

Neurograph User Manual

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User Manual for Neurograph Version 1.0

2018.06

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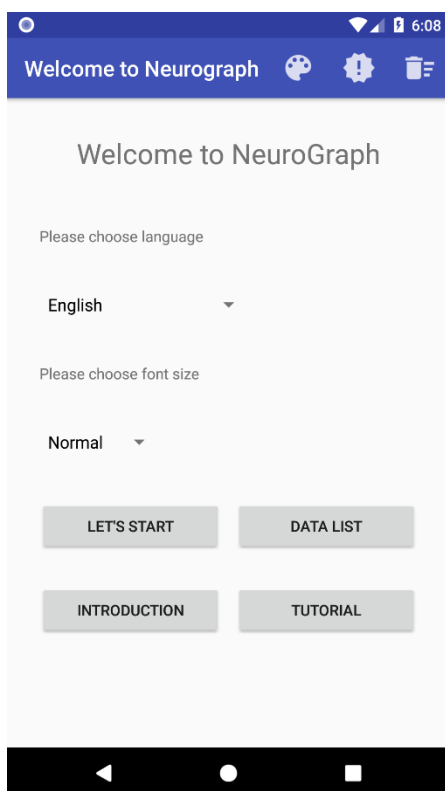
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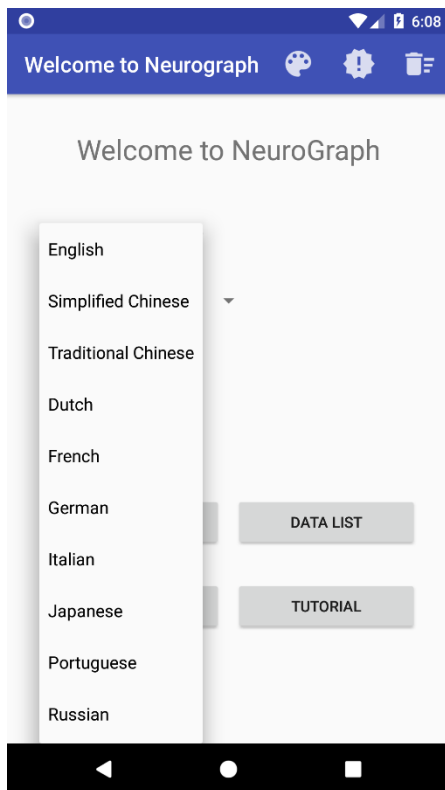
App Icon and Welcome Page

This is the welcome page of the Neurograph app.



Home Page

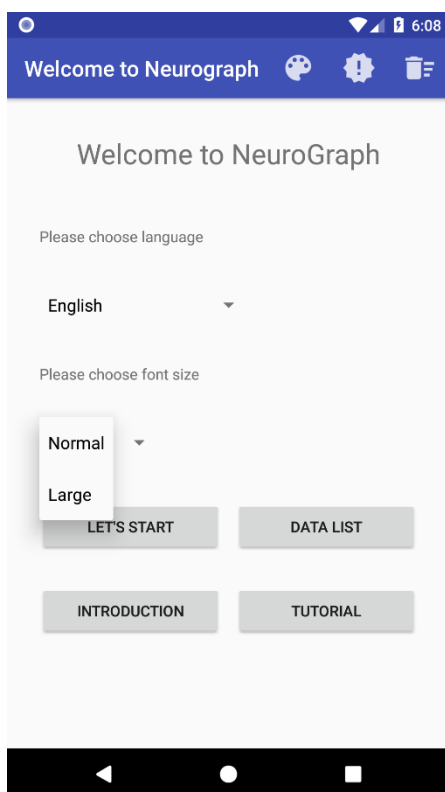
This is the home page of Neurograph. Here you can change the language setting, change the font size setting, change the colour theme, clean app cache, see the introduction of the app, view tutorials, start the tests etc.



Choose Your Preferred Language

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

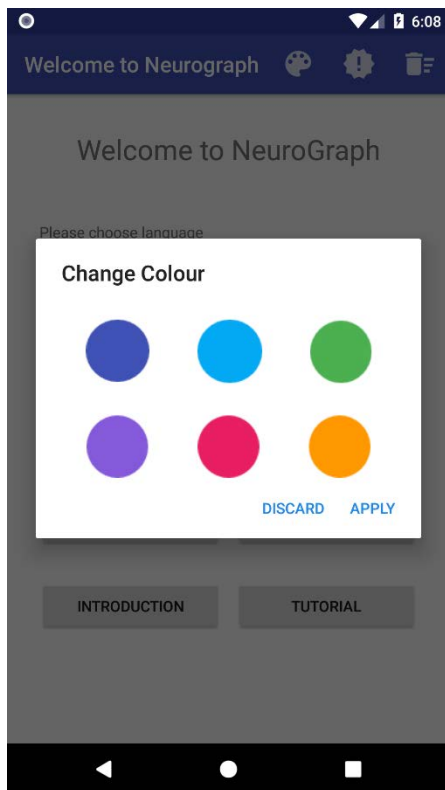
(This setting can also be changed after you log in)



Choose Font Size

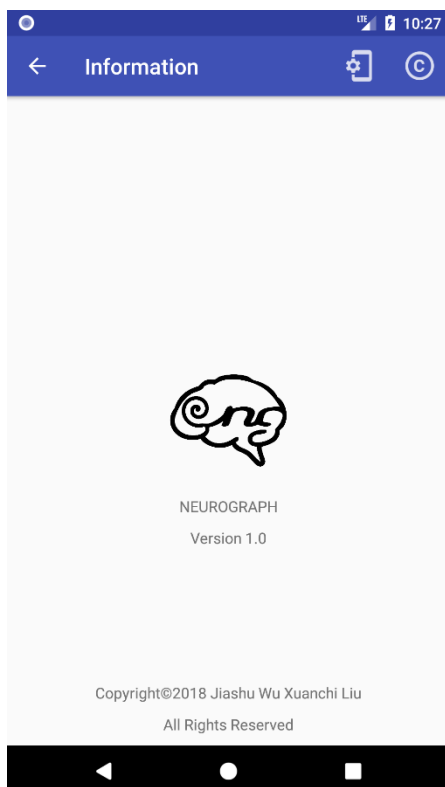
You can choose your preferred font size, either normal size or large size, this change will take effect immediately.

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



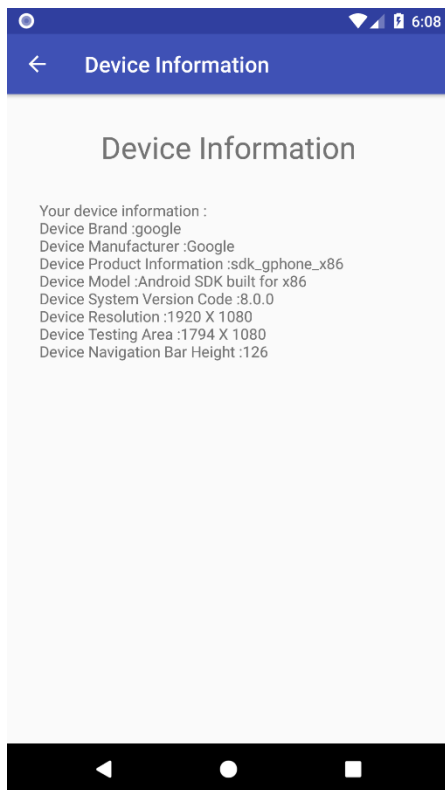
Choose your preferred colour theme

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



View App information

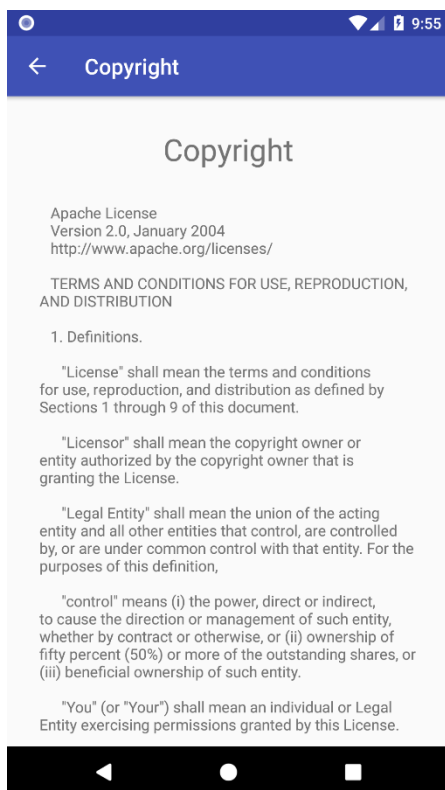
You can see the information about this app here.



View Device Information

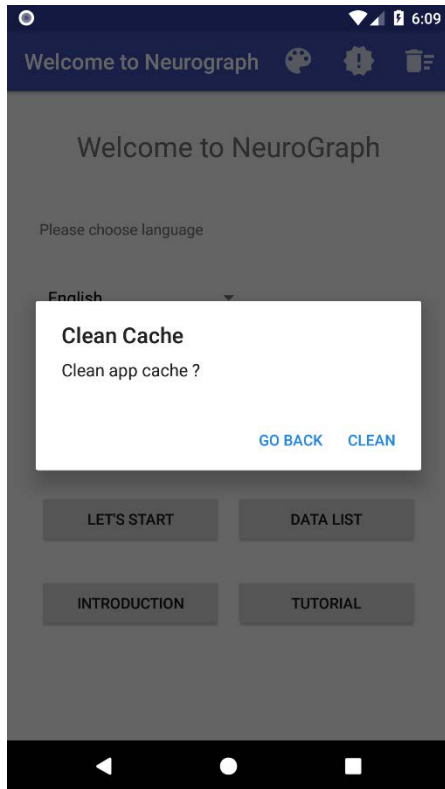
This page contains all the information about your test device.

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



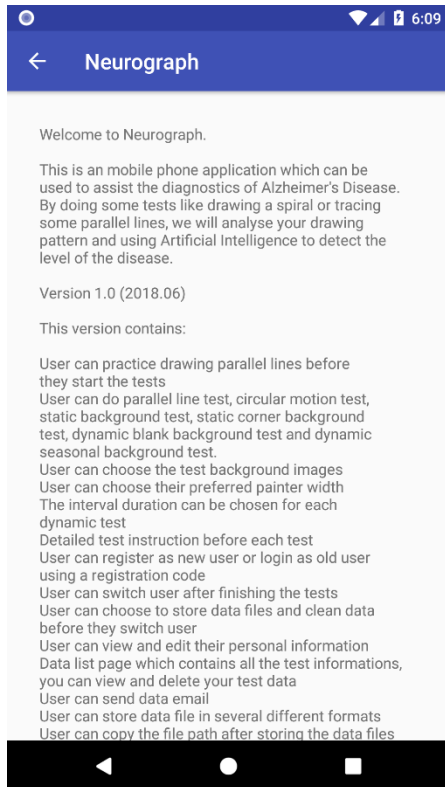
View copyright information

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



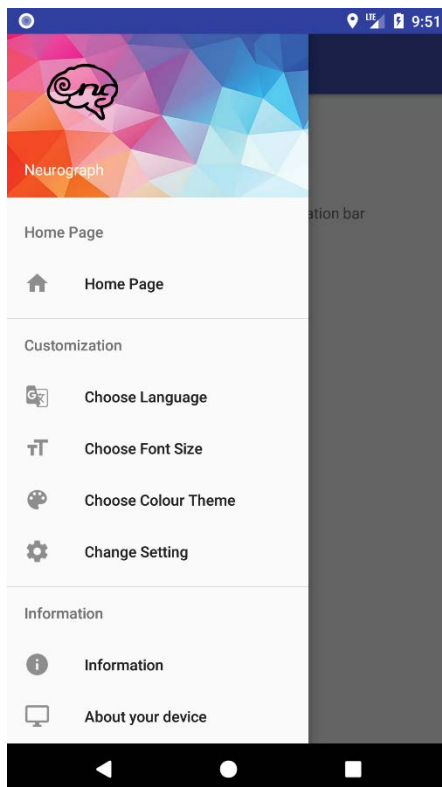
Clean App Cache

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



View information about the app

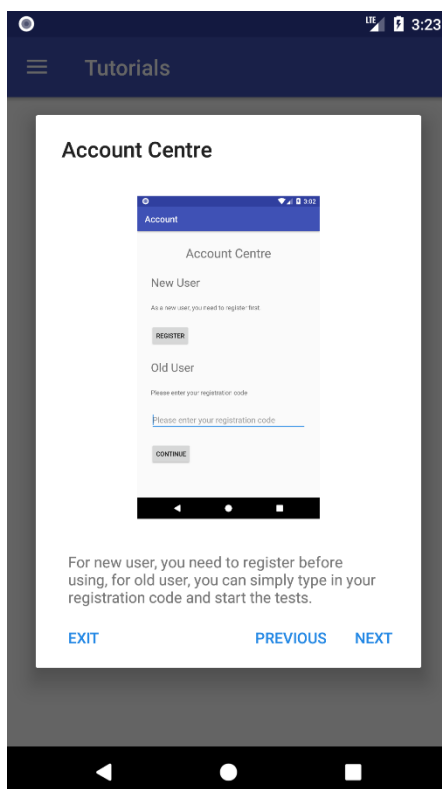
This page contains the introduction of what's new in this release.



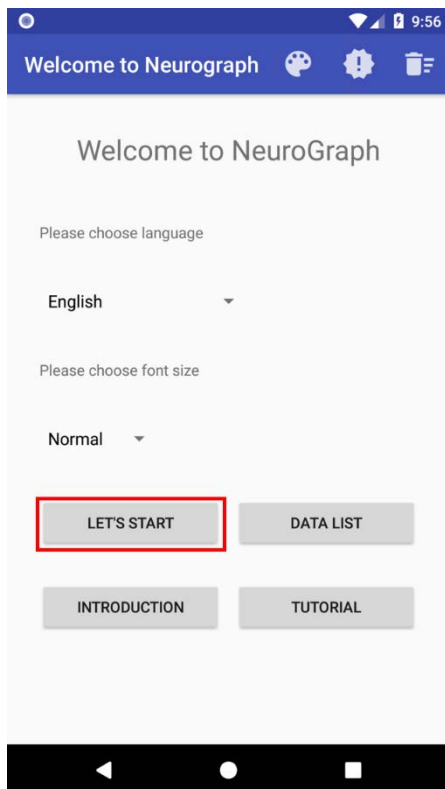
View Tutorials

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.

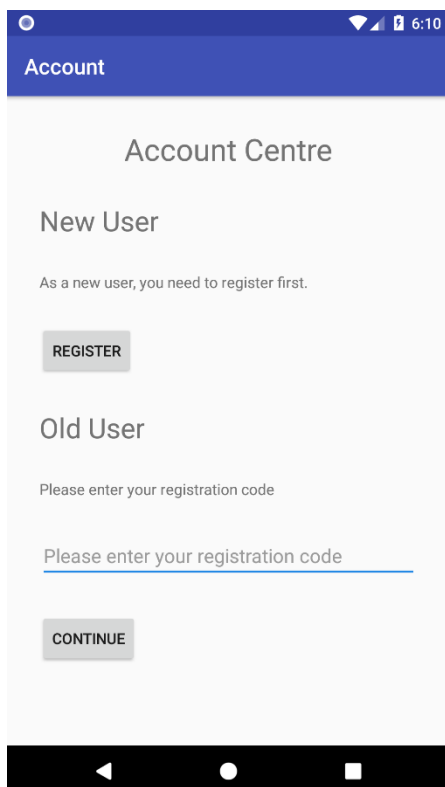


For each of the tutorials, you can click “Previous” or “Next” to switch between tutorials, or you can click “Exit” to exit the tutorials.



Click Let's Start to log in

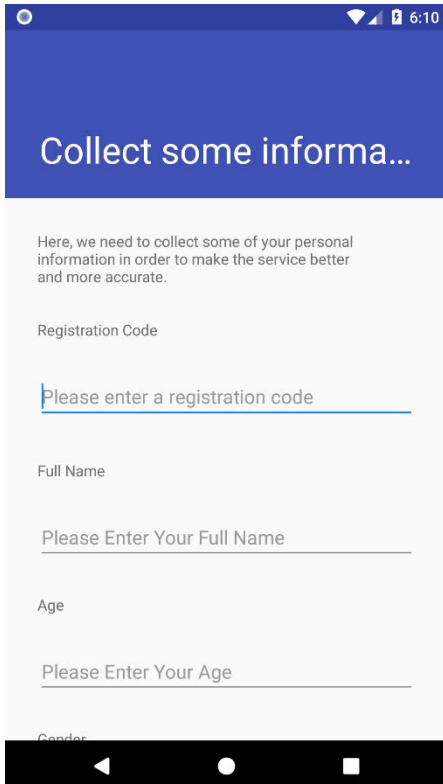
Please click "Let's Start" to log in and do the tests.



Account centre

New user needs to register before doing the tests.

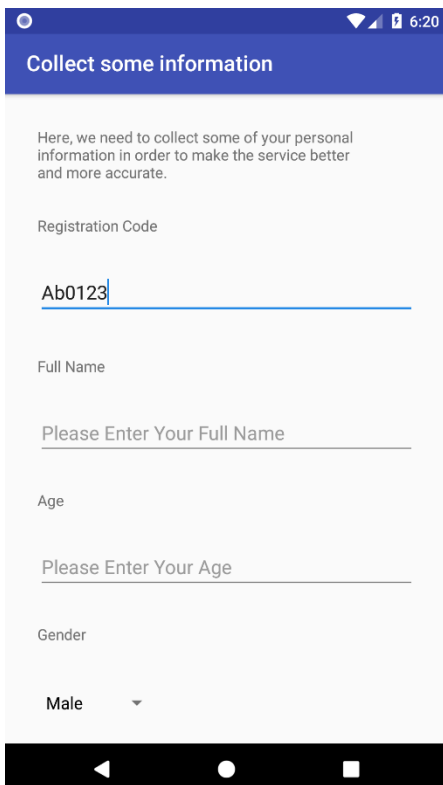
Old user need to enter their registration code to continue their tests.



The screenshot shows the registration page with a blue header bar containing the text "Collect some informa...". Below the header, there is a light gray box with the text "Here, we need to collect some of your personal information in order to make the service better and more accurate." followed by four input fields: "Registration Code" (with placeholder "Please enter a registration code"), "Full Name" (with placeholder "Please Enter Your Full Name"), "Age" (with placeholder "Please Enter Your Age"), and "Gender" (with a dropdown menu showing "Male"). The Android navigation bar is visible at the bottom.

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.



This screenshot shows the registration page with the "Registration Code" field filled with "Ab0123". The other fields ("Full Name", "Age", "Gender") remain empty. The header bar still says "Collect some information". The Android navigation bar is visible at the bottom.

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.

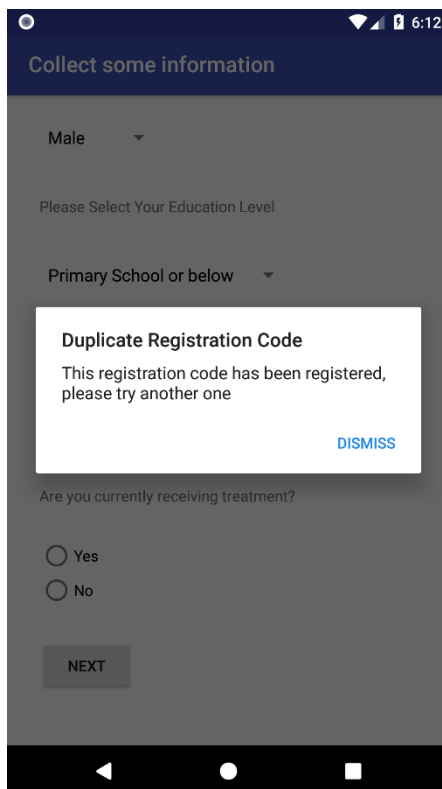
The screenshot shows a mobile application interface titled "Collect some information". At the top, there is a header bar with a back arrow, signal strength, Wi-Fi, battery, and time (6:11). Below the header, the first input field is labeled "Please enter a registration code" and has a red exclamation mark icon. A black error message box is displayed over this field, stating "Registration code cannot be empty". Below this, there is a "Full Name" label and an input field labeled "Please Enter Your Full Name" 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 dialog is a blue "DISMISS" button. Below the dialog, there are dropdown menus for "Male" and "Please Select Your Education Level" (with "Primary School or below" selected). At the bottom, there is a label for "Previous Alzheimer Rating Score (If Applicable)". The Android navigation bar is visible at the very bottom.

Registration Code

The registration code cannot be empty.

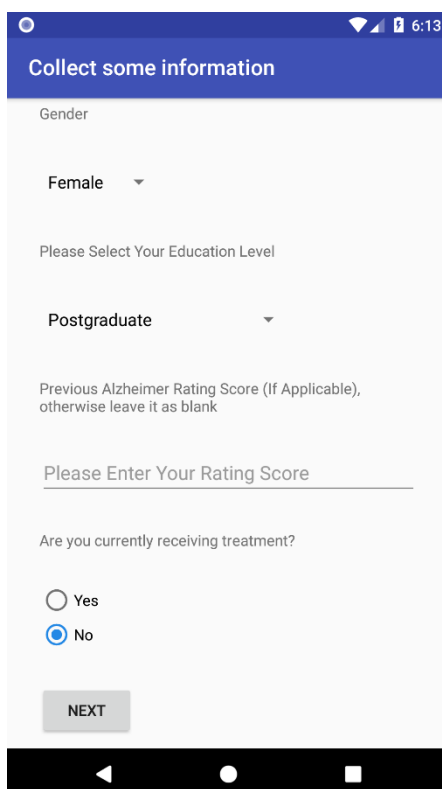
The screenshot shows the same mobile application interface as the previous one, but at a later time (6:12). The "reg#code" input field now contains the text "reg#code" and has a red exclamation mark icon. A black error message box is displayed over this field, stating "Registration code invalid, should contains only alphabet and numbers". The "Full Name" field and the modal dialog box are still visible. The modal dialog box now has the title "Information Invalid" and the message "Registration code invalid. It should only contain alphabets or numbers." with a blue "DISMISS" button. The rest of the form, including the "Male" dropdown, "Please Select Your Education Level" dropdown (with "Primary School or below" selected), and the "Previous Alzheimer Rating Score (If Applicable)" label, remains the same. The Android navigation bar is visible at the very bottom.

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



The screenshot shows a mobile app interface titled "Collect some information". The form includes a gender dropdown set to "Male", an education level dropdown set to "Primary School or below", and a question "Are you currently receiving treatment?" with radio buttons for "Yes" and "No". A "NEXT" button is at the bottom. A white modal box is displayed in the center with the title "Duplicate Registration Code" and the message "This registration code has been registered, please try another one". A blue "DISMISS" button is in the bottom right corner of the modal.

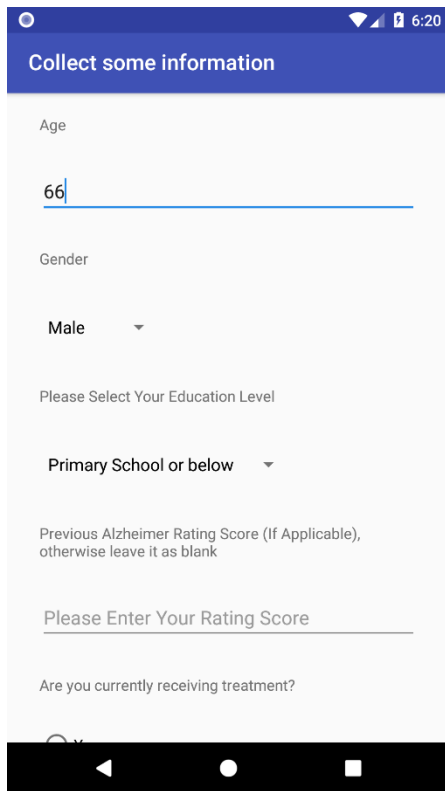
The registration code also cannot duplicate, so if the registration code you entered duplicates with other patients' registration code, you will be asked to try another one.



The screenshot shows the same "Collect some information" form. The gender dropdown is now set to "Female", and the education level dropdown is set to "Postgraduate". The "Previous Alzheimer Rating Score (If Applicable), otherwise leave it as blank" field is now populated with "Please Enter Your Rating Score". The "Are you currently receiving treatment?" question has the "No" radio button selected. The "NEXT" button remains at the bottom.

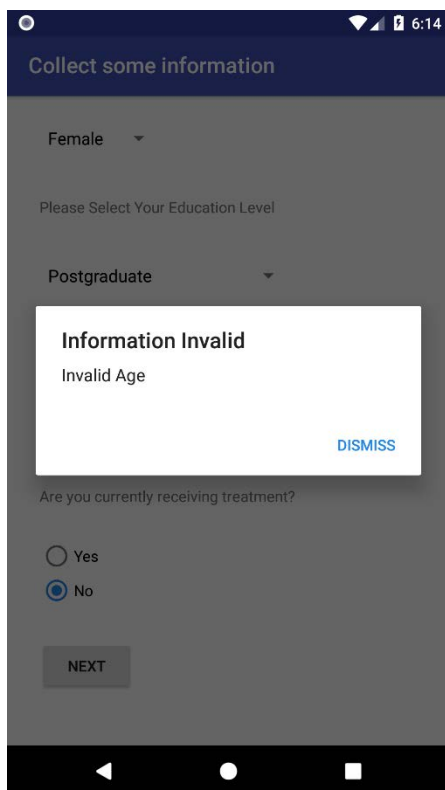
Information Collection

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



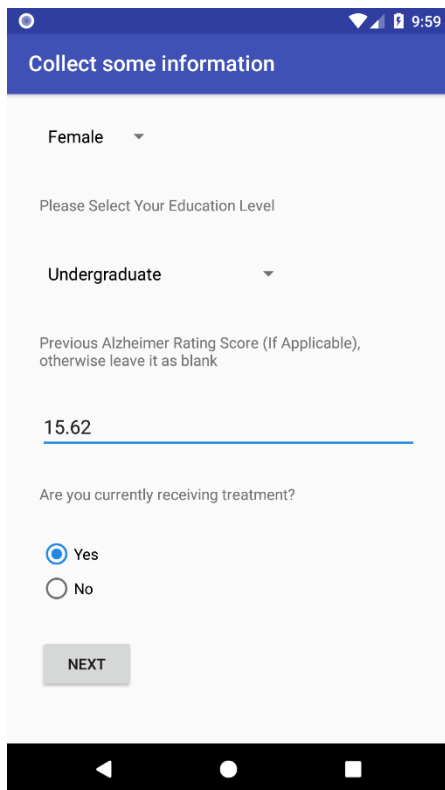
The screenshot shows a mobile application interface titled "Collect some information". It contains several input fields: "Age" with the value "66", "Gender" with a dropdown menu showing "Male", "Please Select Your Education Level" with a dropdown menu showing "Primary School or below", "Previous Alzheimer Rating Score (If Applicable), otherwise leave it as blank" with a text input field, and "Are you currently receiving treatment?" with radio buttons for "Yes" and "No". The "Age" field is highlighted with a blue border, indicating it is the current focus.

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



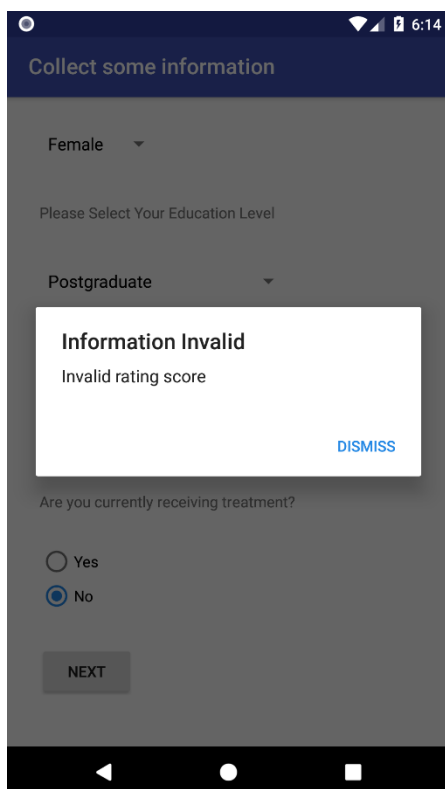
The screenshot shows the same "Collect some information" form, but with an "Information Invalid" dialog box displayed. The dialog box has the title "Information Invalid" and the message "Invalid Age". A "DISMISS" button is located at the bottom right of the dialog box. The background form is dimmed, showing "Gender" with a dropdown menu showing "Female", "Please Select Your Education Level" with a dropdown menu showing "Postgraduate", and "Are you currently receiving treatment?" with radio buttons for "Yes" and "No". The "No" radio button is selected.

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



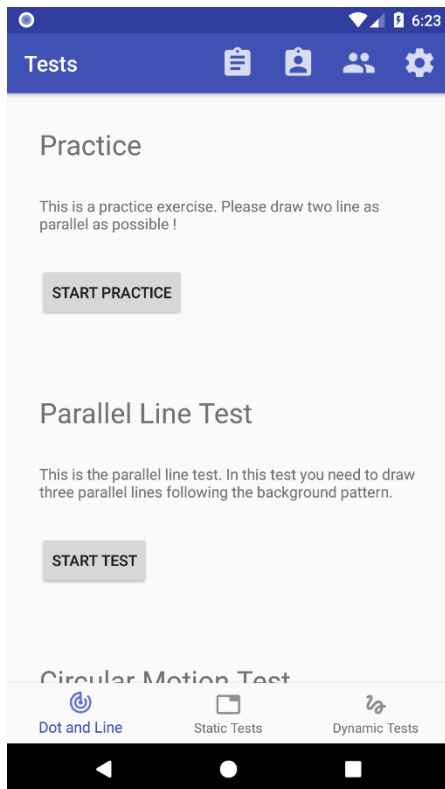
The screenshot shows a mobile application interface titled "Collect some information". At the top, there is a status bar with a signal icon, a battery icon, and the time 9:59. Below the title bar, the form contains the following elements: a dropdown menu with "Female" selected; a label "Please Select Your Education Level" followed by a dropdown menu with "Undergraduate" selected; a label "Previous Alzheimer Rating Score (If Applicable), otherwise leave it as blank" followed by a text input field containing "15.62"; a label "Are you currently receiving treatment?" followed by two radio buttons, "Yes" (selected) and "No"; and a "NEXT" button at the bottom.

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



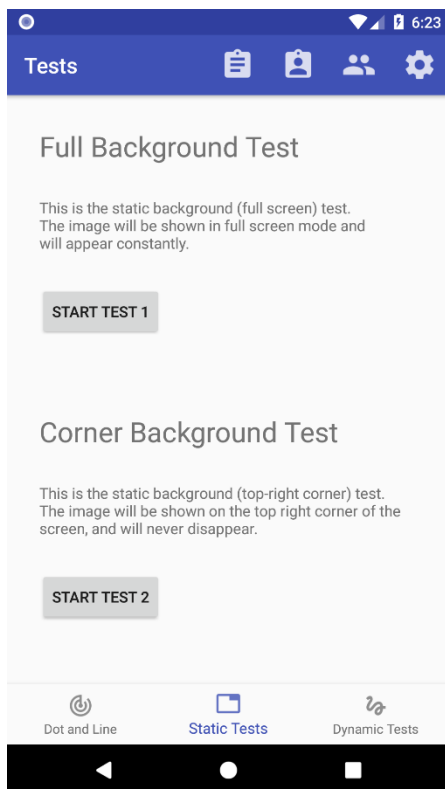
The screenshot shows the same mobile application interface as the previous one, but with an error message displayed. The status bar shows the time 6:14. The form elements are the same, but the "Previous Alzheimer Rating Score" field is now empty. An error message box is overlaid on the screen with the title "Information Invalid" and the text "Invalid rating score". A "DISMISS" button is located at the bottom right of the error message box. The "NEXT" button is also visible at the bottom of the form.

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



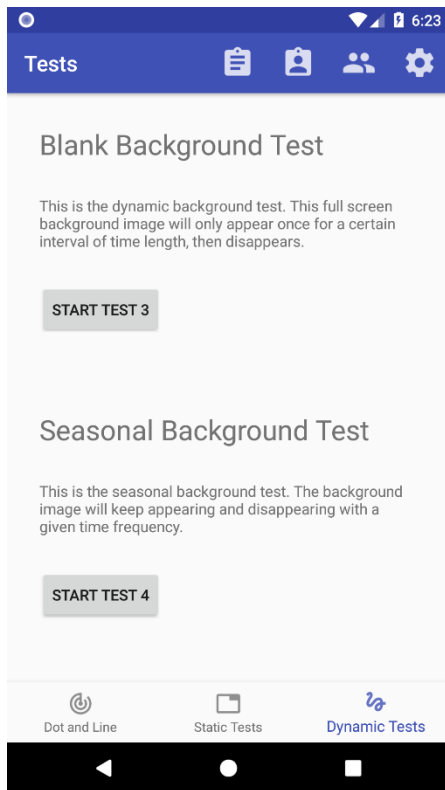
Test Selection

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 line test and circular motion test, the second tab called “Static Tests”, which contains the static full background test and static corner background test, and the third tab called “Dynamic Test”, which contains dynamic blank background test and dynamic seasonal background test. You can select multiple tests to do and you can do a single test as many times as you want.

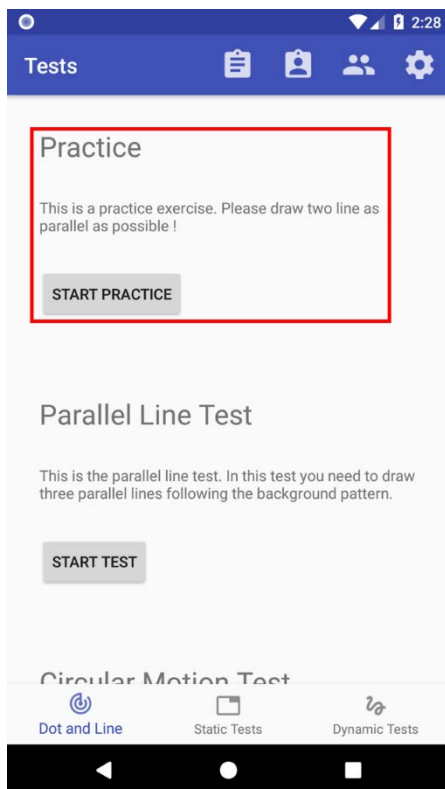


You can switch between tabs by clicking the bottom navigation panel or swipe the screen.

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

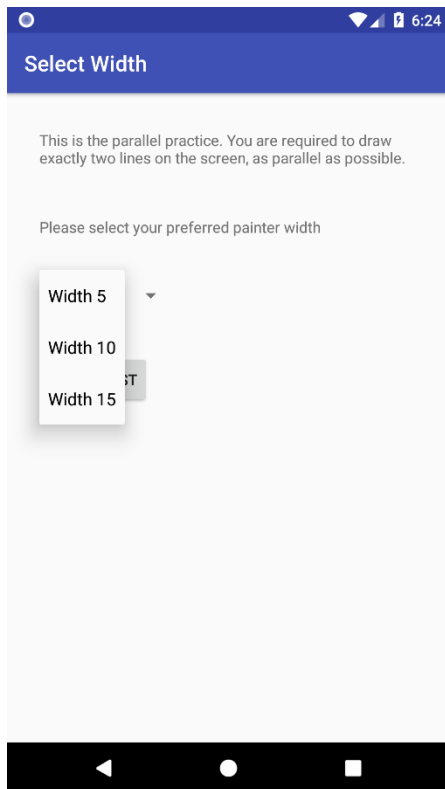


On this tab you can find blank background test and seasonal background test. They are all dynamic tests since their background image will not stay on the screen constantly.



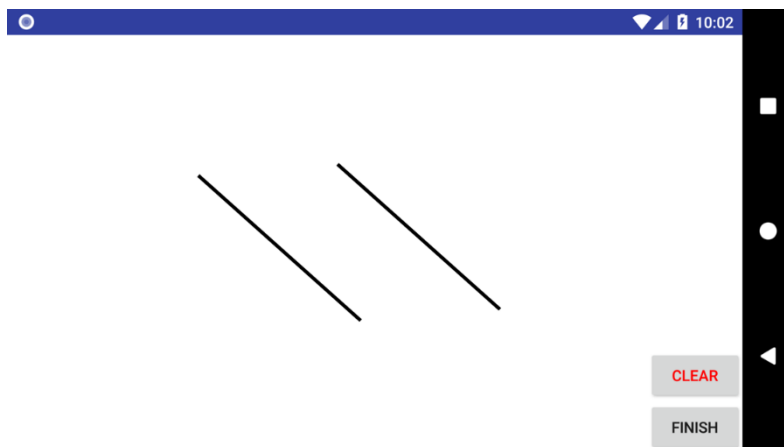
Parallel Line Practice

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.

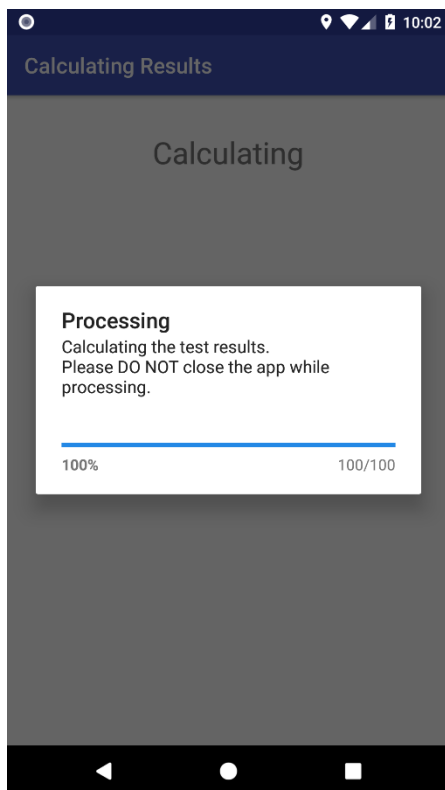


This is a place where you can practice drawing on this device. In this practice, you are required to draw exactly two lines which are parallel with each other.



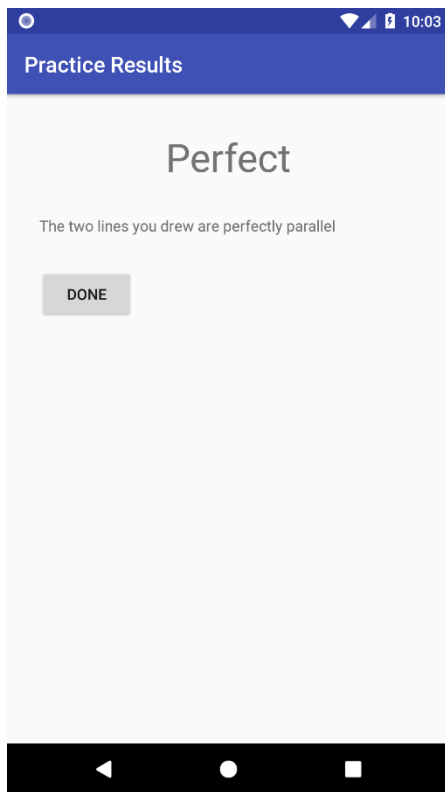
Finish & Clear

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.

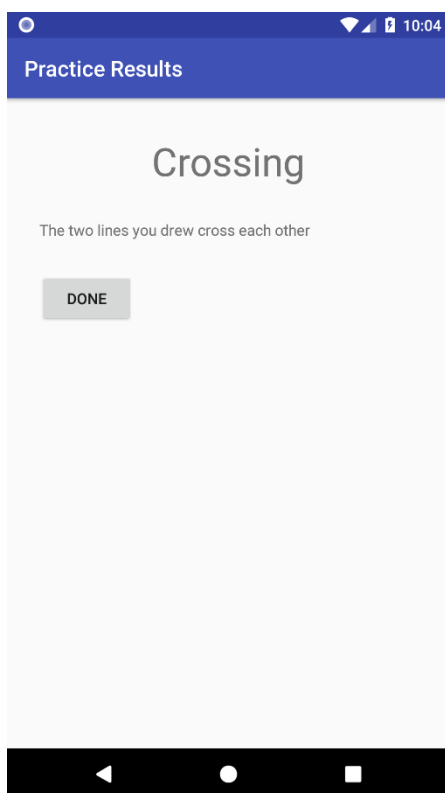


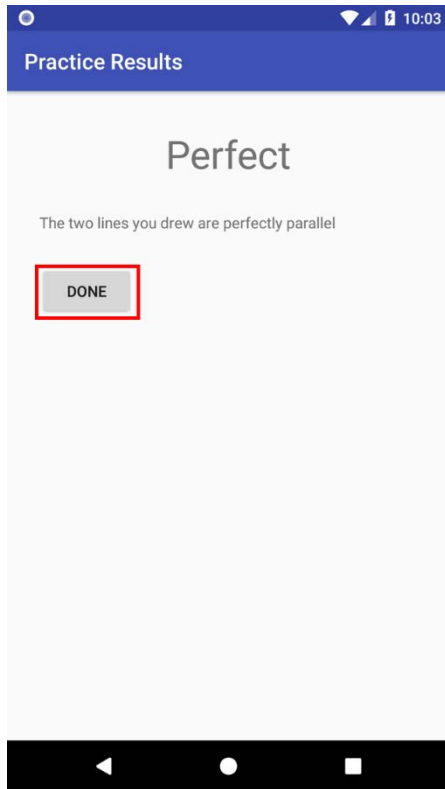
Practice Results

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.



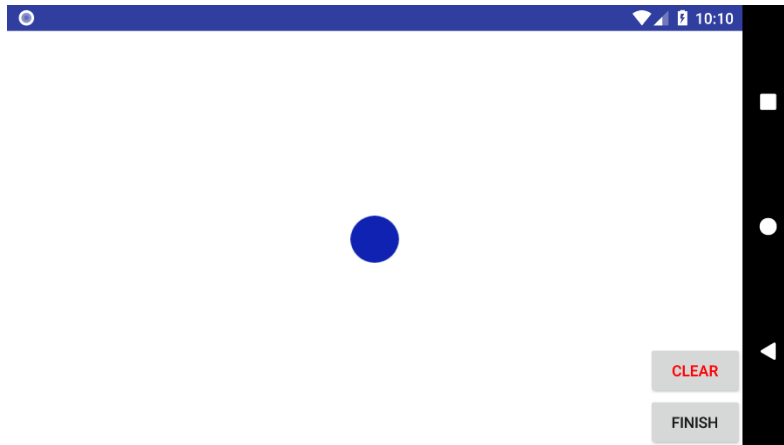


Click done to exit.



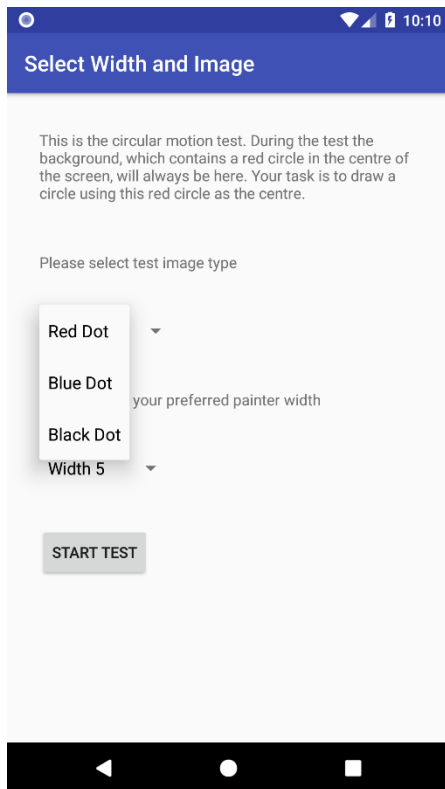
Parallel Line Test

This is the Parallel Line Test. 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.



Circular Motion Test

This is the circular motion test. You need to draw a circle, using the dot as the centre.



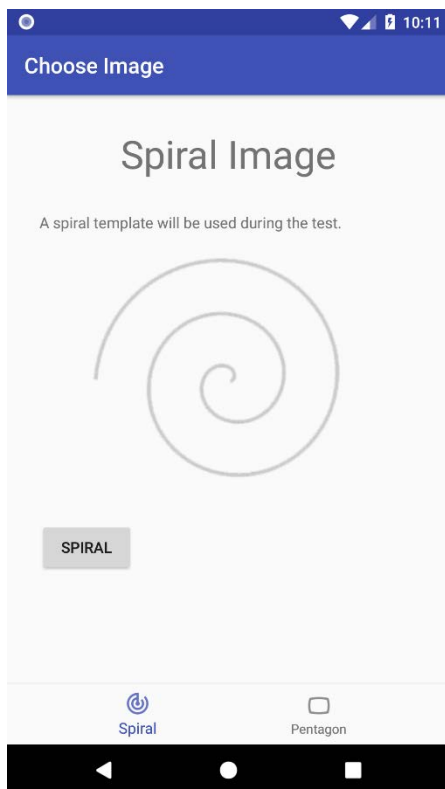
Choose the background

For Circular Motion Test, you can choose the colour of the dot. There are three colours: red, blue and black.



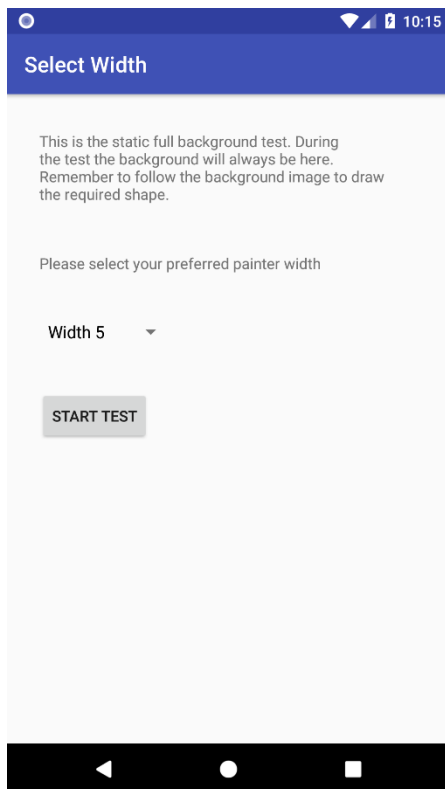
Static Full Background Test

This is the static full background test. 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.



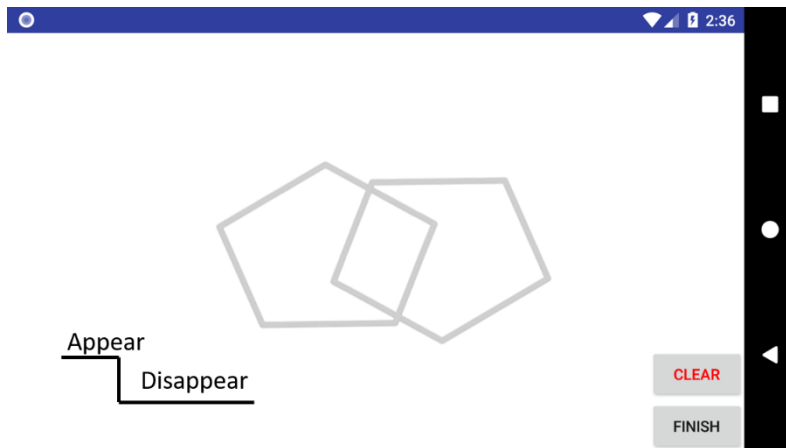
Choose painter width

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



Static Corner Background Test

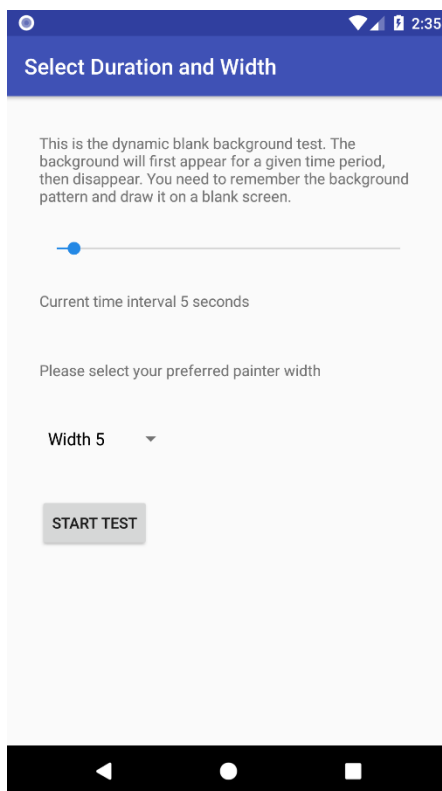
This is the static corner background test. In this test the background image is located on the top-right corner of the screen. You are required to draw the required shape in that image.



Dynamic Blank Background Test

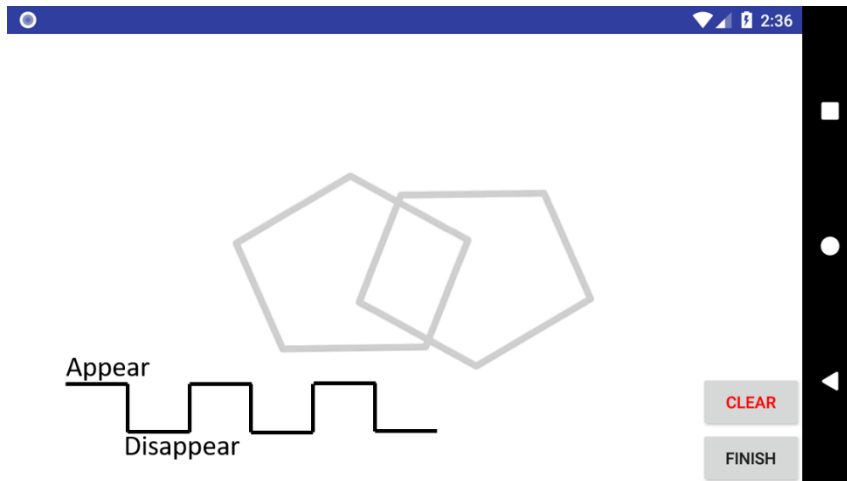
This is the dynamic blank background test. In this test, the background image will first appear for a specific period of time, then disappear. You need to remember the background pattern and draw the shape on a blank screen after the

background image disappears.



Choose Time Interval

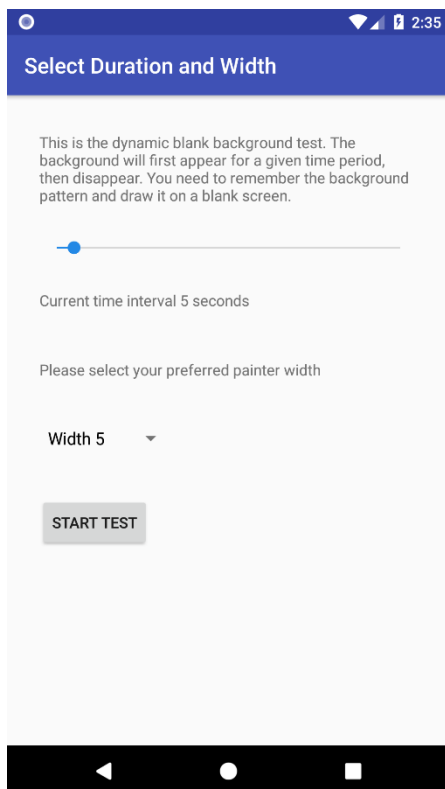
You need to choose how long you want the background image to show at the beginning of the dynamic blank background test. The time interval takes the range between 1 second and 100 seconds.



Dynamic Seasonal Background Test

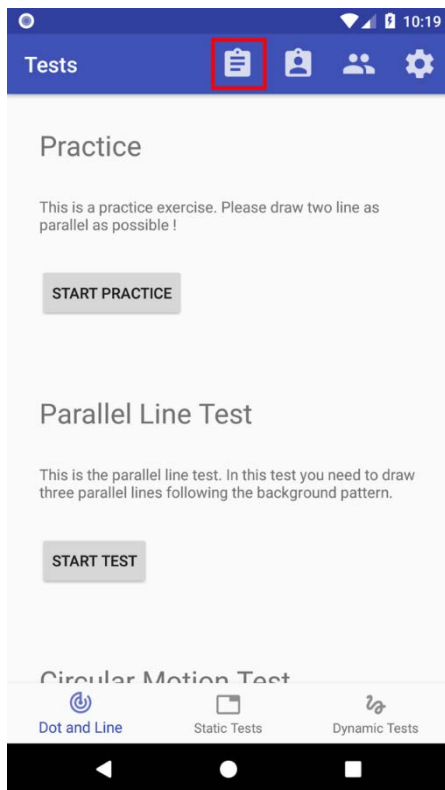
This is the dynamic seasonal background test. In this test the background image will keep appearing and disappearing, with certain time interval specified. You are required to follow the background image to draw the

required shape.



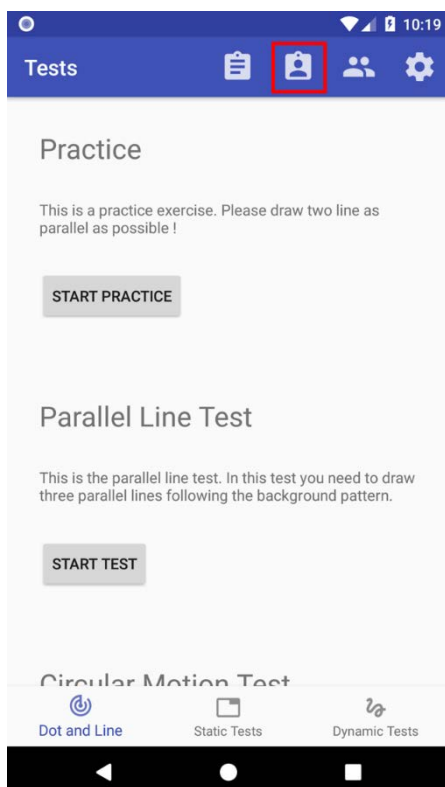
Choose Time Interval.

You need to choose the time interval for the background image to keep appearing and disappearing in the dynamic seasonal background test.

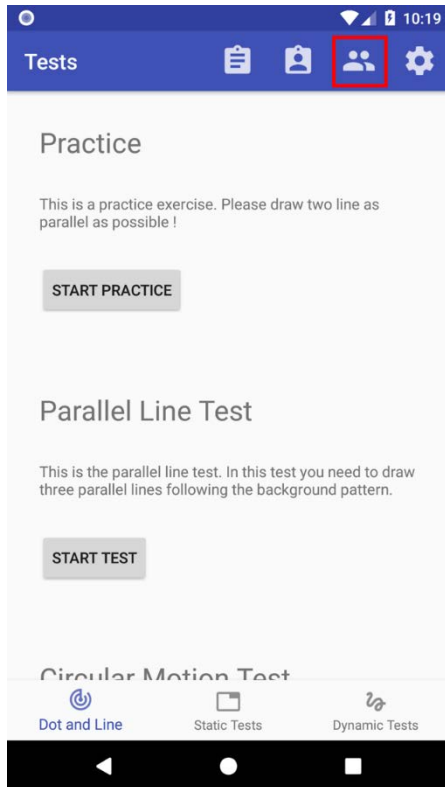


Test Selection Page toolbar

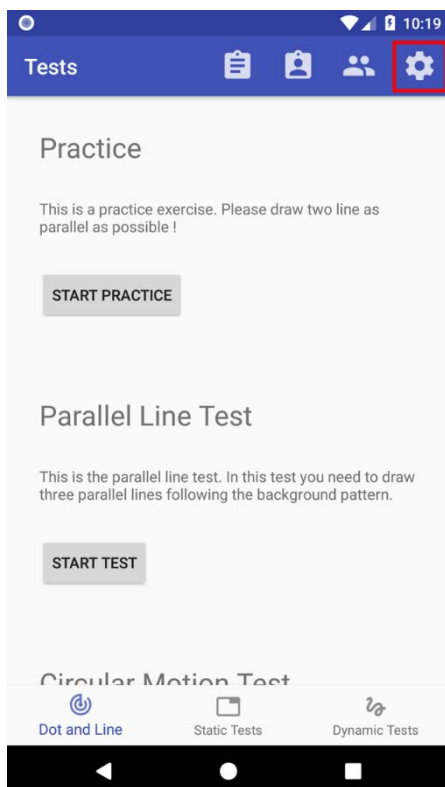
You can click here to access the data list.



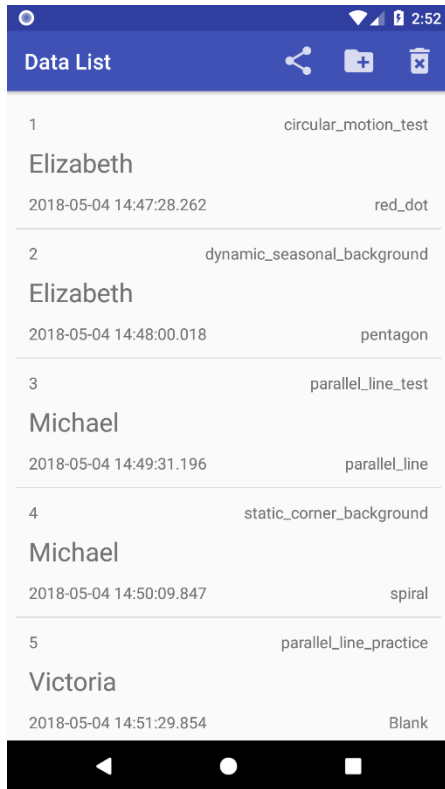
You can click here to view or edit your personal information.



You can click here to switch user.



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

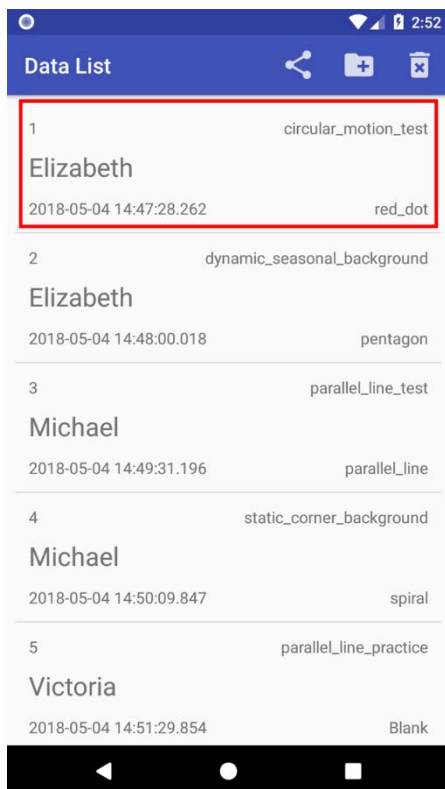


The screenshot shows the 'Data List' app interface. At the top is a blue header bar with the title 'Data List' and three icons: a share icon, a plus icon, and a close icon. Below the header is a list of five test entries, each separated by a horizontal line. Each entry contains a test ID, a testee's name, a timestamp, and a test type. The first entry is highlighted with a red border.

Test ID	Testee Name	Timestamp	Test Type
1	Elizabeth	2018-05-04 14:47:28.262	red_dot
2	Elizabeth	2018-05-04 14:48:00.018	pentagon
3	Michael	2018-05-04 14:49:31.196	parallel_line
4	Michael	2018-05-04 14:50:09.847	spiral
5	Victoria	2018-05-04 14:51:29.854	Blank

Data List

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



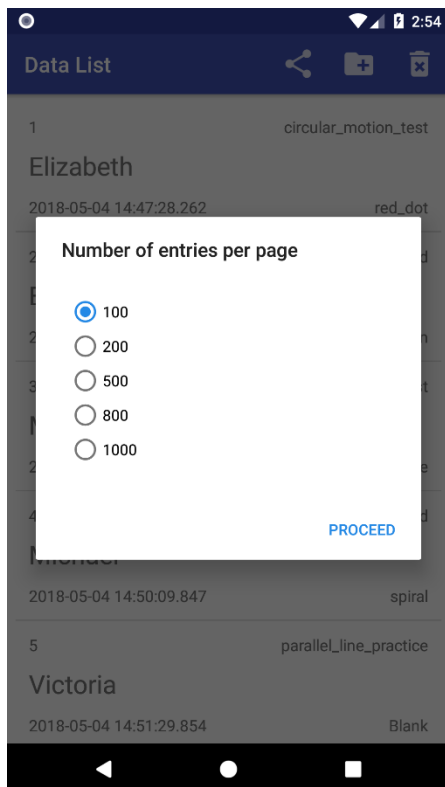
This screenshot is identical to the one above, showing the 'Data List' app interface. The first entry, corresponding to test ID 1, is highlighted with a red border to illustrate the data fields.

Test ID	Testee Name	Timestamp	Test Type
1	Elizabeth	2018-05-04 14:47:28.262	red_dot
2	Elizabeth	2018-05-04 14:48:00.018	pentagon
3	Michael	2018-05-04 14:49:31.196	parallel_line
4	Michael	2018-05-04 14:50:09.847	spiral
5	Victoria	2018-05-04 14:51:29.854	Blank

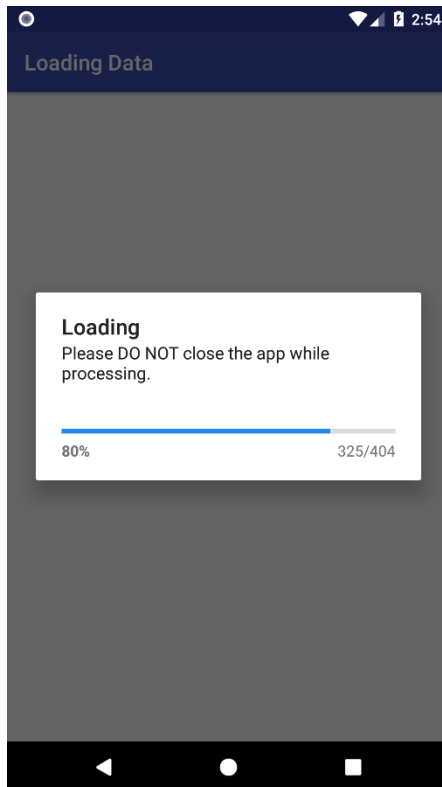
Each tab shows the test ID, the testee's name, the test date and time, test type and image type.



Click the tab to see the details of this test.

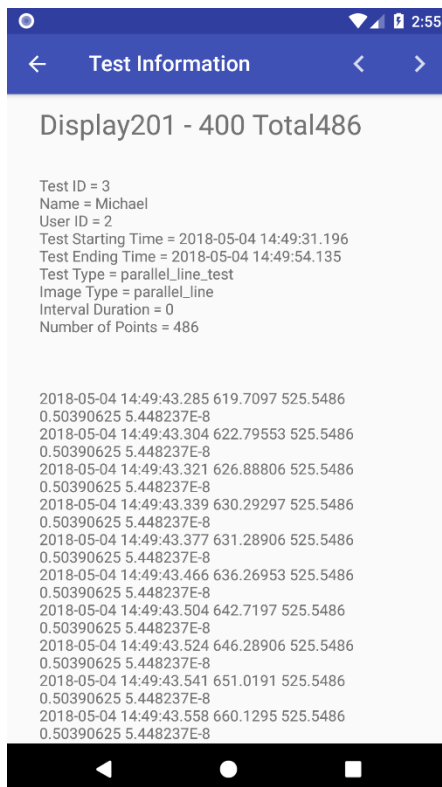


You need to choose how many entries you want to show on each page. Since in each single test there can have many data points.



Loading

During the loading process please do not close the app.

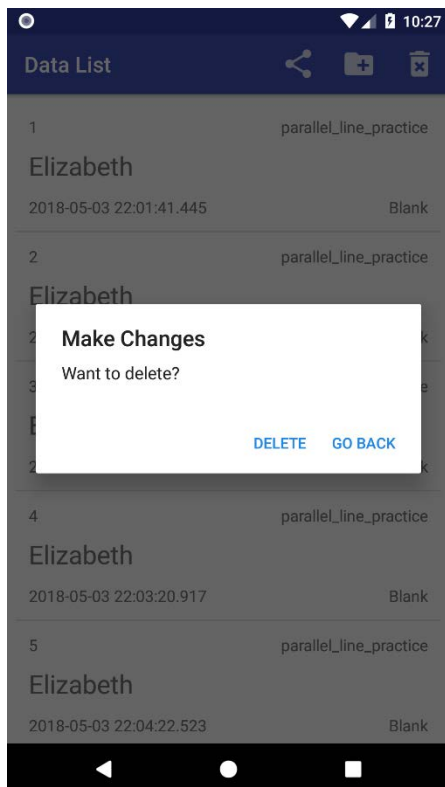


Test Information

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.

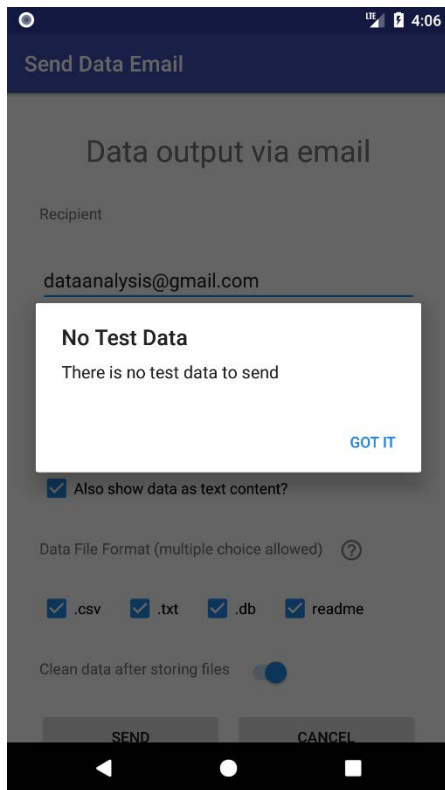


Click here to go to the previous / next page.



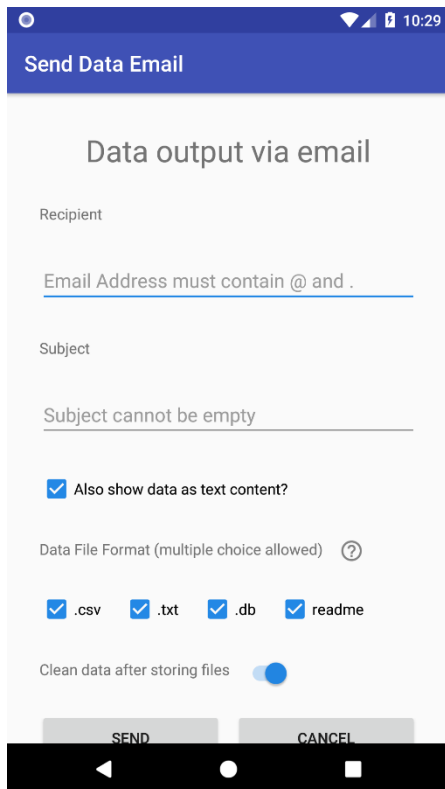
Long click to delete a test.

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



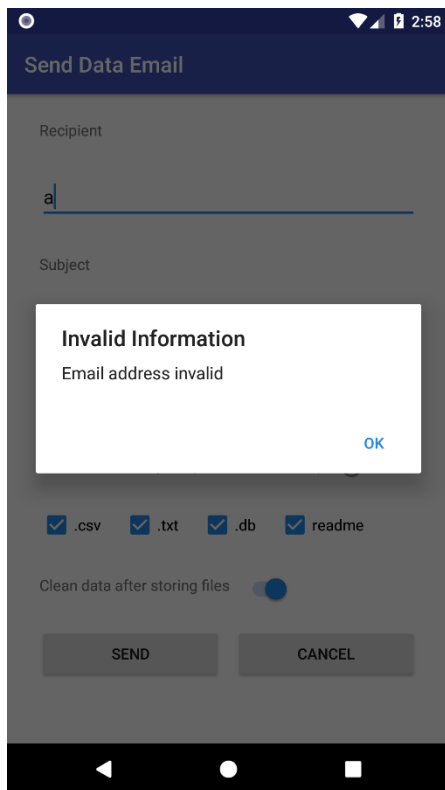
Sending Data File Email

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

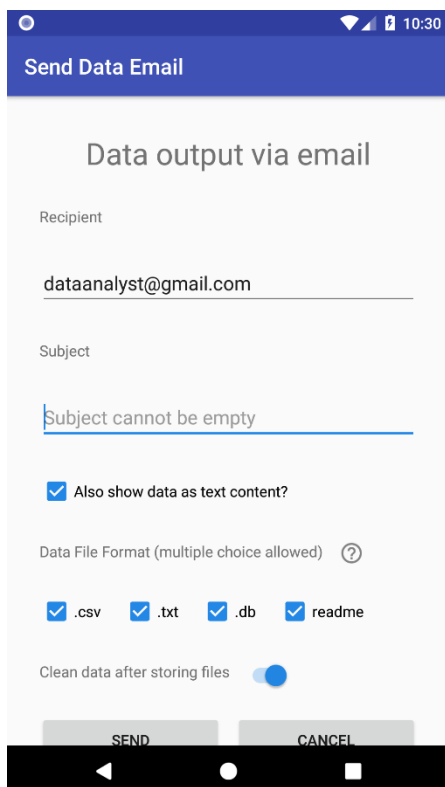


Email Recipient and Email Subject

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.

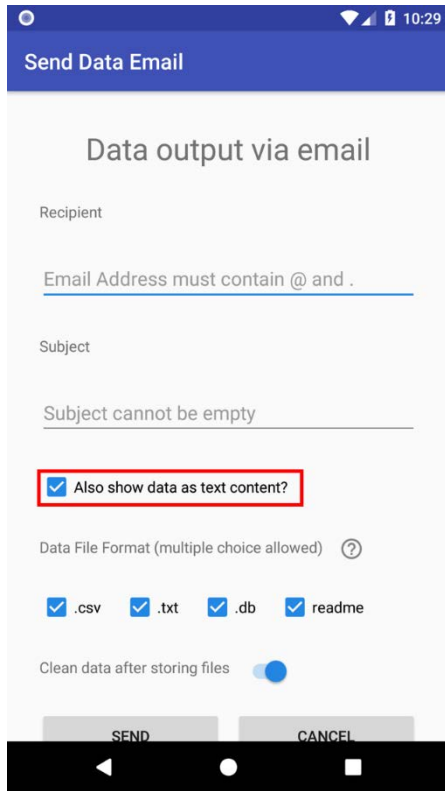


The email address cannot be invalid.



Automatically remember the email address used previously

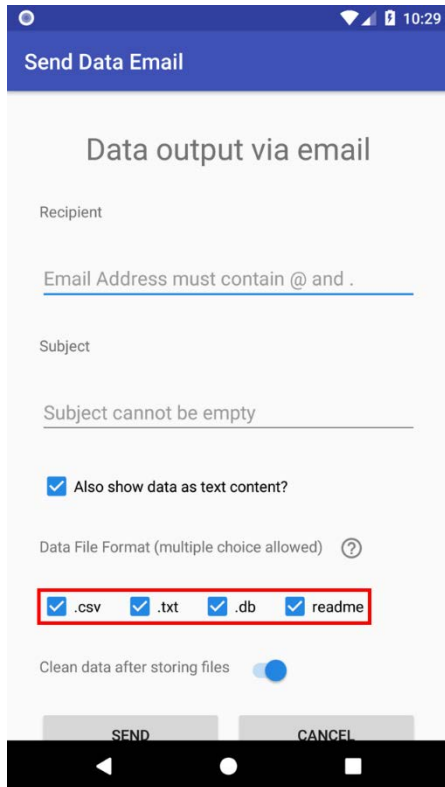
The app will automatically remember the email address used previously



The screenshot shows the 'Send Data Email' screen. At the top, there's a blue header with the title 'Send Data Email'. Below it, the main heading is 'Data output via email'. There are two input fields: 'Recipient' with a placeholder 'Email Address must contain @ and .' and 'Subject' with a placeholder 'Subject cannot be empty'. A checkbox labeled 'Also show data as text content?' is checked and highlighted with a red box. Below this, there's a section 'Data File Format (multiple choice allowed)' with a help icon. It contains four checkboxes: '.csv', '.txt', '.db', and 'readme', all of which are checked. At the bottom, there's a toggle switch for 'Clean data after storing files' which is turned on. Two buttons, 'SEND' and 'CANCEL', are at the very bottom.

Email Content

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



This screenshot is identical to the one above, showing the 'Send Data Email' screen. The 'Also show data as text content?' checkbox is checked. In this version, the four checkboxes under 'Data File Format' (.csv, .txt, .db, and readme) are all checked and highlighted with a red box.

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

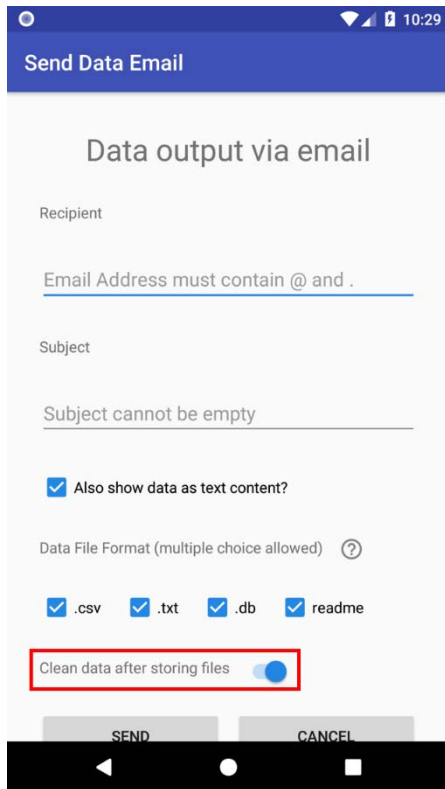
Help Message

.txt means text file

.csv means comma separated value file

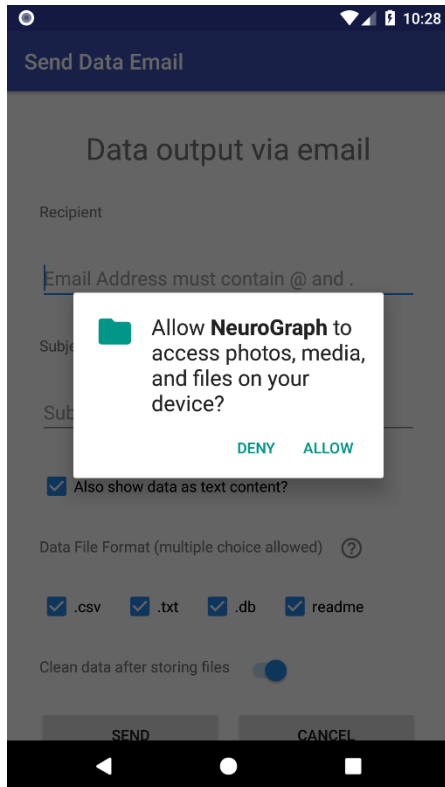
.db means database file

Readme contains the instruction and explanation of the data files.



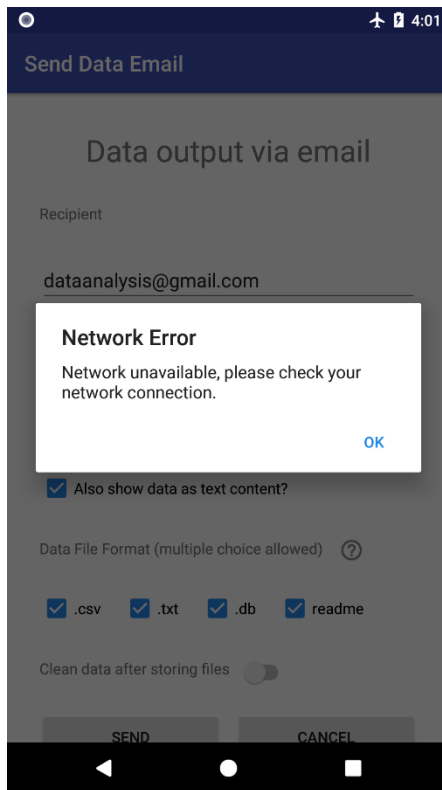
Clean data after sending files

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



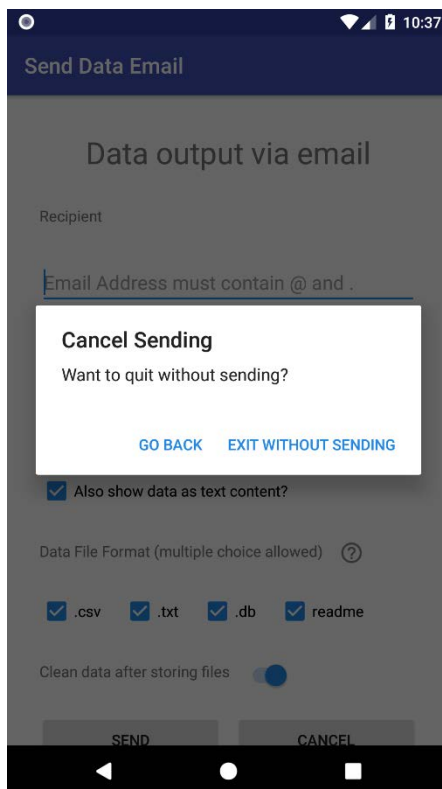
Permission

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.



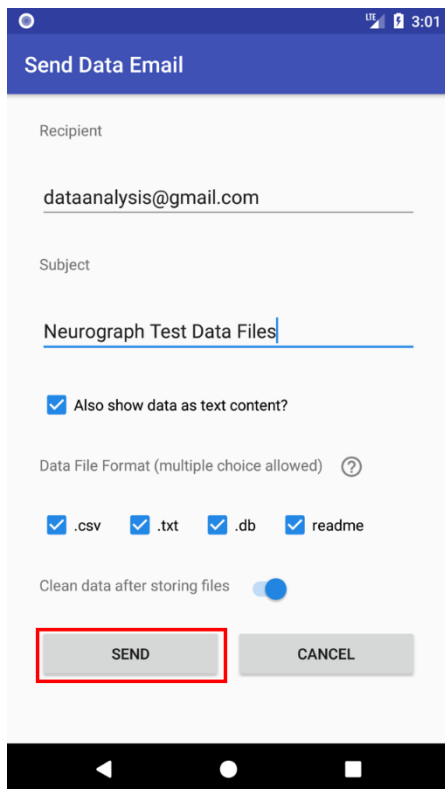
Network Connection

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.



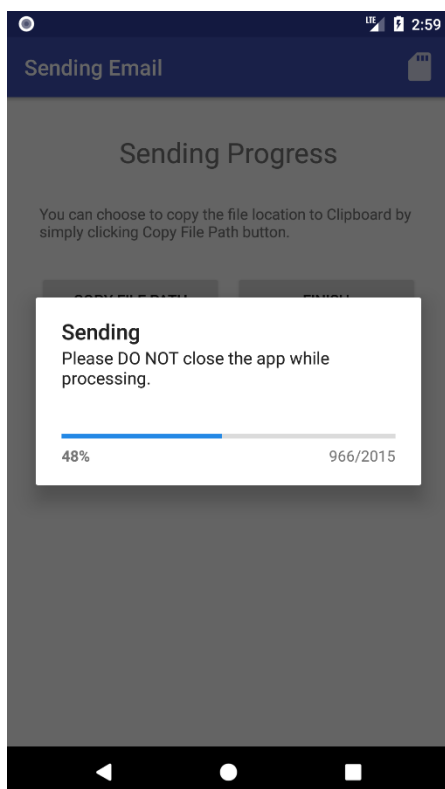
Cancel sending

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



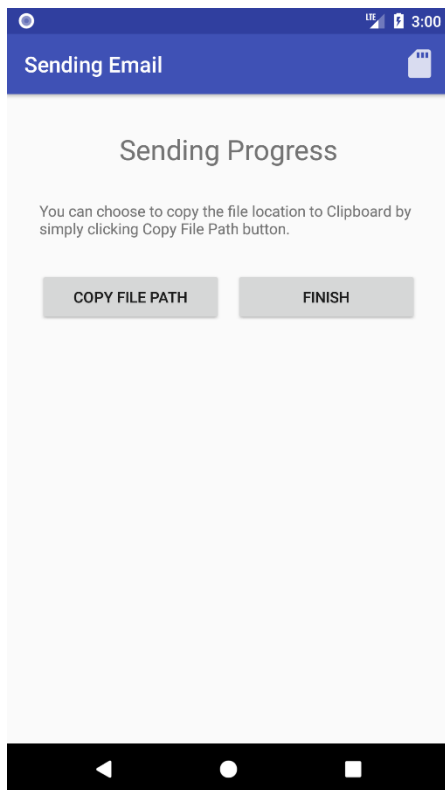
Send it

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



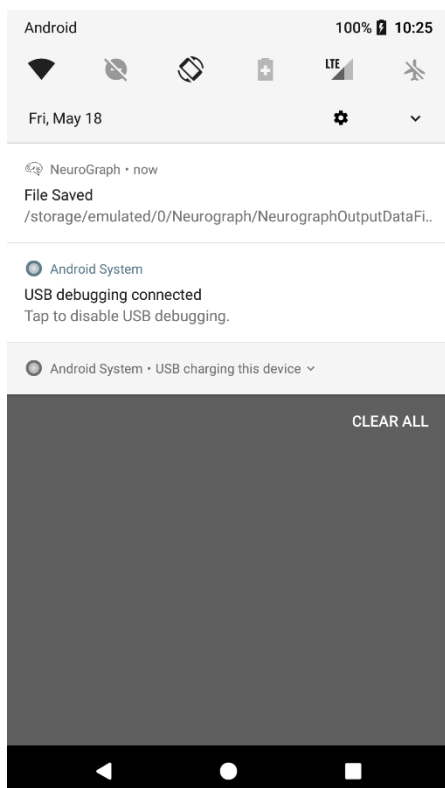
Sending Progress

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



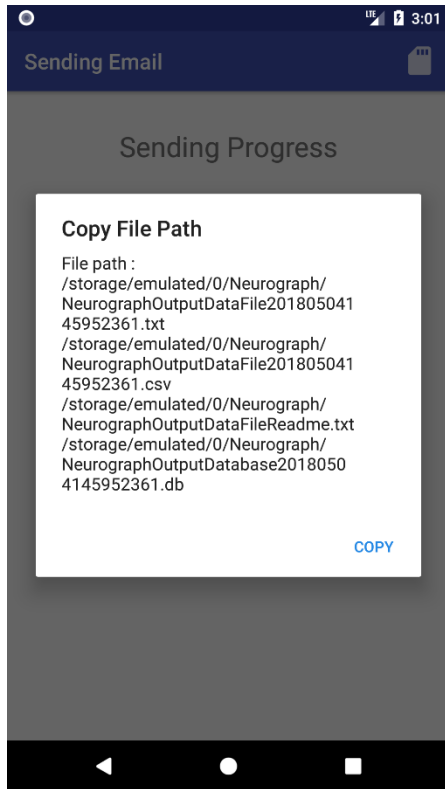
Successfully Sent

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



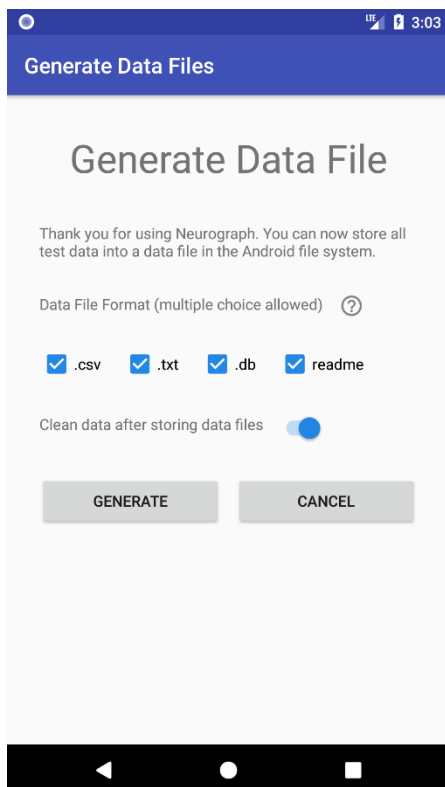
Notification

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



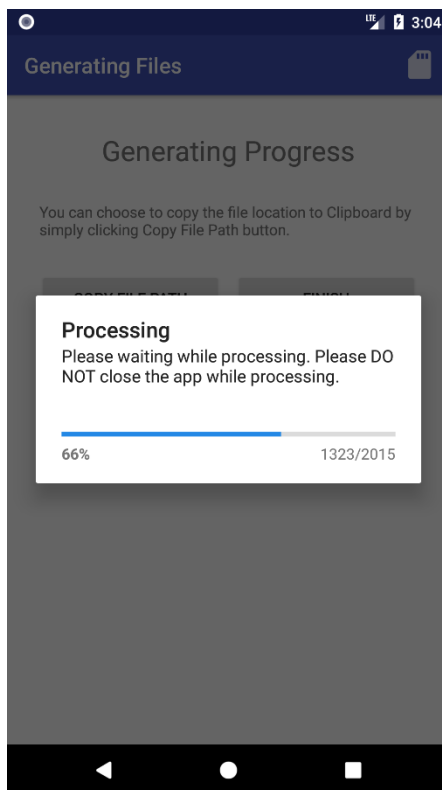
Copy File Path

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



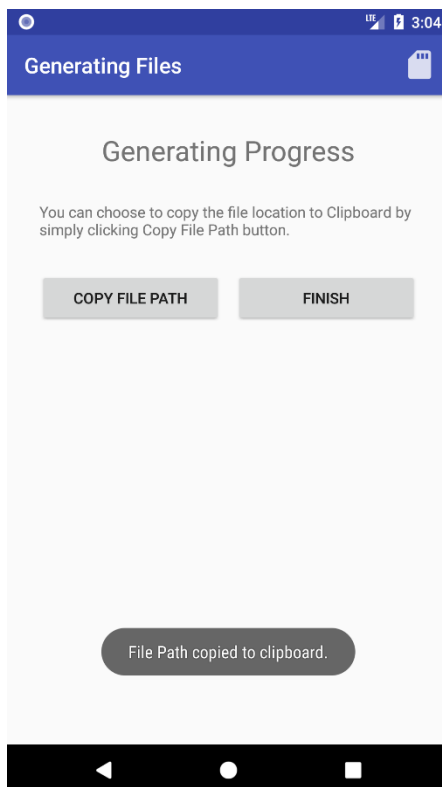
Store Data File

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.



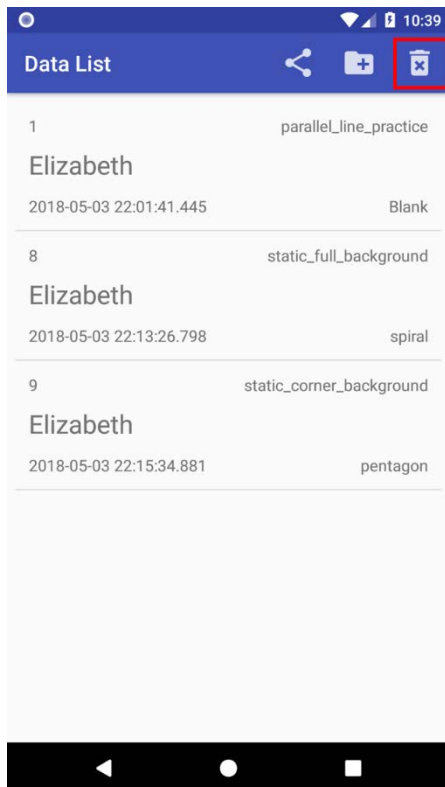
Generating Progress

During the generation process please do not close the app.



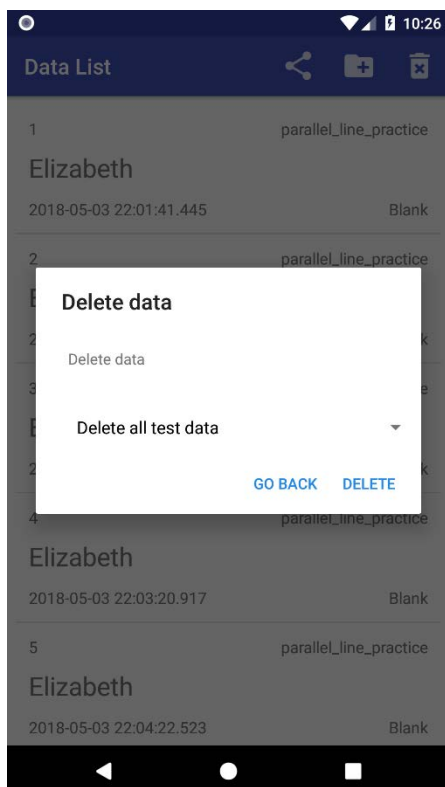
Copy File Path

You can copy file path to the clipboard.



Delete Data

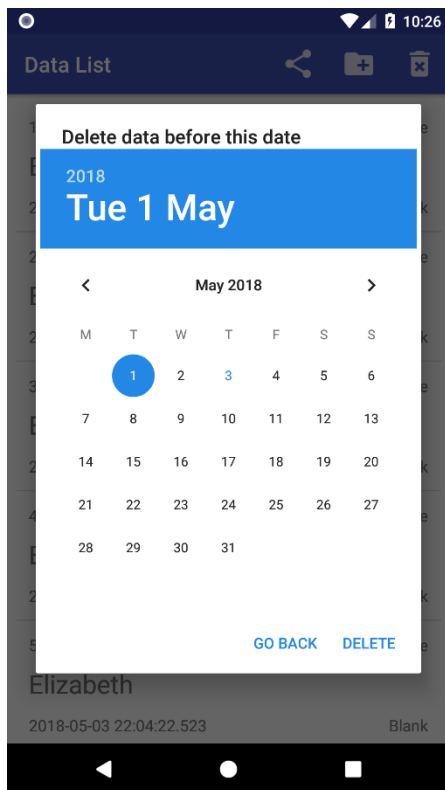
You can click here to delete data.



Three delete options.

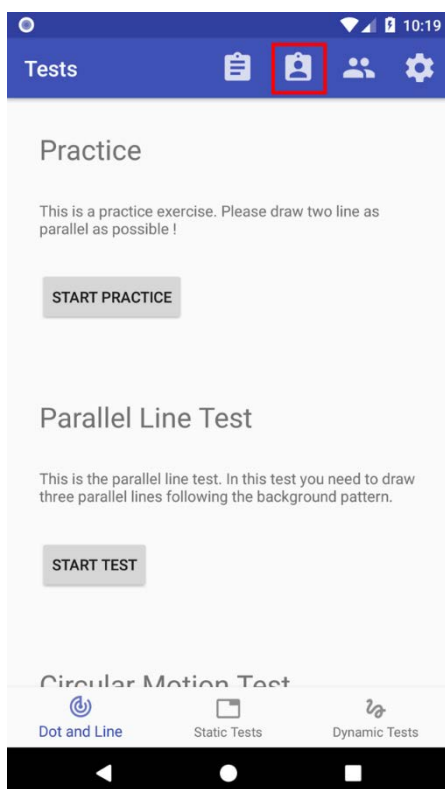
There are three deletion options.

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.

Personal Information

User ID =1
Registration Code =Ab0123
Name =Elizabeth
Age =60
Gender =Female
Education Level =Postgraduate
Rating Score =15.62
Current Receiving Treatment =yes

EDIT INFORMATION

Edit Information

Female

Please Select Your Education Level

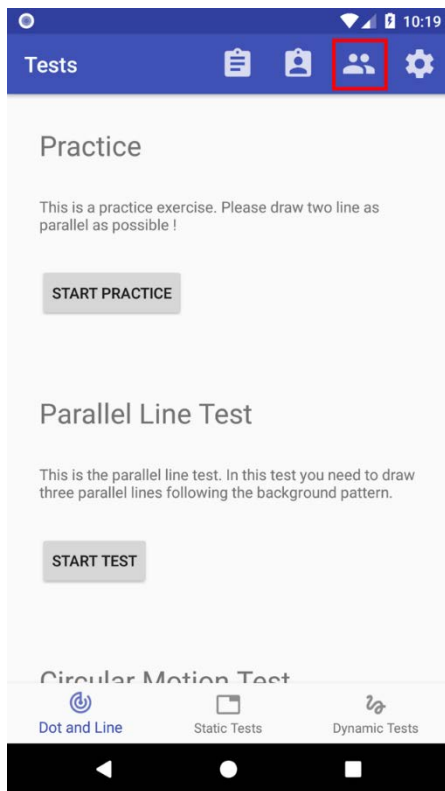
Confirm Changes

Changes Summary :
Registration Code =Ab0123
Name =Elizabeth
Age =60
Gender =Female
Education Level =Postgraduate
Rating Score =15.62
Current Receiving Treatment =yes

EDIT CONFIRM

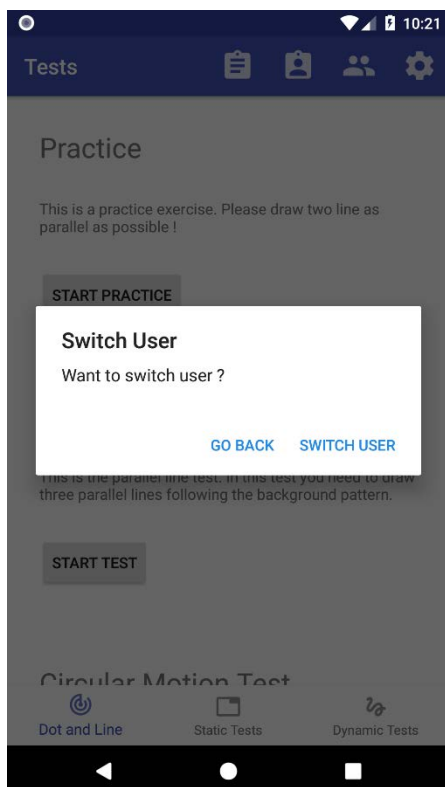
☒ Yes
☐ No

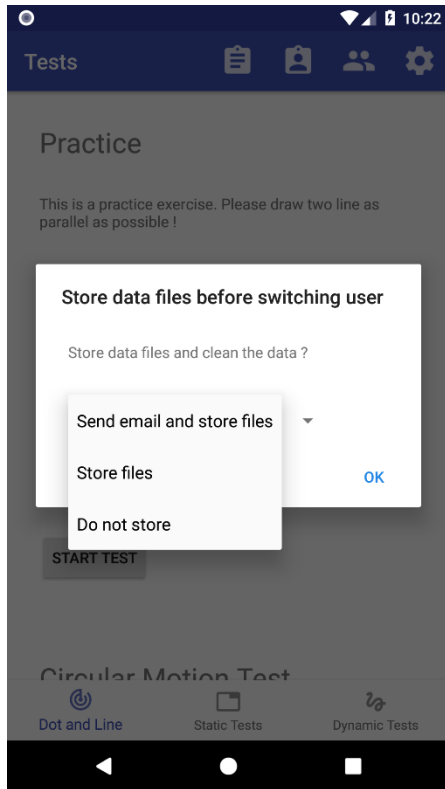
DISCARD APPLY



Switch User

You can click here to switch user.





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.