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## Small Book

### Description

A simple bookkeeping application to help micro-businesses record and track their income and expenses. The app would be written solely using java programming language.

### Intended User

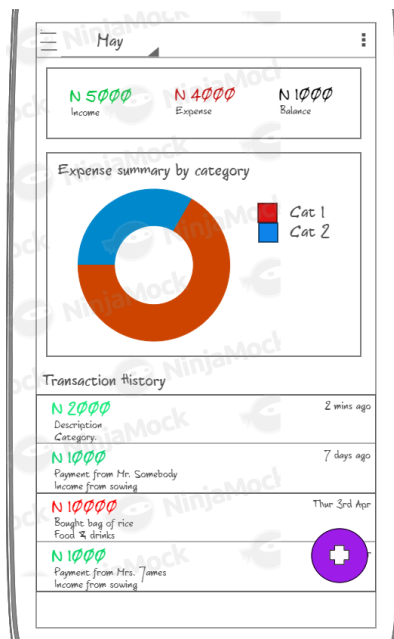
Micro-business owners, Self employer, freelancers and contractors.

## Features

- Google Sign-in
- Record expense
- Record income
- View transaction summary (Expense & Income)
- View transaction list
- Manage categories
- Widget to display transaction summary

## User Interface Mocks

### Screen 1



Main Page - Displays a summary and list of the user's transactions

## Screen 2

The 'New Record' screen features a form for recording transactions. It includes a title bar with a back arrow and a menu icon. The form has several input fields: 'Expense' (with a dropdown arrow), 'Food' (with a dropdown arrow), 'Today' (with a dropdown arrow), 'NGN' (with a dropdown arrow), and 'Amount'. Below these is a 'Memo' text area. At the bottom is a numeric keypad with digits 1-9, a decimal point, and a 'Save' button.

1	2	3	+
4	5	6	-
7	8	9	=
	0	Save	

Record Transactions - Display a form for the user to record a new transaction.

## Screen 3

The 'Widget view' displays a summary of daily transactions. It features a Google search bar at the top. Below it, a summary box shows three values: 'Income' (N 5000), 'Expense' (N 4000), and 'Balance' (N 1000). The background is a light blue gradient with a repeating pattern of the NinjaMock logo.

N 5000 Income	N 4000 Expense	N 1000 Balance
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Widget view - widget display that shows a summary of the user's daily transactions.

## Key Considerations

### How will your app handle data persistence?

App would store data using firebase realtime database and make on demand request using AsyncTask.

### Describe any edge or corner cases in the UX.

User's can delete a transaction by swiping to the left and edit by swiping to the right.

### Describe any libraries you'll be using and share your reasoning for including them.

MPAndroidChart library to handle displaying of charts  
ButterKnife to simplify binding views to fields and methods

Libraries and versions:

Library	Version
Android studio	3.3.2
Gradle	3.3.2
Android support library	28.0.0
Espresso	3.0.2
MPAndroidChart	3.1.0
ButterKnife	10.1.0
Firebase (Auth & Database)	17.0.0

### Describe how you will implement Google Play Services or other external services.

The app would use firebase for authentication with google account

Firebase realtime database would be used for data persistence

Google AdMod would be used to display ads on the free variant of the application

## Next Steps: Required Tasks

This is the section where you can take the main features of your app (declared above) and break them down into tangible technical tasks that you can complete one at a time until you have a finished app.

### Task 1: Project Setup

List of subtasks:

- Configure libraries
- Setup theme, style and color assets.
- Enable RTL support on android manifest file

### Task 2: Implement UI for Each Activity and Fragment

List of subtasks:

- Build UI for MainActivity
- Build UI for RecordTransaction
- Build UI for CategoryList
- Build UI for ProfilePane
- Build UI for Tablet / larger screens
- Build UI for widget
- Add content description for accessibility to all views
- Add RTL support

### Task 3: Implement Firebase services

Setup firebase to handle authentication and data persistence. List of subtasks:

- Configure firebase connection using assistant on android studio
- Add firebase authentication
- Setup firebase project
- Setup firebase & rules

## Task 4: Implement AdMod services

Setup banner and interstitial ads. List of subtasks:

- Setup admod dependencies
- Configure admod using test key
- Add views of banner and Interstitial ads

## Task 5: Implement Logic & handle exceptions

Setup core application logic. List of subtasks:

- Handle user login
- Handle logic to validate user input & post to firebase
- Handle logic to retrieve user's data from firebase
- Handle CRUD logic to manage categories
- Add error handling

## Task 6: Build Variant

Setup the paid and free variant of the application. List of subtasks:

- Setup free variant (with ads)
- Setup paid variant (without ads)

## Task 6: Testing and clean up

List of subtasks:

- Write test scripts
- Ensure all strings are in the strings.xml

## Task 7: Deploy

List of subtasks:

- Deploy to google play store
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