

### Application: Your Tourism

#### The goal of app

- mashes up “walking” and “local attractions” as two elements
- encourage local people to walk and explore our city
- target for local people (not visitors)

#### The introduction of app

This app mashup pedometer and tourist planner

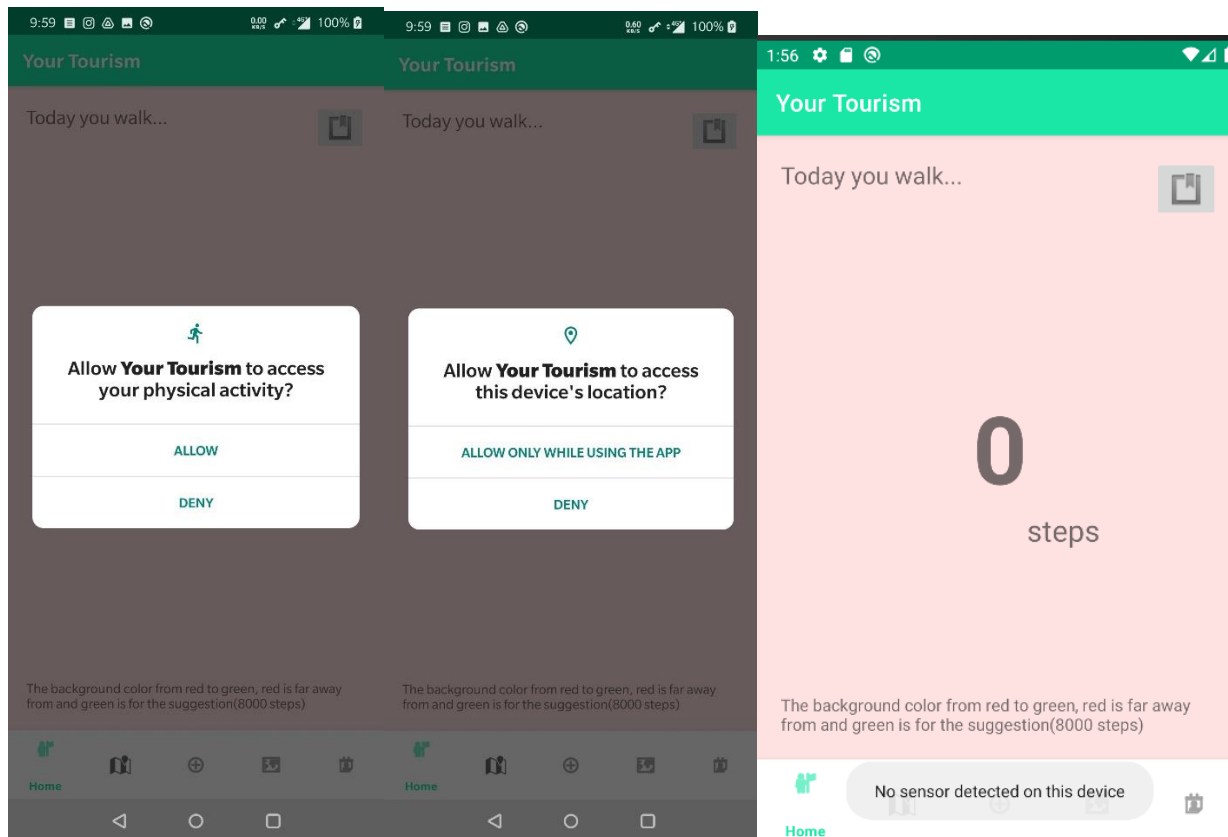
- Step count
  - Record user step count
- Daily Record with bar graph analysis
  - Generate bar graph of step count and daily visit count
  - A table list to show current records
- Map with attraction points
  - A map to nearby attractions
- Attractions recorder
  - User can save their location with any introduction or their comments
  - can share to friends though QR code, receive the code of attraction from friend

## User guide

### - First use this app

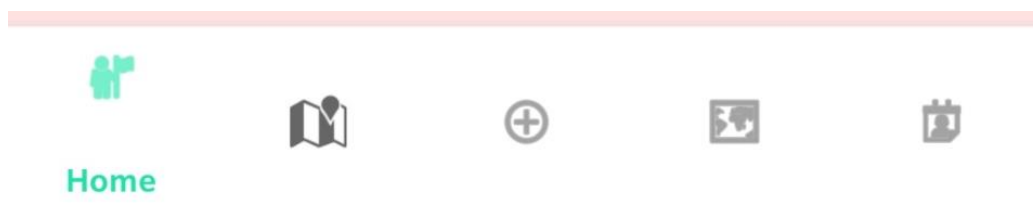
For first use this application user, it will appear permission request.

Please notice that for the visual device, it will appear “No sensor detected on this device”.



In the bottom of the screen, there are navigation bar to switch tabs.

From left to right: “Step Count” tab, “Map” tab, “Insert Page”, “Attractions” tab and “Record” tab




## - Step Count Tab

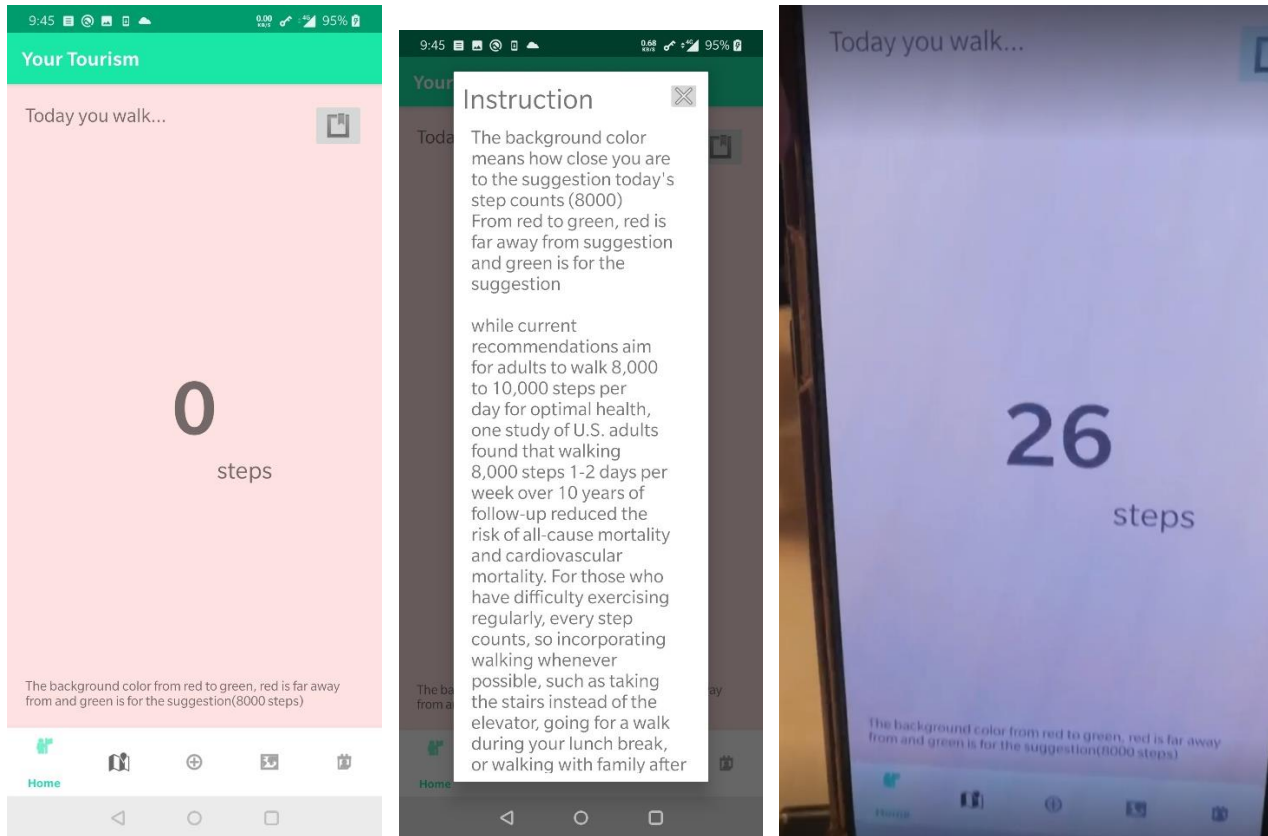
(this function may not support by visual device)

In this tab, user today step will be record and display in here.



is a button to show some instruction or some hint of walking. In this dialog you can click  to close it.

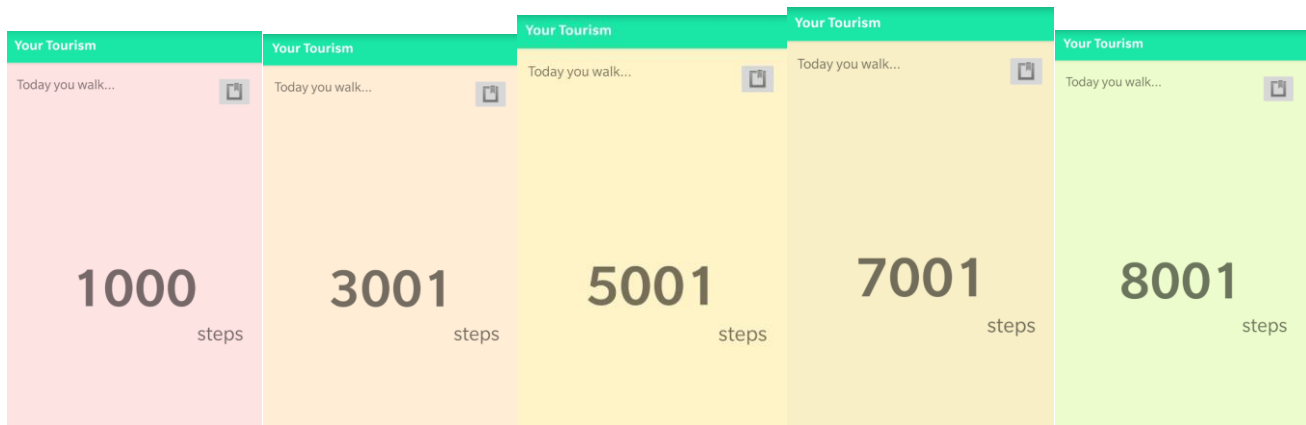
In actual device, it can record the steps after user walk. (may have a little delay)



The background color will change in specific step count range.

The background color from red to green, red is far away from and green is for the suggestion (8000 steps a day).

It can remind the users to walk more.



## - Map Tab

In this tab, a map is displayed with zoom in/out button. You can see your current location and nearby attractions. You can get more information though clicking the markers.



## - Insert Page

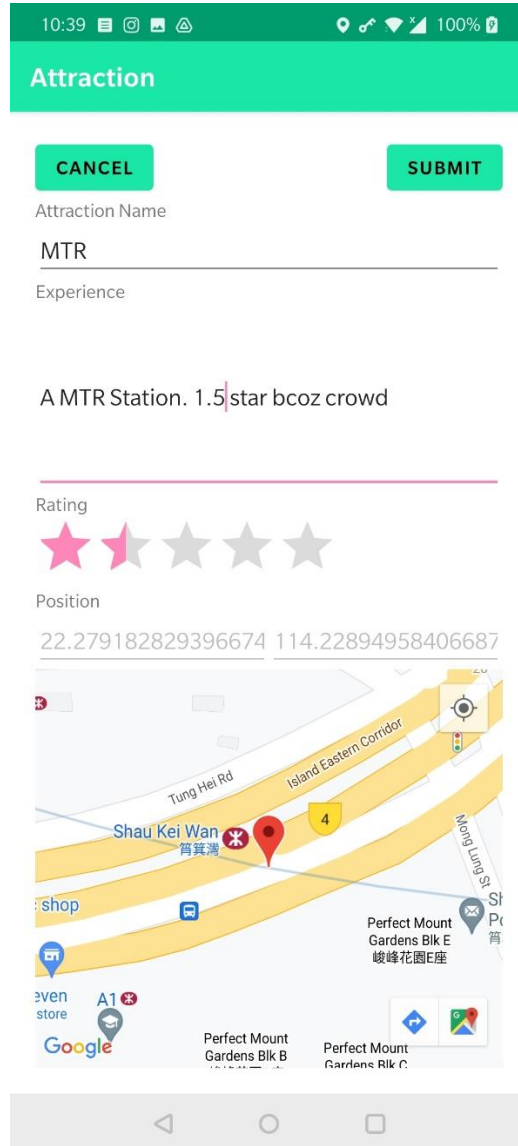
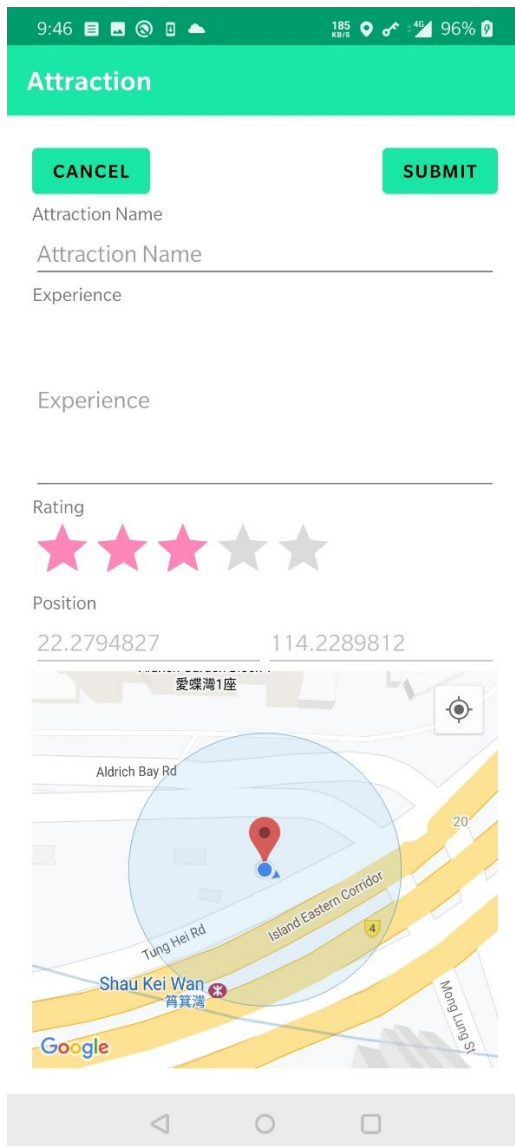
When you click the third button in nav bar, this page appears.



User can record a new attraction in this page. User can input the information such as name, rating, position. Position is set by the marker in the map.

Usually, after this page appears and the app will auto set as your current location in a few seconds. It is useful to record when your walk to the destination actually.

But user can still click the map to place the marker to change the default position.



The field cannot be empty.

When you click “Cancel Button” or press Back, a warning will appear.

10:35

Attraction

CANCEL SUBMIT

Attraction Name

Attraction Name

Experience

Experience

Rating

★★★★☆

Position

Latitude Longitude

Attraction name cannot be empty

10:41

Attraction

CANCEL SUBMIT

Attraction Name

jajajaa

Experience

hahajaja

Those information will not be save.  
Are you sure to exit?

NO YES

When you click submit, the attraction is created.

Your Tourism

IMPORT QR CODE

MTR Rating: 1.5/5 Creation Date: 15/05/2023

A MTR Station. 1.5 star bcoz crowd

VIEW ON MAP

形薈 Rating: 5.0/5 Creation Date: 13/05/2023

Vestibulum id libero id lorem ornare lobortis. Duis purus arcu, convallis quis iaculis non, porta sed urna. Cras maximus tortor.

VIEW ON MAP

柴灣海邊 Rating: 2.5/5 Creation Date: 11/05/2023

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Vivamus venenatis faucibus mauris, nec sagittis elit volutpat eu. Fusce id rhoncus velit. Duis fermentum nisi ut est feugiat scelerisque. Sed vel.

VIEW ON MAP

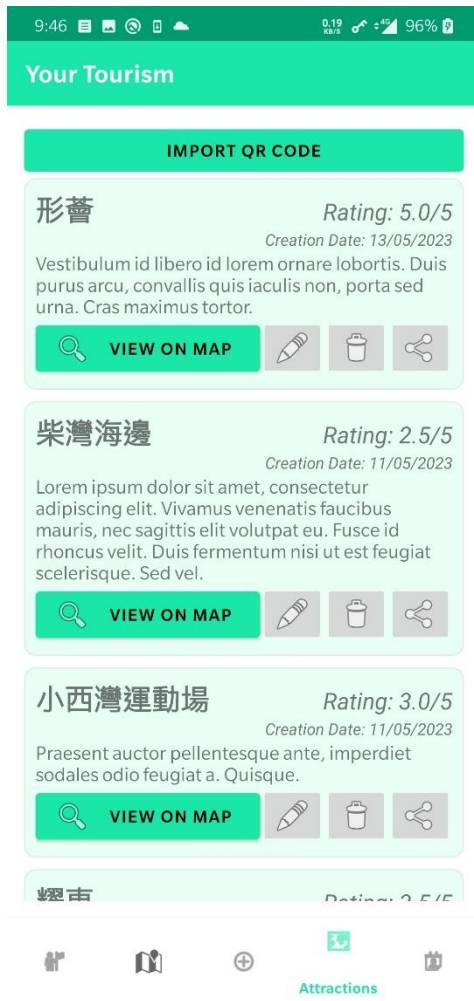
小西灣運動場 Rating: 3.0/5

Attractions

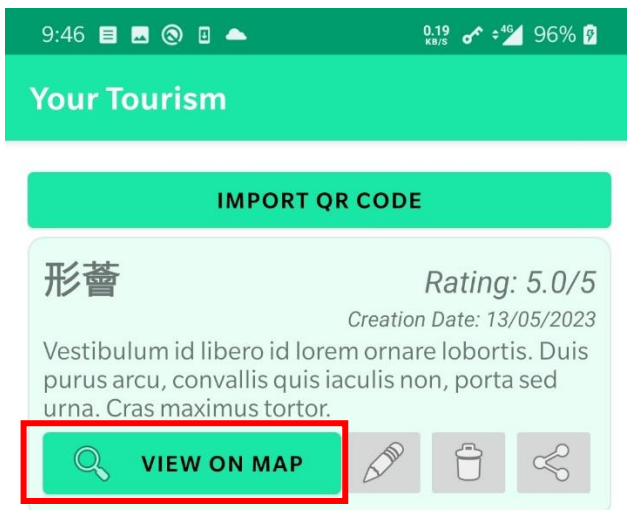
## - Attractions Tab

The attractions that you created will be show in here.

You can clear see the information of those attractions, such as their rating.




When you click “View On Map” in one of the attraction, it will go to map tab and show the location in map.



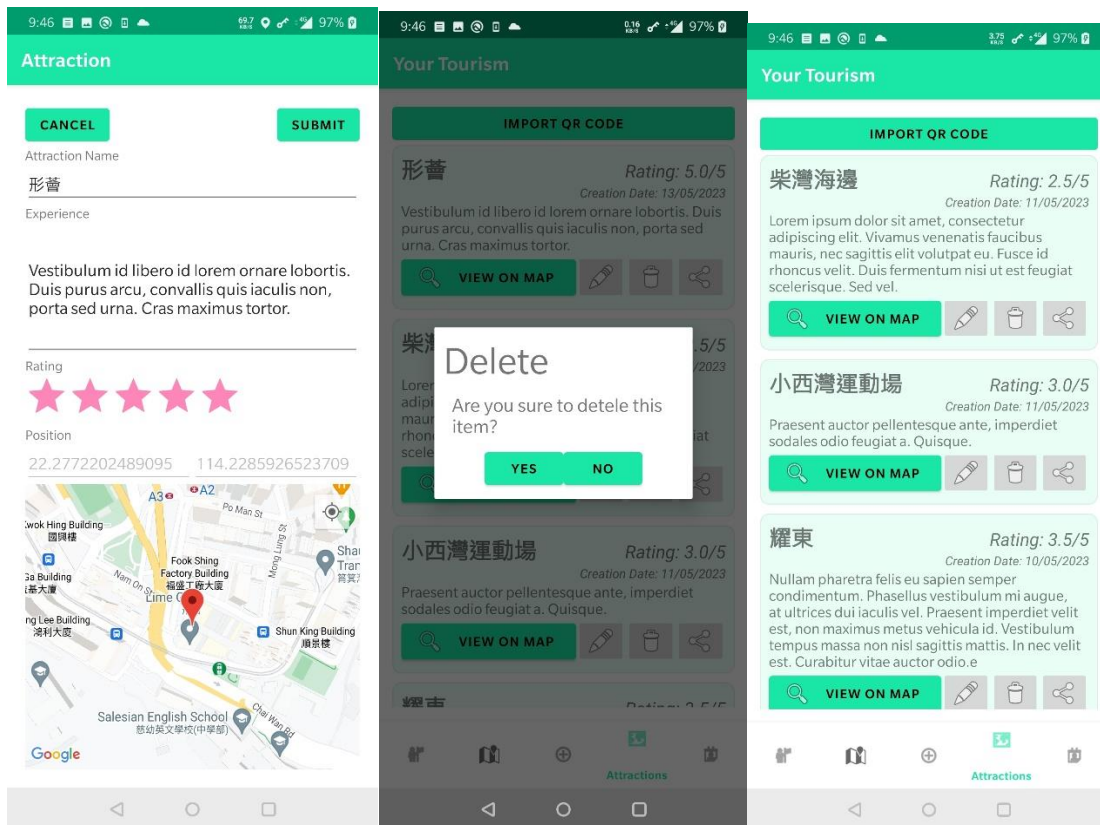




You can modify the exist attraction by clicking edit button . Or delete it by clicking delete button



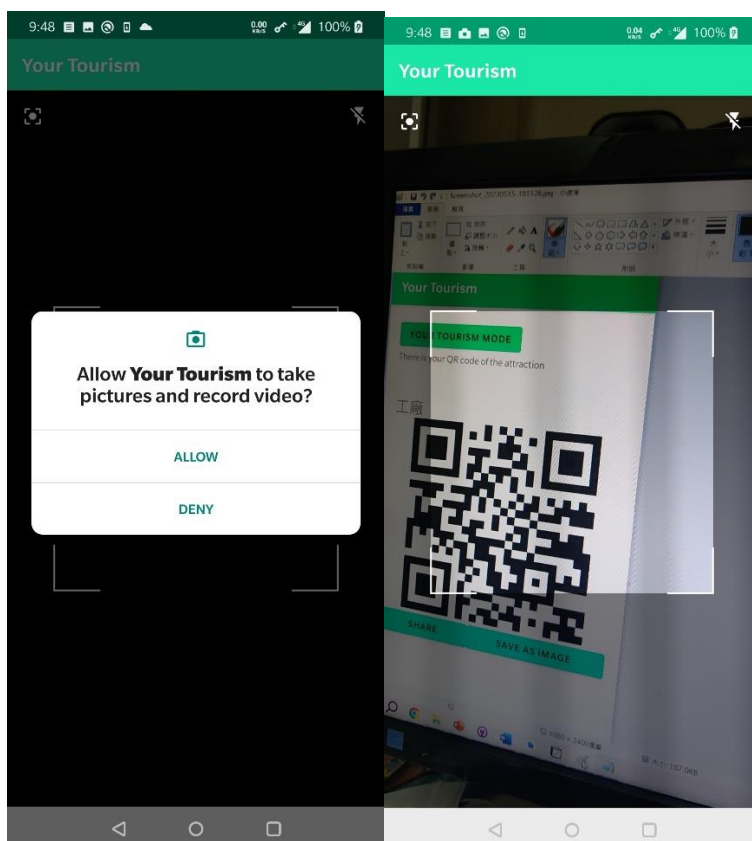




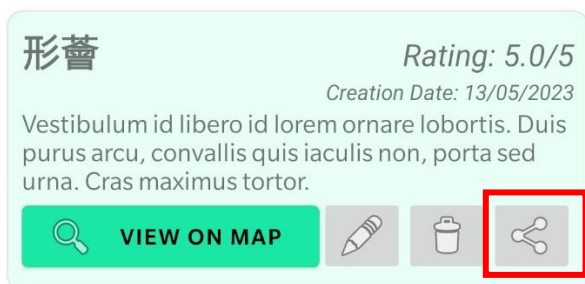
You can also import other attractions though QR code("Your Tourism Mode" QR code) by clicking the "Import QR Code" button. It requires camera permission.



The result will show in next part.



You can share your attraction through QR Code. After clicking the share button, a QR Code page will appear.



There are two mode you can choose: "Google Map Links Mode" and "Your Tourism Mode". Different Mode generate different QR Code.

"Google Map Links Mode": just share the position of attraction. Everyone can scan this QRCode to get the position. The QR Code contains the url of google map with position.

(<https://maps.google.com/?q={lat},{lng}>)

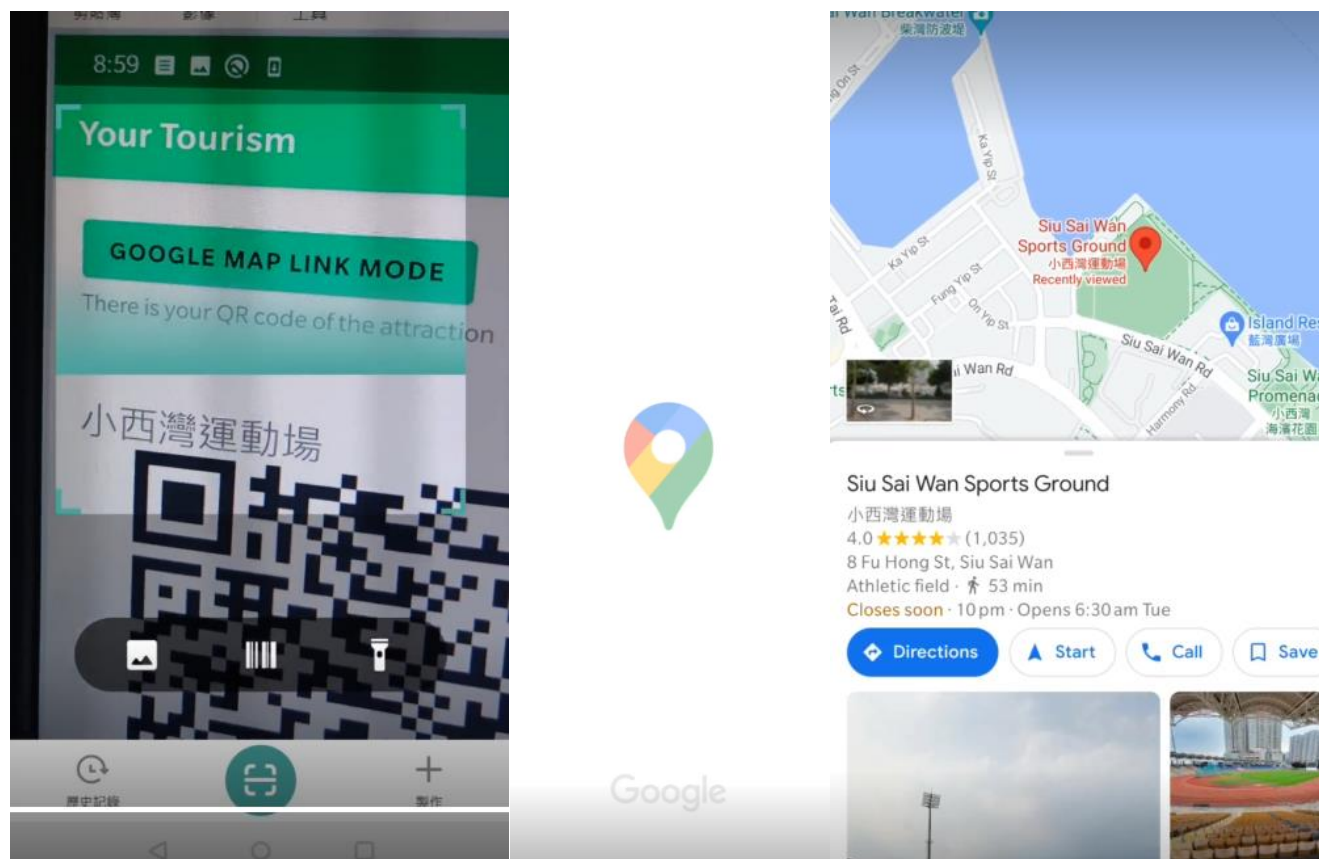
"Your Tourism Mode": only can scan by Your Tourism. It is easier to receive the position and save it in app. After scanning, the app will go to Insert Page and load the position and attraction directly.

Left: "Google Map Links Mode"

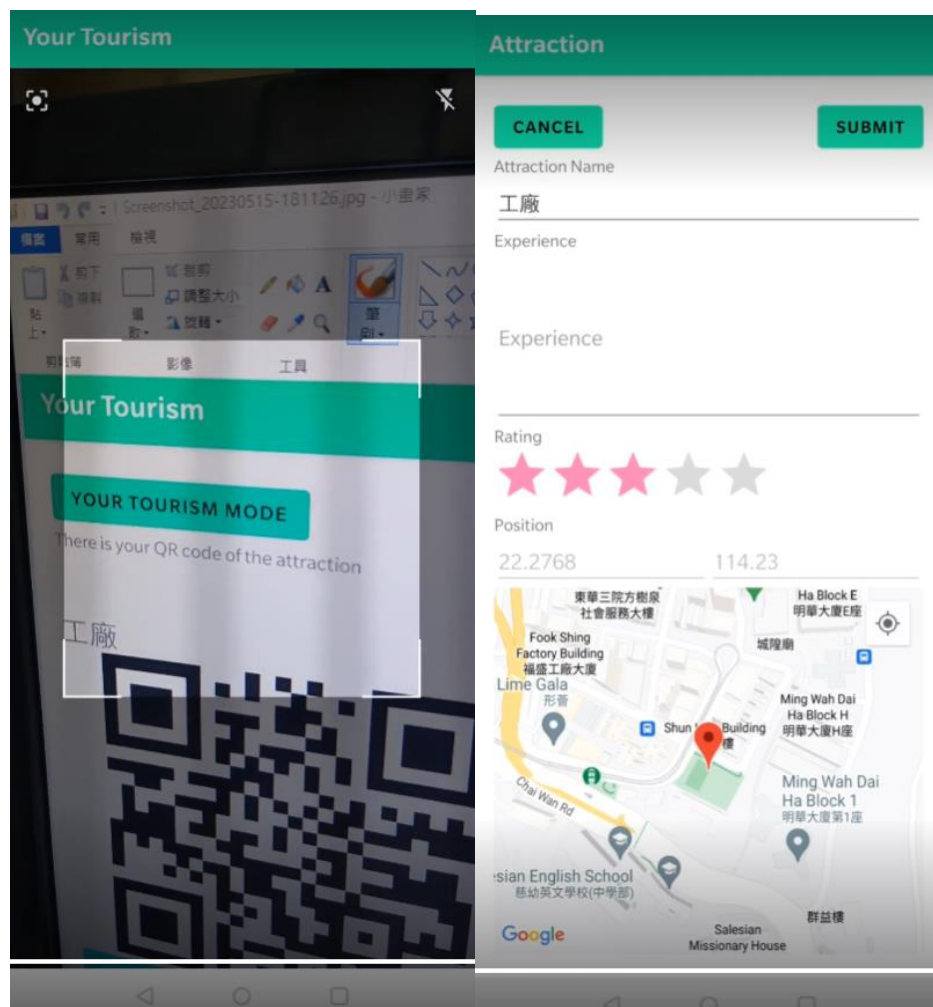
Right: "Your Tourism Mode"



“Google Map Links Mode”: (the example use other QR Code Scanner from Google Play Store)



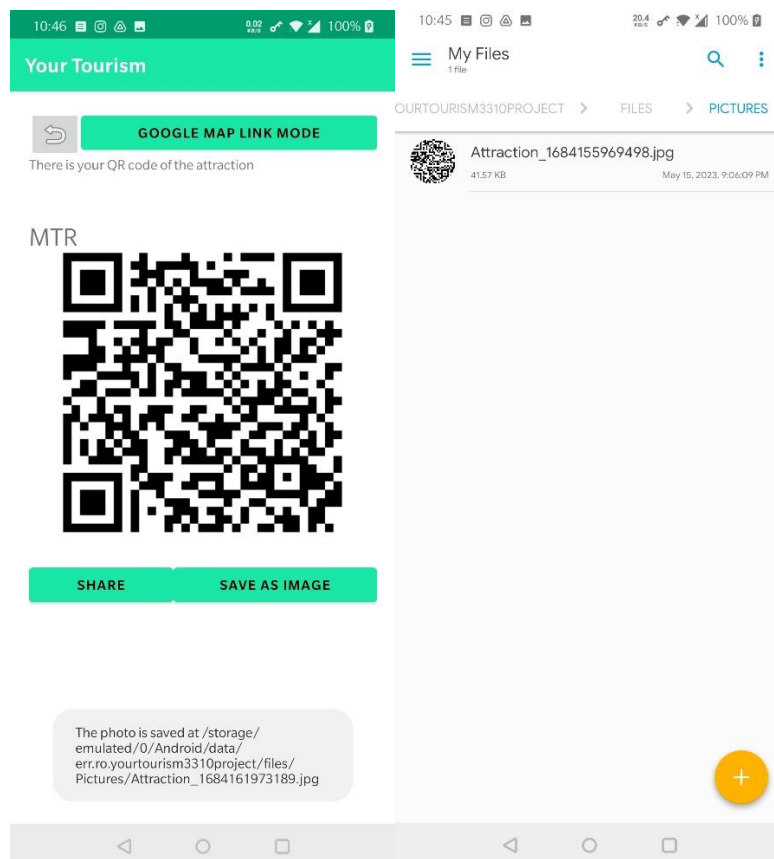
“Your Tourism Mode”:



Those QR code can be shared by clicking “Share button”.



Or can save the QR code image for further sharing. Click “Save as image” to save.



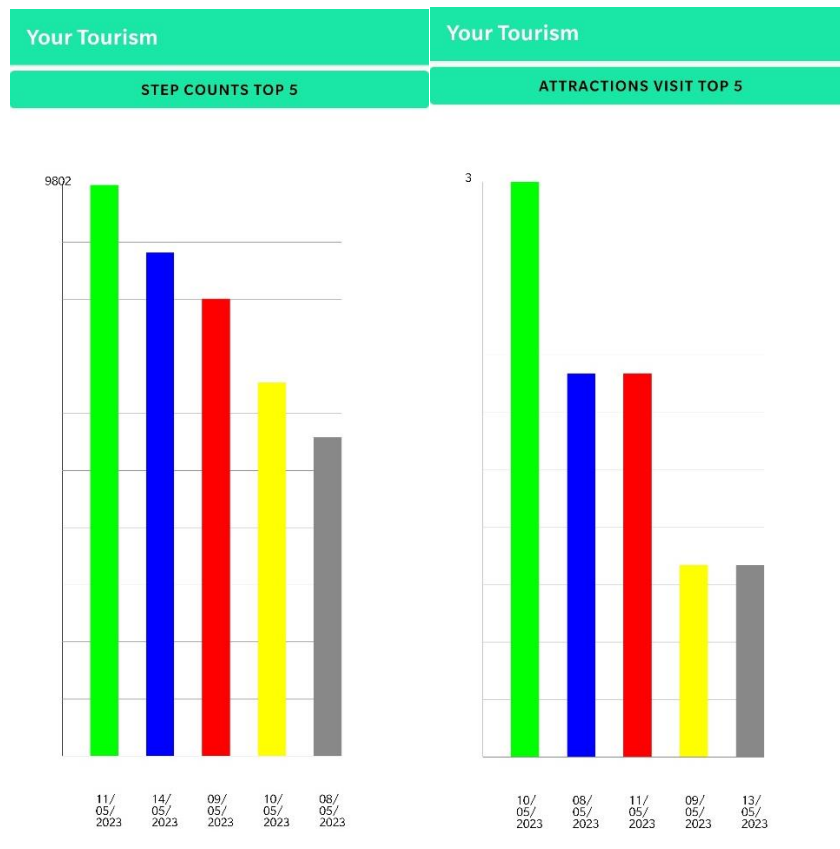
## - Record Tab

It has a table to show current record of step count and create attraction count.

Your Tourism		
VIEW BAR GRAPH		
Date	Step	Attraction Visit Count
08/05/2023	5473	2
09/05/2023	7854	1
10/05/2023	6410	3
11/05/2023	9802	2
12/05/2023	1257	0
13/05/2023	3941	1
14/05/2023	8642	0
15/05/2023	0	0

When we click the “View Bar Graph” button on the top, we can see the bar graph from those records. We can click the top of the button to switch the bar graph.

We provide “Top 5 step counts” and “Top 5 Attractions visit” two Bar graph:



## Build instructions for your project to facilitate our testing including developing platform

Window 10

Testing device

Visual Device: Nexus 5X, API 29

Device: OnePlus 7T Android 10

## Version of Android-Studio being used, special dependencies

Android-Studio: 2022.1.1 Patch 2

implementation 'com.github.androidmads:QRGenerator:1.0.1'

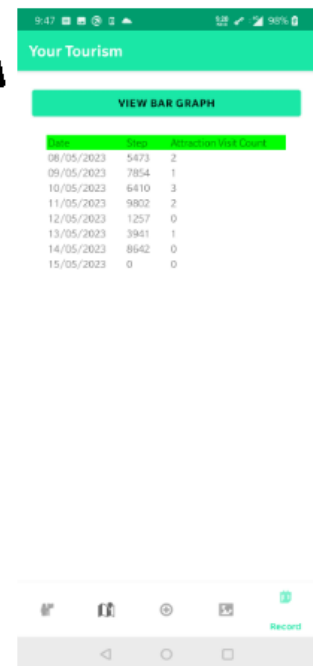
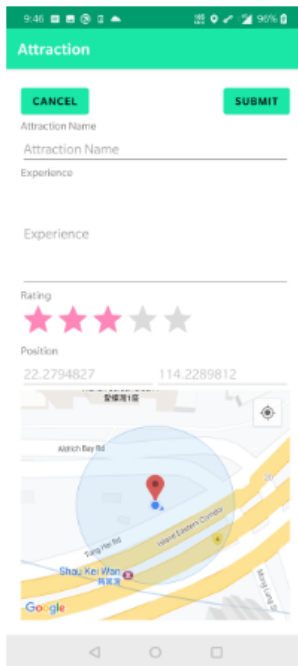
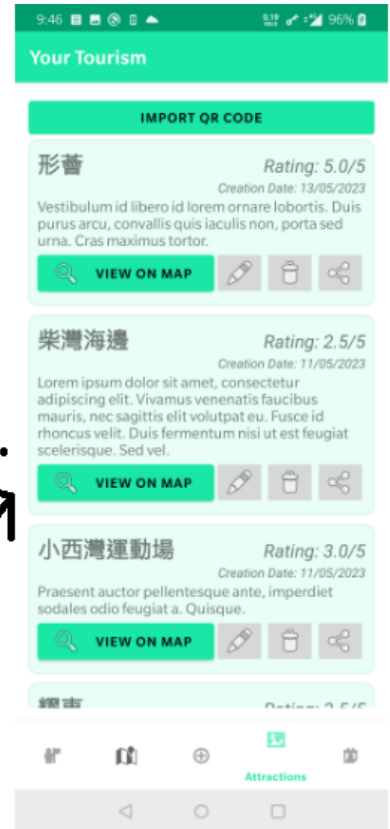
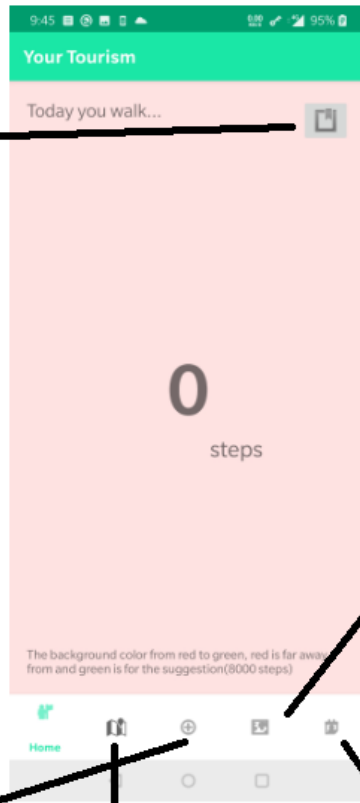
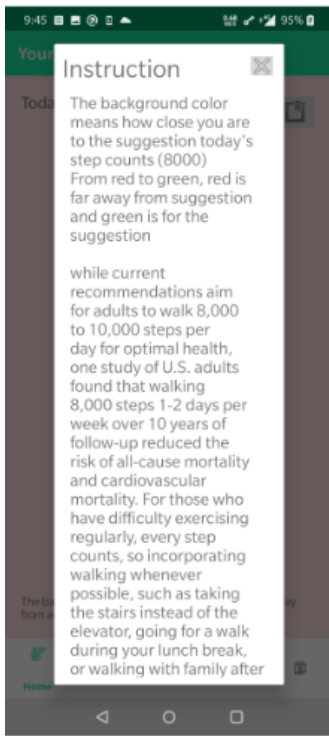
(<https://github.com/yuriy-budiyev/code-scanner>)

implementation 'com.github.yuriy-budiyev:code-scanner:2.3.2'

## App layout flow (i.e. storyboard or navigation diagrams)

Some complex layout flow









View Map



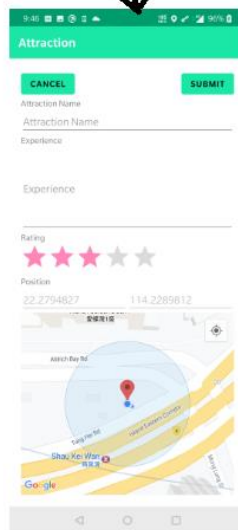
import by camera

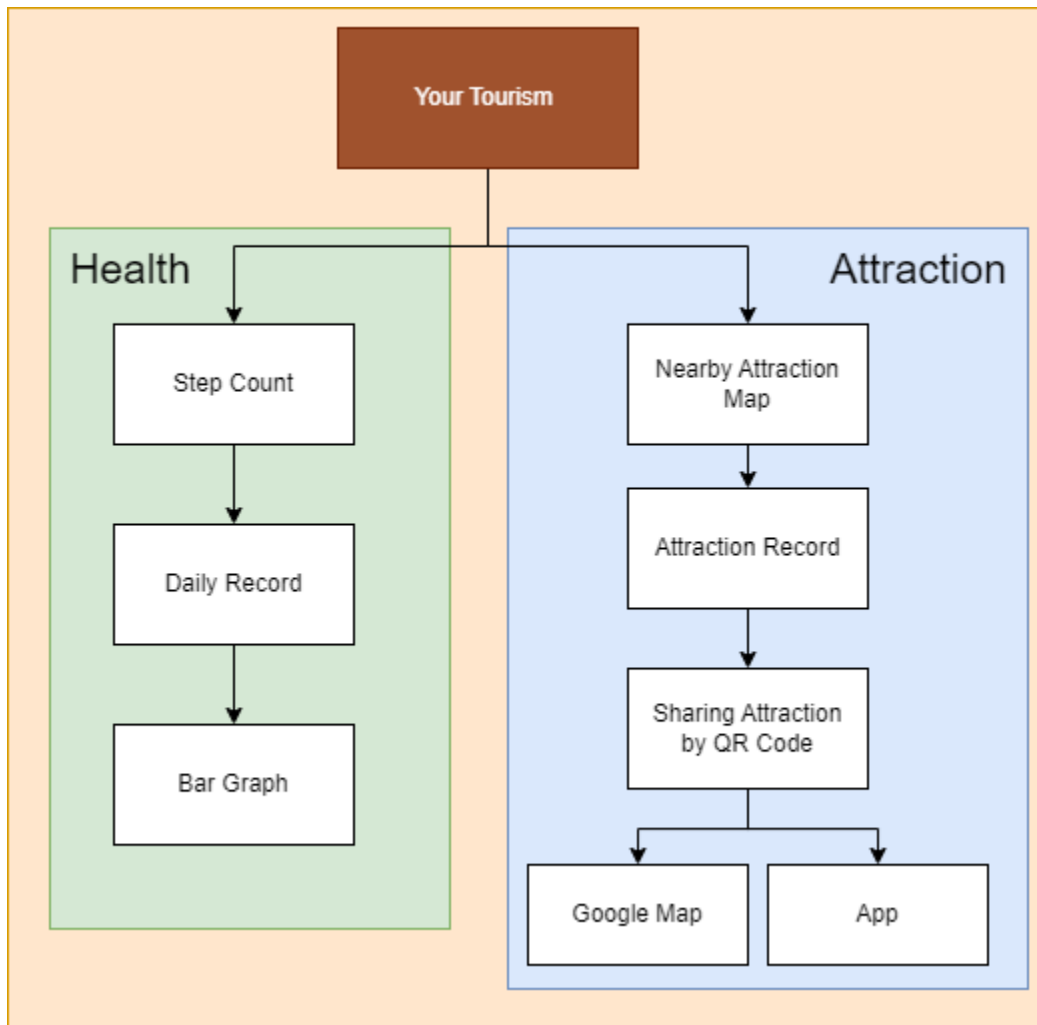


Share



Edit





[Reflection on the project e.g. deviations from proposal and justifications](#)

### Checkpoint Function?


Deviations from proposal:

In our early planning, we are not planning attractions recorder. We plan to make it an application that user can try to walk through all checkpoints of a path. Or create a path to encourage other people to walk from the starting point step by step.

Title:

Experience:

Rate: ☐ ☐ ☐ ☐ ☐

location: 

checkpoints: ☐ no checkpoints

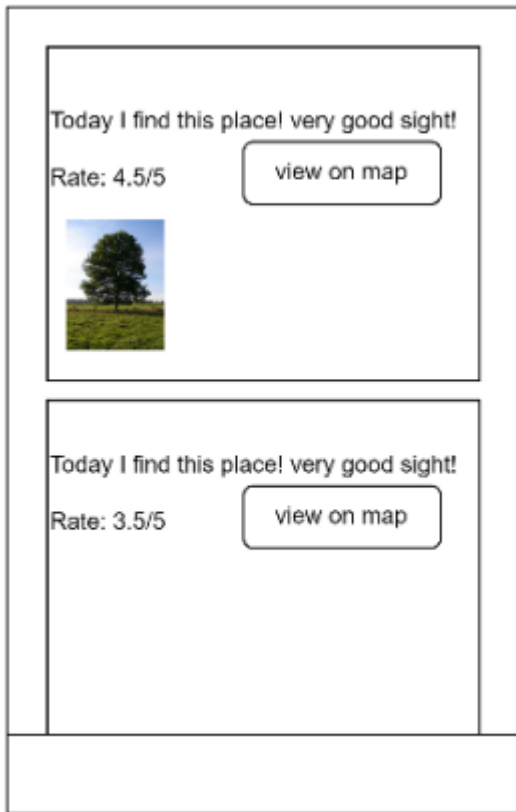
Justifications:

But it is already canceled in our plan before submitting the proposal. It is just a mistake and typo that it keeps in the wireframe or in proposal.

### Image Function

Deviations from proposal:

In our early planning, we design to store image as a part of the attraction information in Attractions tab.



#### Justifications:

It spends more time than we expected to research the way to store the image. Such as converting to Bitmap for saving to database or storing in internal storage. It is required to consider many factors such as different Android system versions or image types. One attraction to more image is also a key point.