

How to Use this Template

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Submission Instructions

1. After you’ve completed all the sections, download this document as a PDF [File → Download as PDF]
2. Create a new GitHub repo for the capstone. Name it “**Capstone Project**”
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GitHub Username: Your GitHub username here

Receipt Box

Description

The app is a private box for storing receipts. I

Create and Archive Receipts.

Store your receipts locally or sign in to back up to servers.

Fast and Easy SMS authentication.

Intended User

The app is aimed at individuals who want to maintain a record of their expenses.

Features

- Create new receipts.
- Phone Authentication.
- Storing in the cloud.

User Interface Mocks

These can be created by hand (take a photo of your drawings and insert them in this flow), or using a program like Photoshop or Balsamiq.

Screen 1



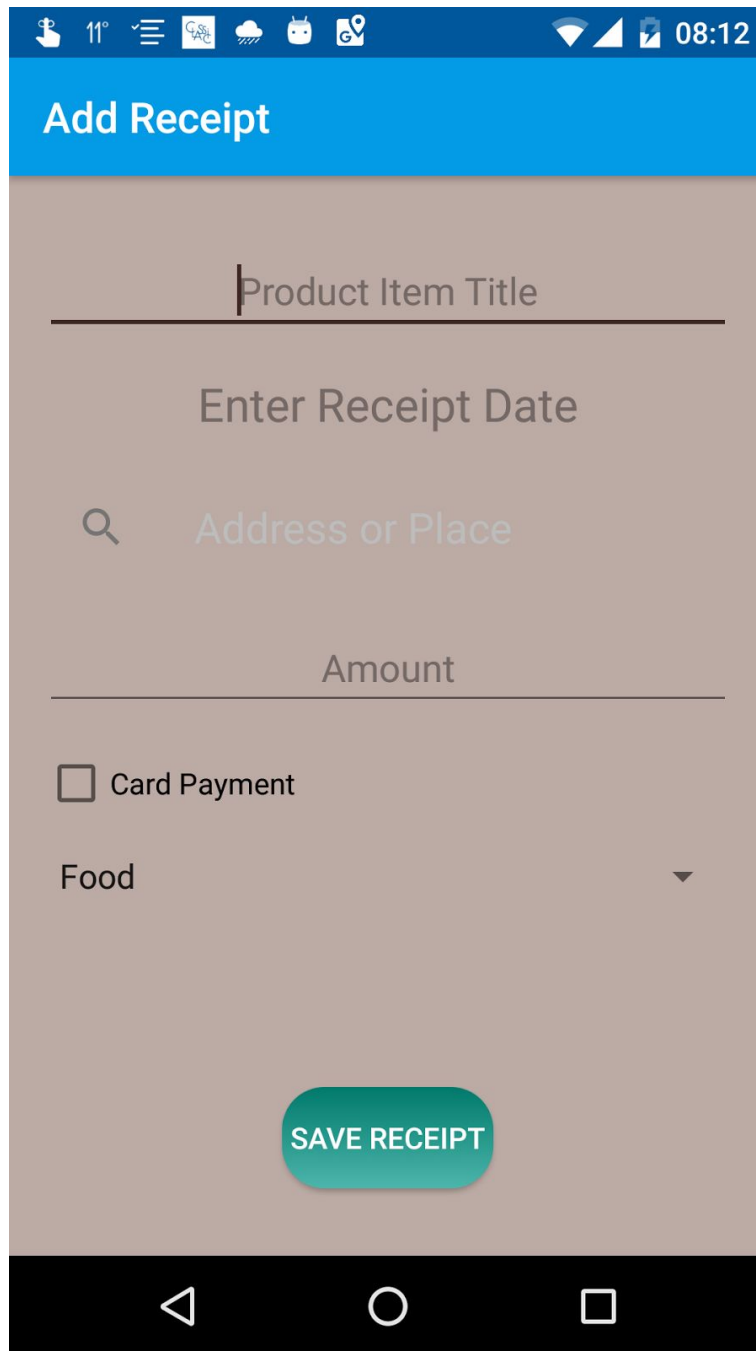
The main screen of the App, showing the list of receipts and 3 different app sections.

Screen 2



Screenshot shows the functionality for selecting receipts to archive or delete.

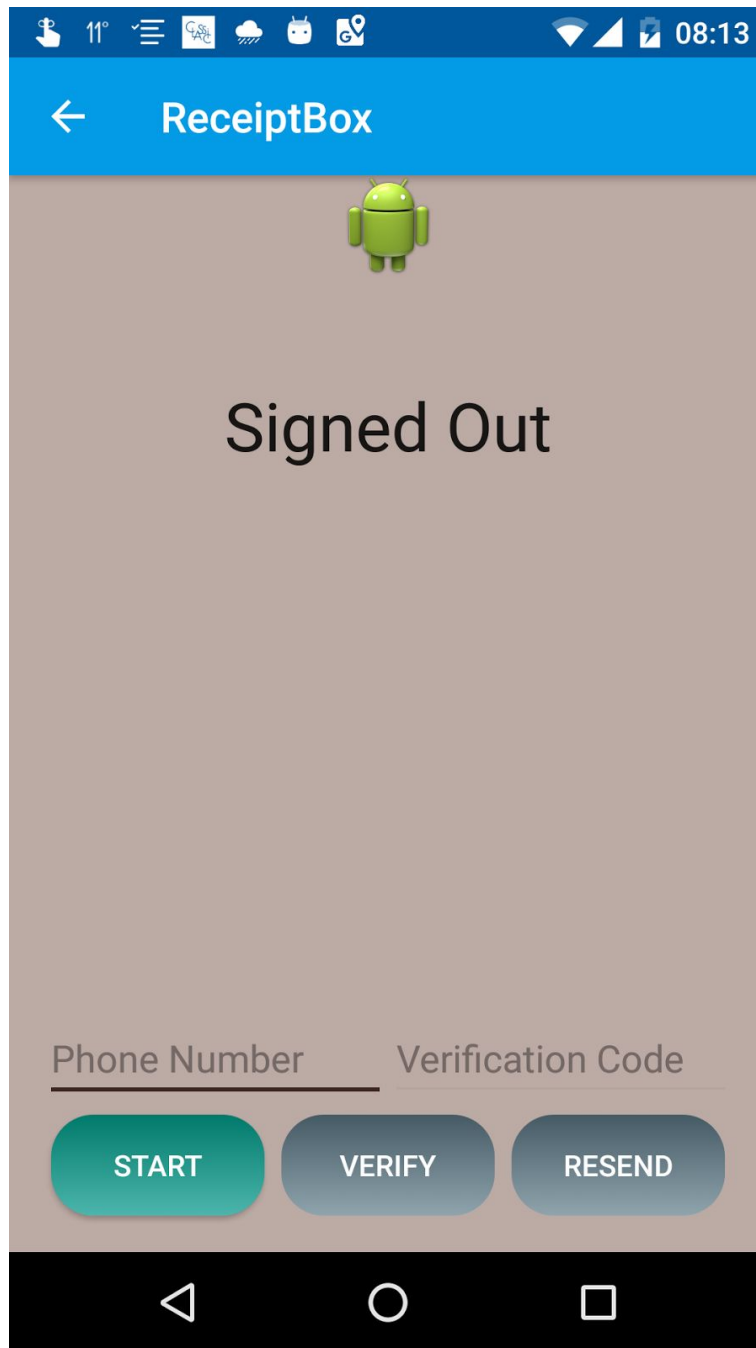
Screen 3:



The screenshot shows a mobile application interface for adding a receipt. At the top, there is a blue header bar with the text "Add Receipt" in white. Below the header, the background is a light beige color. The form consists of several input fields: "Product Item Title" with a vertical cursor, "Enter Receipt Date", "Address or Place" with a magnifying glass icon, and "Amount". Below these fields, there is a checkbox labeled "Card Payment" and a dropdown menu currently showing "Food". At the bottom of the form is a green rounded button with the text "SAVE RECEIPT" in white. The top of the screen shows a status bar with various icons and the time "08:12". The bottom of the screen shows the Android navigation bar with back, home, and recent apps buttons.

Screenshot shows the UI for creating a new receipt.

Screen 4:



Screenshot shows the UI for Phone Authentication.

Key Considerations

How will your app handle data persistence?

Describe how your app will handle data. (For example, will you build a Content Provider or connect to an existing one?)

- ★ A content provider for syncing and storing receipts locally.
- ★ If a user authenticates themselves, then data is stored using Firebase Database. The local database and the Firebase Database are kept in sync.

Describe any corner cases in the UX.

For example, how does the user return to a Now Playing screen in a media player if they hit the back button?

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

- ★ Butterknife for code annotation linking XML and Java code.
- ★ Firebase for reading and writing data.
- ★ Phone Number Library to format phone number in international format.
- ★ EventBus library to trigger events when new receipts are created.

Describe how you will implement Google Play Services.

- ★ Google Play services places api is used to provide place suggestions to users creating receipts.
- ★ Firebase Auth library is used to implement sms authentication flow.

Next Steps: Required Tasks

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

Task 1: Project Setup

Write out the steps you will take to setup and/or configure this project. See previous implementation guides for an example.

You may want to list the subtasks. For example:

- Update Android Studio to latest and Stable gradle version.
- Download and update Android Support Repositories and Google Play Services libraries
- Update Google Play Services in phones for testing.
- Add AppCompatSupport, EventBus and Firebase libraries.

If it helps, imagine you are describing these tasks to a friend who wants to follow along and build this app with you.

Task 2: Implement UI for Each Activity and Fragment

- Build UI for CentralActivity.(Main Screen of the App)
- Build UI for each receipt.(ReceiptItem)
- Build UI for SMS Authentication(PhoneAuthenticationActivity).

Task 3: Authentication

- Implement SMS Authentication using Firebase.

Task 4: Database Design and Syncing.

- Create a content provider that syncs receipts that are created.
- Create a mechanism to also store content in the cloud, if a user is authenticated.

Add as many tasks as you need to complete your app.

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