

Neurograph User Manual

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User Manual for Neurograph Version 1.1

2018.06

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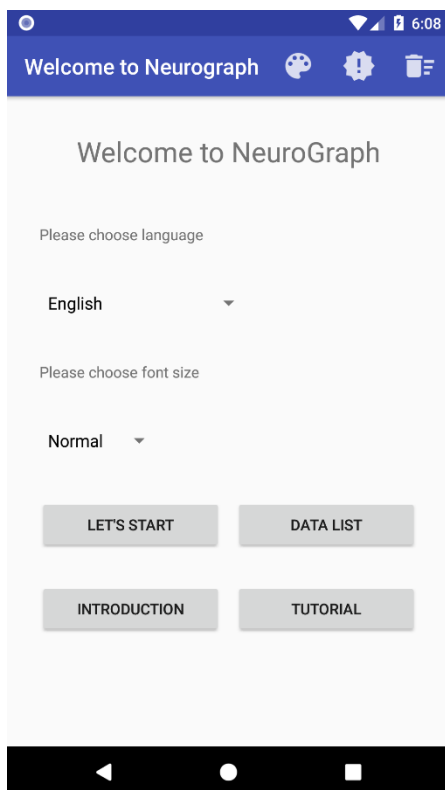
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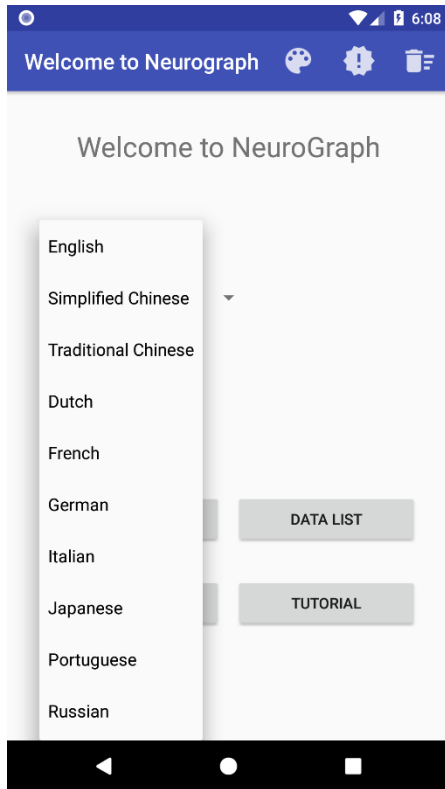
App Icon and Welcome Page

This is the welcome page of the Neurograph app.



Home Page

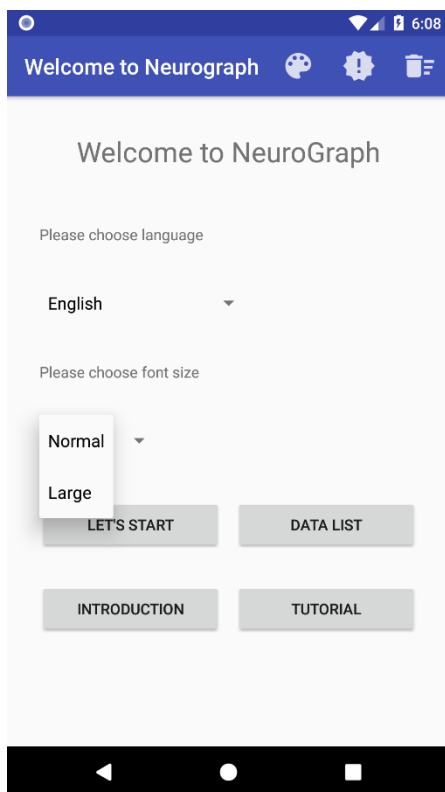
This is the home page of Neurograph. Here you can change the language setting, change the font size setting, change the colour theme, clean app cache, see the introduction of the app, view tutorials, start the tests etc.



Choose Your Preferred Language

You can choose your preferred language, this change will take effect immediately. The Neurograph App supports 11 languages.

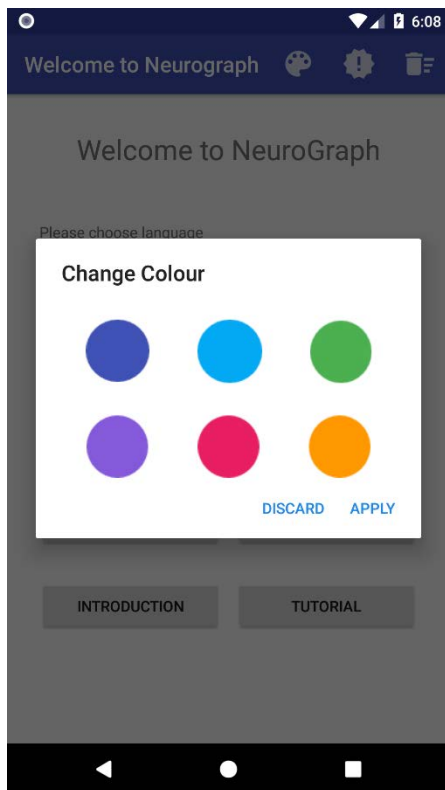
(This setting can also be changed after you log in)



Choose Font Size

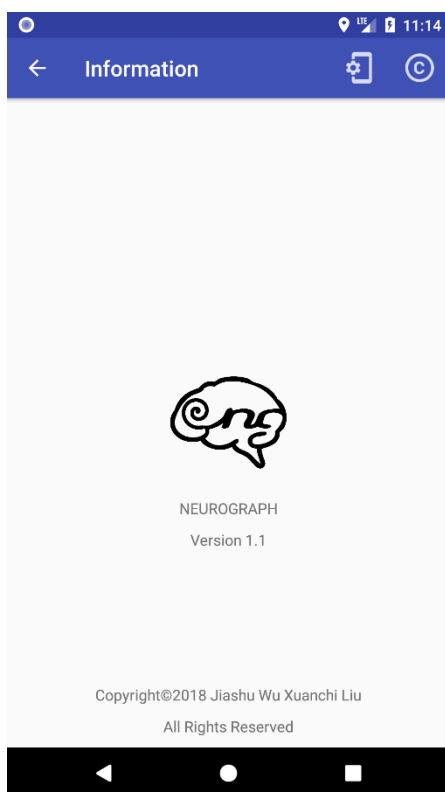
You can choose your preferred font size, either normal size or large size, this change will take effect immediately.

(This setting can also be changed after you log in)



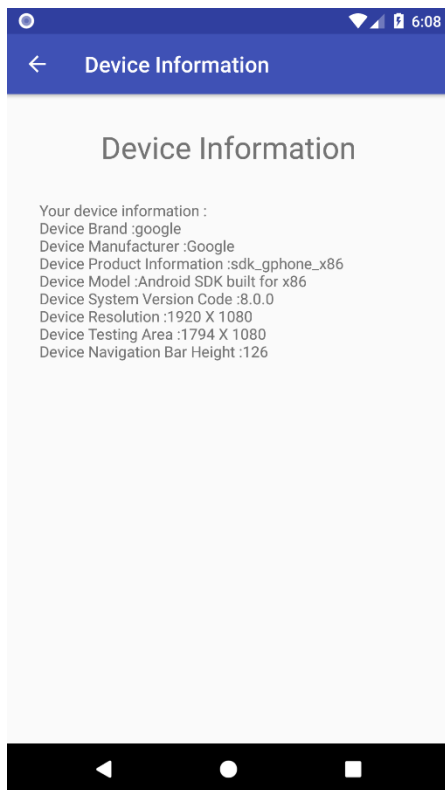
Choose your preferred colour theme

You can choose your favourite colour theme. The app supports six different colour themes.



View App information

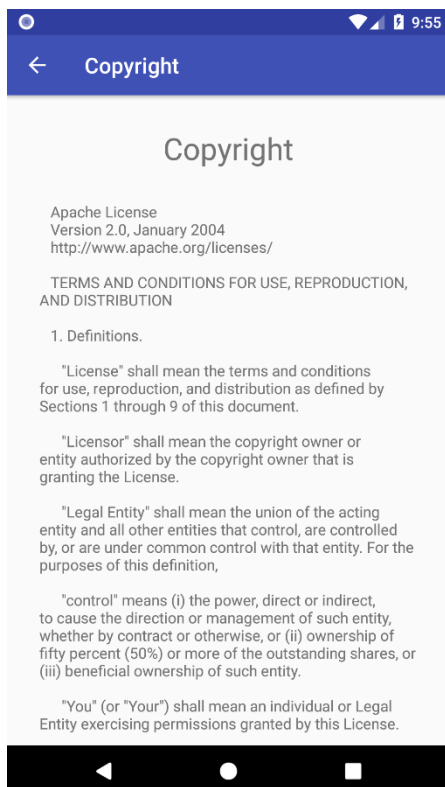
You can see the information about this app here.



View Device Information

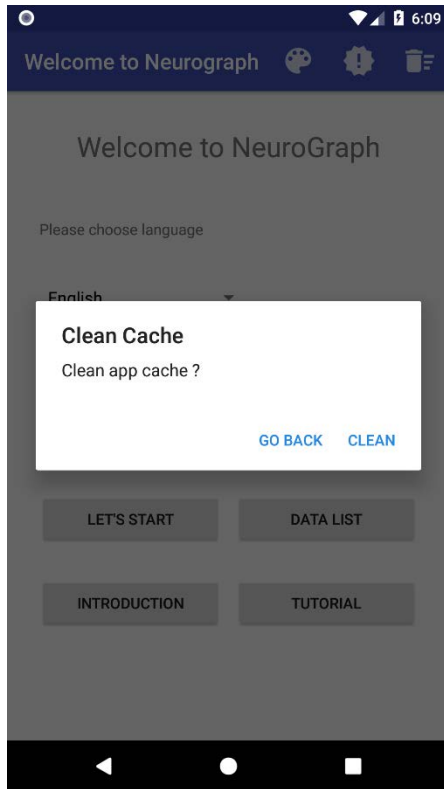
This page contains all the information about your test device.

For example, your device brand, device resolution, device testing area size, device navigation bar height, device system version code etc.



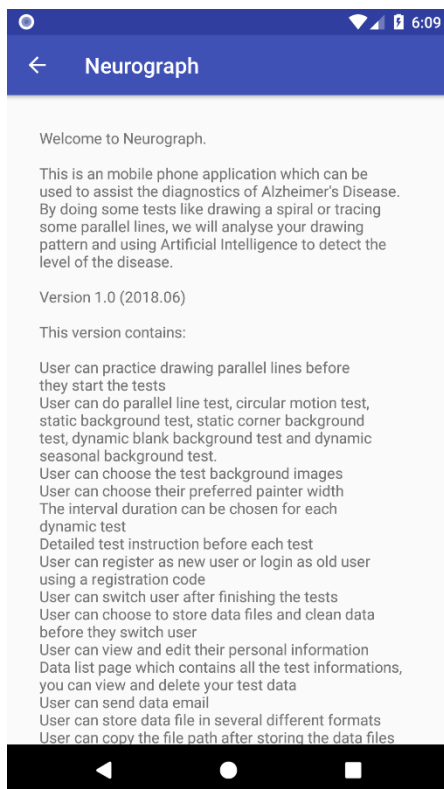
View copyright information

This page contains all the information about the copyright information of this app.



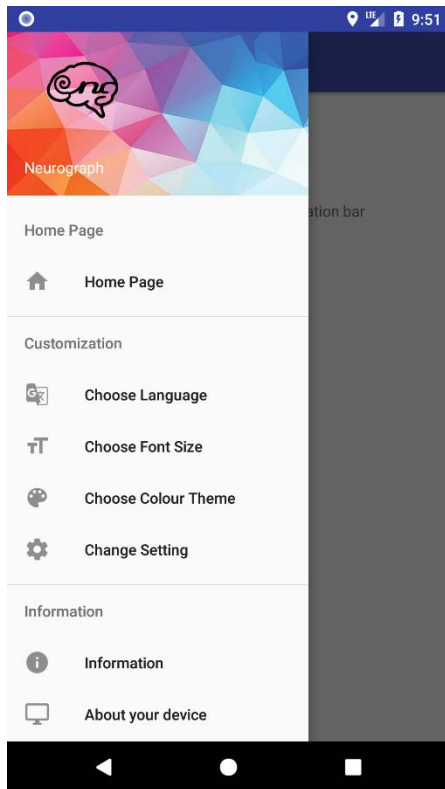
Clean App Cache

You can clean the cache of the app. This will make the app perform faster.



View information about the app

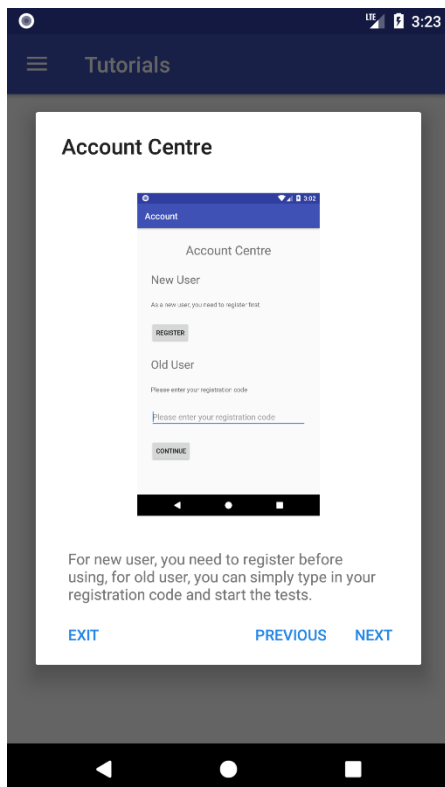
This page contains the introduction of what's new in this release.



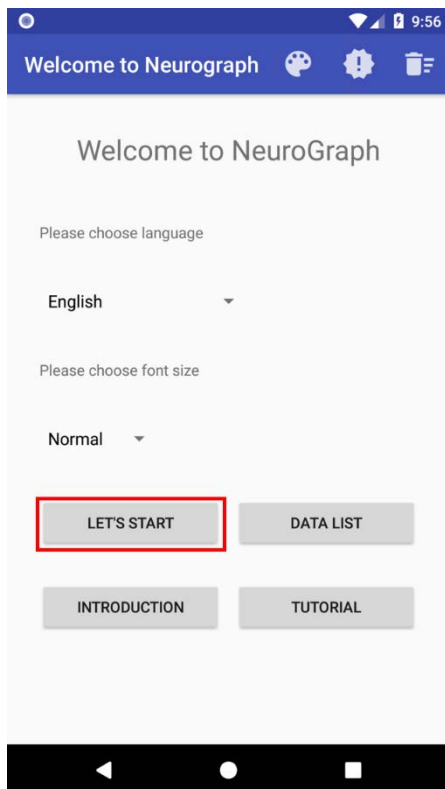
View Tutorials

You can find the tutorials of this app. They are very helpful to guide you to use this app.

You can choose any tutorial you want to view through the navigation bar on the left.

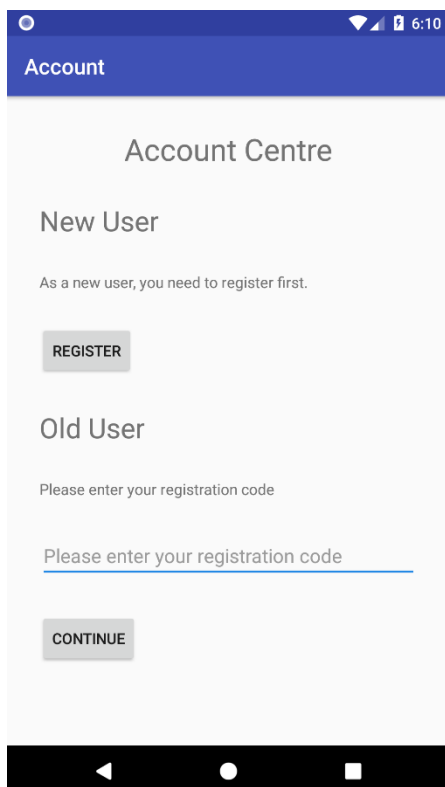


For each of the tutorials, you can click “Previous” or “Next” to switch between tutorials, or you can click “Exit” to exit the tutorials.



Click Let's Start to log in

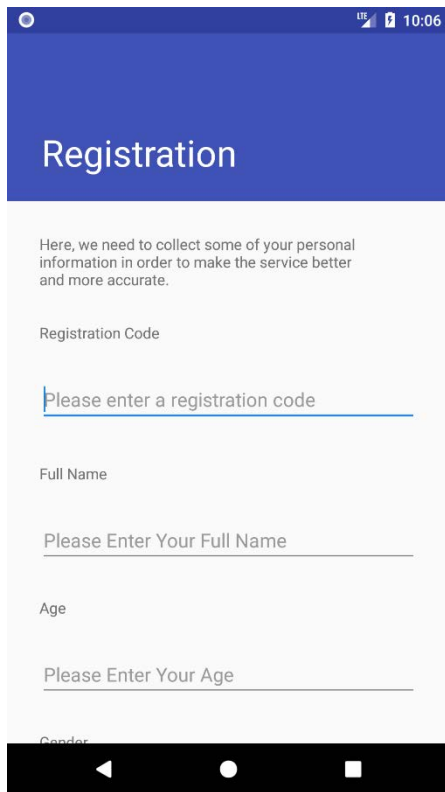
Please click "Let's Start" to log in and do the tests.



Account centre

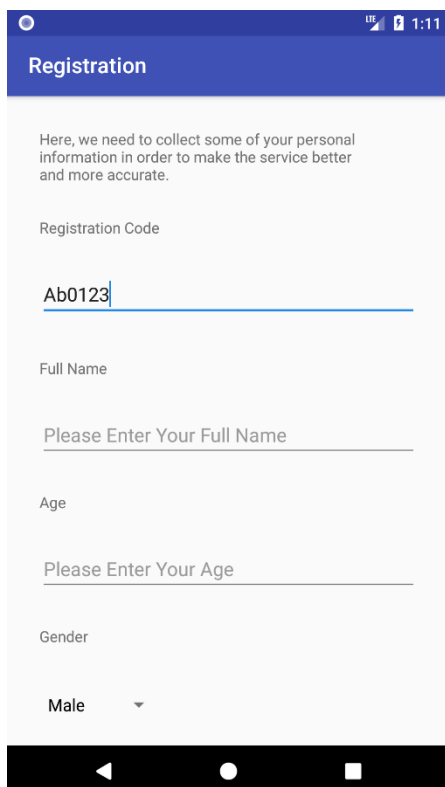
New user needs to register before doing the tests.

Old user need to enter their registration code to continue their tests.



Registration Page

you need to enter some information like your name, age, gender, education level etc. This will help to make data analysis process more accurate.



Here you need to enter a registration code, this will be used if you want to come back to Neurograph and do the tests later. This registration code should contain only alphabets and numbers.

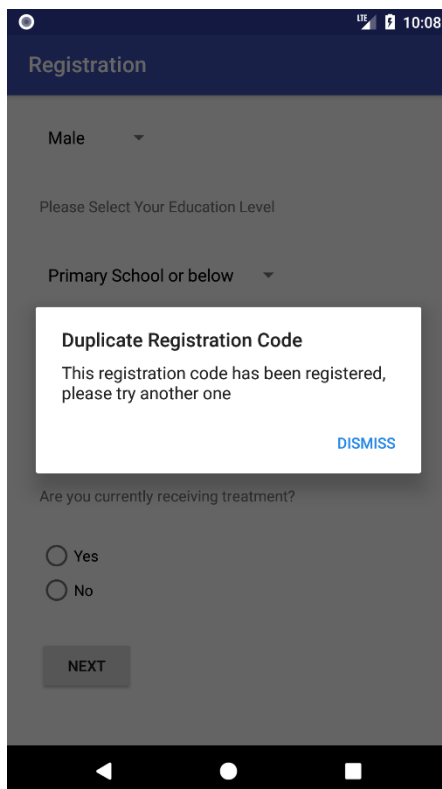
The screenshot shows the 'Registration' screen of the Neurograph app. At the top, there's a header bar with the title 'Registration'. Below it, a text input field for the 'Registration Code' is highlighted with a red border and a red exclamation mark icon. A black error message box is displayed over the field, stating 'Registration code cannot be empty'. Below the code field is a 'Full Name' field, also with a red exclamation mark icon. A white modal dialog box is centered on the screen with the title 'Registration Code Empty' and the message 'Registration Code is empty'. At the bottom of the modal is a blue 'DISMISS' button. The background shows other registration fields like 'Please Enter Your Full Name', 'Please Select Your Education Level' (with a dropdown menu showing 'Primary School or below'), and 'Previous Alzheimer Rating Score (If Applicable)'.

Registration Code

The registration code cannot be empty.

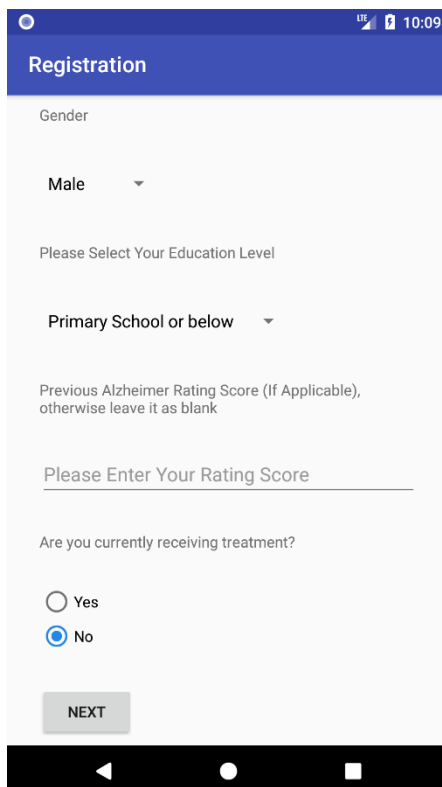
The screenshot shows the 'Registration' screen of the Neurograph app. The 'Registration Code' field now contains the text 'a3#'. A black error message box is displayed over the field, stating 'Registration code invalid, should contains only alphabet and numbers'. Below the code field is a 'Full Name' field, also with a red exclamation mark icon. A white modal dialog box is centered on the screen with the title 'Information Invalid' and the message 'Registration code invalid. It should only contain alphabets or numbers.' At the bottom of the modal is a blue 'DISMISS' button. The background shows other registration fields like 'Please Enter Your Full Name', 'Please Select Your Education Level' (with a dropdown menu showing 'Primary School or below'), and 'Previous Alzheimer Rating Score (If Applicable)'.

The registration code can only contain number and letters (A-Z, a-z, 0-9).



The screenshot shows the 'Registration' screen of the Neurograph app. At the top, the status bar shows 'LTE', signal strength, battery, and the time '10:08'. The app header is dark blue with the title 'Registration'. Below the header, the form has a dark grey background. The 'Gender' dropdown is set to 'Male'. The 'Please Select Your Education Level' dropdown is set to 'Primary School or below'. A white modal dialog box is centered on the screen with the title 'Duplicate Registration Code' and the text 'This registration code has been registered, please try another one'. A blue 'DISMISS' button is at the bottom right of the dialog. Below the dialog, the question 'Are you currently receiving treatment?' is followed by two radio buttons: 'Yes' and 'No'. A grey 'NEXT' button is at the bottom of the form. The Android navigation bar is visible at the very bottom.

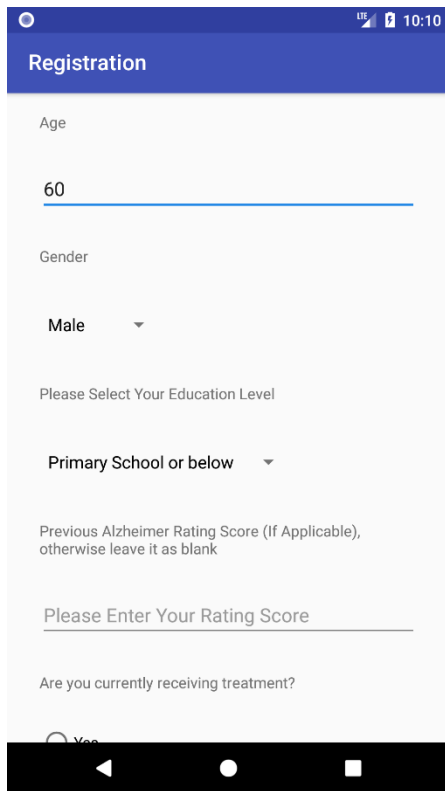
The registration code also cannot duplicate, so if the registration code you entered duplicates with other patients' registration code, you will be asked to try another one.



The screenshot shows the 'Registration' screen of the Neurograph app. At the top, the status bar shows 'LTE', signal strength, battery, and the time '10:09'. The app header is blue with the title 'Registration'. Below the header, the form has a light grey background. The 'Gender' dropdown is set to 'Male'. The 'Please Select Your Education Level' dropdown is set to 'Primary School or below'. Below this, there is a text input field for 'Previous Alzheimer Rating Score (If Applicable), otherwise leave it as blank'. Below that is another text input field labeled 'Please Enter Your Rating Score'. The question 'Are you currently receiving treatment?' is followed by two radio buttons: 'Yes' and 'No', with 'No' selected. A grey 'NEXT' button is at the bottom of the form. The Android navigation bar is visible at the very bottom.

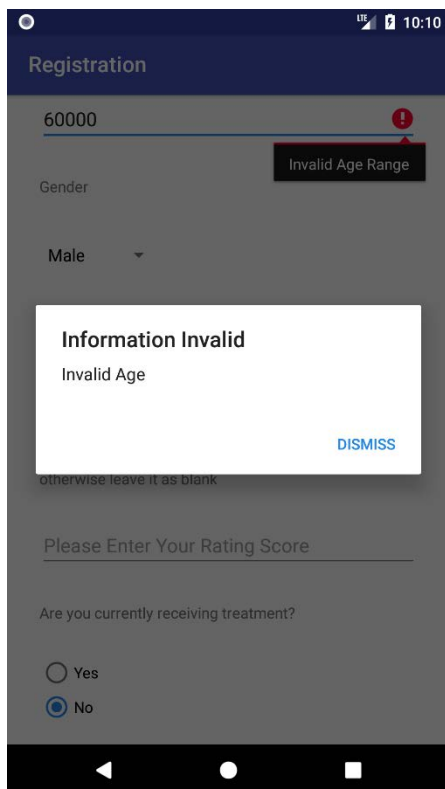
Registration

All the information cannot be empty, except rating score. Please leave rating score as blank if you don't have previous rating scores.



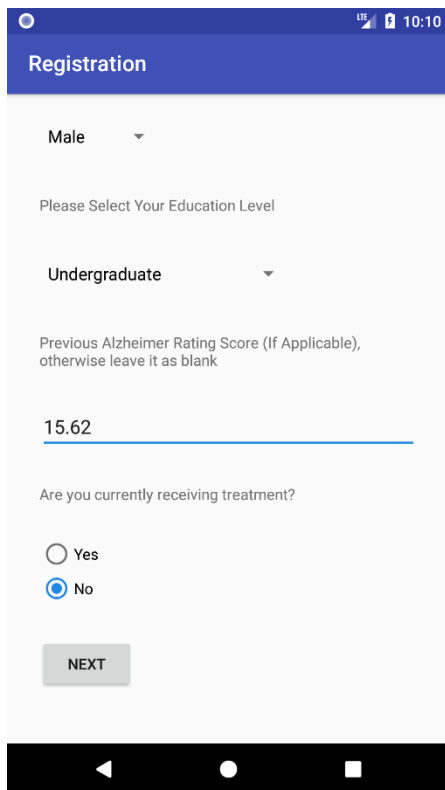
The screenshot shows the 'Registration' screen of the Neurograph app. The 'Age' field contains the value '60'. Below it, the 'Gender' is set to 'Male'. The 'Please Select Your Education Level' dropdown is set to 'Primary School or below'. The 'Previous Alzheimer Rating Score (If Applicable), otherwise leave it as blank' field is empty. The 'Please Enter Your Rating Score' field is also empty. At the bottom, there is a question 'Are you currently receiving treatment?' with radio buttons for 'Yes' and 'No'.

The age must be a valid numerical value between 1 and 170



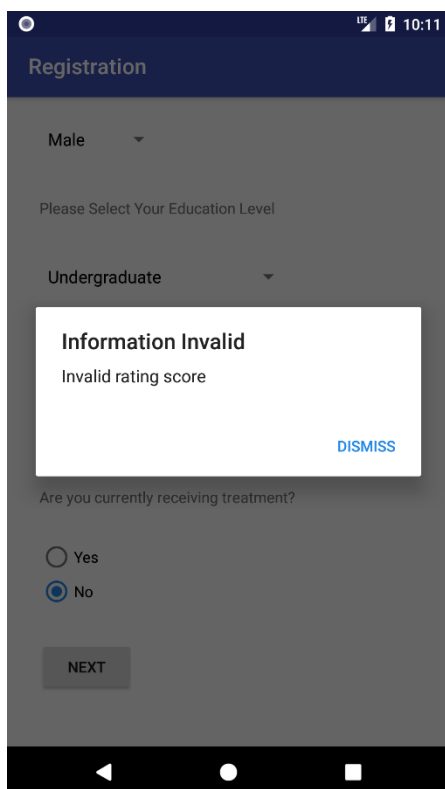
The screenshot shows the 'Registration' screen with the 'Age' field containing '60000'. A red error icon is visible next to the field. A black toast message 'Invalid Age Range' is displayed. A white dialog box titled 'Information Invalid' with the text 'Invalid Age' and a blue 'DISMISS' button is shown in the foreground. The rest of the form is dimmed.

If the age information you entered is invalid, you will get a prompt message reminds you the invalidity of the information.



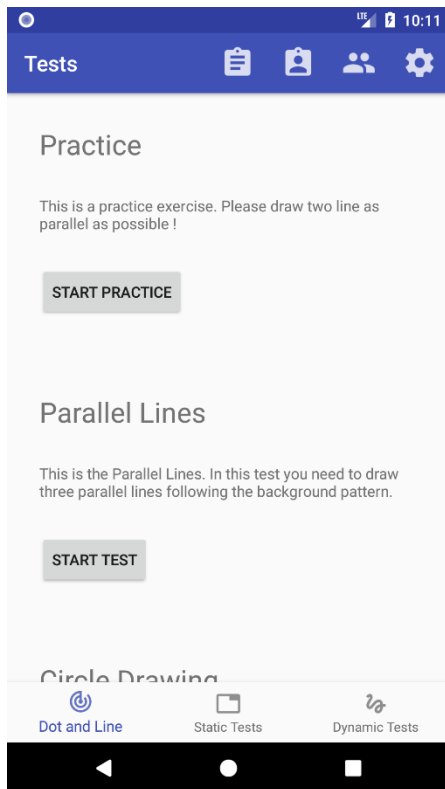
The screenshot shows the 'Registration' screen of the Neurograph app. At the top, there's a status bar with 'LTE', signal strength, battery, and time '10:10'. Below the title bar, the form includes a gender dropdown set to 'Male', an education level dropdown set to 'Undergraduate', and a text input for 'Previous Alzheimer Rating Score (If Applicable), otherwise leave it as blank' containing the value '15.62'. Below this is a question 'Are you currently receiving treatment?' with radio buttons for 'Yes' and 'No', where 'No' is selected. A 'NEXT' button is at the bottom.

If you get a rating score, it should also be a valid number. If not, just leave it unfilled.



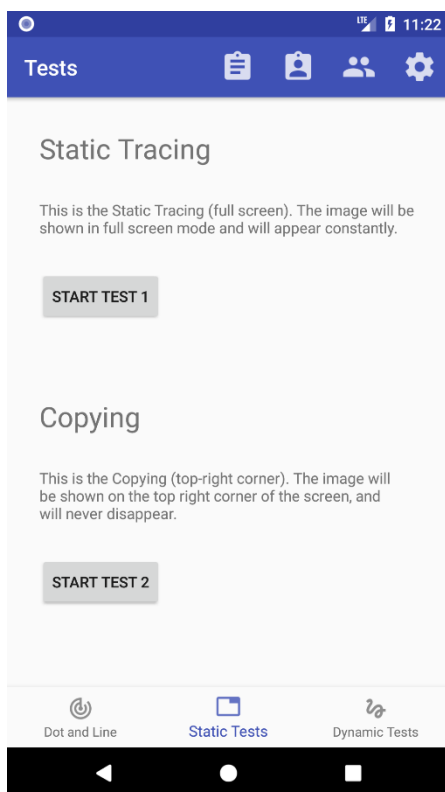
This screenshot shows the same 'Registration' screen as above, but with an error message overlay. The message box is titled 'Information Invalid' and says 'Invalid rating score'. A 'DISMISS' button is in the bottom right of the message box. The background form is dimmed, showing the same fields as the previous screenshot.

Rating score should be a valid number, if the format you entered is invalid, you will get this error message.



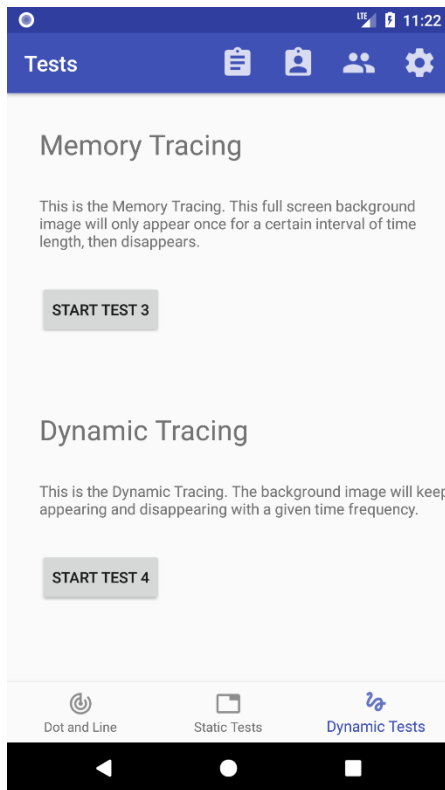
Test Selection

In this page you can select the tests you want to do. There are three tabs, the first tab called “Dot and Line”, which contains parallel line practice, Parallel Lines and Circle Drawing, the second tab called “Static Tests”, which contains the Static Tracing and Copying, and the third tab called “Dynamic Test”, which contains Memory Tracing and Dynamic Tracing. You can select multiple tests to do and you can do a single test as many times as you want.

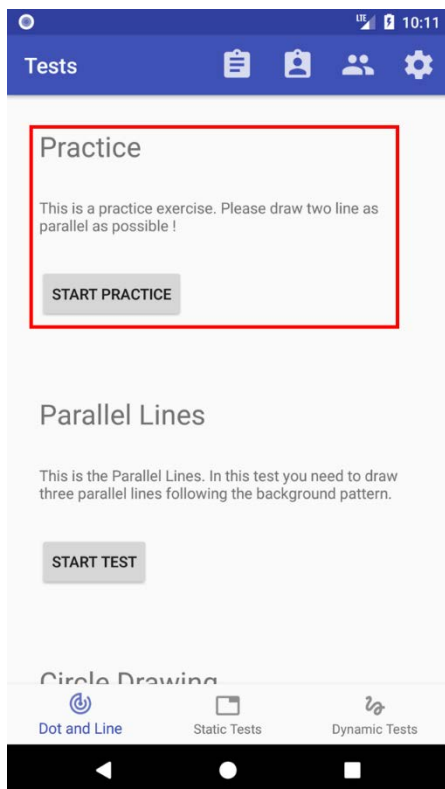


You can switch between tabs by clicking the bottom navigation panel or swipe the screen.

On this tab there is Static Tracing and Copying. The reason why they are called static test is that the background image of the test will stay on the screen at all time.

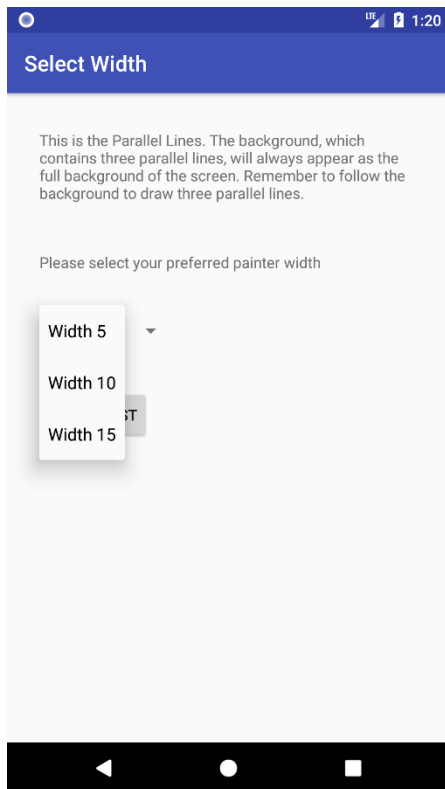


On this tab you can find Memory Tracing and Dynamic Tracing. They are all dynamic tests since their background image will not stay on the screen constantly.



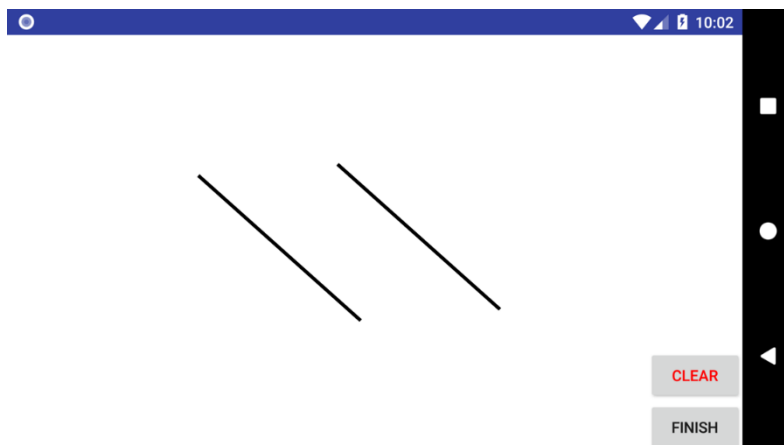
Parallel Line Practice

This is the parallel line practice, in this practice, you need to draw two lines as parallel as possible.



Choose painter width before starting

You need to choose your preferred painter width before doing the tests. The app supports three kinds of painter width, with 5, 10 and 15.

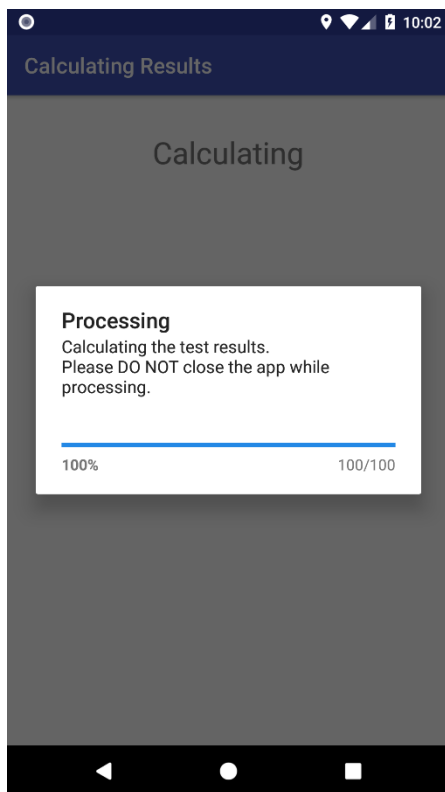


This is a place where you can practice drawing on this device. In this practice, you are required to draw exactly two lines which are parallel with each other.



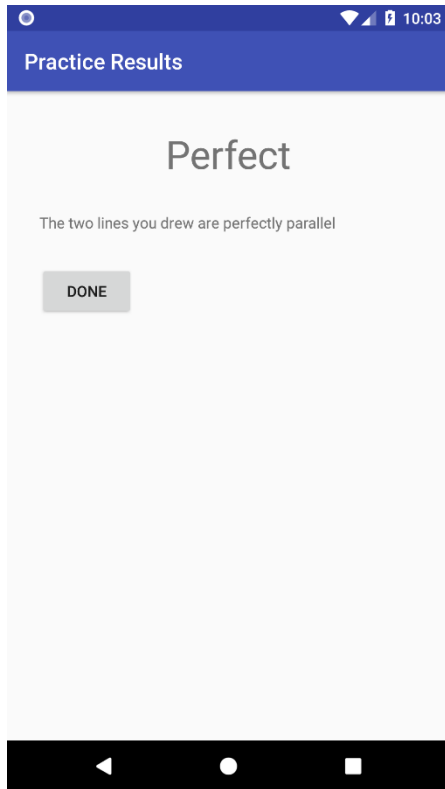
Finish & Clear

Click “Finish” to finish the test, click “Clear” to clear the screen.



Calculating Results

Please wait for a few seconds while we are processing the data. During processing please do not close the app.

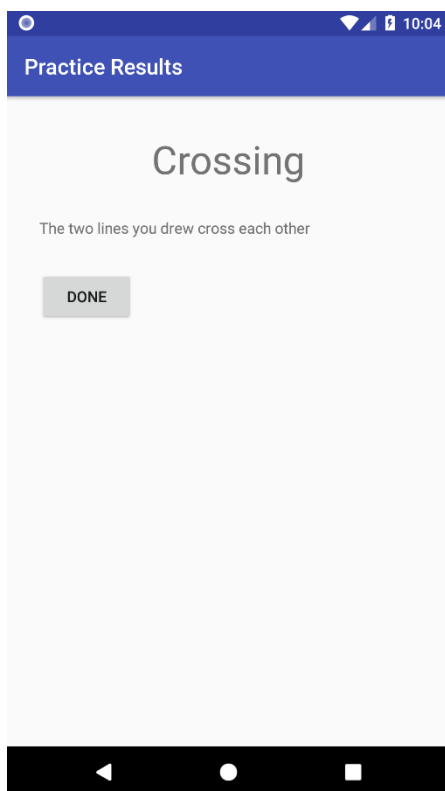


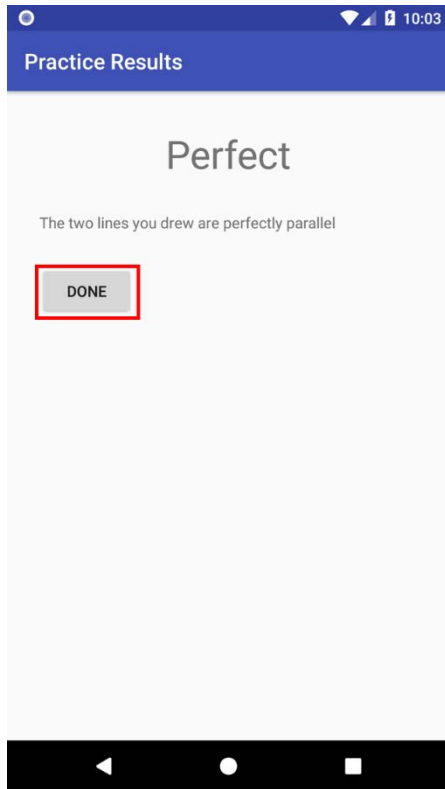
Practice Results

After finishing the practice, we will calculate whether these two lines you draw are parallel.

If there is no drawing at all or only one line, then the app will tell you “No Drawing detected”

If there are two valid lines, the app will calculate whether they are parallel or not, possible results are Perfect, Good, Acceptable, Bad or Crossing.



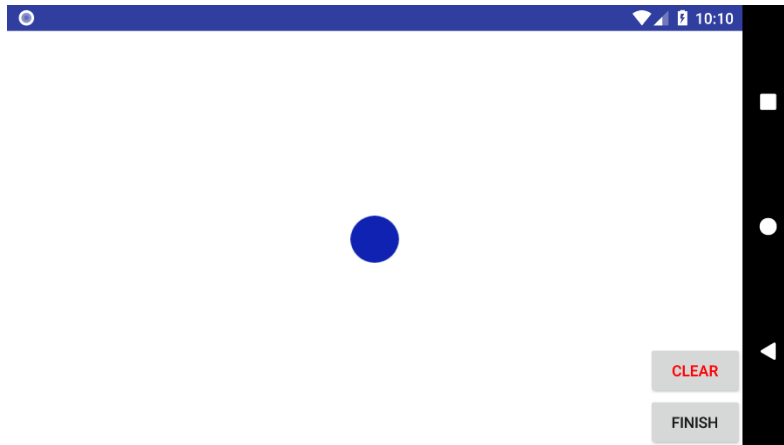


Click done to exit.



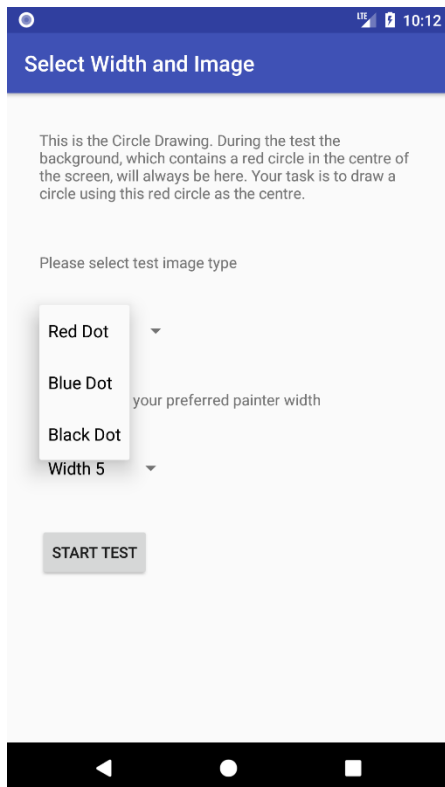
Parallel Lines

This is the Parallel Lines. In this test you are required to follow the template image on the background, which contains three parallel lines, to draw three parallel lines on the background image.



Circle Drawing

This is the Circle Drawing. You need to draw a circle, using the dot as the centre.



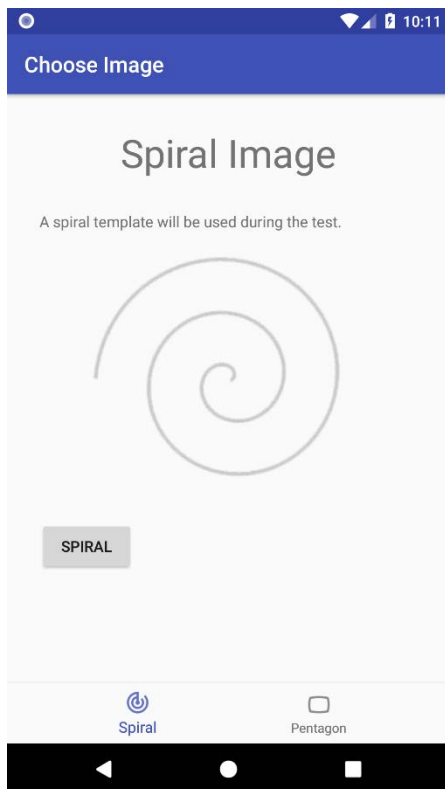
Choose the background

For Circle Drawing, you can choose the colour of the dot. There are three colours: red, blue and black.



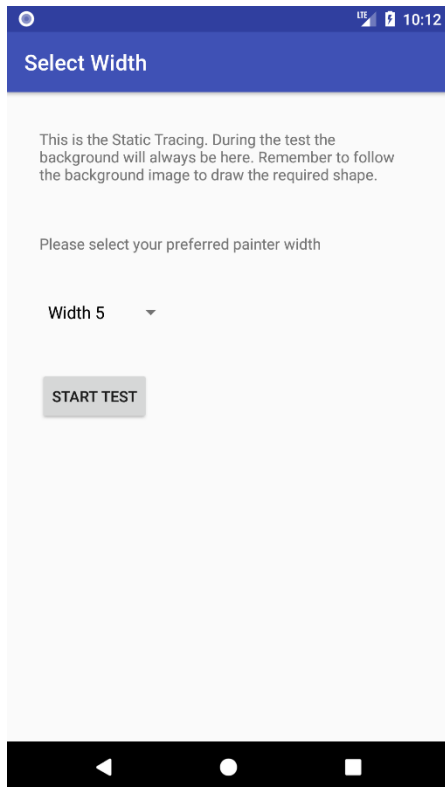
Static Tracing

This is the Static Tracing. In this test, you are required to follow the background image to draw the required shape.



Choose test background image

In this page you need to choose the background image you want to use in this test. There are two types of image you can choose. The first one is the spiral image, and the second one is the pentagon image.



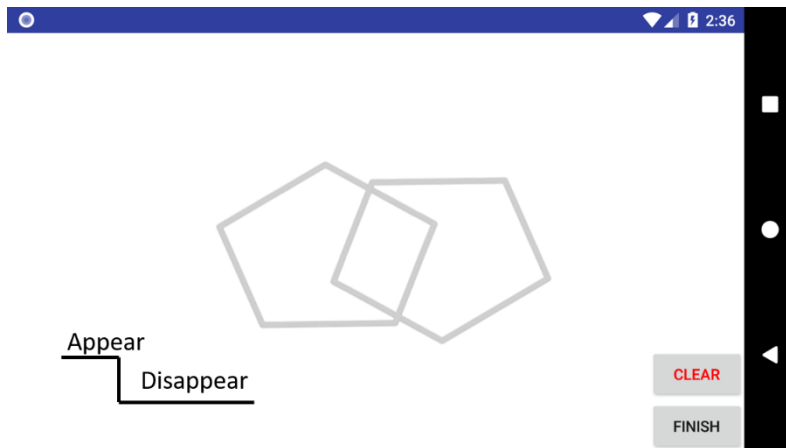
Choose painter width

You also need to choose the painter width before you start the tests.



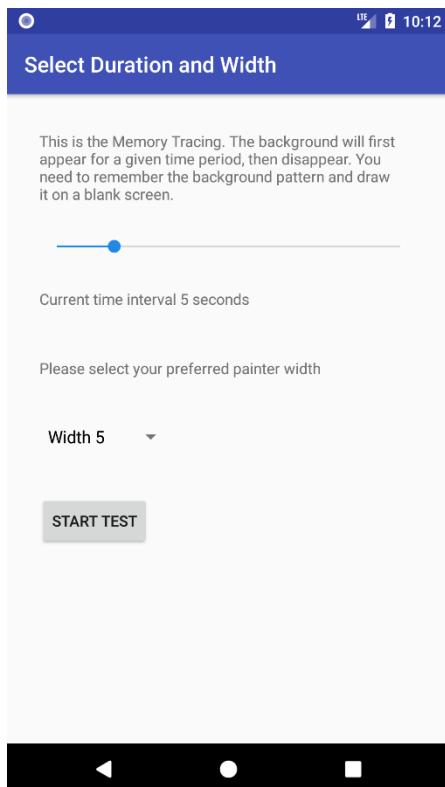
Copying

This is the “Copying”. In this test the background image is located on the top-right corner of the screen. You are required to draw the required shape in that image.



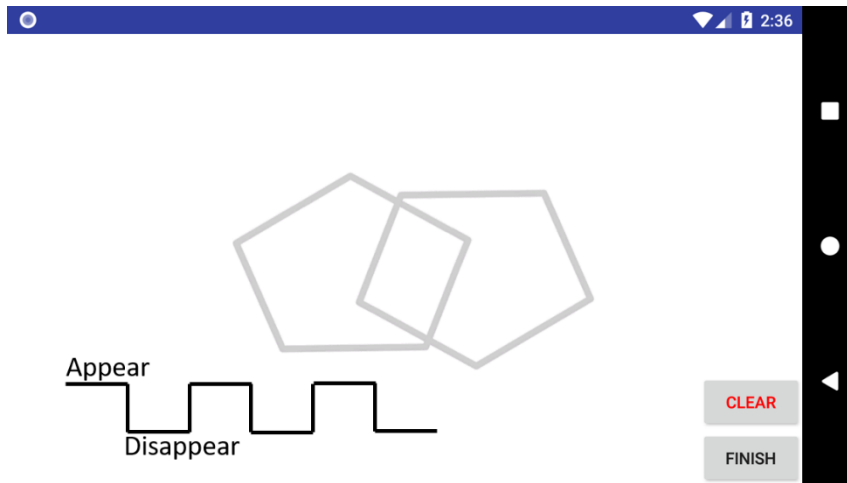
Memory Tracing

This is the Memory Tracing. In this test, the background image will first appear for a specific period of time, then disappear. You need to remember the background pattern and draw the shape on a blank screen after the background image disappears.



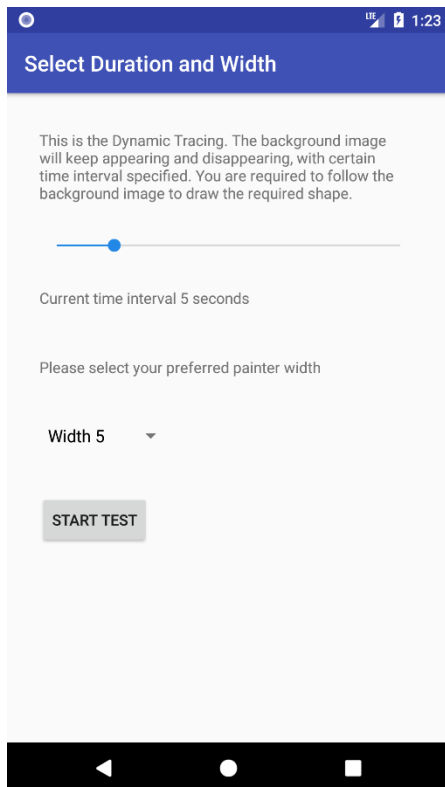
Choose Time Interval

You need to choose how long you want the background image to show at the beginning of the Memory Tracing. The time interval takes the range between 1 second and 30 seconds.



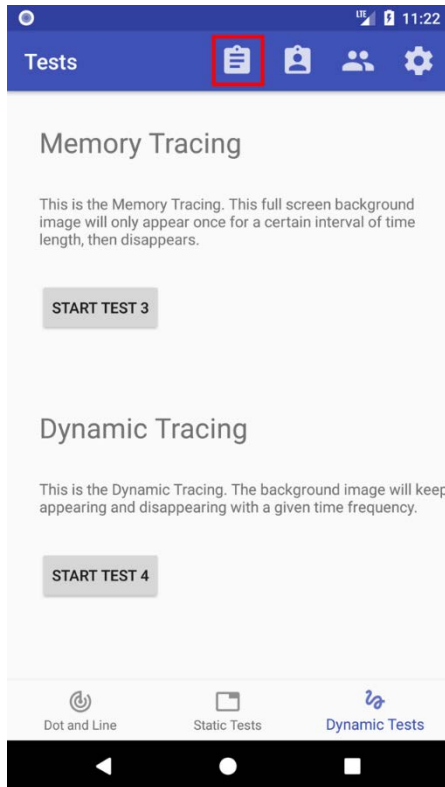
Dynamic Tracing

This is the Dynamic Tracing. In this test the background image will keep appearing and disappearing, with certain time interval specified. You are required to follow the background image to draw the required shape.



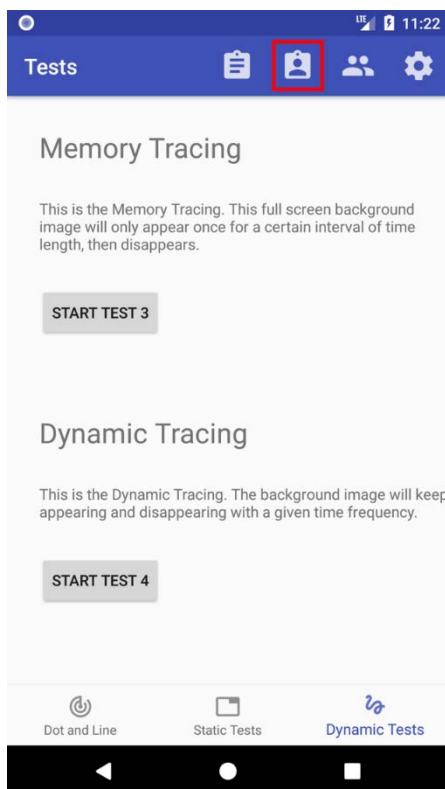
Choose Time Interval.

You need to choose the time interval for the background image to keep appearing and disappearing in the Dynamic Tracing.

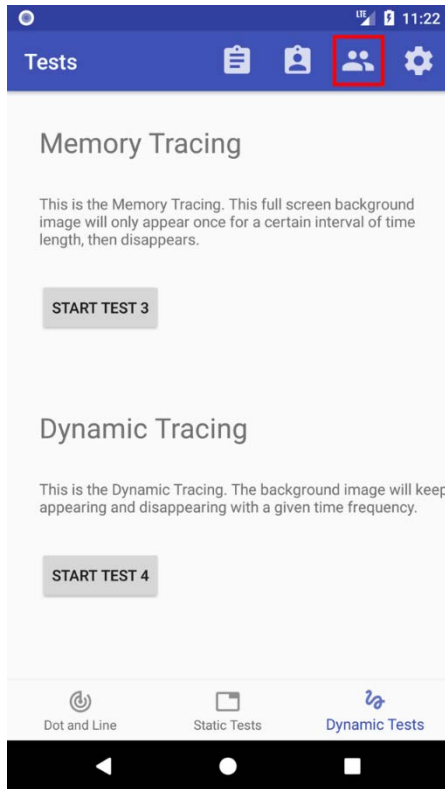


Test Selection Page toolbar

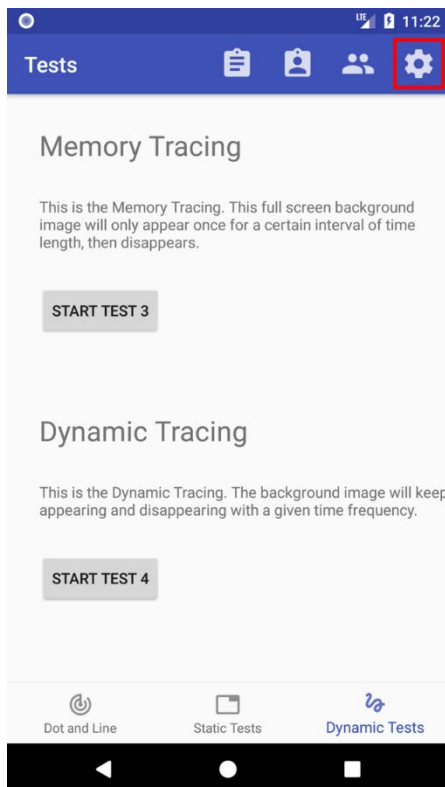
You can click here to access the data list.



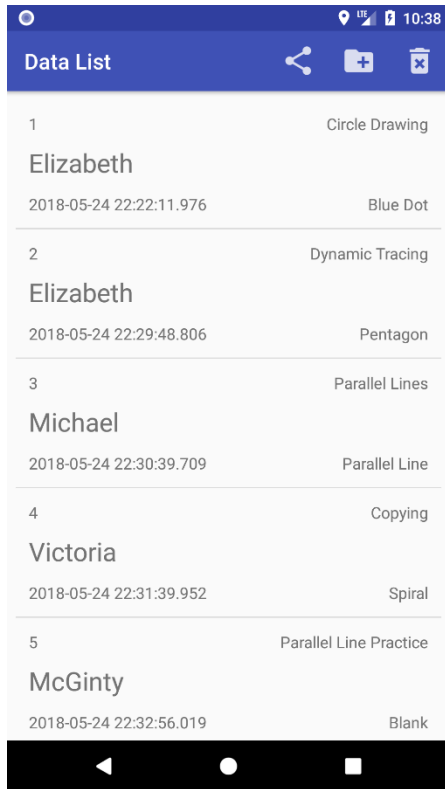
You can click here to view or edit your personal information.



You can click here to switch user.



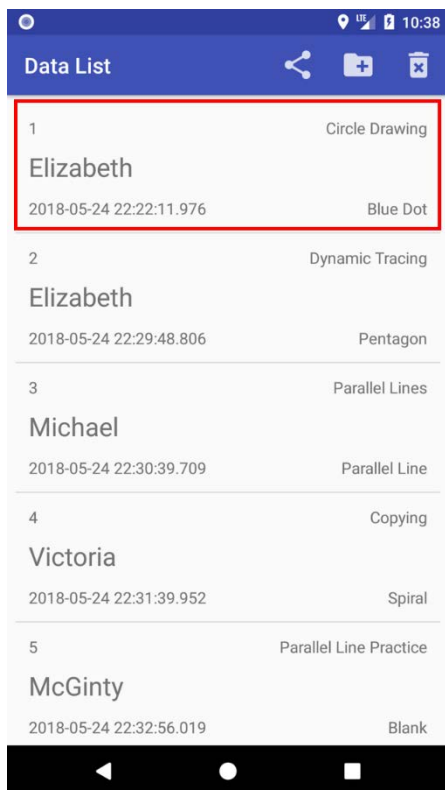
You can click here to change the setting of language and font size.



Test ID	Testee Name	Test Date and Time	Test Type
1	Elizabeth	2018-05-24 22:22:11.976	Circle Drawing
2	Elizabeth	2018-05-24 22:29:48.806	Dynamic Tracing
3	Michael	2018-05-24 22:30:39.709	Parallel Lines
4	Victoria	2018-05-24 22:31:39.952	Copying
5	McGinty	2018-05-24 22:32:56.019	Parallel Line Practice

Data List

Here you can see all the test data of all the users.

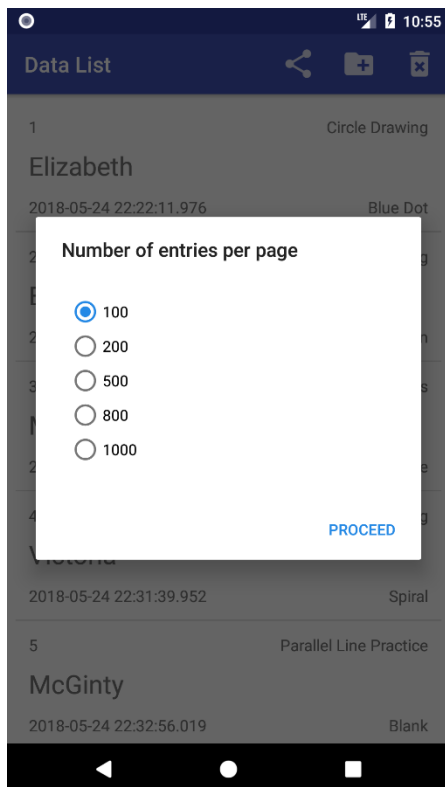


Test ID	Testee Name	Test Date and Time	Test Type
1	Elizabeth	2018-05-24 22:22:11.976	Circle Drawing
2	Elizabeth	2018-05-24 22:29:48.806	Dynamic Tracing
3	Michael	2018-05-24 22:30:39.709	Parallel Lines
4	Victoria	2018-05-24 22:31:39.952	Copying
5	McGinty	2018-05-24 22:32:56.019	Parallel Line Practice

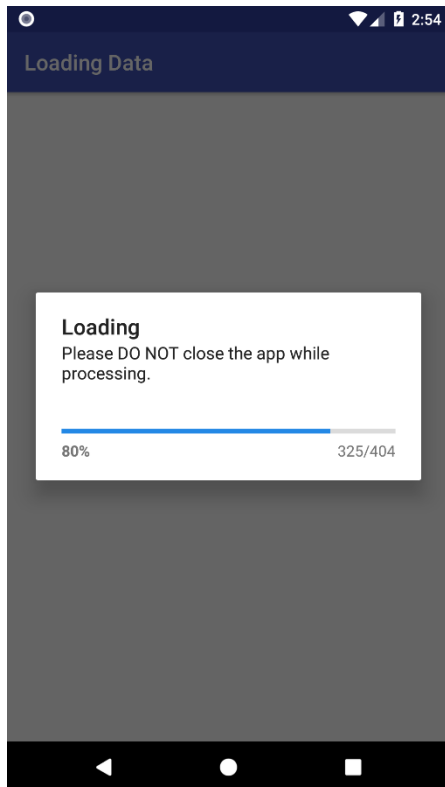
Each tab shows the test ID, the testee's name, the test date and time, test type and image type.



Click the tab to see the details of this test.



You need to choose how many entries you want to show on each page. Since in each single test there can have many data points.



Loading

During the loading process please do not close the app.

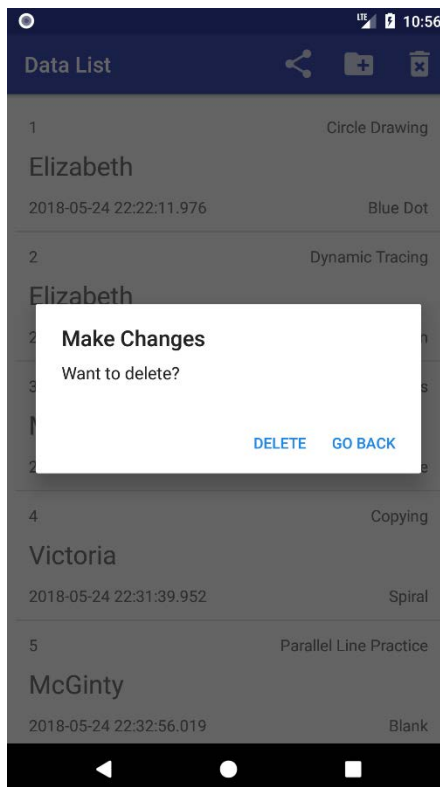


Test Information

Here you can see all the information about this test, including the test ID, testee ID, testee name, test starting time, test ending time, test type, image type, interval duration, number of points collected, and the x, y coordinates, pressure and touch point size of every single point collected in this test.

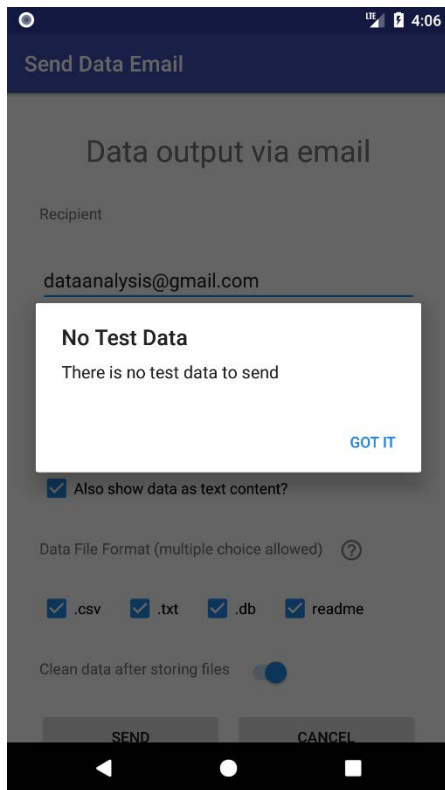


Click here to go to the previous / next page.



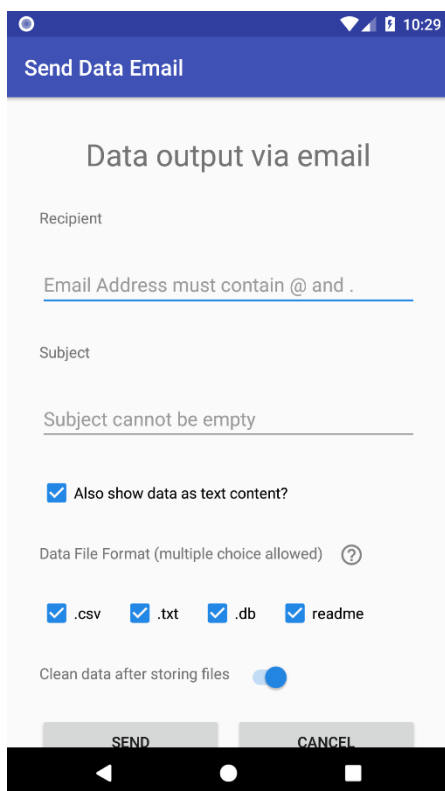
Long click to delete a test.

You can delete a test by long clicking it in the data list.



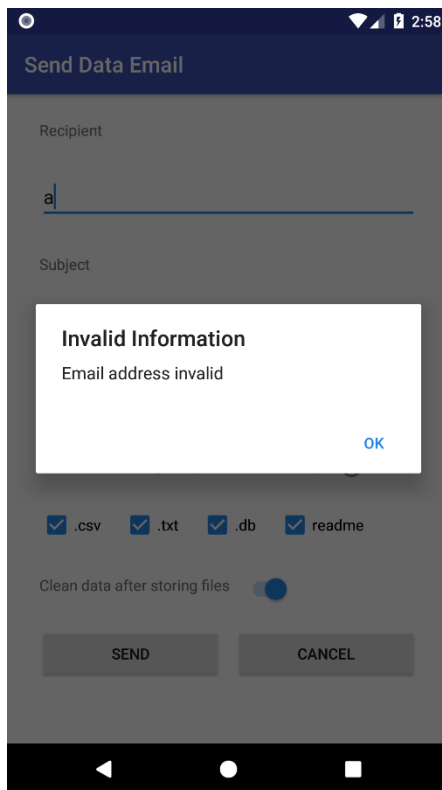
Sending Data File Email

There must have some test data to be sent via email. If there is no test data, you can't send an email.

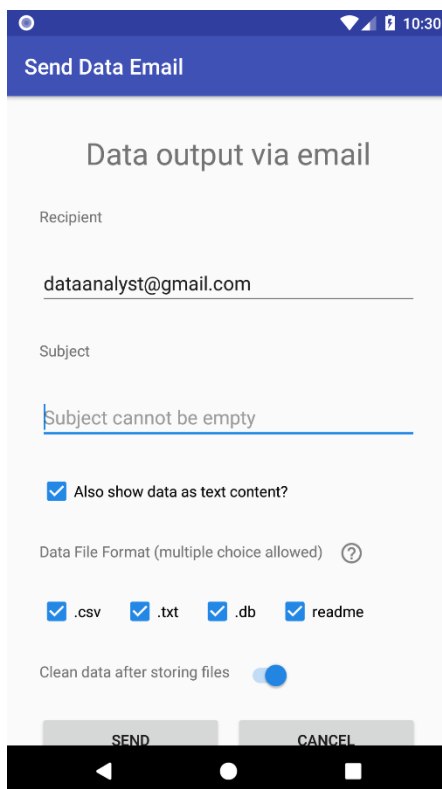


Email Recipient and Email Subject

You can send all the test data via email. In this page you need to enter the recipient email address, this email address cannot be empty, and it should also be a valid email address, which means it should contain "." and "@". You also need to enter the subject of the email. This cannot be empty as well.

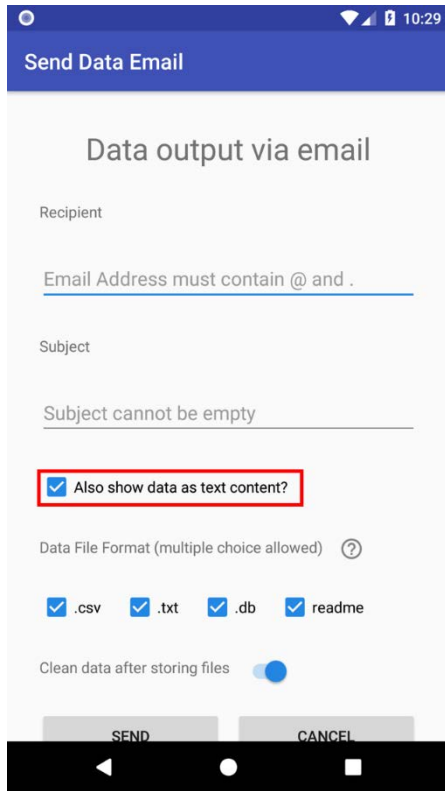


The email address cannot be invalid.



Automatically remember the email address used previously

The app will automatically remember the email address used previously



Send Data Email

Data output via email

Recipient

Email Address must contain @ and .

Subject

Subject cannot be empty

☒ Also show data as text content?

Data File Format (multiple choice allowed) ?

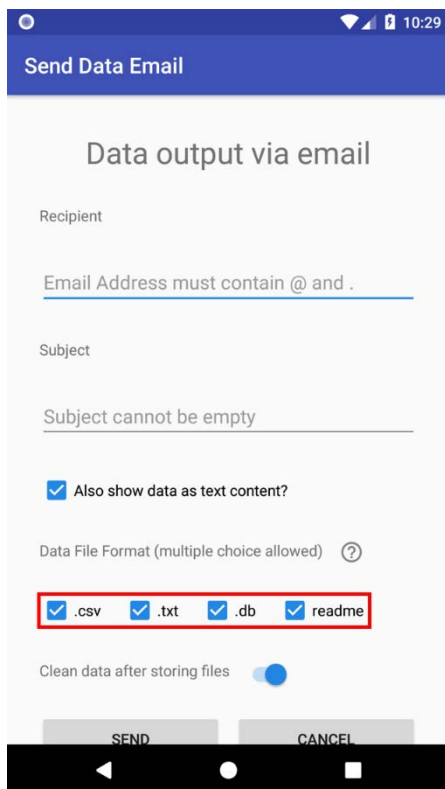
☒ .csv ☒ .txt ☒ .db ☒ readme

Clean data after storing files ☒

SEND **CANCEL**

Email Content

You can choose to show the data details as content of your email.



Send Data Email

Data output via email

Recipient

Email Address must contain @ and .

Subject

Subject cannot be empty

☒ Also show data as text content?

Data File Format (multiple choice allowed) ?

☒ .csv ☒ .txt ☒ .db ☒ readme

Clean data after storing files ☒

SEND **CANCEL**

Email Attachment Data Files

You can choose which type of file you want to send. You can choose all of them, but you need to choose at least one.

Send Data Email

Data output via email

Recipient

Email Address must contain @ and .

Subject

Subject cannot be empty

☒ Also show data as text content?

Data File Format (multiple choice allowed) ?

☒ .csv ☒ .txt ☒ .db ☒ readme

Clean data after storing files ☒

SEND CANCEL

Data Files Help

Click here to see what these file types mean.

Send Data Email

Data output via email

Recipient

Email Address must contain @ and .

Subject

Subject cannot be empty

☒ Also show data as text content?

Data File Format (multiple choice allowed) ?

☒ .csv ☒ .txt ☒ .db ☒ readme

Clean data after storing files ☒

SEND CANCEL

Help

.txt = text file

.csv = comma separated value file

.db = database file

Readme = Instructions and Explanations

OK

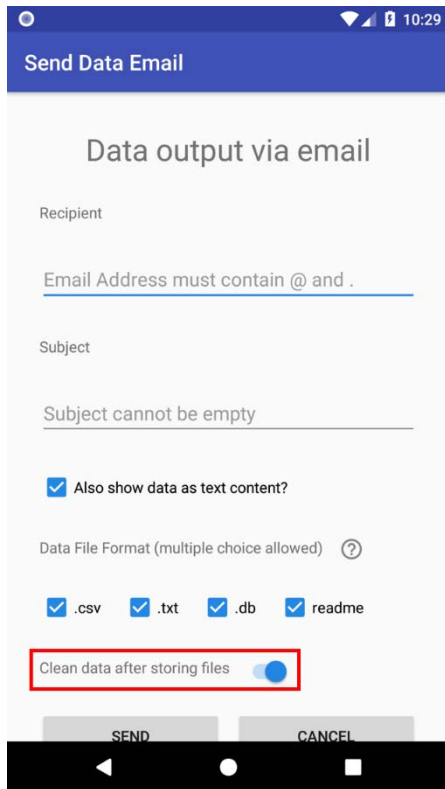
Help Message

.txt means text file

.csv means comma separated value file

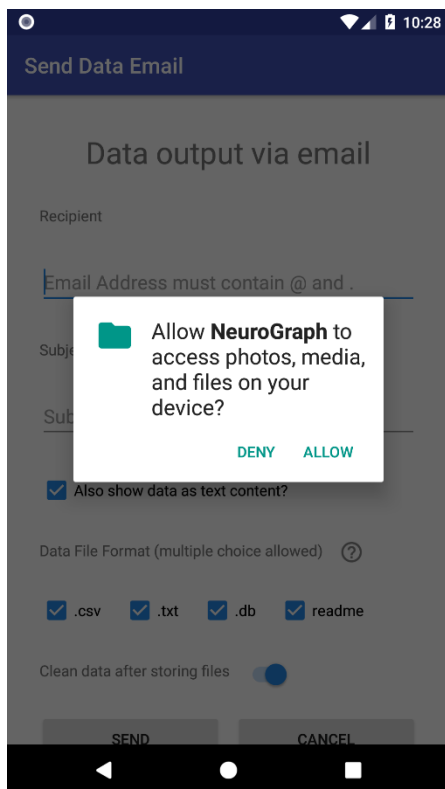
.db means database file

Readme contains the instruction and explanation of the data files.



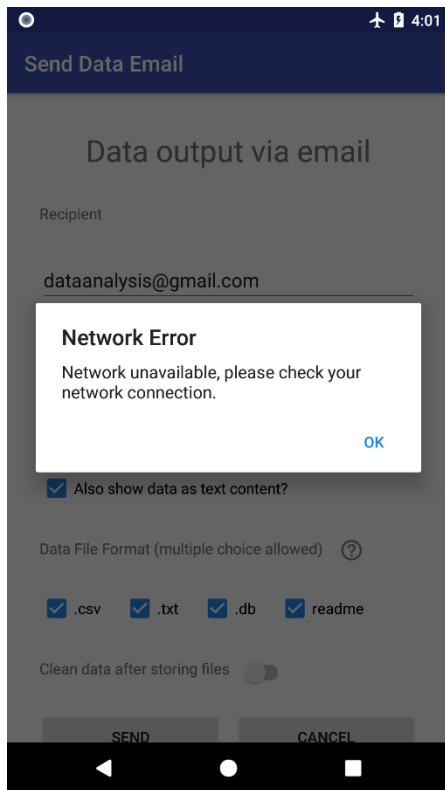
Clean data after sending files

You can choose to clean all the test data on this device after sending the data email.



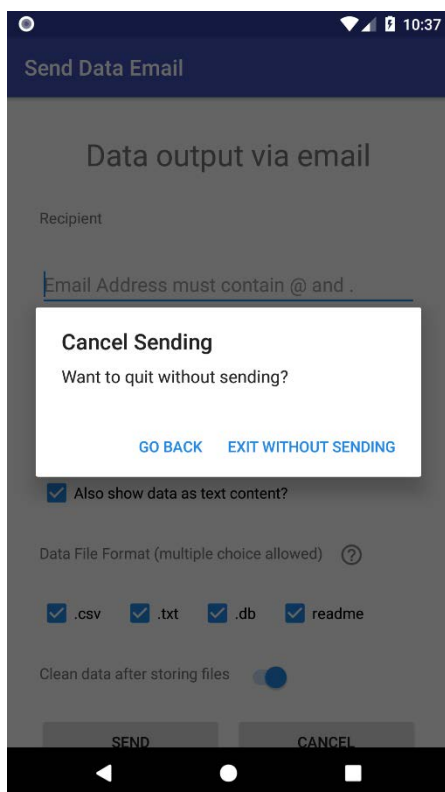
Permission

For a successfully sending, you need to grant the permission to NeuroGraph. This permission granting message will only be shown once. You can go to your device's setting to change the permissions.



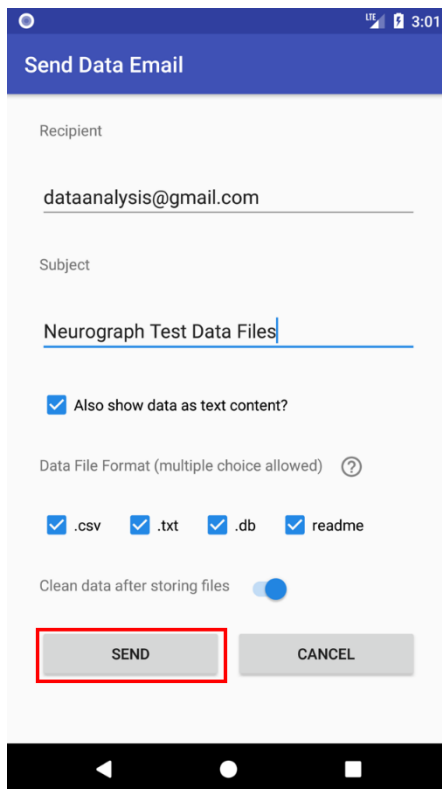
Network Connection

For a successfully sending, your device needs to connect to a stable network, either WiFi or mobile network. The app will automatically detect network state, if there is no network connection, you cannot send an email.



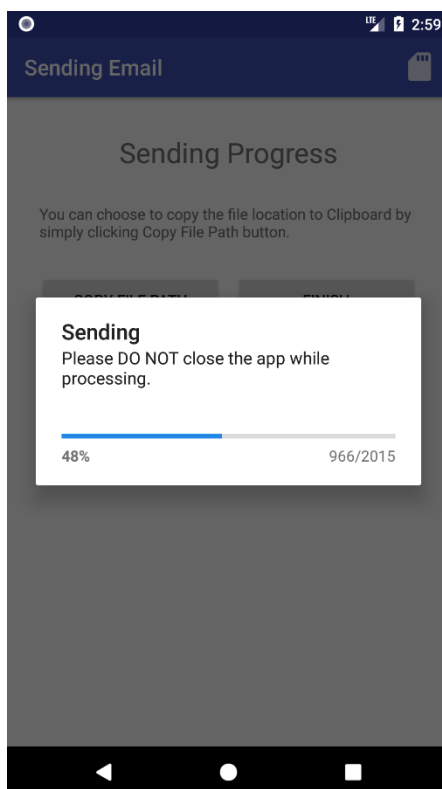
Cancel sending

You can click “Cancel” to cancel sending this email.



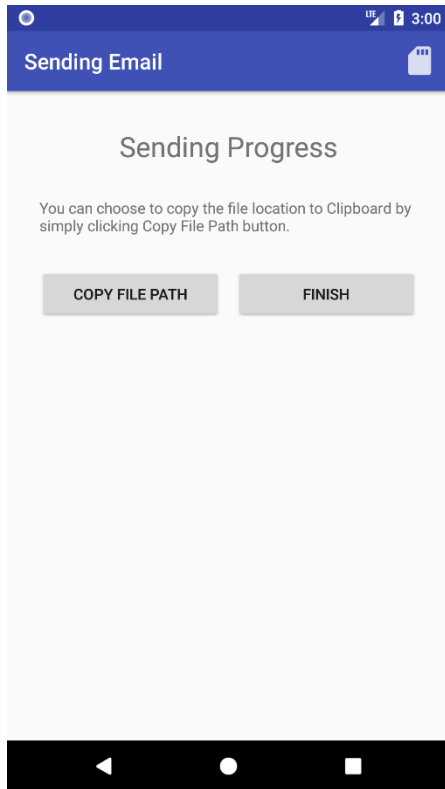
Send it

Click “Send” to send it. During the sending process please do not close the app.



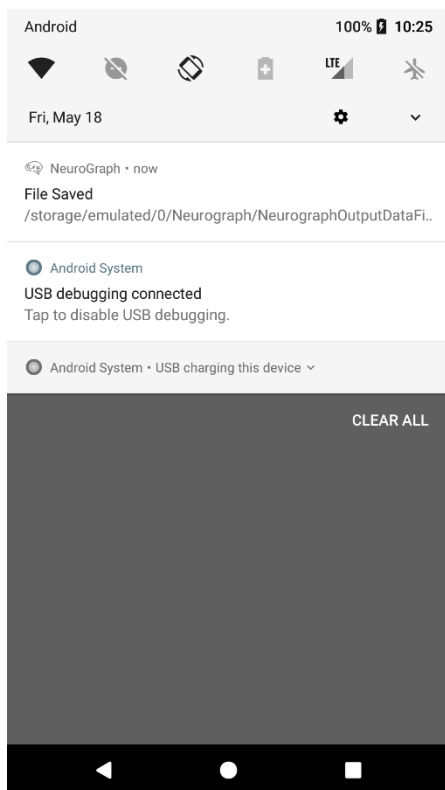
Sending Progress

During the sending progress, please do not close the app, otherwise the data email cannot be sent successfully.



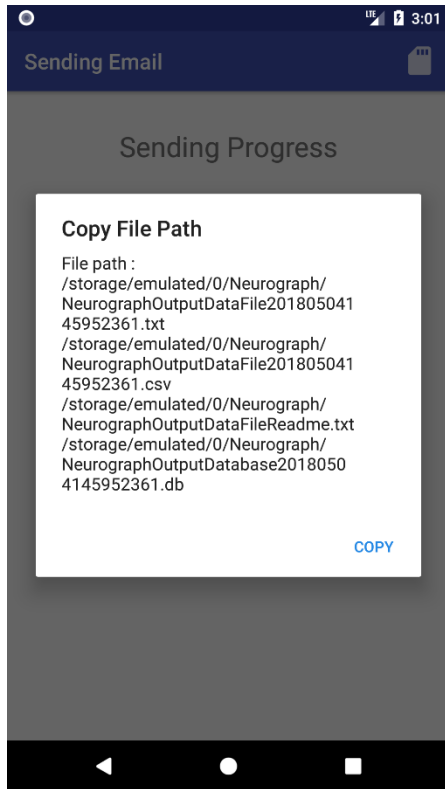
Successfully Sent

The email which contains the data files has been sent successfully, and the data files have also been stored on your device.



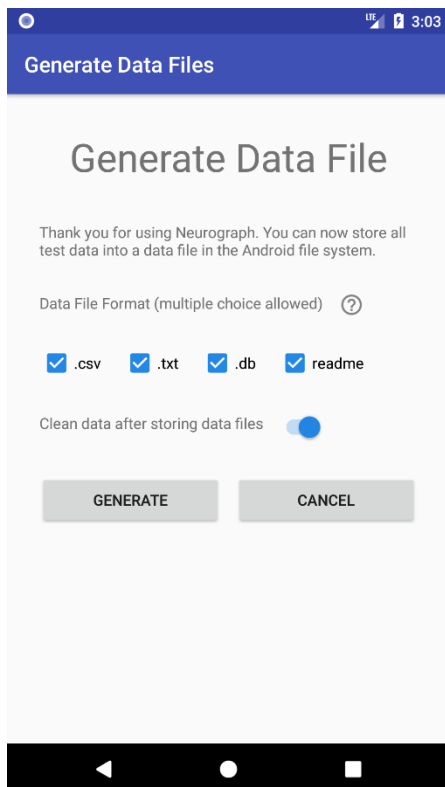
Notification

When the sending process finished, you will receive a notification.



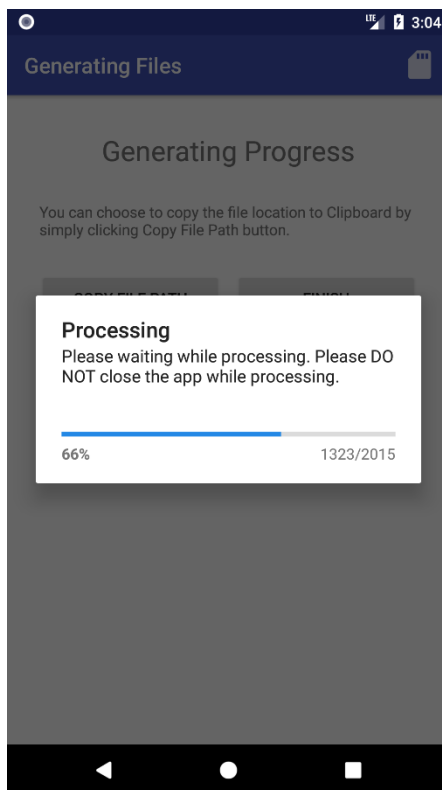
Copy File Path

You can copy the file path of the data file to clipboard.



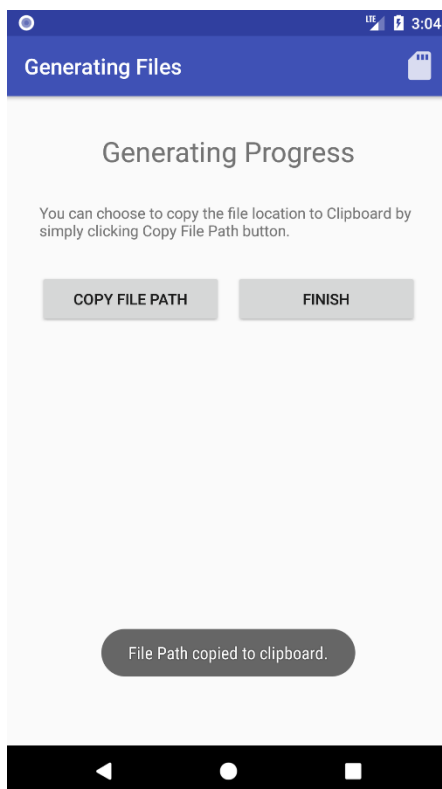
Store Data File

You can store the data file without sending it through email. You also need to choose the file type you want to store, you can choose all of them and you need to choose at least one of it. After storing data file, you can choose to clean all the test data. Click "Help" to see what these file types mean.



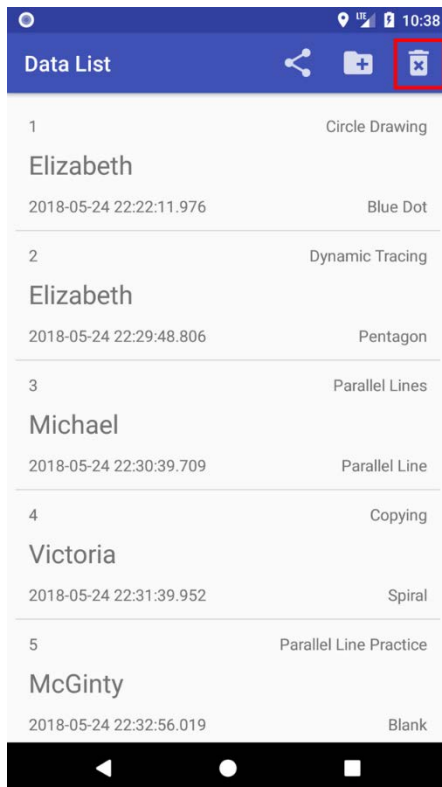
Generating Progress

During the generation process please do not close the app.



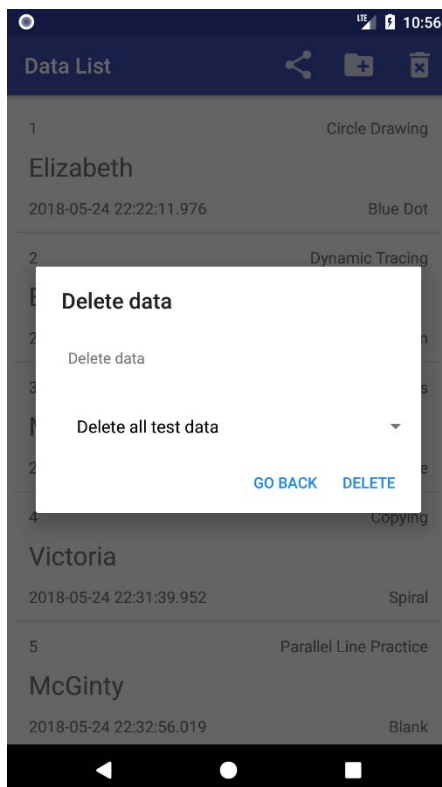
Copy File Path

You can copy file path to the clipboard.



Delete Data

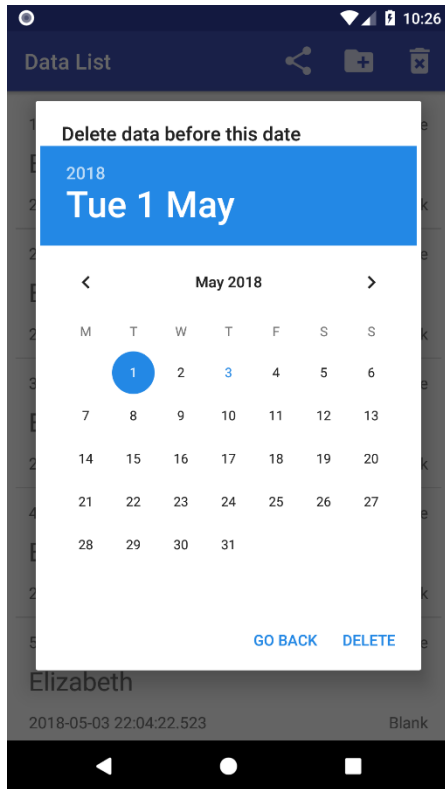
You can click here to delete data.



Three delete options.

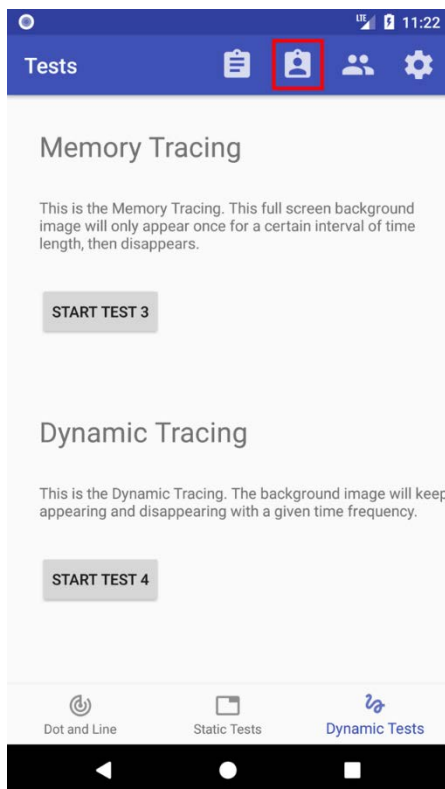
There are three deletion options.

You can choose to delete all the test data only, delete all the test data before a specific date, or delete all the user and test data, and this will restart the app.



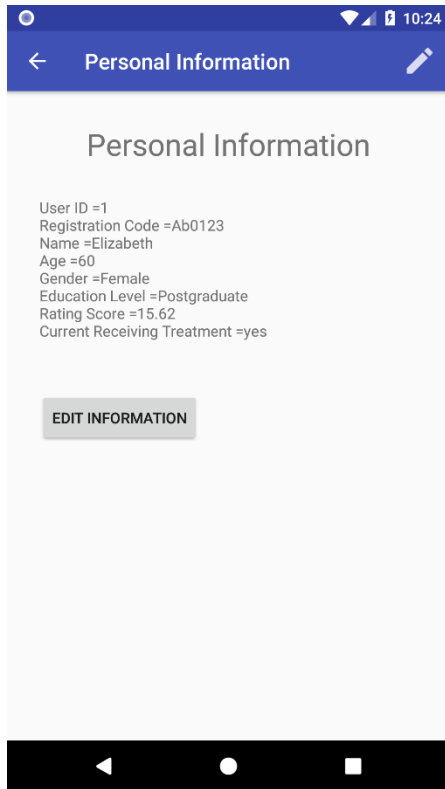
Delete test data before specific date

You can delete test data before a specific date.

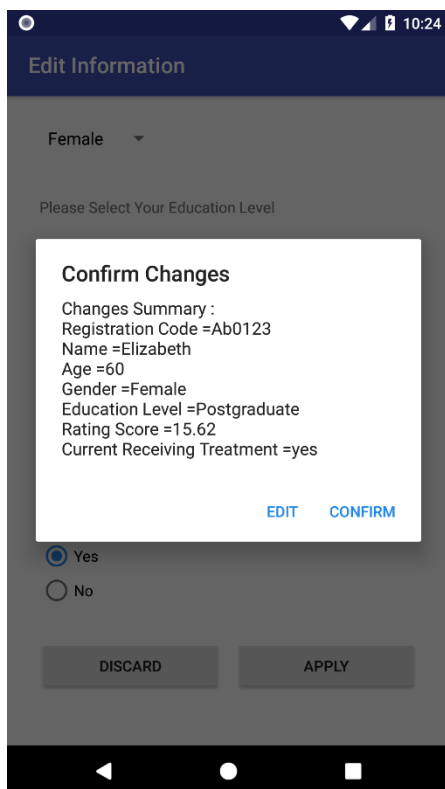


View and Edit Personal Information

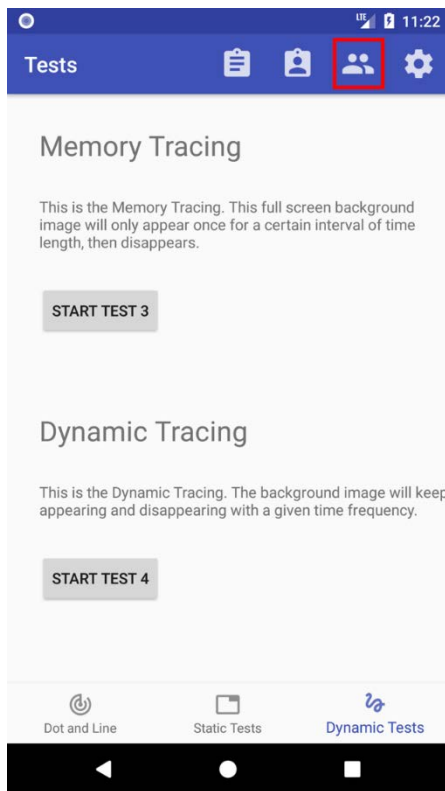
You can click here to view or edit your personal information.



In this page you can view your information.

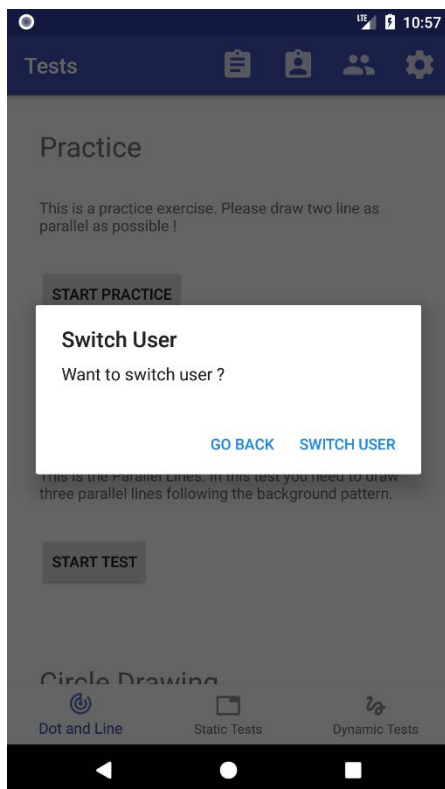


After changing the information, confirm it to apply. The prompt message will show you a summary of your new information.

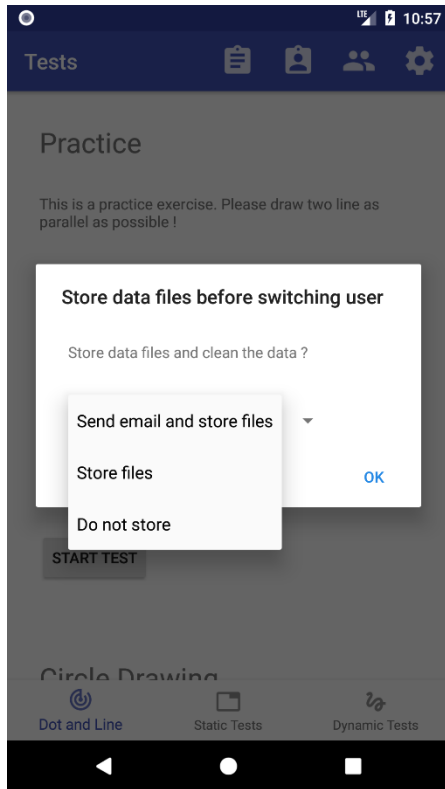


Switch User

You can click here to switch user.



If you want to switch user, click “Switch User” to continue.



Store Files before switching user

You can choose to send data email, store data file before switching user. Or you can also choose not to store at this point.