CS 306 Final Project

"Running with Music" APP

User Manual

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# Catalogue

1. Introduction

The purpose of building up this app is encourage people to exercise more and provide users a convenient app to record their interesting exercise experience. To improve users' willingness to exercise, the app contains the exercising musics, which can be played in the duration of exercise. Users can also record beautiful pictures and meaningful notes along with the exercise experience within the app.

2. APP Overview

2.1 Map View

Fig 1. Map View
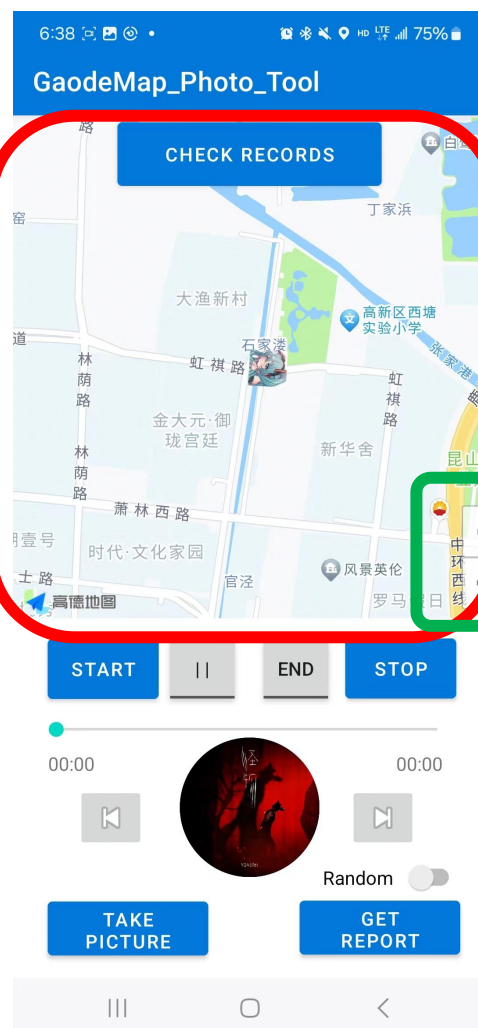
The upper part in the red square is the map view, which is built up on the Gaode Map API. The user can zoom in and out the map with fingers or the plus and minus buttons in the green box. The picture of the little girl in the middle of the map stands for the real-time location of the user. The orientation of the little girl's face changes with the user's changing orientation. In the center of the top, there is a Check Records button, which will be explained in 3.4.
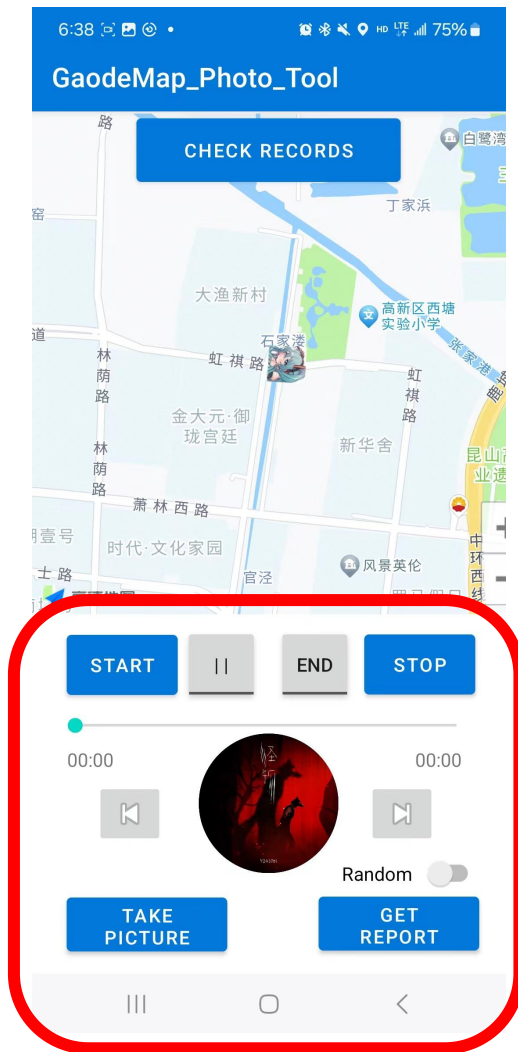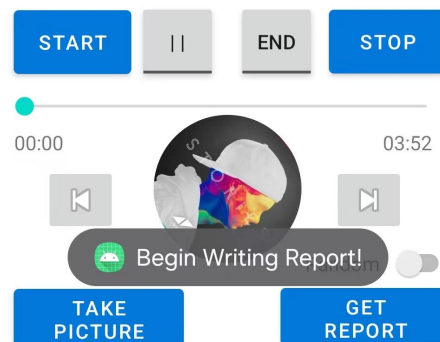
2.2 Music View

The Music View is the red box of the right picture, which contains the buttons controlling music playing, the music progress bar, the circular music picture and the cut song buttons. The "Take Picture" button is used for the taking picture notes function, which will be explained in 3.3 and the get report will be useful in Exercise Record function, which will be explained in 3.1. There is also a random-mode switch in the right corner, which will be explained in 3.2. In this view, the app build two new threads to monitor the music playing and exercise recording separately.

Fig 2. Music View

3. APP Functions

3.1 Exercise Record Function

Fig 3. Start Exercise Recording

In my app, there is an exercise record function, which is used to record user's exercise experience along with total distance, time and average speed. At the duration of exercise, the app will also play musics to provide encourage. There are six different musics in my app for users to select.

Here is steps about how this function works:

Firstly, click "START" button to begin writing exercise report. The app will begin to play the exercising musics.

Here are four buttons to control music playing:

1. Pause Button: Click it to pause the music and click it again to continue playing.

2. End Button: Stop the music. To replay the music, click the START button again.

3. Progress Bar: Drag the progress bar to adjust the music progress. If the music comes to the end, the app will replay this song again automatically.

4. Cut Song Buttons (Left one and Right one) : Click the left cut song button to jump to the previous music. Click the right cut song button to jump to the next music. (Cut Song Buttons cannot be used when Random mode is opening.)
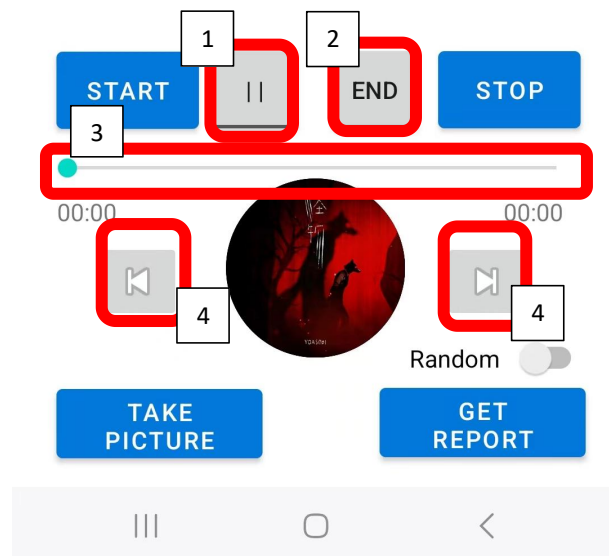

Fig 4. 4 Buttons to Music Control

Secondly, the user can begin to run, and the app will record the position of the user to draw the digital running path on the map view.

Thirdly, when the user finish running, click STOP button to stop recording. The app will use the popup text box to say "Stop Writing Report" and show the total distance, total time, and average speed of this time's running.
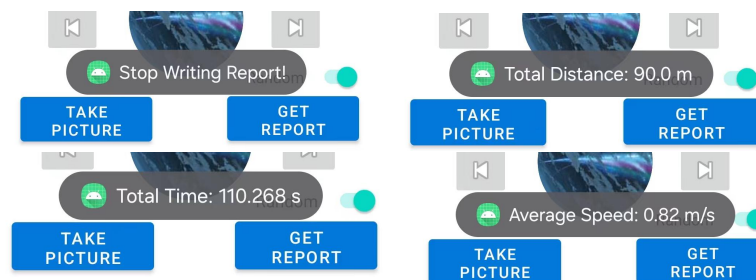

Fig 5. Stop Exercise Recording

3.2 Random Mode

There is a random mode switch button in the right corner of the music view part. Before opening the switch button, the user can change music through the cut music buttons. However, after opening the switch button, the app will show a popup text box to say "Open Random Mode!", and the user cannot use the cut music buttons.
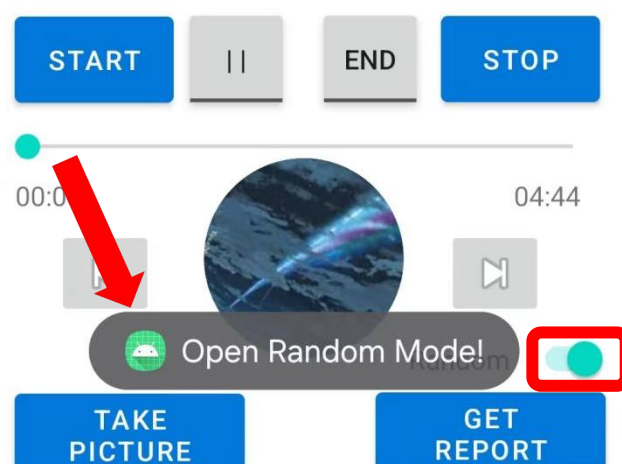

Fig 5. Open Random Mode

Instead, the music will change automatically according to the user's facing direction.

Six songs correspond to six different directions. 0-60 degrees = music 0;

61-120 degrees = music 1; 121-180 degrees = music 2; 181-240 degrees = music 3;

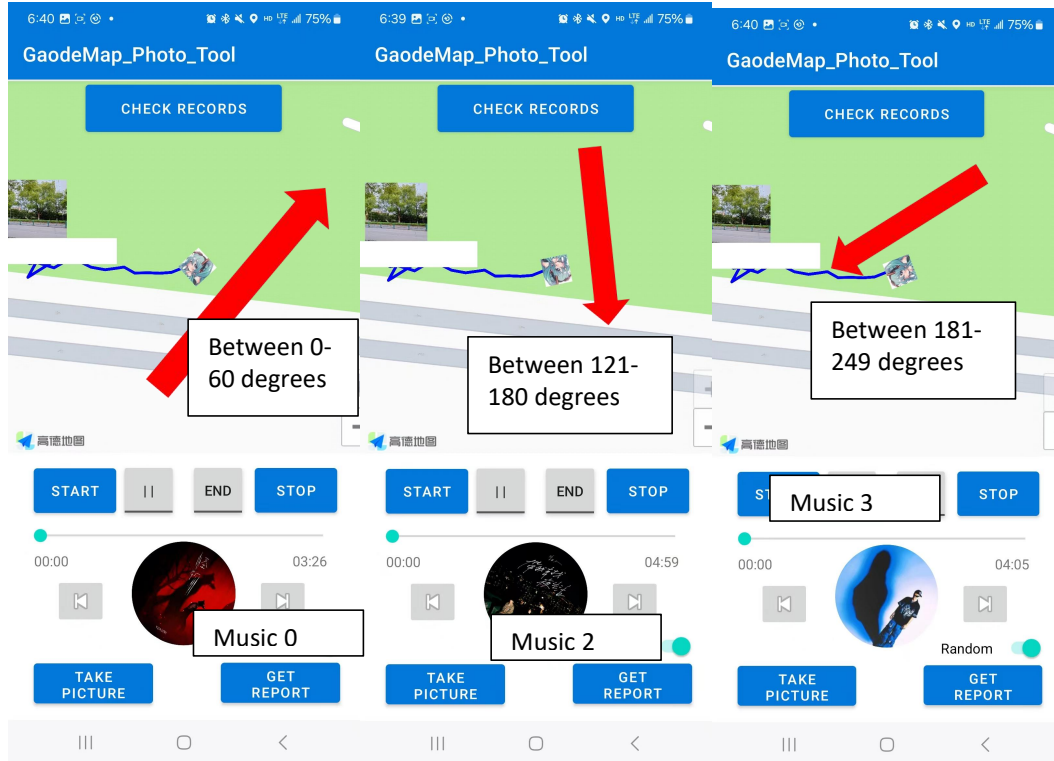241-300 degrees = music 4;   301-360 degrees = music 5;

Fig 6. Different direction, Different music.

In this way, the user can have an interesting random music experience.
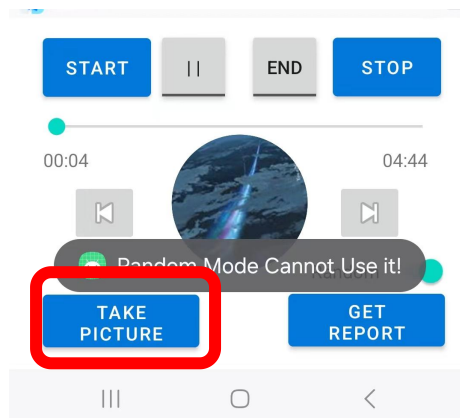
3.3 Picture Notes Function

Fig 7. Take Picture Button

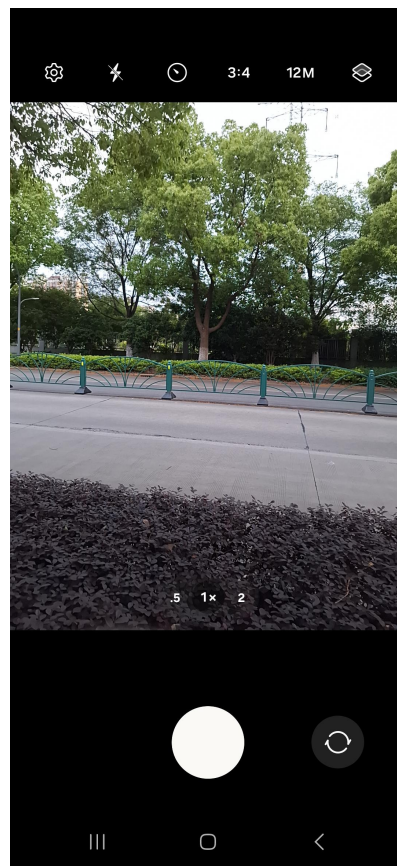Click the "Take Picture" button to come to the photo interface.

Fig 8. Photo Interface

This is the same camera as the phones original system camera. User can use it to record beautiful scenery they meet in the duration of exercise as a memento.

Fig 9. OK or Retry

After taking the picture, the user can choose to determine it or retry. After taking the picture, the app will ask the user to make a note if the user wants. After making the notes, click yes to show both the picture and note on the map as a record.
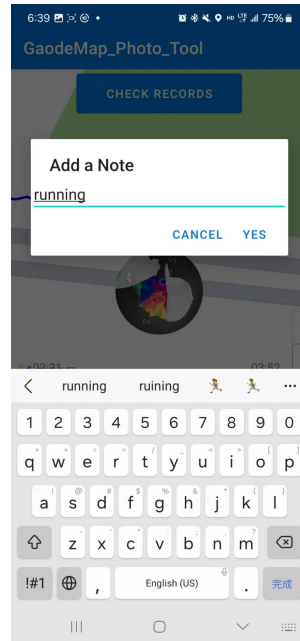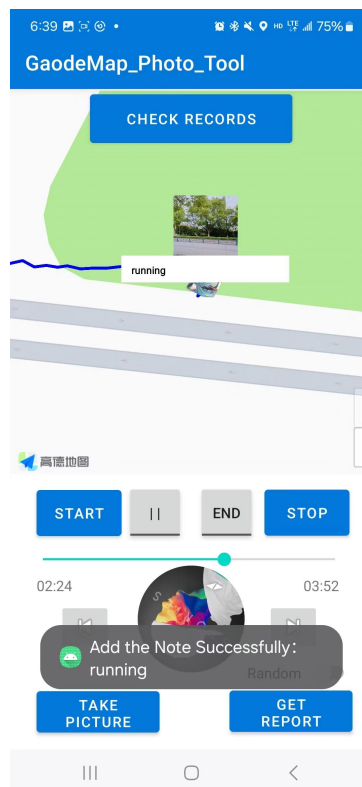

Fig 10. Make a Note

Fig 11. Picture and Note Show on the Map

3.4 Checking Reports Function

After finishing the exercise record, the user can click the "Get Report" Button to make the nearest report shown on the map as a viable report (the purple box in Fig 12). Moreover, the user can click the check records button to come to the record interface (Fig 13.).
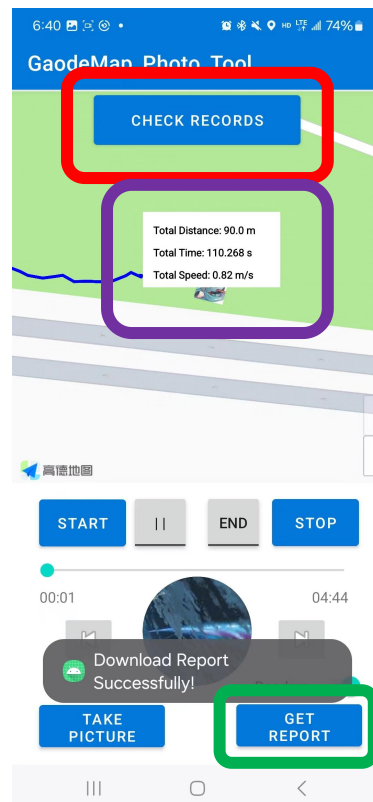

Fig 12. Get the Report and Show Report on the Map

In the Check Report Interface, there are 10 report positions in total. As what is shown in Fig 13, the first three report positions has been occupied by three exercise records. In this interface, the user can check each exercise report, which including total distance, total time and average speed. Therefore, users can visually compare their exercise states before and after, and then significantly seeing changes in their exercise abilities. In this way ,the app can bring exercise motivation to users and encourage them to pay more attention to their improvements between each exercise report.

Additionally, if all ten record positions are filled, the most recent record will replace

the oldest one to improve the app's performance.

Fig 13. The Check Report Interface

4 . Reference

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https://blog.csdn.net/JMW1407/article/details/114045679

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