55 hits/line)

7 files in total. 422 relevant lines. 282 lines covered and 140 lines missed

File	% covered	Lines	Relevant Lines	Lines covered	Lines missed	Avg. Hits / Line
Cars_controller.rb	43.18 %	85	44	19	25	2.4
adminController.rb	55.41 %	265	148	82	66	5.5
createAccountController.rb	72.73 %	62	33	24	9	3.7
createAdminController.rb	73.53 %	61	34	25	9	3.2
ordersController.rb	73.85 %	115	65	48	17	2.4
userController.rb	84.88 %	149	86	73	13	7.0
app.rb	91.67 %	19	12	11	1	0.9

Showing 1 to 7 of 7 entries

The total lines of code we have in this project is currently **422**. After writing and running these cucumber tests the lines of code that are tested are **282** out of these **422**. This gives us a coverage of **66.82**%. The tests written ensure that the user will get an informative error message to let them know what input they have entered incorrectly. Tests also cover the navigation of the website. Two of our tests failed after some code was added to the controller. We were not able to determine why they were failing and given the time decided to manually test these features.

Minitesting

For minitesting, we aimed to test the forms on both the user and admin sides. Our tests provide inputs to the form and if the submit button functions as intended. For example, the test for the add new car form checks to see if the details of the car have been added to the database. As our code does not contain methods, we conducted some of our tests by utilising net/HTTP to check if the right pages were being loaded successfully. All but 3 of the tests passed. The reasons for the failures are still unknown.

```
Run options: --seed 23377

# Running:

.404 error
F404 error
F.404 error
.....F...

Finished in 0.793098s, 16.3914 runs/s, 16.3914 assertions/s.

  1) Failure:
MiniTests#test_user_login_wrong [tests.rb:38]:
Expected: 404
  Actual: 200


  2) Failure:
MiniTests#test_user_login_null [tests.rb:46]:
Expected: 404
  Actual: 200


  3) Failure:
MiniTests#test_admin_login_correct [tests.rb:76]:
Expected: 200
  Actual: 404

13 runs, 13 assertions, 3 failures, 0 errors, 0 skips
```

Appendix 1:

These are the user stories that have remained unchanged since iteration 1

User Story 13: Reply to messages on twitter (error messages and promotions)

As an: Admin

I want: to be able to reply to messages on twitter

So that: I can confirm rides, inform a user of an error (and offer discounts as necessary) or for promotions

I will know I am done when: I can enter a message into a field on the website and have it sent out as a tweet.

Priority:

2

Estimate:

13

User Story 14: Enter address of location or destination

As an: Admin

I want: to see where the customer is and where they want to travel to

So that: I can send the taxis to the right destination

I will know I am done when: The driver informs if he has picked up the customer and this is updated on the system. The customer is also then notified that a taxi is on the way.

Priority:

3

Estimate:

8

User Story 16: Communicating with user

As an: Admin

I want: to be able to communicate with the user via twitter

So that: I can build up orders

I will know I am done when: I have the ability process the information from a tweet to be able to create an order

Priority:

4

Estimate:

13

User Story 11: View current taxi rides

As an: Admin

I want: to be able to see each taxi ride

So that: I can mark them as complete

I will know I am done when: I have a list of all active rides where the completed rides are in a separate list

Priority:

5

Estimate:

8

User Story 9: Tweeting to cancel

As a: User

I want: to be able to cancel my taxi through twitter

So that: I can cancel my taxi if I don't need it anymore.

I will know I am done when: I can tweet at the tweet a taxi account to cancel a taxi that has been ordered. I will be sent a direct message to confirm cancellation.

Priority:

6

Estimate:

3

User Story 3: Information on current ride

As a: User

I want: to be able to receive information on my current ride

So that: I am aware of any changes. (See cars, drivers and if cars are available)

I will know I am done when: I am able to see which cars are available and which car has been assigned to my journey.

Priority:

7

Estimate:

5

User Story 7: Viewing available cars

As a: User

I want: to be able to view the current available cars

So that: I am aware of what is on offer and be able to order cars according to my requirements

I will know I am done when: I can see available car types and details about when the next will be available.

Priority:

8

Estimate:

5

User Story 1: Creating an account

As a: User

I want: to be able to create an account

So that: I can access the website

I will know I am done when:

I can log into my account and log back out again using my twitter handle or username and password.

If I enter the wrong username or password, a message will appear and I won't be able to access my account.

Priority:

9

Estimate:

8

User Story 2: View history

As a: User

I want: to be able to view my order history

So that: they can see how much they have spent with the company

I will know I am done when:

I can view my order history in chronological order.

A date should appear next to the ride as well as the pick-up and drop-off locations.

Priority:

10

Estimate:

8

User Story 12: Reset user passwords

As an: Admin

I want: to be able to reset user passwords

So that: the users can set a new one if they want to change their current one or have forgotten their old one

I will know I am done when: the user is able to log in with the generic password they are provided with.

Priority:

11

Estimate:

8

User Story 17: Adding offers to user accounts

As an: Admin

I want: to be able to give the customers free rides as part of a promotion

So that: I can give the customers an incentive to keep using the taxi service

I will know I am done when: the admin is able to give customers free rides after they fulfill a requirement

Priority:

12

Estimate:

5

User Story 18: Categorisation of tweets

As an: Admin

I want: to be able to sort the tweets in terms of required action to be taken

So that: I can identify which tweets are active, complete and those that are not orders

I will know I am done when: I can see the list of tweets and have the ability to filter the ones that I need. I will also be able to click on a tweet to change its categorisation

Priority:

13

Estimate:

8

User Story 4: Information on offers

As a: User

I want: to be able to view available offers

So that: I know which offers I am eligible for

I will know I am done when: I can see a list of all the offers that are available currently

Priority:

14

Estimate:

5

User Story 10: Change destination by tweeting

As a: User

I want: to have the option of changing destination through twitter

So that: if my situation or plans change I can change the destination of taxi

I will know I am done when: I can tweet at the tweet-a-taxi account to change the destination of my taxi.

Priority:

15

Estimate:

3

User Story 6: Changing twitter handle

As a: User

I want: to be able to change the twitter handle linked to my account

So that: I can use any twitter account I wish

I will know I am done when:

I can change my twitter handle on the website and login my account using the new handle. I will be sent a message to verify my new handle.

Priority:

16

Estimate:

3

User Story 5: Reset Password

As a: User

I want: to be able to reset my password

So that: I can maintain access to the website and to my account.

I will know I am done when:

I can successfully reset my password and log back in with a the new password

Priority:

17

Estimate:

3

User Story 15: Take location from tweet

As a: User

I want: to be able to directly take a user's location if it is embedded in the tweet

So that: time is saved if the user forgets to include their location

I will know I am done when: I am able to take a user's location directly from their tweet and use this as their starting location

Priority:

18

Estimate:

21