

Optical Character Recognition Accounting Application

User Manual

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1. Installation

1.1. Requirements

The installation minimum requirements are:

An android device running a minimum of API 21 (Lollipop)

8MP back facing camera

100MB of device memory

1GB of RAM

The *recommended* requirements are:

An android device running a minimum of API 24 (Nougat)

12MP back facing camera

200MB of device memory

3GB of RAM

1.2. Other Dependencies

To install the application, you will need to ‘enable installations from unknown sources’ in your device settings.

2. Registration and Login

2.1. Login

To use the application, you must create a user account. This can be done in two different ways; you can choose to create an account or log in using your Facebook credentials. If you choose to log in with your Facebook credentials, you can simply tap the “Log in with Facebook” button on the log in screen (figure 1). If you choose to create an account, please see section 1.4. Once your account has been created and verified, you can log in by entering your email address and password on the log in screen, followed by clicking the Login button.

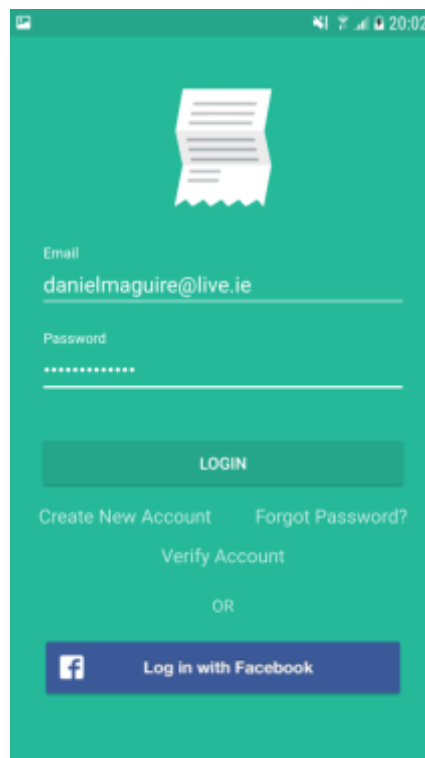


Figure 1. Log in screen

2.2. Forgot Your Password?

If you have already created an account and have forgotten your password, you can enter your email address in the email field and then click “Forgot Password”. You will then be asked to enter a verification code which will be sent to your registered email address containing your new password.

2.3. Account

If you have created a new account that you have not yet verified, you can click “Verify account” to have a verification code sent to your registered email address to confirm your registration.

2.4. Create New Account

If you choose to create a new account manually, you must click “Create New Account” and you will be brought to the sign-up screen (figure 2). Here you will be asked to create an account by entering your name, email address and password. Once you have filled out these fields click “Create Account”. If your details have been entered correctly, you will be asked to confirm your account (figure 3) by entering the confirmation code sent to the registered email address (figure 4.). If you do not see this email in your inbox, remember to check your junk mail.

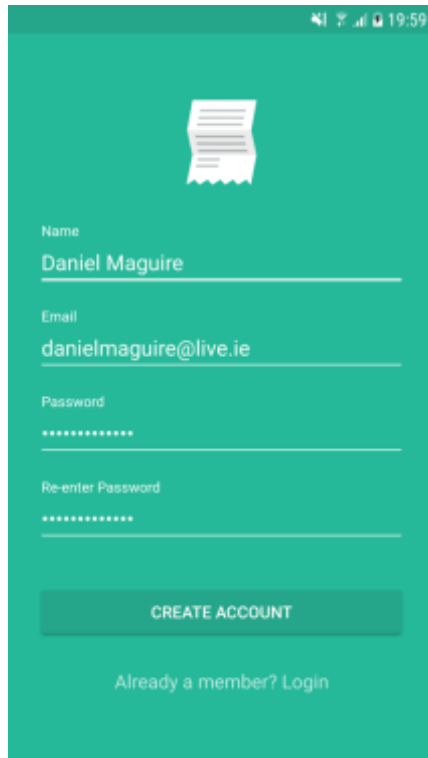
A mobile app sign-up screen with a teal background. At the top, there's a status bar showing signal, Wi-Fi, and the time 19:59. Below it is a white icon of a document with a torn bottom edge. The form has four input fields: 'Name' with the text 'Daniel Maguire', 'Email' with 'danielmaguire@live.ie', 'Password' with masked characters '*****', and 'Re-enter Password' also with masked characters. At the bottom is a teal button labeled 'CREATE ACCOUNT' and a link that says 'Already a member? Login'.

Figure 2. Sign up

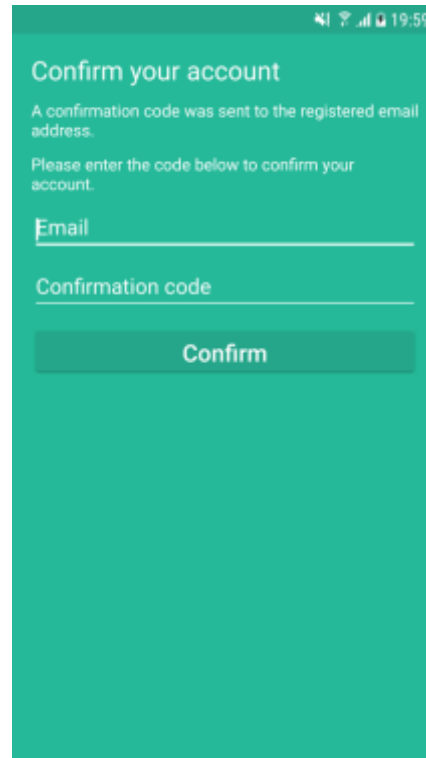
A mobile app confirmation screen with a teal background. At the top, there's a status bar showing signal, Wi-Fi, and the time 19:59. The title is 'Confirm your account'. Below it, text says 'A confirmation code was sent to the registered email address.' and 'Please enter the code below to confirm your account.' There are two input fields: 'Email' and 'Confirmation code'. At the bottom is a teal button labeled 'Confirm'.

Figure 3. Confirm Account

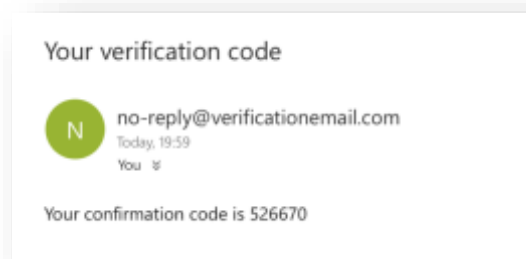


Figure 4. Verification Email

3. Capturing and Editing a Receipt

3.1. Capturing a Receipt

To capture a receipt image, open the navigation drawer by tapping the top left of the application and clicking “Receipt Capture”. This will open the applications camera and will search for a receipt image. Ensure that the receipt image has been recognised. This will be apparent when the receipt is surrounded by a blue rectangle (figure 5.). When you are happy with the alignment of the receipt within the bounding rectangle, click the capture button to save the image. Once the image has been saved and processed, a preview of the processed image will be displayed on screen (figure 6.). You will then have the option to cancel and return to the default application screen, recapture the image, or proceed to the next step if you are satisfied with the image captured.

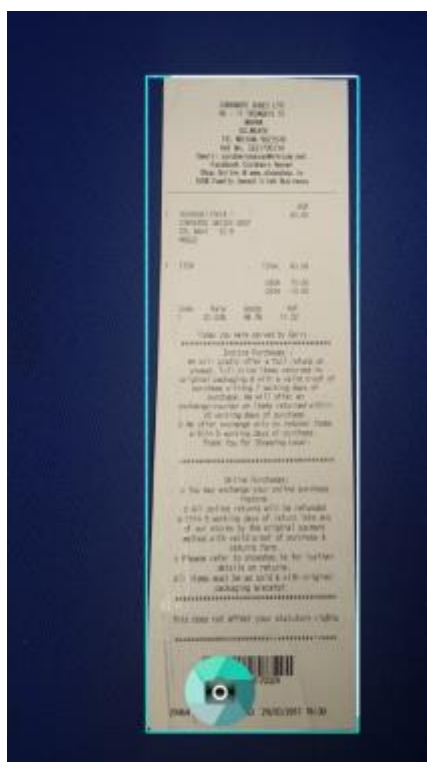


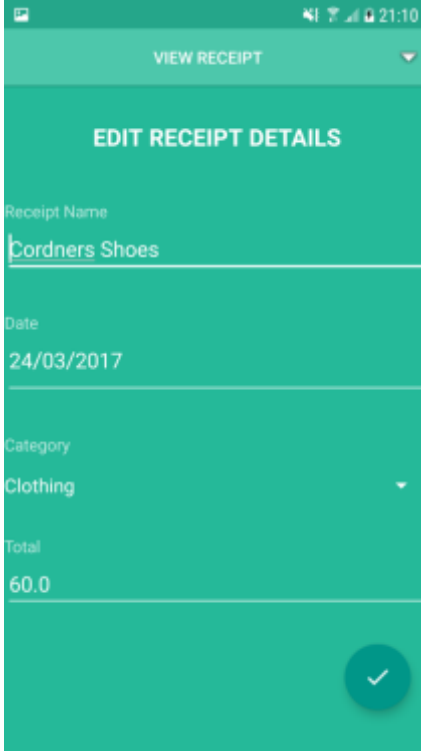
Figure 5. Capturing the receipt



Figure 6. Processed image preview

3.2. Editing Receipt Details

When you click proceed, you will be brought to the receipt editing screen (figure 7). Here you will be given the option to view the captured receipt. You can do so by tapping the 'View Receipt' dropdown, or editing any of the fields that may not have been extracted from the receipt correctly, depending on the quality of the image. Once you are satisfied with the information entered, click the confirmation button on the bottom left of the screen to save your receipt.



VIEW RECEIPT

EDIT RECEIPT DETAILS

Receipt Name
Cordners Shoes

Date
24/03/2017

Category
Clothing

Total
60.0

✓

Figure 7. Receipt Editing

4. Viewing, Editing and Deleting Saved Receipts

To view your receipts, go to the calendar section of the application (figure 8). This is the default screen that opens when you start the application. This can also be accessed by opening the navigation drawer by tapping the top right of the application. Swipe right or left to select the year you want to view and then click on the month. This will allow you to view all the receipt entries from this month (figure 9). Tap on the receipt entry to view, edit, or delete it (figure 10).

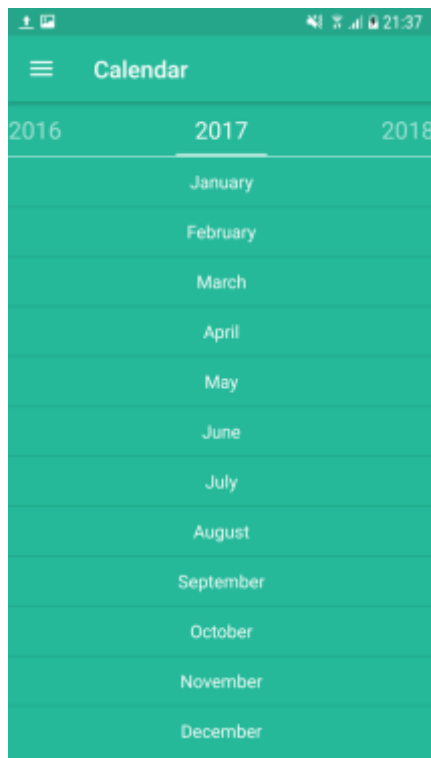


Figure 8. Calendar view

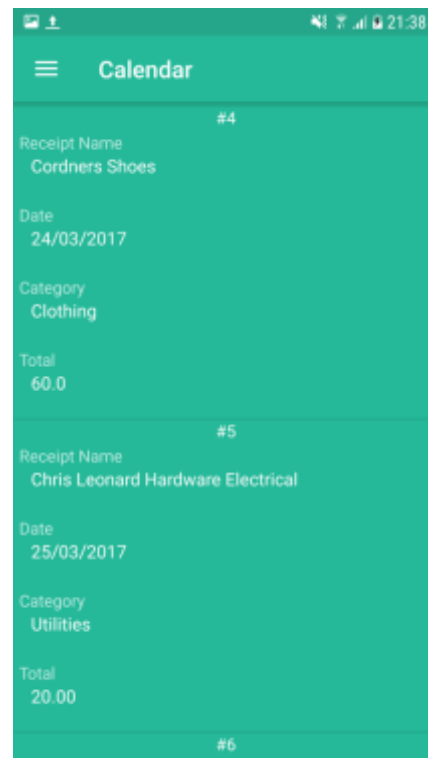


Figure 9. Receipt entries

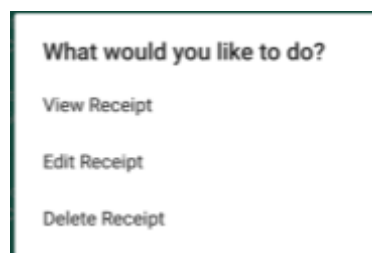


Figure 10. Receipt options

5. Spending Statistics

When you have saved some receipts, you can view information on your spending habits in the statistics section of the application. To access statistics, you must open the navigation drawer by tapping the top left corner of the application and selecting the Statistics option. Once selected, charts displaying information on your spending habits for the current month will be displayed. To view information on a different month, change the month or year in the dropdown menus, located on the upper section of the screen and press the 'Go' button. This will display statistical information about your spending habits for your selected month and year. Figures 11, 12, 13 and 14 show the various charts within the application that depict spending habits displayed when the month containing receipt entries is selected.

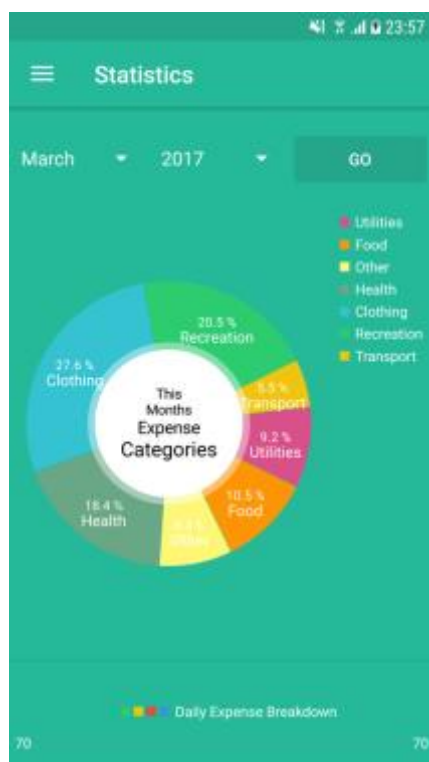


Figure 11. Pie Chart displaying monthly expense percentages

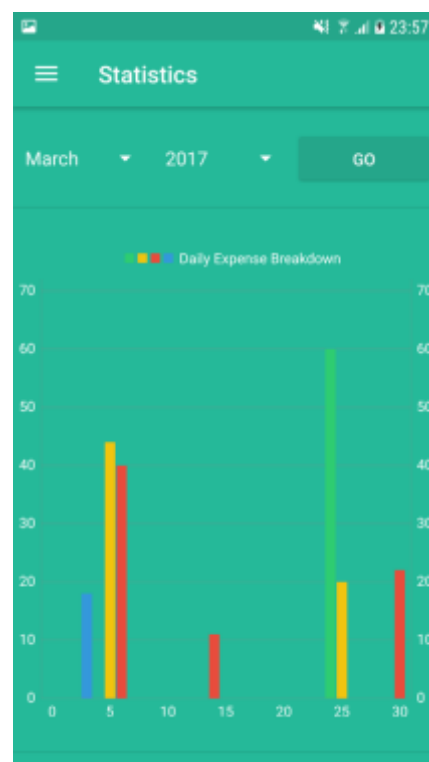


Figure 12. Bar chart displaying daily spending breakdown



Figure 13. Radar chart comparing expense categories to the previous month

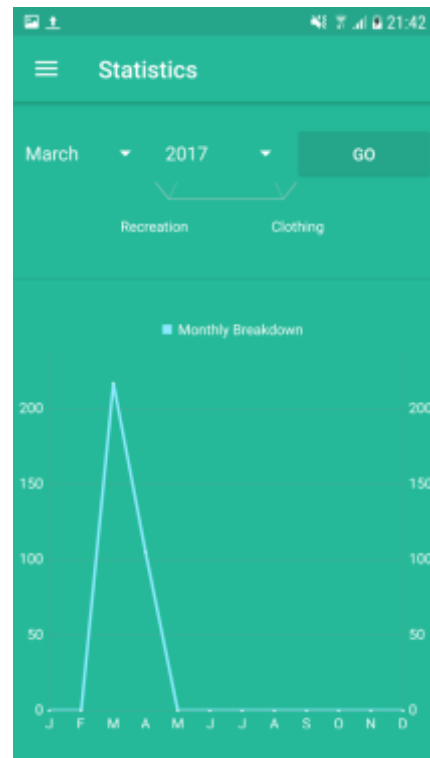


Figure 14. Line chart displaying monthly expense throughout current year

6. Exiting the Application

To exit the application, you can simply press the home button on your android device. Alternatively, to log out of the application, open the navigation drawer and press the 'Log Out' button. This will log the user out of the application securely and return to the log in screen.