# Andriod App - SHG (Self Help Group)



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SHG

## Description

SHG stands for self help group which are mainly operated by women in rural India. The women are in to savings and lending for meeting the basic needs and then also take loans for livelihoods. SHG in india operates all of its business by documenting every record. As for their business records SHG can help women of India to document every credit and debit on this app, which can be very handy for them. Accessing all data on the go with ease of all calculations can help them grow faster.

Data persistency with ease of adding groups of friends and with the help of data sync from server can really empower them to have more focus on business.

This app can help them in calculation of simple interest based on the principle amount and the tine given along with keeping record of their group and its finances.

This app performs CRUD operations on principle amount and user data.

## Intended User

SHG is built for all self help group members who are a part of the SHG financial growth, specially all rural women who are running their own business by being the part of any SHG.

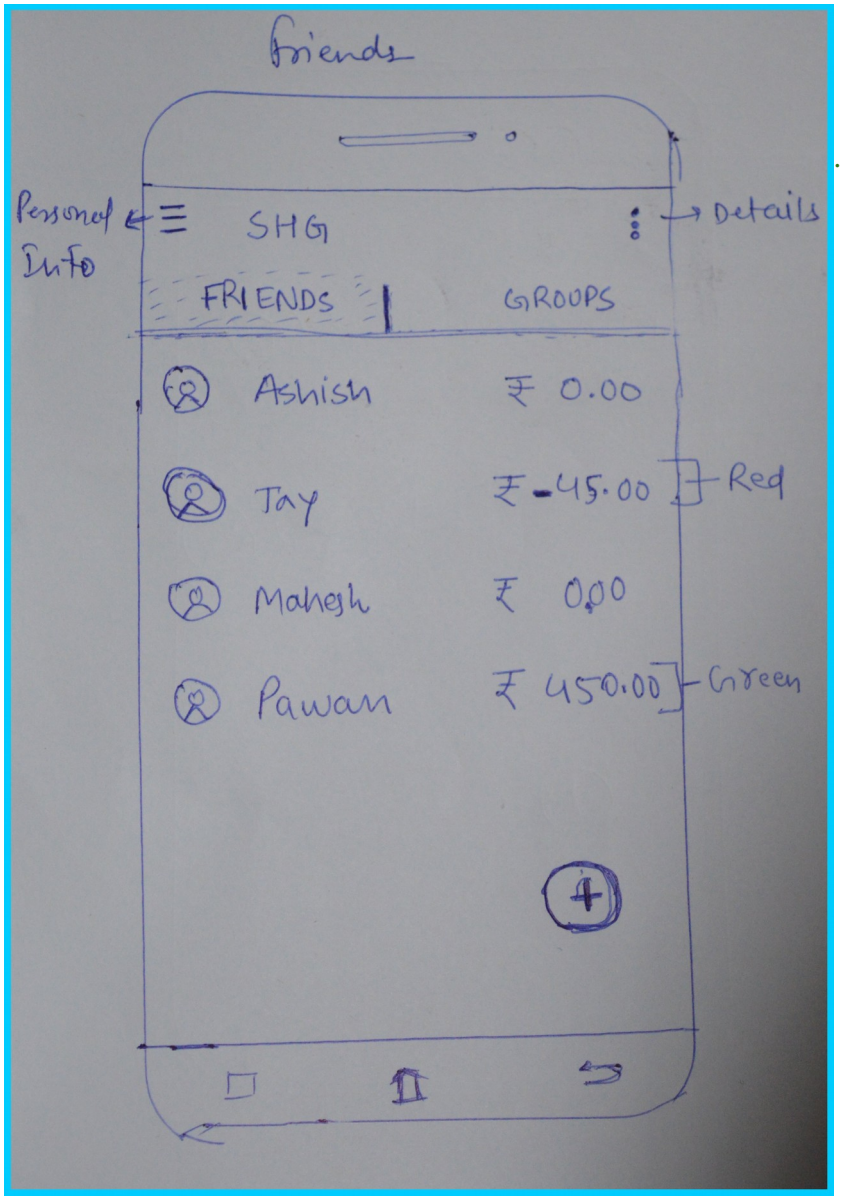
## Features

List the main features of my app are as follows-

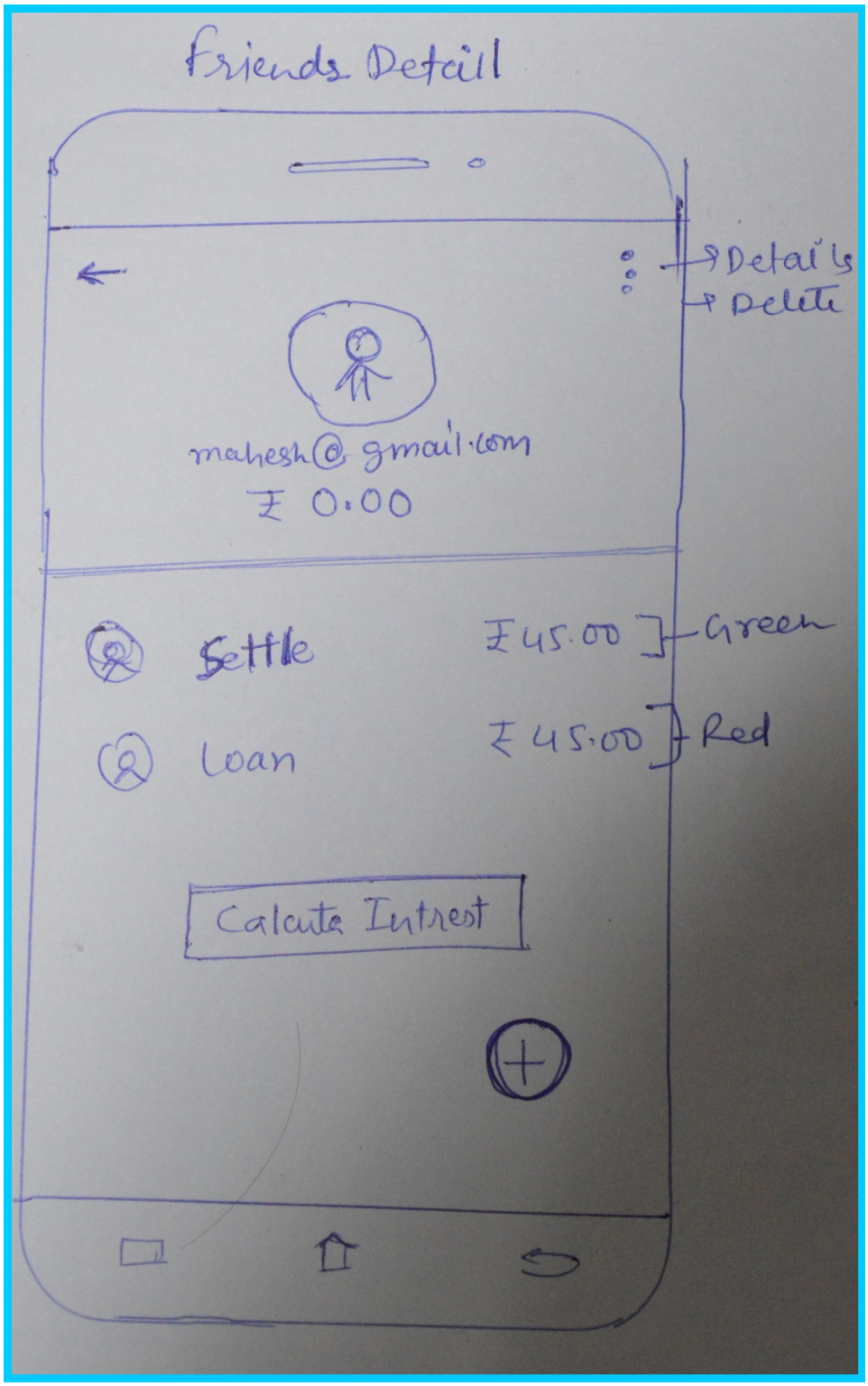
- Saves All data of users and their transections.
- Manages user account based on their email address.
- Calculates simple  interest for all transections based on the principle and time given.
- Enables us to edit and delete any user and their data.
- This app gives power to add groups based no some business requirements and manage its transections seperately.

## User Interface Mocks

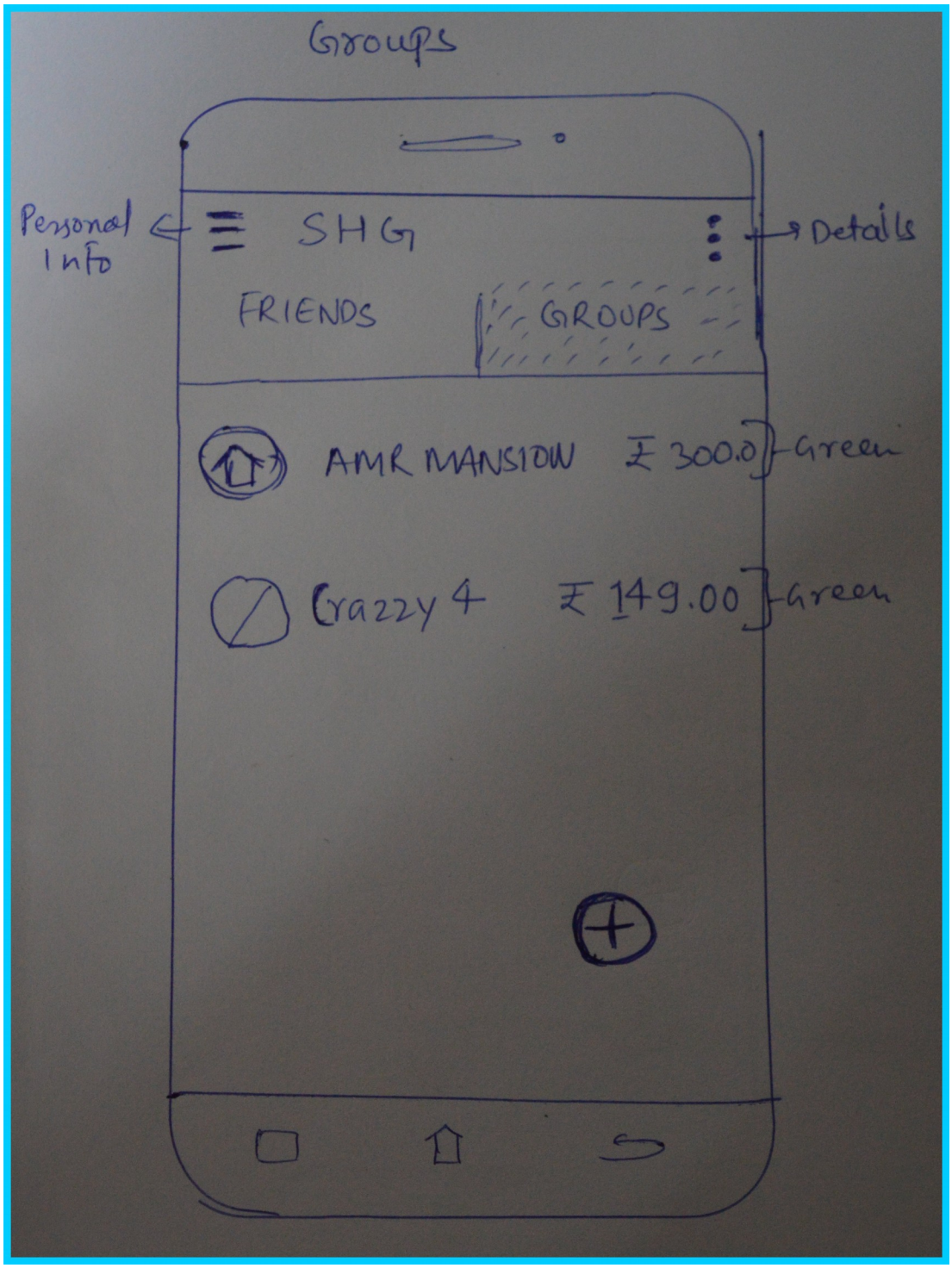
### Screen 1 - Friends



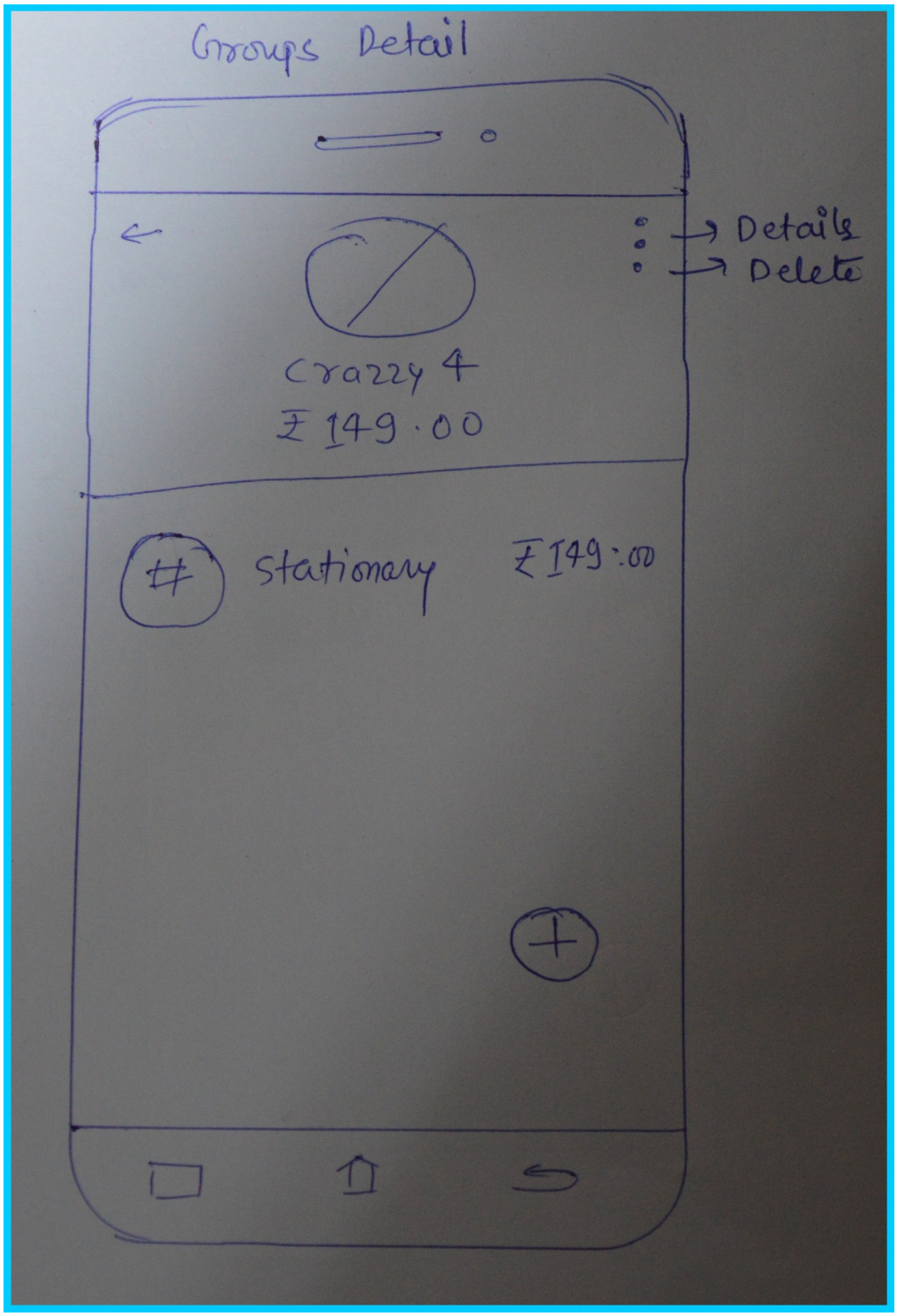
Screen 2 – Friends detail



Screen 3 – Groups



Screen 4 – Group detail



## Key Considerations

### How will your app handle data persistence?

Data persistence will be achieved by posting data to the server using apis and implementation of local database on the device, App implements a ContentProvider to access locally stored data.

### Describe any corner cases in the UX.

After doing any CRUD operation, user lands on the listing screen with a slow moving animation.

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

This app uses Okhttp. HTTP is the way modern applications network. It's how we exchange data & media. Doing HTTP efficiently makes your stuff load faster and saves bandwidth.
OkHttp is an HTTP client that's efficient by default, some of its features are-

- Implementing async task is not needed for every api call.
- Transparent GZIP shrinks download sizes.
- Response caching avoids the network completely for repeat requests

### Describe how you will implement Google Play Services.

To implement Google Sign-In and Location for localising currency, we need mainly 4 steps to follow-

- Get a configuration file from google console
- Add the configuration file to your project
- Add the Google Services plugin
- Add Google Play Services

Next Steps: Required Tasks

## Task 1: Project Setup

Project setup by creating a simple android project and defining its dependencies in build.gradle file.

- Configure libraries.
- Configure libraries  for Google Sign-In.

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

- Build UI for MainActivity.
- Build UI for  Groups and detail view.
- Build UI for  Friends  and detail view.

## Task 3: Implement Google Sign-In

Implement Google Play Services for Google Sign-In.
List the subtasks are -

- Create layout.
- Implement callbacks after successful sign in.
- Use location api for localising currency symbol.

## Task 4: Implement Friends CRUD with calculate intrest button

- Imlement CRUD operations for friends.
- Handle error cased and test each module.
- Implement click handler for calculate intrest button based on the principle.

## Task 5: Implement Groups CRUD with calculate intrest button

- Imlement CRUD operations for groups.
- Handle error cased and test each module.
- Implement click handler for calculate intrest button based on the principle.