

# Fake Twaxi - Group 12B

## Report - First Iteration

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## 0: Introduction

### Team Members

- Alex Hall
- Todd Halsey
- Chika Nkwanta
- Caroline Osborne
- Joshua O'Sullivan
- Likith Surapaneni
- Yixin Zu

### Scope

The objective of the project is to produce a system that allows a taxi company to receive, manage, and respond to requests for taxi services via twitter. Customers should be able to register for an account within this system, and in addition it should be able to run competitions, provide registered customers with free rides, and facilitate management of the company's vehicles, user accounts, and employee accounts.

# 1: System Access

## Commands

To run the system, use `ruby main.rb`

## Username/Passwords

General manager account

Username	josh
Password	Password1!

Customer account

Username	todd
Password	Password1!

Account manager

Username	accounts-manager
Password	Password2!

Twitter manager

Username	twitter-manager
Password	Password2!

Marketing manager

Username	marketing-manager
Password	Password2!

## Additional Details

Required gems:

- sinatra
- sinatra-reloader
- twitter
- sqlite3
- bcrypt
- Thin
- Rspec
- Simplecov
- Capybara
- nokogiri, '1.6.7.2'
- cucumber

We have created a gem bundle consisting of all the required gems.

To install this bundle, type “bundle install”, this will then automatically install the bundle.

## 2: Resubmission of Story Cards

### Stakeholders

- **Customer**  
The customer will tweet @FakeTwaxi to book taxis via twitter.
- **Customer with an account**  
A customer with an account inherits all of the abilities of the regular customer, in addition to being able to take part in competitions, see their previous journeys, receive a free ride for every 10 paid rides they take, and edit their account data to keep it up to date.
- **Taxi Manager**  
The taxi manager should be able to see and respond to incoming tweets in order to be able to provide taxi services.
- **Accounts Manager**  
The accounts manager should be able to manage customer and employee accounts and data.
- **Car Manager**  
The car manager should be able to manage the database of vehicles the company owns.
- **Marketing Manager**  
The marketing manager should be able to manage Twitter competitions that offer free rides to registered customers.
- **General Manager**  
The general manager inherits all the abilities of the taxi, accounts, car and marketing managers.
- **Twitter**  
Twitter will provide the main method of customers interacting with the Fake Twaxi system.

### Estimations and Prioritisations

Estimations of complexity of story cards are based on a 1 to 10 scale, 1 being relatively easy, 10 being relatively hard.

The client categorized each card on whether it is something the system must do (mandatory) or should do (should). Story cards that were marked as “should” were then further ranked by the client, with the cards being sorted into categories 1 to 6 of which are most important (1 the most, 6 the least).

### Changes to Story Cards

Changes to the story cards are indicated in them. Removed words have been ~~striked~~ through and highlighted in red, and any additions have been highlighted in green.

## Customer Story Cards

### CUST#1

**As a** customer, not logged in,

**I want to** be able to see what types of cars the company owns on the website (their capacity and images),

**So that** I can see if Fake Twaxi has any vehicles suitable for my needs.

**Acceptance Criteria**

As a customer I can see a list of cars on the company's website, with each one detailing their capacity (by a numeric value) and appearance (by an image).

**Client Priority** - Mandatory

**Complexity** - 4

### CUST#2

**As a** customer, not logged in,

**I want to** be able to see what offers are available on the website,

**So that** I can see if there are any offers that would make me want to create an account.

**Acceptance Criteria**

As a customer I can see a list of offers that are available on the website.

**Client Priority** - Should - Priority 1

**Complexity** - 5

### CUST#3

**As a** customer

**I want to** be able to create an account by providing a password, a twitter handle, and a username,

**So that** I can take part and see my progress in offers, see my previous journeys, and add information about myself such as my home address and favourite places.

**Acceptance Criteria**

There should be a form that takes the user's details (a username, twitter handle, and a password), that should be submittable to create an account.

**Client Priority** - Mandatory

**Complexity** - 10

### CUST#4

**As a** customer,

**I want to** be able to make a tweet at @FakeTwaxi,

**So that** the twitter manager is notified that I want to book a taxi.

**Client Priority** - (Unknown)

**Complexity** - 1

### CUST#5

**As a** customer,

**I want to** be able to add a geotag to my tweet,

**So that** the twitter manager knows where I want to be picked up from.

**Client Priority** - (Unknown)

**Complexity - 2**

## Customer With A Fake Twaxi Account Story Cards

### CUSTACC#1

**As a** customer with an account,

**I want to** be able to log in to my account with my username and password,

**So that** I can see and edit my customer data.

**Acceptance Criteria**

There should exist a login screen into which I can input my username and password, and when it is correct, I should be able to log in.

**Client Priority** - Mandatory

**Complexity** - 8

### CUSTACC#2

**As a** customer with an account,

**I want to** be able to change the twitter handle associated with my account,

**So that** I can use the same account even if I change my twitter handle.

**Acceptance Criteria**

There should exist a facility to input my account's new associated twitter handle.

**Client Priority** - Mandatory

**Complexity** - 5

### CUSTACC#3

**As a** customer with an account,

**I want to** be able to edit my account's home location,

**So that** my account's home location is up to date.

**Client Priority** - Should

**Complexity** - 6

### CUSTACC#4

**As a** customer with an account,

**I want to** be able to see my previous journeys,

**So that** I can see where I've been, and how many journeys I have been on so I know when I will get a free ride.

**Acceptance Criteria**

There should exist a list which a logged in user can see that displays all of their previous journeys (their origin, destination, and date).

**Client Priority** - Mandatory

**Complexity** - 9

### CUSTACC#5

**As a** customer with an account,

**I want to** have a free ride added to my account automatically every 10 paid rides,

**So that** I can get the correct rewards with ease.

**Acceptance Criteria**

Once a customer account has had 10 paid rides, they are given a free ride.

**Client Priority** - Mandatory

**Complexity** - 8

## Car Manager Story Cards

### CARMAN#1

**As a** Car Manager,

**I want to** be able to add vehicles to the database,

**So that** the database of vehicles is up to date.

**Acceptance Criteria**

There should be a facility that allows a new car to be added into the database that requires a taxi number and a type of vehicle.

**Client Priority** - Mandatory

**Complexity** - 6

### CARMAN#2

**As a** Car Manager,

**I want to** be able to remove vehicles from the database,

**So that** the database of vehicles is up to date.

**Acceptance Criteria**

There should be a facility to ~~remove a~~ mark a specific vehicle as out of service/decommissioned that requires a taxi number to identify the taxi that should be removed.

**Client Priority** - Mandatory

**Complexity** - 6

### CARMAN#3

**As a** Car Manager,

**I want to** be able to change records about vehicles in the database,

**So that** any changes to the vehicles are logged.

**Acceptance Criteria**

There should be a facility to update a vehicle's record in the database that requires a taxi number to identify the taxi to be edited, and a new value for any other fields that are being updated.

**Client Priority** - Mandatory

**Complexity** - 6

### CARMAN#4

**As a** Car Manager,

**I want to** be able to log in to the admin side of the system,

**So that** I can access the car manager dashboard.

**Acceptance Criteria**

It should be possible to log into the car manager account and gain access to the car manager dashboard.

**Client Priority** - Mandatory

**Complexity** - 5

### CARMAN#5

**As a** Car Manager,



**I want to** be able to see vehicles in the database

**So that** I can easily check vehicle details

**Acceptance Criteria**

There should be a facility that allows me to see a list of all the vehicles in the database

**Client Priority** - (Unknown)

**Complexity** - 4

## Account Manager Story Cards

### ACCMAN#1

**As an** Account Manager,

**I want to** be able to ~~manage~~ **edit** data about users' Fake Twaxi accounts,

**So that** I am able to update customer information.

#### Acceptance Criteria

There should exist a dialogue into which I can input a username to fetch that user's data, and once I have done this there should exist autofilled fields containing that user's data which I can then edit and resubmit.

**Client Priority** - Mandatory

**Complexity** - 7

### ACCMAN#2

**As an** Account Manager,

**I want to** be able to view, add, edit and remove offers from customers' Fake Twaxi accounts,

**So that** customers can use the offers on their future journeys.

#### Acceptance Criteria

There should exist a dialogue into which I can input a username to fetch that user's **offers** data. ~~and once I have done this~~ **Once this data has been retrieved**, there should exist autofilled fields containing ~~that user's offer~~ the data which I can then **add** **to**, edit ~~and resubmit~~ **or remove and then submit the changes**.

**Client Priority** - Mandatory

**Complexity** - 7

### ACCMAN#3

**As an** Account Manager,

**I want to** be able to view previous rides on customers' Fake Twaxi accounts,

**So that** their journey history can be viewed in the future **e.g. in the case of a customer complaint**.

#### Acceptance Criteria

As an account manager, I can view previous rides on a selected customer's Fake Twaxi account.

**Client Priority** - Mandatory

**Complexity** - 6

### ACCMAN#4

**As an** Account Manager,

**I want to** be able to login to the admin side of the system,

**So that** I can access the customer and employee accounts dashboards.

#### Acceptance Criteria

It should be possible to log into the account manager account and gain access to the account manager dashboard.

**Client Priority** - Mandatory

**Complexity** - 5

## Marketing Manager Story Cards

### MARKMAN#1

**As a** Marketing Manager,

**I want to** be able to press a button which sends a “Retweet to win a free ride” tweet from the Fake Twaxi account - this must contain information stating that the winner must have a linked Fake Twaxi account.

**So that** customer competitions can be easily started.

**Acceptance Criteria**

As a marketing manager, when the “Retweet to win a free ride” button is pressed, a tweet is sent containing details of the competition.

**Client Priority** - Mandatory

**Complexity** - 9

### MARKMAN#2

**As a** Marketing Manager,

**I want to** be able to input a finish date for the competitions from a date calendar field - this will be stated to the customers in the tweet.

**So that** the finish date of competitions can be easily chosen and seen by customers.

**Acceptance Criteria**

As a marketing manager, a finish date for competitions can be chosen from a calendar field. This finish date will then be stated in the initial competition tweet.

**Client Priority** - Should - Priority 5

**Complexity** - 6

### MARKMAN#3

**As a** Marketing Manager,

**I want to** be able to press an “End Competition” buttons for each ongoing competition. Pressing this should start the completion process for the competition.

**So that** the I can easily chose when each competition is ended.

**Acceptance Criteria**

As a marketing manager, when the “End Competition” button is pressed, the completion process for the corresponding competition is started.

**Client Priority** - Mandatory

**Complexity** - 7

### MARKMAN#4

**As a** Marketing Manager,

**I want** a random retweeter to be automatically selected from “retweet” competitions as the winner. This retweeter must have a linked Fake Twaxi account.

**So that** valid customers are fairly selected to win.

**Acceptance Criteria**

When an “End Competition” button is pressed, a random retweeter is automatically selected from the corresponding competition as the winner. The winner must have a linked Fake Twaxi account.

**Client Priority** - Mandatory

**Complexity** - 7

**MARKMAN#5**

**As a** Marketing Manager,

**I want** a free ride to automatically be added to the Fake Twaxi account of winners of “retweet” competitions,

**So that** the competition winner quickly and easily receives their prize.

**Acceptance Criteria**

After a winner has been selected from the “Retweet to win a free ride” competition, a free ride is automatically added to the Fake Twaxi account of the winner.

**Client Priority** - Mandatory

**Complexity** - 6

**MARKMAN#6**

**As a** Marketing Manager,

**I want to** be able to login to the admin side of the system,

**So that** I can access the marketing manager dashboard.

**Acceptance Criteria**

It should be possible to log into the marketing manager account and gain access to the marketing manager dashboard.

**Client Priority** - Mandatory

**Complexity** - 5

**MARKMAN#7**

**As a** Marketing Manager ,

**I want to** have a tweet automatically sent “@‘ing” the winner of a competition saying congratulations and that the prize has been added to their Fake Twaxi account,

**So that** the winner of competitions know that they have won.

**Acceptance Criteria**

When a “Retweet to win a free ride” competition is ended and the winner is selected, a tweet will automatically be sent “@ing” the winner saying congratulations and that the prize has been added to their Fake Twaxi account.

**Client Priority** - Mandatory

**Complexity** - 6

## Taxi Manager Story Cards

### TAXIMAN#1

**As a** Taxi Manager,

**I want** to be able to respond to requests for taxis with further tweets,

**So that** I can get information from the customer if they have not provided it ("What type of vehicle do you want?", "Where do you want to go?", etc).

**Acceptance Criteria**

Tweets that are requests for taxis can be viewed and responded to from the taxi manager dashboard (using Tweets without having to go to the Twitter website).

**Client Priority** - Mandatory

**Complexity** - 5

### TAXIMAN#3

**As a** Taxi Manager,

~~**I want** a list of solely "Active" and "Handled" requests (tweets),~~

**I want** to be able to separate tweets into lists of solely "Active", "Handled", and "Irrelevant" requests.

**So that** I can easily see all of the "Active" requests and open dialogues to respond to them.

**Acceptance Criteria**

Taxi requests can be seen in a list of solely "Active", "Handled", and "Irrelevant" requests with corresponding colours from the taxi manager dashboard.

**Client Priority** - Mandatory

**Complexity** - 6

### TAXIMAN#4

**As a** Taxi Manager,

**I want** an automated response to be sent once a request is marked as "Handled" - this should state "Your taxi is enroute".

**So that** I don't have to input one manually.

**Acceptance Criteria**

Once a request is marked as "Handled", an automatic tweet is sent "@ing" the user's Twitter account stating that "Your taxi is enroute".

**Client Priority** - Should - Priority 2

**Complexity** - 6

### TAXIMAN#5

**As a** Taxi Manager,

**I want** the geotag provided in a user's tweet to automatically be filled in as their pickup location,

**So that** I don't have to input it manually.

**Acceptance Criteria**

When a request tweet is sent with a geotag, the system will automatically fill this in as the pickup location.

**Client Priority** - Should - Priority 3

**Complexity** - 7

**TAXIMAN#6**

**As a** Taxi Manager,

**I want to** be able to see all previous messages with a given customer,

**So that** I can fully understand the conversation with any given customer.

**Acceptance Criteria**

When the taxi manager is handling a request, all dialogue between the taxi manager and the customer should be viewable.

**Client Priority** - Mandatory

**Complexity** - 10

**TAXIMAN#7**

**As a** Taxi Manager,

**I want to** be able to log in to the admin side of the system,

**So that** I can access the twitter manager dashboard.

**Acceptance Criteria**

It should be possible to log into the taxi manager account and gain access to the taxi manager dashboard.

**Client Priority** - Mandatory

**Complexity** - 5

**TAXIMAN#8**

**As a** Taxi Manager,

**I want to** have requests ~~deleted~~ marked as "Unknown" 20 minutes after they've been marked as "Handled",

**So that** my feed of taxi requests doesn't become cluttered.

**Acceptance Criteria**

20 minutes after a request is marked as "Handled", the request is ~~deleted from~~ marked as "Unknown" in the system.

**Client Priority** - Mandatory

**Complexity** - 7

**TAXIMAN#9**

**As a** Taxi Manager,

**I want to** be able to view and fill in the destination with the customers favourite location or home address when a tweet mentions one of them,

**So that** a twaxi can be booked faster and easier.

**Acceptance Criteria**

As a Taxi manager, when a tweet mentions either the favourite or home address, I can view the customers address and fill the destination with the information.

**Client Priority** - Should - Priority 6

**Complexity** - 6

## General Manager Story Cards

### GENERALMAN#1

~~As a General Manager,~~

~~I want to be able to access the taxi manager dashboard,~~

~~So that I have total control over the system.~~

#### ~~Acceptance Criteria~~

~~When the general manager is logged in, they should have access to the taxi manager dashboard.~~

~~Client Priority — Should — Priority 4~~

~~Complexity — 5~~

### GENERALMAN#2

~~As a General Manager,~~

~~I want to be able to access the marketing manager dashboard,~~

~~So that I have total control over the system.~~

#### ~~Acceptance Criteria~~

~~When the general manager is logged in, they should have access to the marketing manager dashboard.~~

~~Client Priority — Should — Priority 4~~

~~Complexity — 5~~

### GENERALMAN#3

~~As a General Manager,~~

~~I want to be able to access the account manager dashboard,~~

~~So that I have total control over the system.~~

#### ~~Acceptance Criteria~~

~~When the general manager is logged in, they should have access to the account manager dashboard.~~

~~Client Priority — Should — Priority 4~~

~~Complexity — 5~~

### GENERALMAN#4

~~As a General Manager,~~

~~I want to be able to access the car manager dashboard,~~

~~So that I have total control over the system.~~

#### ~~Acceptance Criteria~~

~~When the general manager is logged in, they should have access to the car manager dashboard.~~

~~Client Priority — Should — Priority 4~~

~~Complexity — 5~~

### GENERALMAN#5

As a General Manager,

I want to be able to login to the admin side of the system,

So that I can access the general manager all of the dashboards.

Acceptance Criteria

It should be possible to log into the general manager account and gain access to the general manager dashboard.

**Client Priority** - Should - Priority 4

**Complexity** - 5



### 3: Selected Story Cards

#### Selected Story Cards

<b>CUST#3</b>	Complexity	10
<b>CUSTACC#1</b>	Complexity	8
<b>CARMAN#1</b>	Complexity	6
<b>CARMAN#2</b>	Complexity	6
<b>CARMAN#4</b>	Complexity	5
<b>ACCMAN#1</b>	Complexity	7
<b>ACCMAN#2</b>	Complexity	7
<b>ACCMAN#3</b>	Complexity	6
<b>ACCMAN#4</b>	Complexity	5
<b>MARKMAN#1</b>	Complexity	9
<b>MARKMAN#2</b>	Complexity	6
<b>MARKMAN#3</b>	Complexity	7
<b>MARKMAN#4</b>	Complexity	7
<b>MARKMAN#6</b>	Complexity	5
<b>MARKMAN#7</b>	Complexity	6
<b>TAXIMAN#1</b>	Complexity	5
<b>TAXIMAN#6</b>	Complexity	10
<b>TAXIMAN#7</b>	Complexity	5

## Team Member Contributions

### Josh

*"I produced erbs and controller code for the login and account creation system, the former of which required me to use the twitter API to authenticate a user's twitter handle. I also implemented the hashing of accounts passwords using bcrypt. Once this was complete I moved on to merging the multiple database files people had been using independently, and assumed responsibility of refactoring their code to separate out all the SQL queries into separate ruby files to allow for easier testing."*

### Todd

*"I worked on overall UX for much of the site, some of this work was done alongside Likith. I used mainly CSS to help improve the look and feel of the site, however some minor adjustments were made to HTML of pages also."*

### Alex

*"I worked on creating the taxi manager dashboard. This involved using the twitter API and databases to create a list of incoming tweets (taxi requests) that was displayed in a HTML table. I also implemented the functionality to be able to select a particular tweet and display its corresponding conversation, as well as allowing the taxi manager to send a reply to the conversation in question. "*

### Likith

*"I have helped with work on the UX, but have mainly focused on competitions and the marketing manager. This involved using the twitter API and databases to store keep track of ongoing competitions and competition tweet, I have also finished the 'Retweet to win a free ride' and 'End competition' story cards. I have done testing for these pages with cucumber."*

### Chika

*"I worked on user data management - including management of user offers. This was done using forms for dynamic websites. I used HTML and ruby to implement this. Main difficulties are using event listeners to notify of edits to user information and offers."*

### Yixin

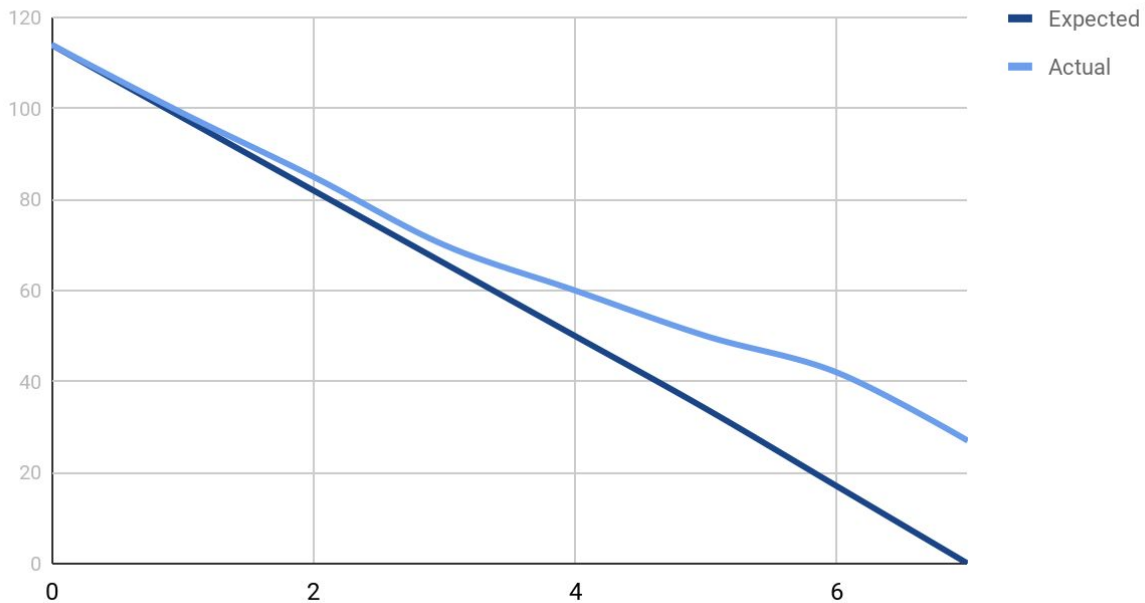
*"I worked on creating a table that account manager could view the previous rides. This involved display the table to show the whole history in the HTML table and create a table in the database."*

### Caroline

*"Vehicles"*

## 4: Burndown Charts

Burndown Chart



The values for the Burndown Chart are based on the complexity values for our story cards and an approximation of how much each was completed by at a specific point of time in the project. As you can see from the graph, earlier on we managed to keep on track with the expected rate of progress, however as the weeks progressed we slightly lagged behind the expected rate. This could be partly due to us underestimating how difficult certain story cards would be and how long they would take to complete. It can also be seen that the actual value from the chart doesn't meet the x-axis, this is due to CARMAN#1, CARMAN#2 and CARMAN#4 not being started, and then ACCMAN#1 and ACCMAN#2 only being partly completed.

## 5: Testing

Testing in our first iteration has been relatively minimal; the only testing that so far has been implemented is on some of the ruby functions used to access and modify the database using minitest; specifically, the users database. These can be found in minitests/test\_users\_db\_utilities.rb, and all run successfully:

```
codio@divide-mister:~/workspace/project/minitests$ ruby test_users_db_utilities.rb
Run options: --seed 34408

# Running:

.....

Finished in 0.340401s, 26.4394 runs/s, 38.1902 assertions/s.

9 runs, 13 assertions, 0 failures, 0 errors, 0 skips
codio@divide-mister:~/workspace/project/minitests$
```

We also did testing using 'Cucumber' on the login features for the twitter manager, market manager, and for accessing the dashboards respectively. The results shown by this cucumber testing were as we expected, and as can be seen below, when you login with a specific type of manager's username and password, you are logged in as the correct respective manager.

```
Feature: login

  Scenario: Correct password entered
    Given I am on the login page
    When I fill in "username" with "marketting-manager"
    When I fill in "password" with "Password2!"
    When I press "log in" within "form"
    Then I should see "You're logged in as: marketting-manager"

  Scenario: Wrong password entered
    Given I am on the login page
    When I fill in "username" with "marketting-manager"
    When I fill in "password" with "nonsense"
    When I press "log in" within "form"
    Then I should see "Email:"
    Then I should see "Incorrect password."

Feature: Sending Retweet Competition

  Scenario: Correct password entered
    Given I am on the login page
    When I fill in "username" with "marketting-manager"
    When I fill in "password" with "Password2!"
    When I press "log in" within "form"
    Then I should see "You're logged in as: marketting-manager"
    Then I go to marketmanager page
    When I fill in "date" with "08-20-2020"
    Then I should see "Market Manager Dashboard"

  Scenario: Wrong password entered
    Given I am on the login page
    When I fill in "username" with "twitter-manager"
    When I fill in "password" with "nonsense"
    When I press "log in" within "form"
    Then I should see "Email:"
    Then I should see "Incorrect password."

Feature: login

  Scenario: Correct password entered
    Given I am on the login page
    When I fill in "username" with "twitter-manager"
    When I fill in "password" with "Password2!"
    When I press "log in" within "form"
    Then I should see "You're logged in as: twitter-manager"

  Scenario: Wrong password entered
    Given I am on the login page
    When I fill in "username" with "twitter-manager"
    When I fill in "password" with "nonsense"
    When I press "log in" within "form"
    Then I should see "Email:"
    Then I should see "Incorrect password."

5 scenarios (5 passed)
32 steps (32 passed)
0m2.036s
codio@raja-system:~/workspace/project$
```