WALKING NAVIGATION APP

User Guide

Team 053 - Semicolon

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TABLE OF CONTENTS

1.   Introduction

Introduction

This User Guide describes examples for using the Walking Navigation App, followed by some requirements to use the application. This User Guide also provide troubleshooting to audience.

Intended audience

This User Guide is intended to be used by the user to get an overview on the application and how to use it, as well as understand errors and possible solutions.

Overview of the application

The Walking Navigation App is an web-based application that can run on mobile devices to direct users to a destination via a series of walking directions. The app will monitor the users' location, direct users along the path by giving them instructions to get to the next location on the path until they reach the destination.

2.   App Features

Main features

1. Loading routes information from external websites and displaying them on the main page for the user to choose.
2. Display a map pointing to user's location with accuracy level and compass heading.
3. Direct user to the next waypoint (showing which direction to go).
4. Show user's location history.
5. Displaying user's speed, distance to the destination, estimated time of arrival.

Supported Platforms

6. Android 4.1 or later versions.
7. iOS 5 or later versions.
8. Windows XP or later versions.
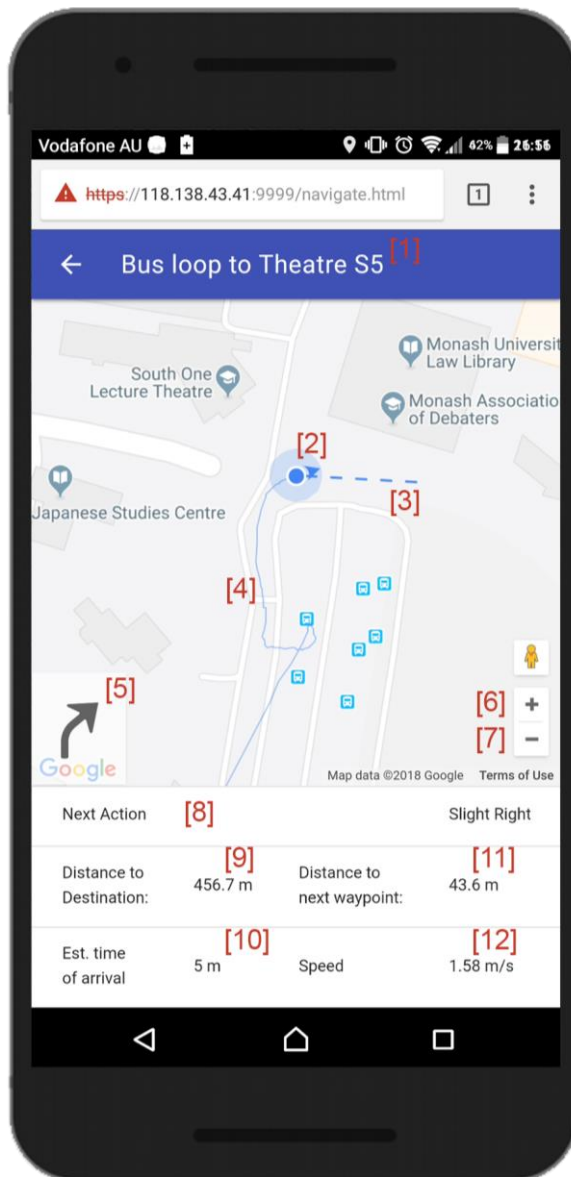9. MacOS X 10.1 or later versions.
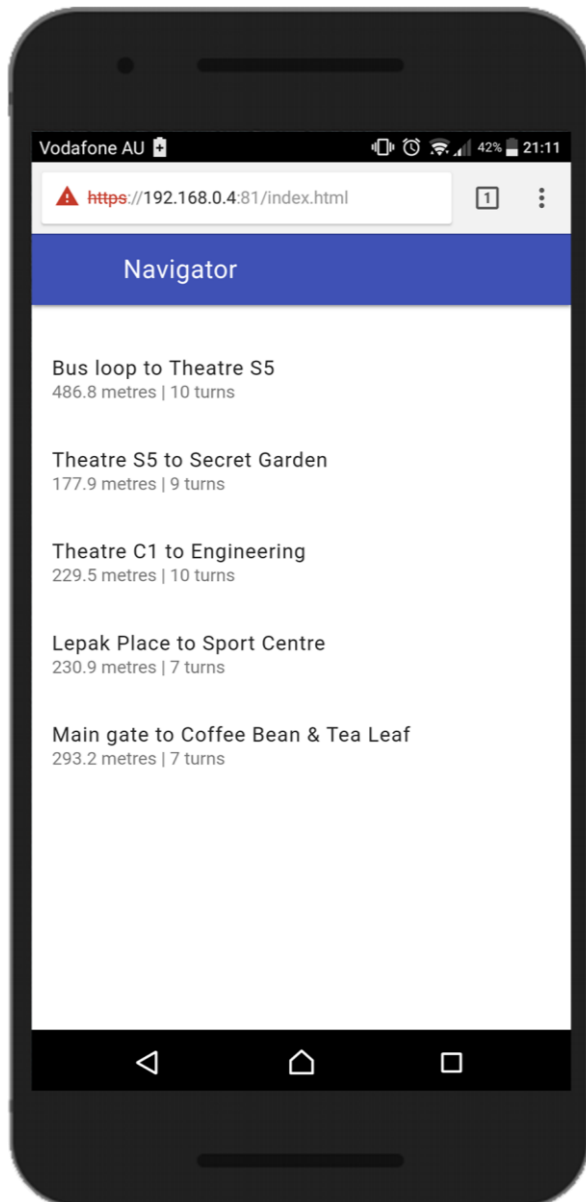
3.   Main Interface

Main View
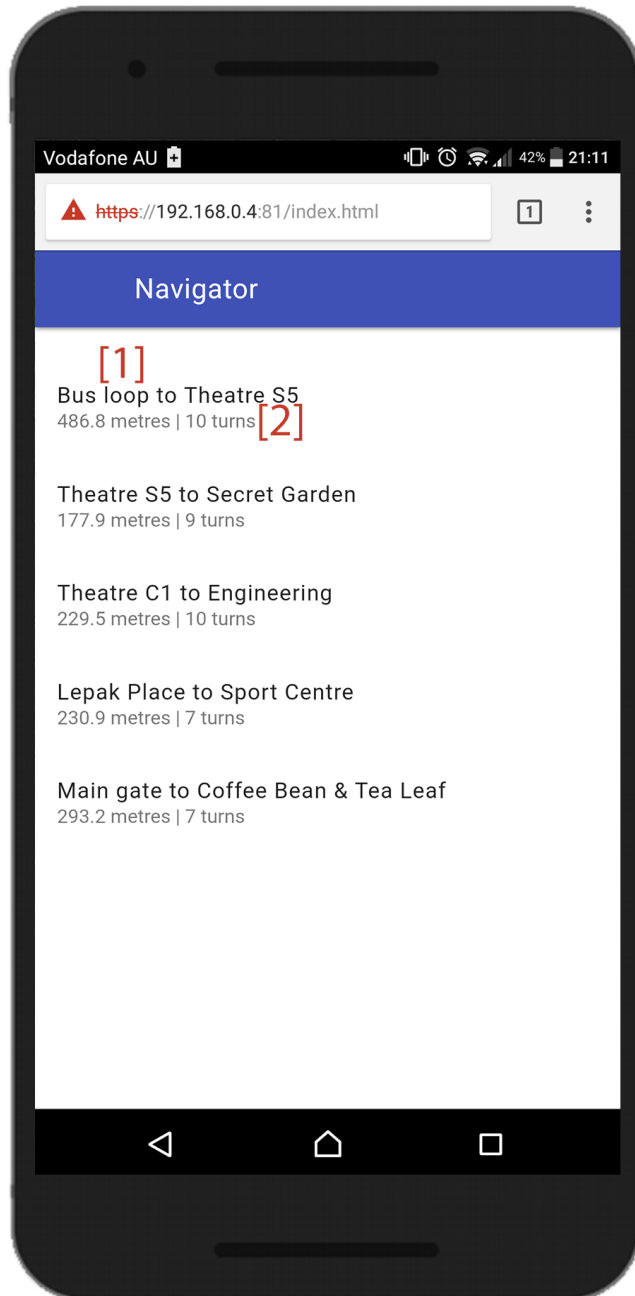

[1] Path Title

[2] Extra information

Navigation View

[1] Path Title

[2] Current Location

[3] Next waypoint

[4] Location history

[5] Direction

[6] Zoom in

[7] Zoom out

[8] Next action

[9] Distance to Destination

[10] Est. time of arrival

[11] Distance to waypoint

[12] User's speed

4. Instructions for use

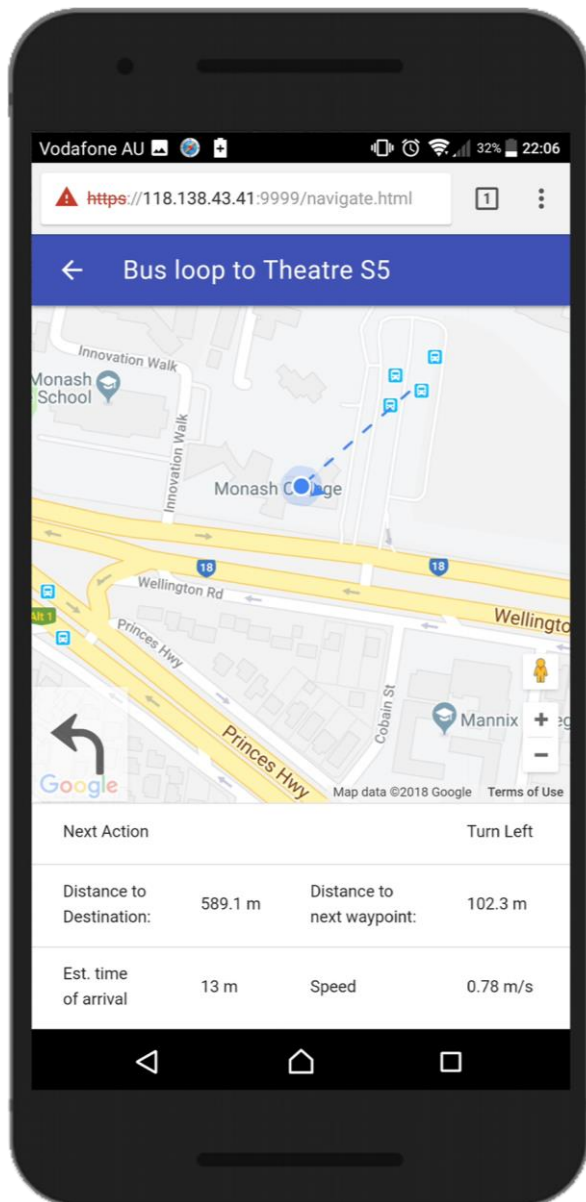## Choose Path

1. Type the address of the app

2. Wait for the app to load

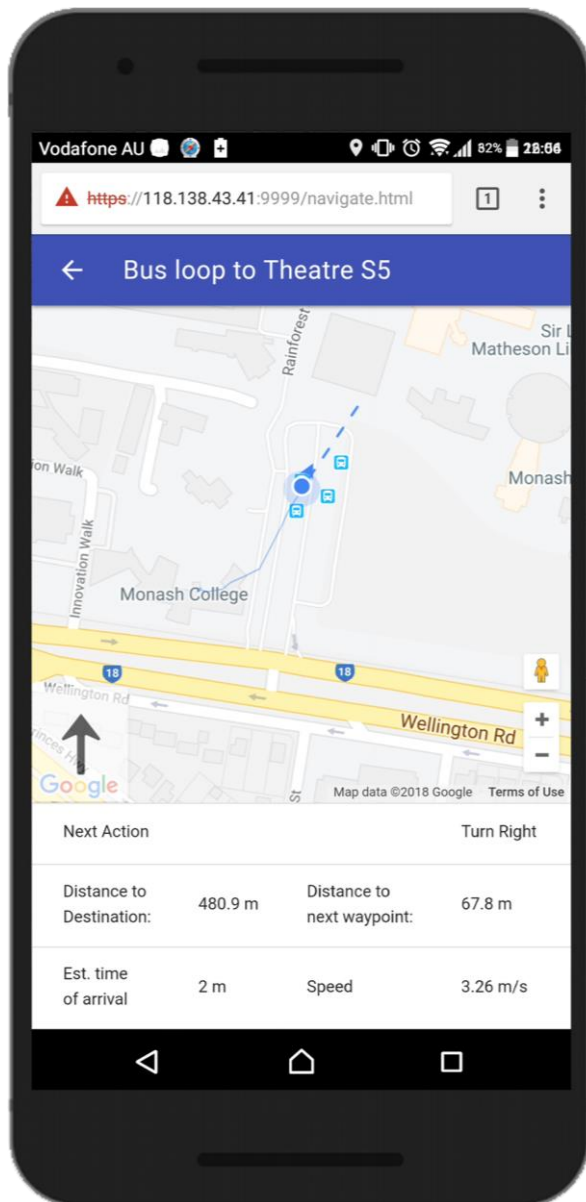3. Tap on a path to choose and transfer to Navigation View
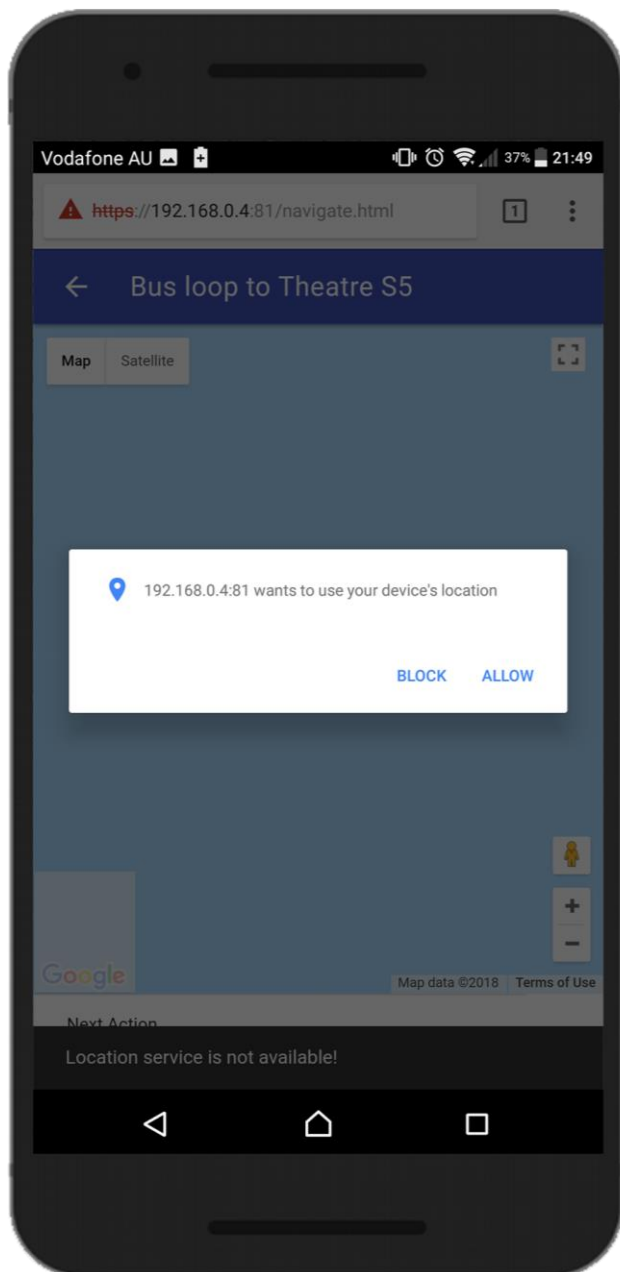
Allow location service

1. Wait for the map to load

2. Tap on "ALLOW"

Start the path

1. Wait for the app to calibrate

2. Wait until the user heading arrow appears

2. Start walking

3. Follow the instruction if the left corner (turn left in this case)

Keep walking

1. The location history is displayed by a small blue polyline.

2. If there is a message "Location data is not accurate enough!", wait for the location data to be accurate enough

3. Keep walking

4. Follow the instruction in the left corner (head straight in this case)
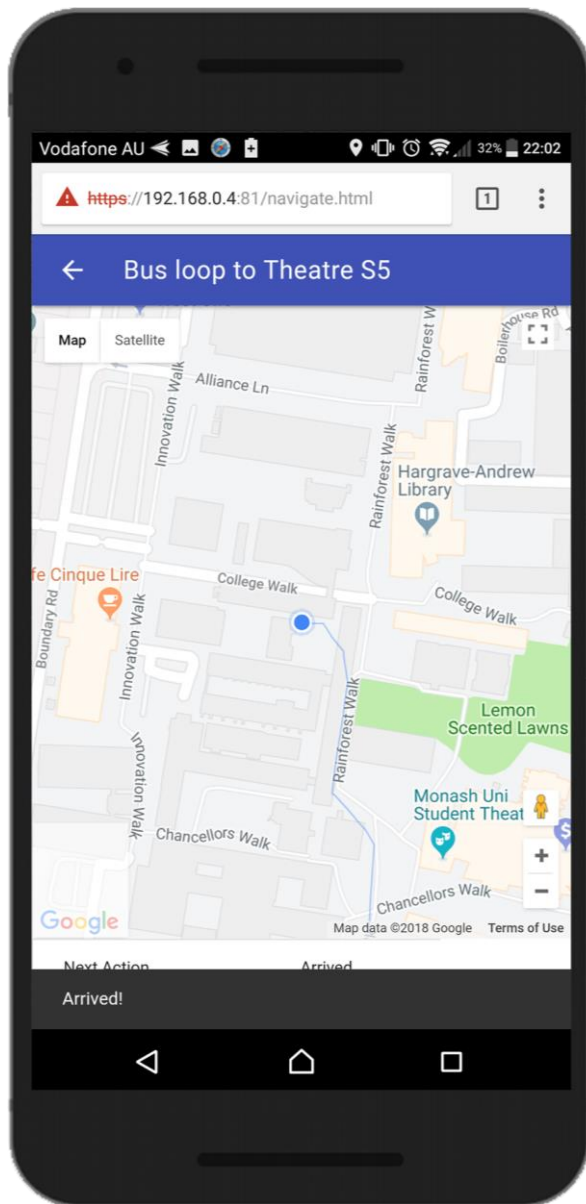
Reach the destination

1. Reach the last waypoint

2. The user heading arrow now disappears

3. There is a "toast textbox" notifies "Arrived!"

5.   Troubleshooting

1. Problem: The device says "Location service is not available!"
   Cause: + The location service is not turned on
                     + The user Block the location access
   Solution: + Check the location service and site settings

2. Problem: The device says "Location data is not accurate enough!"
   Cause: + The device accuracy is currently too low
   Solution: + Wait for the device to update location

3. Problem: The device says ""localStorage is not supported by current
   browser.""
   Cause: + The browser does not support local storage.
   Solution: + Update the browser
                     + Try with another browser or device

4. Problem: There is nothing in the main page
   Cause: + The browser does not support local storage.
   Solution: + The external websites have not responded yet
                     + Try refresh the main page

5. Problem: The arrow is pointing to wrong direction
   Cause: + The fluctuation in the location data
   Solution: + Keep walking to update the location data

6.   Limitations

Update time
The location is updated not so frequently, this leads to the "laggy" user experience

Accuracy
The accuracy is always above 10 meters, which is acceptable but still a huge disadvantage.

User's heading
User's heading is computed based on recent locations, therefore the fluctuation in the location data may affect the accuracy of the heading.