

Very good work - B

TEAM 1 ICT-2102 Assignment 3

Brainstormed design ideas

Description and discussion process

Design ideas brainstormed:

1. Find all available routes for the user based on given start and end point.
 - When given two specific locations, the application should find all possible routes between the two points before evaluating the results to suggest the best route.
2. Detect congestion on route
 - For all routes found, system should refer back to congestion data and factor in any congestions that are found in the route to reflect a more accurate travelling time.
3. Detect transport's current capacity load (i.e. how full it is) **How - seems a challenge??**
 - From capacity data, system should reflect and display how full the bus/train is so that users can refer to the information and choose an alternate transport that might be less crowded.
4. Crowdsourcing from users for traffic conditions updates **challenge ??**
 - Users who find out about certain traffic situation (e.g. traffic jam, train breakdown) can login to their account and post a Traffic Condition Update to the application, to help keep other users informed.
5. Bookmark 'Favourite' routes
 - If a user tend to travel on a particular route often, or wishes to save it for future reference, they can bookmark a particular route they found and open the route information in the future. **OK - its a good requirement, but is a small**
6. Filter compiled results of routes based on user's preferences **one**
 - There might be a lot of different routes generated based on the user's location inputs, but not all routes might be of value to the user. Filtering the results to omit the routes that the user would not be interested in will help the user find the most preferable route quicker.
7. Track exact current location of transports **OK - Good too**
 - Helps user to track the exact location of the bus or train that he/she intends to board, to provide the user with an idea of how far away the transport is from reaching.



Good to have one line justification for the mapping you have created

Diagram: User value vs technical complexity

Design ideas chosen

Description and explanation why did you choose them - its good to justify

Design Idea #1:

what is user's filter preferences

Find all routes and return results based on user's filter preferences all routes for what ??

- Combination of design idea 1 and 6. It is key to the problem that the user is able to find a route that is accurate with congestion data factored in. Additionally, the user should be able to choose to see only what they are interested to see. E.g. if a user with bus-concession wants to find directions, routes that requires them to take the MRT will not be their preferred route. If users can't find what they want to see easily, it will definitely affect their user-experience negatively.

Design Idea #2: - The idea is very good, but its difficult to actually have this in practise

Crowdsourcing from users for traffic conditions updates

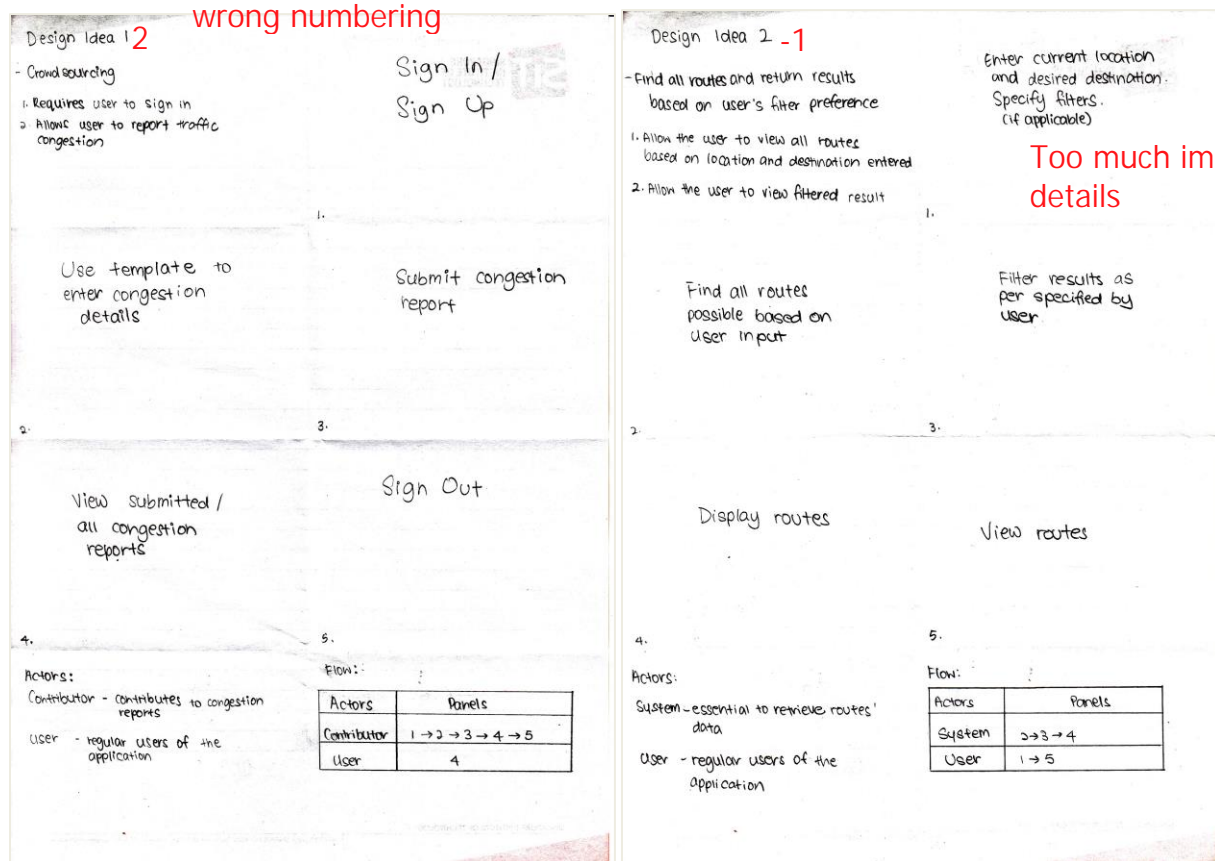
- Relatively easy to implement whilst data gathered from it can be very helpful as well. High user-value compare to the technical complexity it requires. Utilizing the congestion data gathered from crowdsourcing can help the other users a lot when providing directions for routes that are suggested to be congested by contributing users who had submit a traffic condition update.

How will you crowd-source

Difficult to implement and comply to

Storyboards

Are there any pre-requisites for the actions, any assumptions you have made??



Too much implementation details

Please label the story boards with proper titles

Prototype

Design 1 (Low-fidelity):

Good to have a few lines/ or a table about the mapping between storyboard panels and the proposed prototype

home | Find | Report | Log in | Sign up

Log in
Sign up

User Name:
Password:
Submit

Name:
User Name:
Password:
Submit

Information is shown when either Sign in / Sign up is chosen

Road Name:
Category:
Level of Congestion:
Estimated time to clear Congestion:
Submit Back

ERROR: please sign in or sign up for a new account to report any congestion. To go back to the main menu, click Main menu

Main menu

1. Click "Sign in / Sign up"

Thank You for reporting the congestion status. To view more congestion reports, click "View Congestion" button.

View Congestion

2. Name:
Updated at:
Details of congestion:
3. Name:
Updated at:
Details of congestion:

4. From ②, click "Submit" 5. From ④, click "View Congestion"

2. Click "Report Congestion"

3. Click "Report Congestion"

4. From ②, click "Submit" 5. From ④, click "View Congestion"

Design 1 (Med-fidelity):

Good to have a flow diagram too

TRAVEL APP

Sign In Sign Up

email:
password:
Submit

name:
email:
password:
confirm password:
Register

menu button options:

- Home
- Find Routes
- Newsfeed
- Report Congestion
- Sign In / Sign Up

Information is shown when either sign in / sign up is chosen.

1. Click "Sign In / Sign Up"

TRAVEL APP

Road Name:
Category:
Level of Congestion:
Approximate time to clear congestion:
Submit Cancel

ERROR: please sign in or sign up for a new account to report any congestion. To go back to main menu, click Home.

2. Click "Report Congestion" [signed in] 3. Click "Report Congestion" [without signing in]

TRAVEL APP

HOME FIND ROUTES NEWSFEED REPORT CONGESTION SIGN IN / SIGN UP

Welcome to the travel app, where planning to travel via public transport is made easier.

Find out how to use Travel App here!

Bookmark your travelling routes

1. Name:
Updated at:
Details of congestion:
Rate it!

2. Name:
Updated at:
Details of congestion:
Rate it!

3. Name:
Updated at:
Details of congestion:
Rate it!

4. From ③, click "Submit"

5. From ④, click "cancel"

6. From ①, click "submit" / "register"

7. Main page of Travel App

8. From ④, click "Newsfeed"

9. Click "Newsfeed"

10. From ④, click "Newsfeed"

sorted according to latest update

only available if signed in

Pages (1, 2, 3, 4)

Design 2 (Low-fidelity):

Starting Point ... ①

Destination ... ②

GO

☐ BUS ONLY
 ☐ TRAIN ONLY
 ☐ Sort by Fastest
 ☐ Sort by walking distance

VIEW TRAFFIC CONDITIONS

DOVER MRT to ORCHARD MRT

☐ BUS ONLY
 ☐ TRAIN ONLY
 ☒ FASTEST
 ☐ WALKING DISTANCE

Route 1 50 mins, 5m walk
 DOVER MRT → CITY HALL MRT → ORCHARD MRT
 By Train

Route 2 56 mins, 5m walk
 Route 3 60 mins, 12m walk
 Route 4 67 mins, 20m walk

DOVER MRT to ORCHARD MRT

☒ BUS ONLY
 ☐ TRAIN ONLY
 ☒ FASTEST
 ☐ WALKING DISTANCE

Route 1 56 mins, 5m walk
 197 → 51 → 11
 By Bus

Route 2 67 mins, 20m walk

DOVER MRT to ORCHARD MRT

☒ BUS ONLY
 ☐ TRAIN ONLY
 ☒ FASTEST
 ☐ WALKING DISTANCE

Route 1 56 mins, 5m walk
 Instructions:
 1. Go to bus stop and take 197
 2. Alight at Sunway Plaza, 3 stops later and take 51
 3. Alight at Orchard, 1 stop later and take 11

Route 2 67 mins, 20m walk

Design 2 (Med-fidelity):

What is the flow??

①

Start to Destination

GO

Mode of Transport
☐ Bus ☐ Train ☐ Both

Filter by:
☒ Best route
☐ Shortest walking time
☐ Lesser transfer

Traffic condition
☐ view traffic condition
☐ view MRT disruption (if available)

②

DOVER MRT to ORCHARD MRT

GO

Mode of Transport
☒ BUS ☐ Train ☐ Both

Traffic condition
☐ view traffic condition
☐ view MRT disruption

Route 1 50mins, 0m walk
 DOVER MRT → City Hall MRT → Orchard MRT
 By Train

Route 2 56mins, 5m walk
 Route 3 60mins, 10m walk

③

Start to Destination

GO

Mode of Transport
☒ BUS ☐ Train ☐ Both

Traffic condition
☐ view traffic condition
☐ view MRT disruption

Route 1 56mins, 5m walk
 197 → 51 → 11
 By Bus

Route 2 60mins, 10m walk

④

Start to Destination

GO

Mode of Transport
☐ Bus ☐ Train ☐ Both

Traffic condition
☒ view traffic condition
☐ view MRT disruption

Route 1 50min + 10min
 Estimated
 10min
 Take 197 from bus stop
 Alight 15 stops later

Jurong East to Pulau Ubin

GO

No route found

① Main page of Go Directions

② From ① select "best route" and click "Go"

③ From ① select "Bus" and click "Go"

④ From ① select "view traffic condition" and click "Go"

⑤ From ① click "Go", when route not applicable