

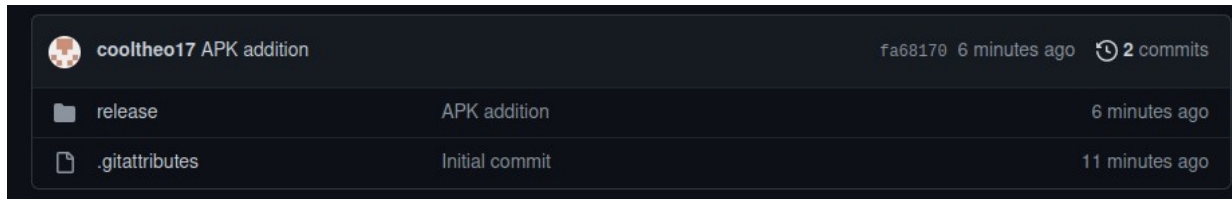
Instructions for Pong 4.0 Application

By Theo K.

Installation

- Step 1

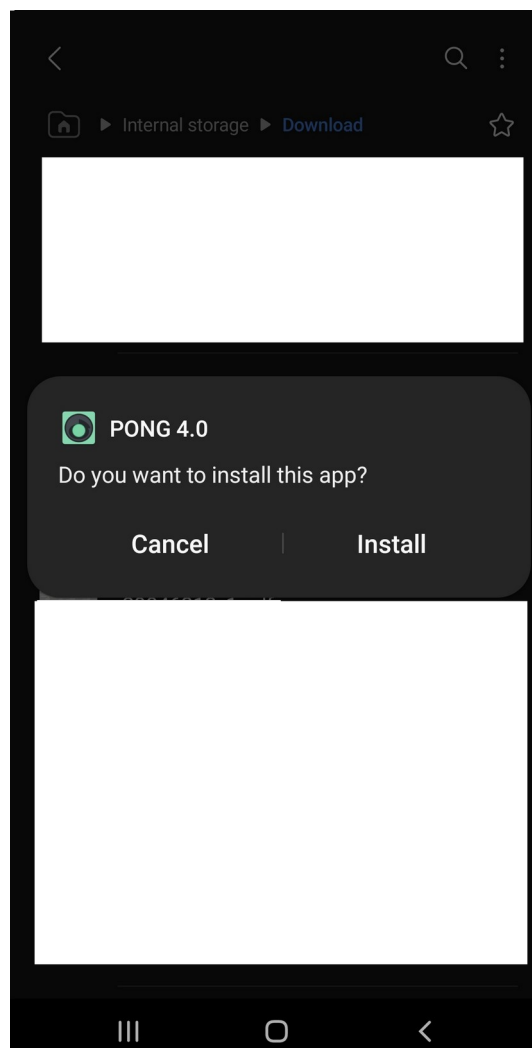
- Download APK from GitHub: <https://github.com/cooltheo17/Pong4.0>
- The APK file can be found inside the release folder.



- The name of the file is ***pong-4-0.apk***.
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- Step 2

- Open the APK file after download to install.
- You will be prompted with this screen.
- Click "*Install*".

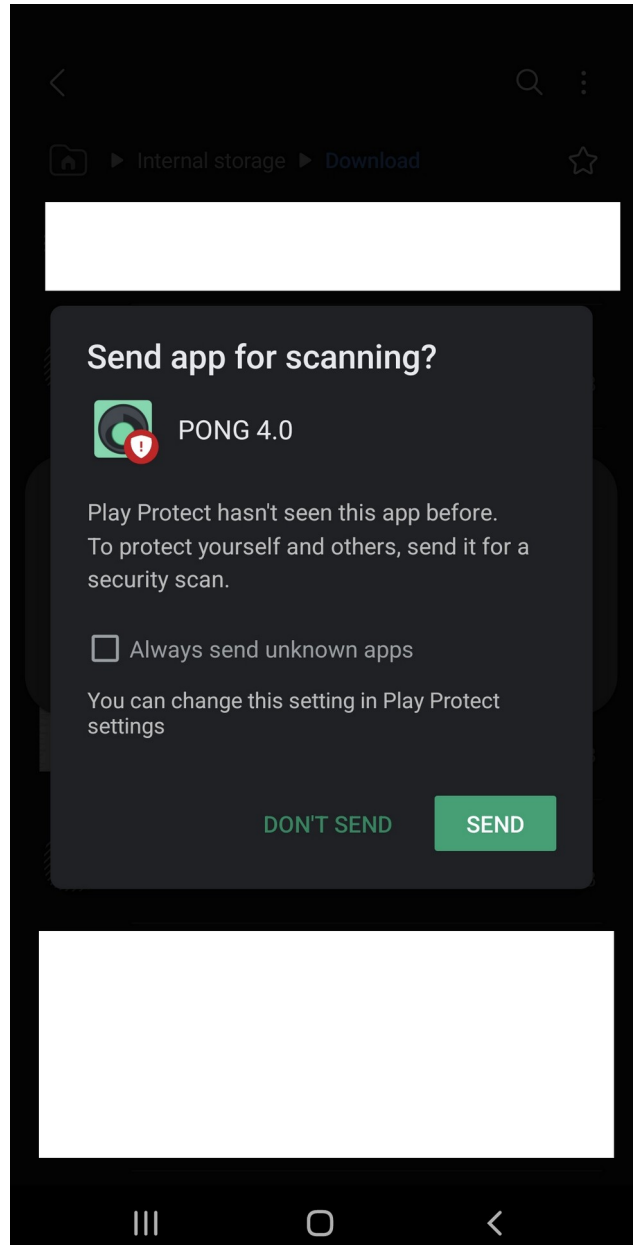
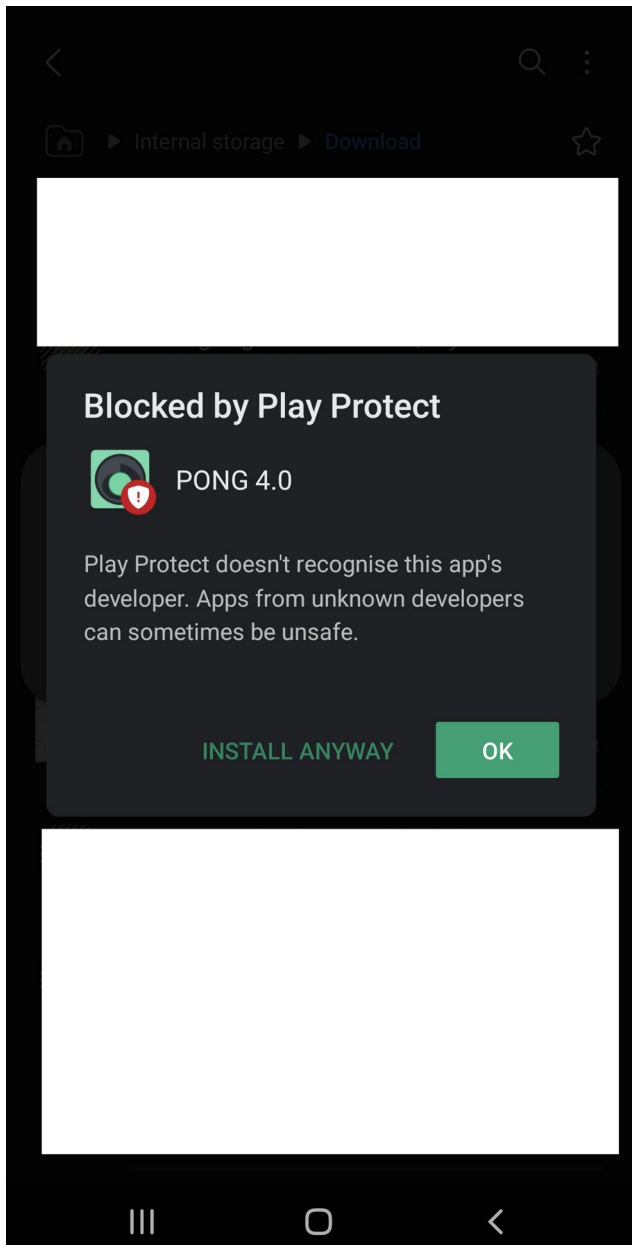


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- Step 3

- Then you will be promoted with this screen.
- Press “*Install Anyway*”.
- Click “Don’t Send” On the following screen.

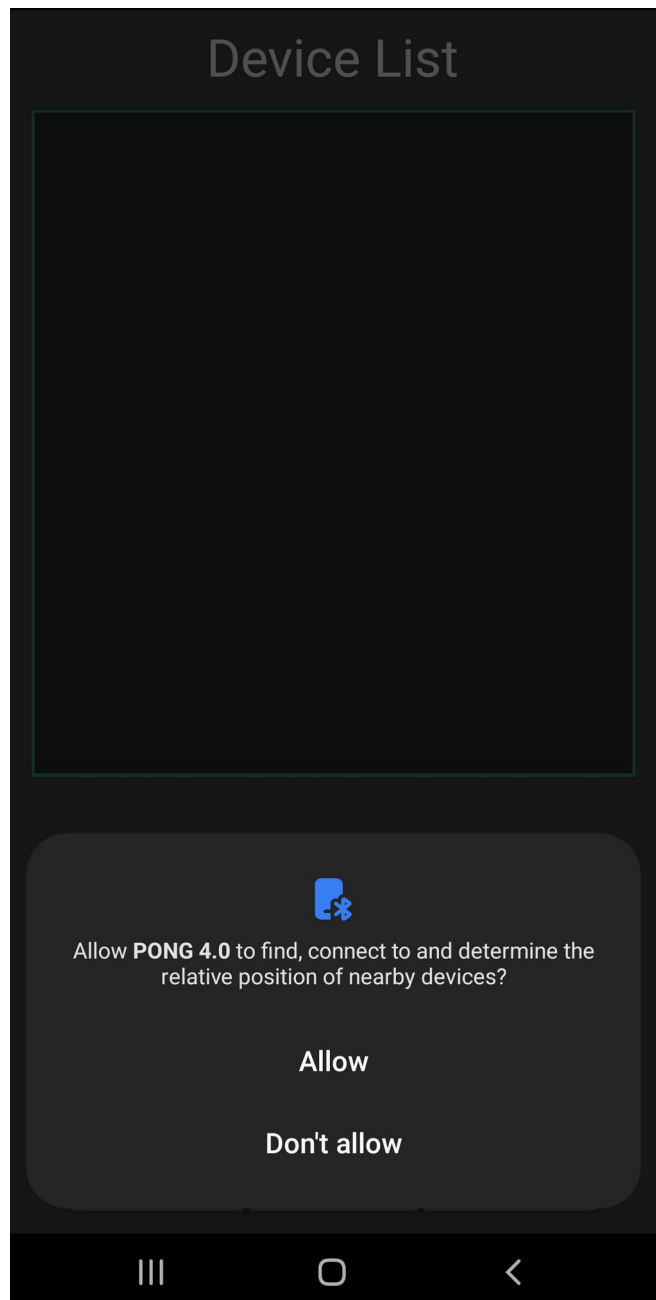
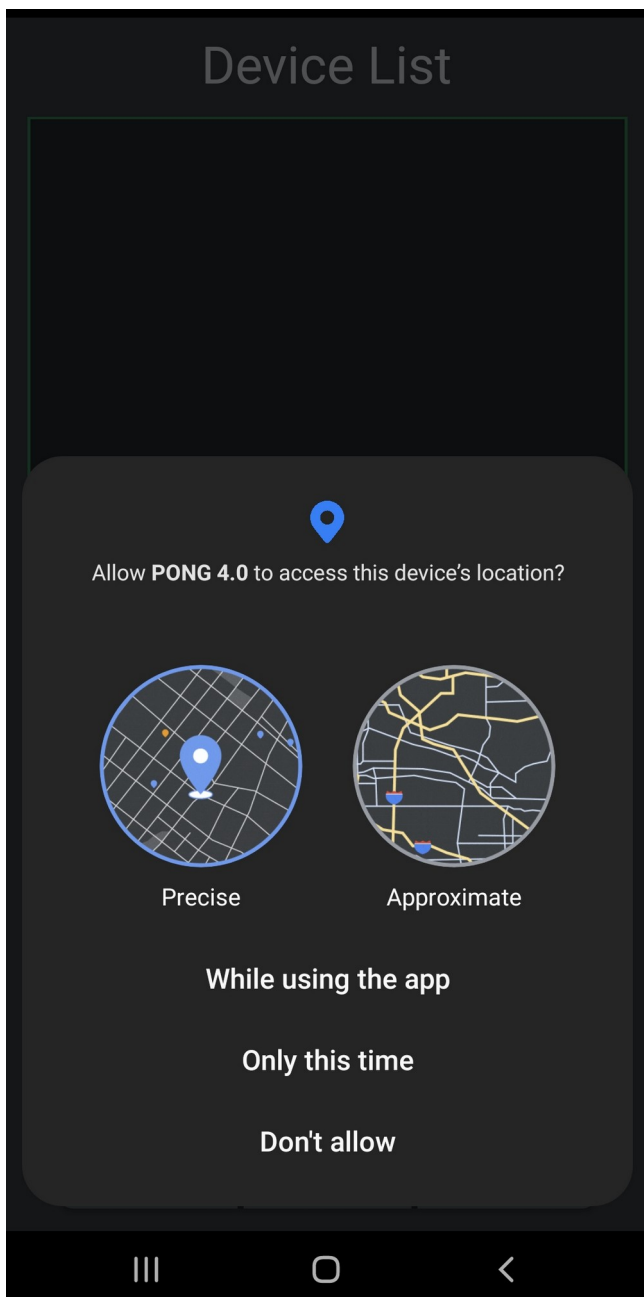


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- Step 4

- Open the app.
- When you first install the app you will need to accept the run-time permissions.
- First the Location permission where you click "*While using the app*".
- And then the Bluetooth permissions where you click "*Allow*".
- **Note:** The first time the Bluetooth permissions might not pop up which will cause the app to crash and it will be shown next time you start the app. This is a one time bag that occurs on installation so it is not a problem later on.

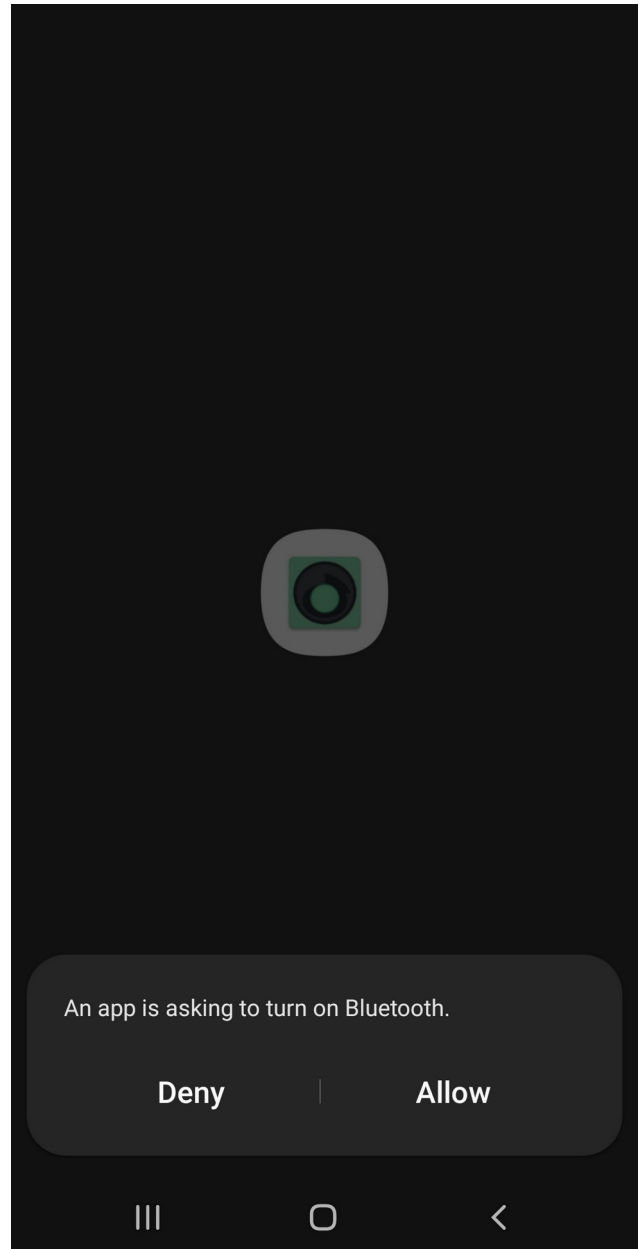
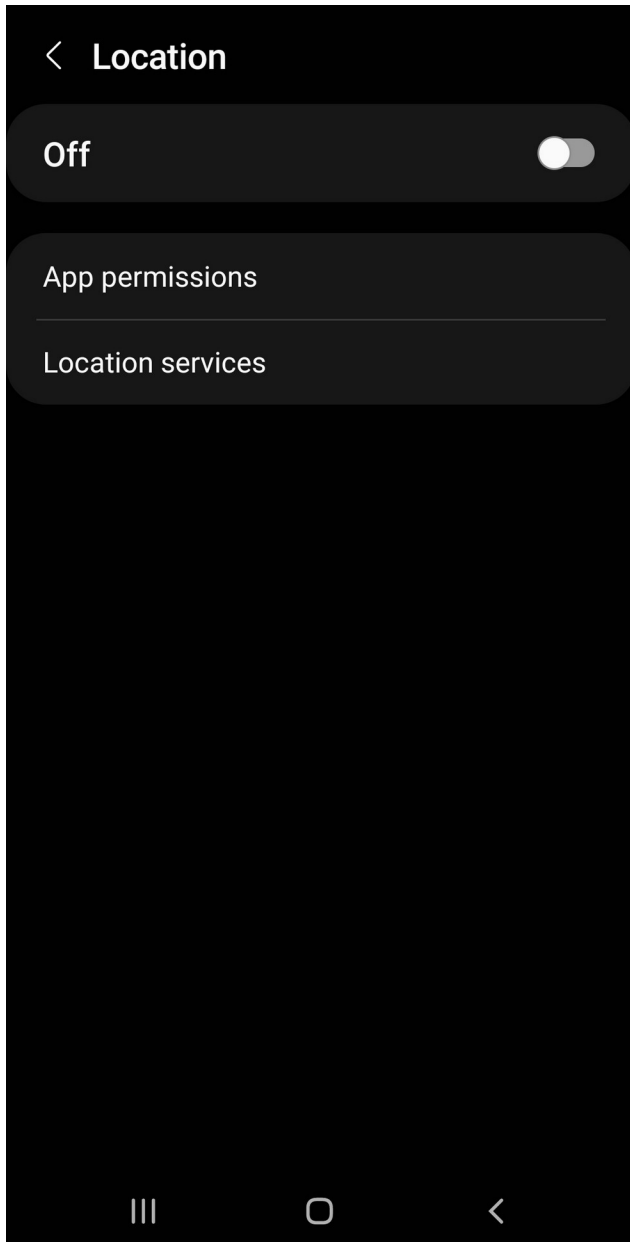


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- Step 5

- If the location or Bluetooth is off it will ask you to turn on the location or Bluetooth.
- Slide the button on for the location and press “Allow” for Bluetooth.

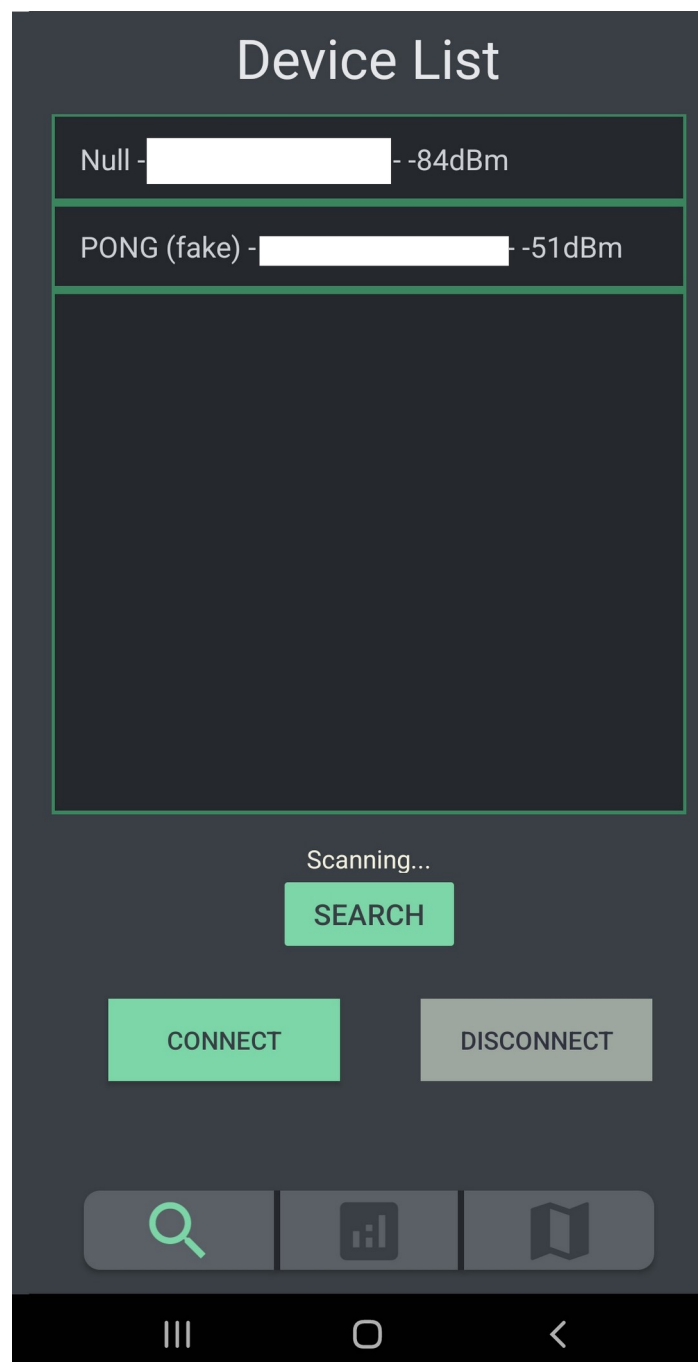


After that the application should be fully installed and functional.

General Guide

- Search Screen

The left most button on navigation bar at the bottom is the search screen. Here you can search for available Bluetooth devices near you and select the pong device from the list. After selecting the device you can click connect to connect to the device. You can press disconnect to disconnect from the device. A message should pop-up indicating each action.



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- Data Screen

The middle button in the navigation bar at the bottom is the data screen. Here you can see the data from Pong device. You can use the slider to get information about the ratings or the raw values depending on what the user wants.

Note: The data will only be collected if the user stays on the screen. There are plans to make this a background process are on the table however it is outside the scope at the moment.

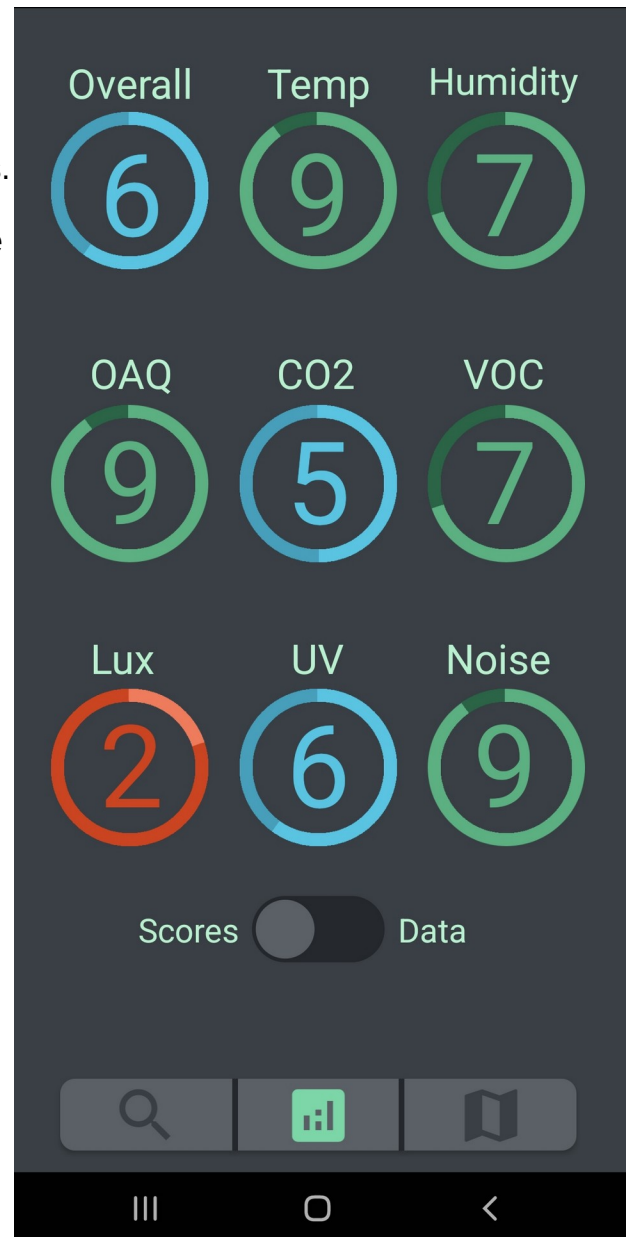
All the data is also being stored in a **pongDataFile.txt** inside the Documents folder inside the phone's files. You can find this folder using your file explorer under **Internal_Storage/Document**.

The format of the data is being saved is as follows:

Timestamp,Readings (Separated by dashes),Latitude, Longitude.

The readings are in the order as shown in the screen.
Temp-Humidity-OAQ-CO2-VOC-Lux-UV-Noise

The overall score is calculated in a simple calculation that can definitely be improved and is why the overall score is not saved but I can change the code if you think it is important to be saved.

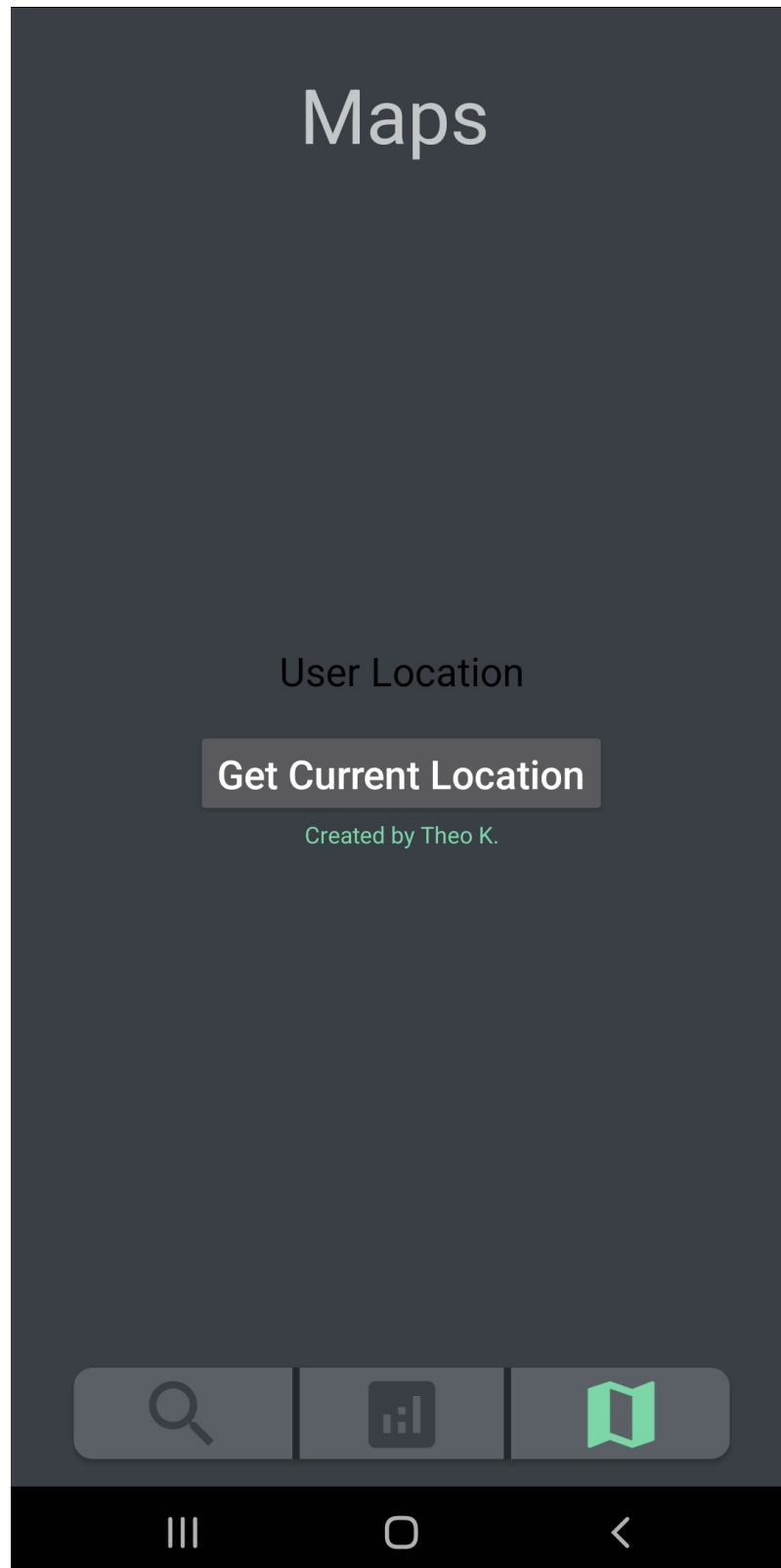


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- Maps Screen

So far the maps screen – the left most button on the navigation bar - serves minimal purpose and can just get the users current location. In the future the plan is incorporate some kind of machine learning model in which the a path a user usually takes is analysed and alternative paths are shown for a healthier lifestyle.



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Final Notes

The app has undergone very minimal testing so bugs and problems are to be expected. Let me know about any serious bugs as I can evolve this project in my spare time. The device that the app has been developed and “tested” is the Samsung S10 so I am not sure how it would react on bigger screens like the Samsung Flip. I have tried to make everything as intuitive as possible but don't hesitate to ask me anything on my email: theo.koulas@outlook.com

Hope you use this app and I hope to hear from you soon.