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. **Every end user can also use this app for managing personal expenses.**

Features

List the main features of my app are as follows-

- Saves All data of users and their transections in cloud.
- 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.

Future Updates of App-

1- Monthly report generation feature for friends .
2- Sending notifications to friends and group.
3- Future versions of app will have online payment system through paypal
or other e wallets.
4- Sending notifications to friends and group
5- Better offline support and to be able to work in low internet speed.
6-Optimisation of app for Less battery and memory usage.

User Interface Mocks

Screen 1 – Friends

Screen 2 – Groups

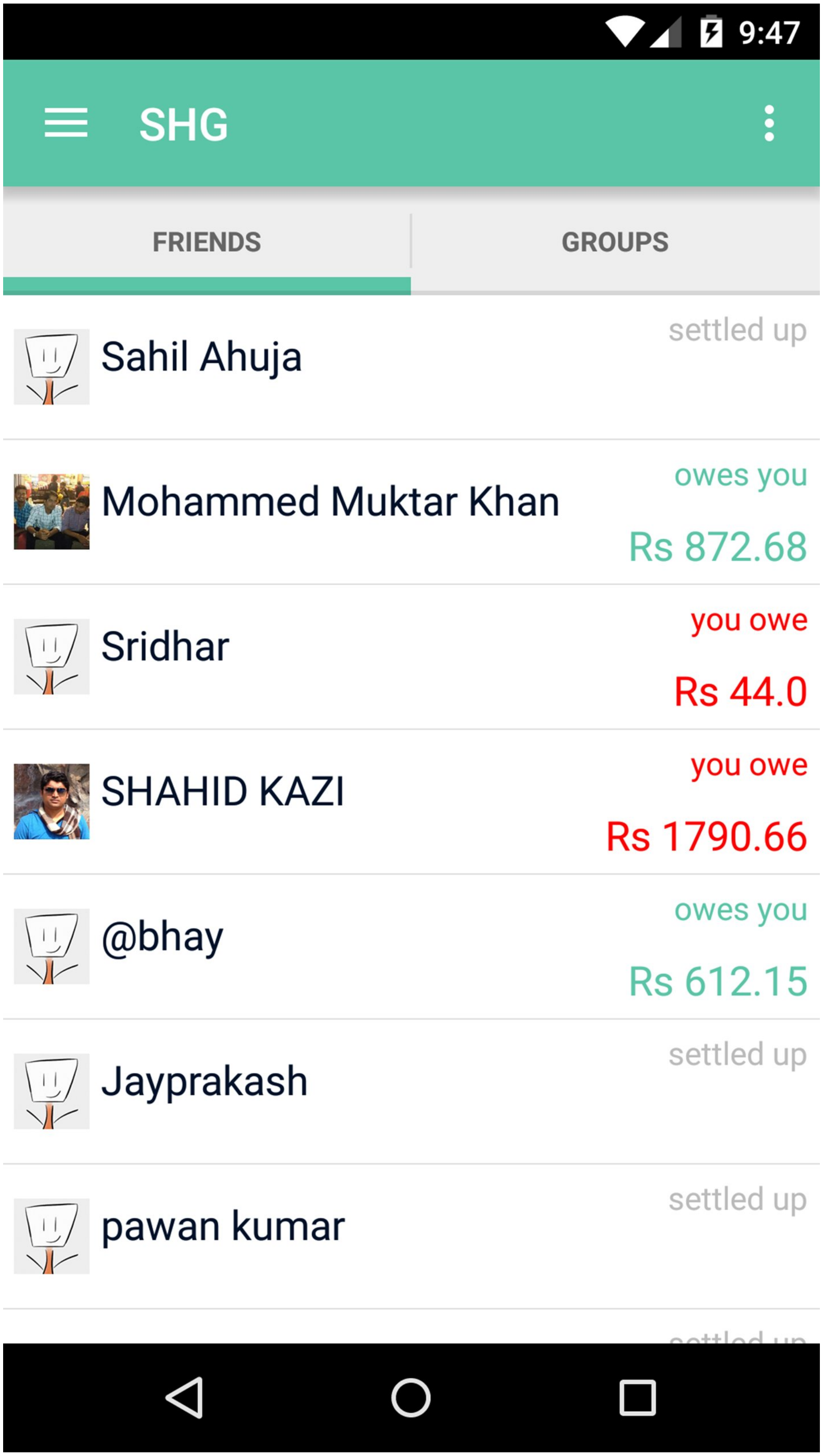
Screen 3 – Friend Detail

Screen 4 – Group Detail

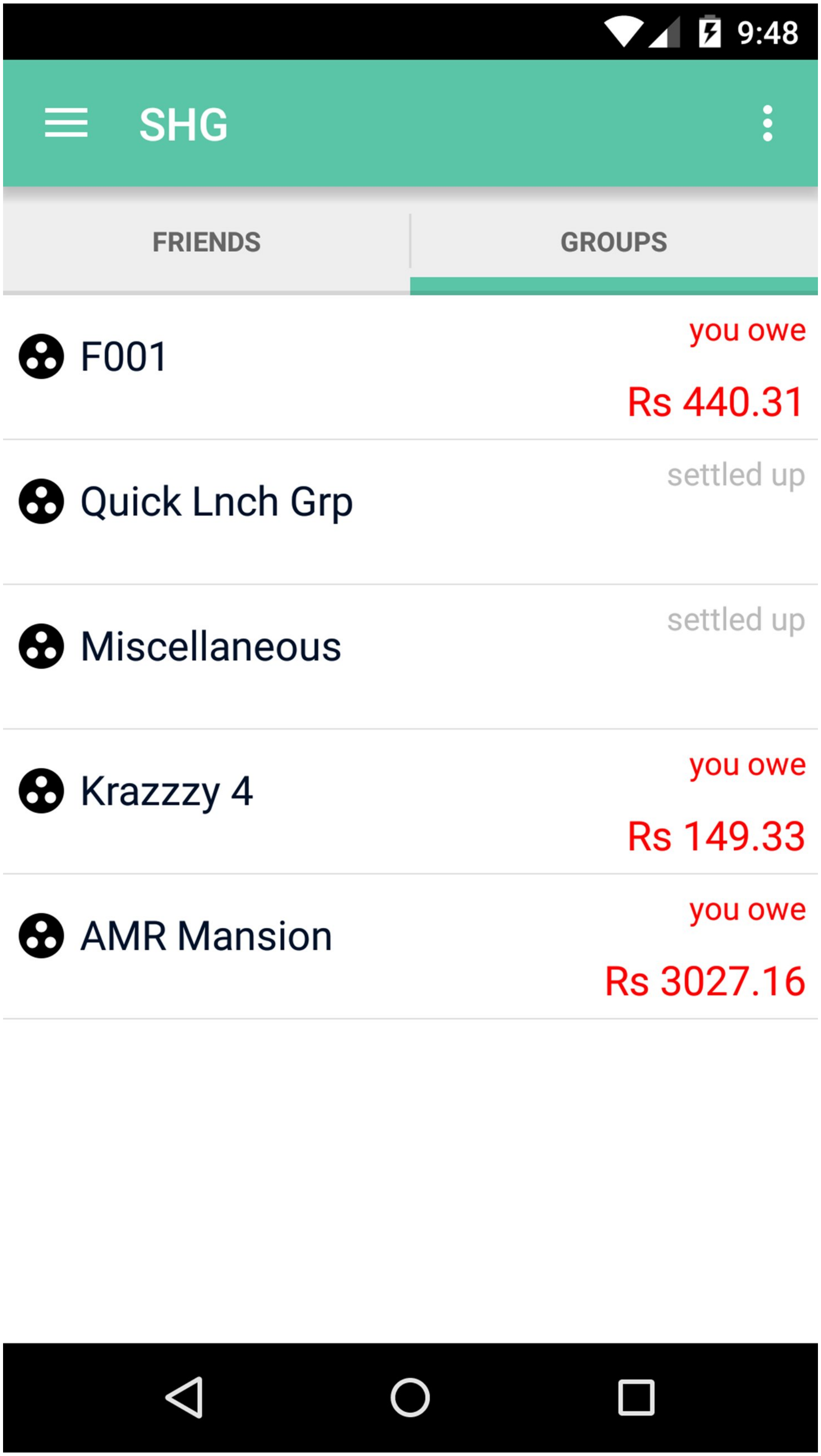
Screen 5 – Navigation Drawer

Screen 6 – Options menu

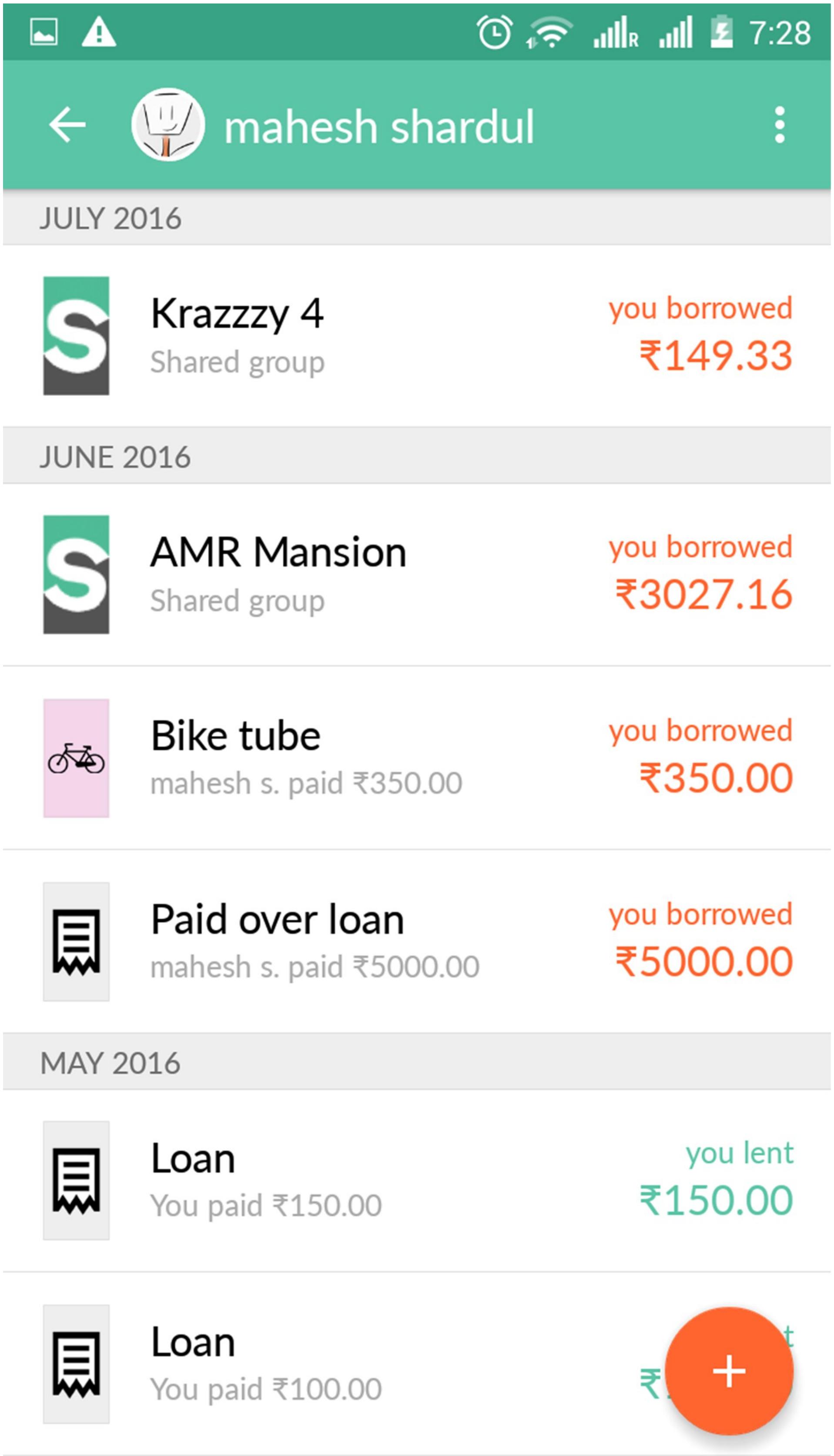
Following are 6 screen design, which are self explainatory , a friend can add many expenses as well as he can add groups of friends. A calculate intrest button will be provided in options for friends which can be helpful in calculating simple intrest.



Sahil Ahuja	settled up	
Mohammed Muktar Khan	owes you	Rs 872.68
Sridhar	you owe	Rs 44.0
SHAHID KAZI	you owe	Rs 1790.66
@bhay	owes you	Rs 612.15
Jayprakash	settled up	
pawan kumar	settled up	
	settled up	



F001	you owe Rs 440.31
Quick Lnch Grp	settled up
Miscellaneous	settled up
Krazzzy 4	you owe Rs 149.33
AMR Mansion	you owe Rs 3027.16



7:28

mahesh shardul

JULY 2016

Krazzzy 4
Shared group
you borrowed
₹149.33

JUNE 2016

AMR Mansion
Shared group
you borrowed
₹3027.16

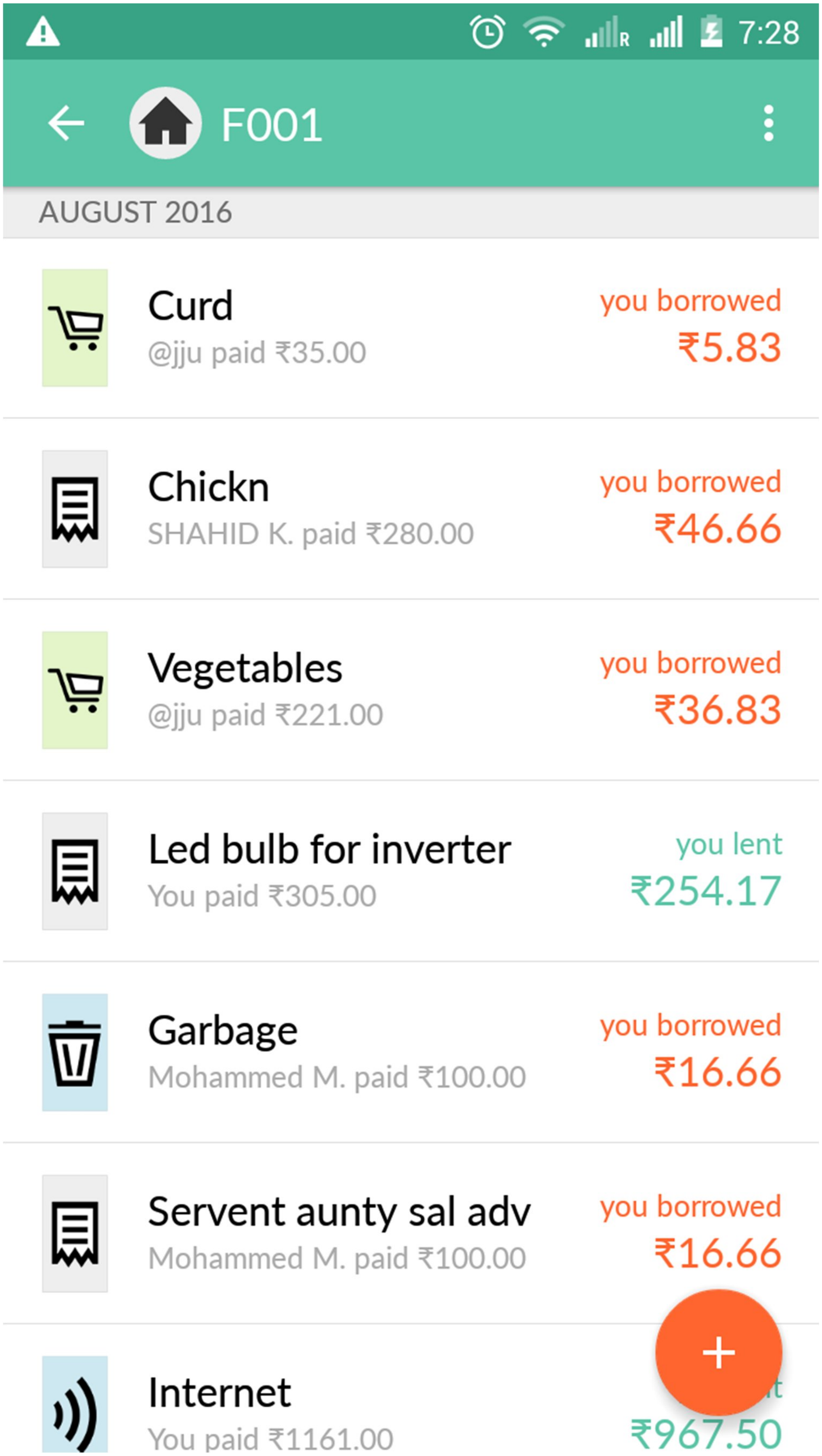
Bike tube
mahesh s. paid ₹350.00
you borrowed
₹350.00

Paid over loan
mahesh s. paid ₹5000.00
you borrowed
₹5000.00

MAY 2016

Loan
You paid ₹150.00
you lent
₹150.00

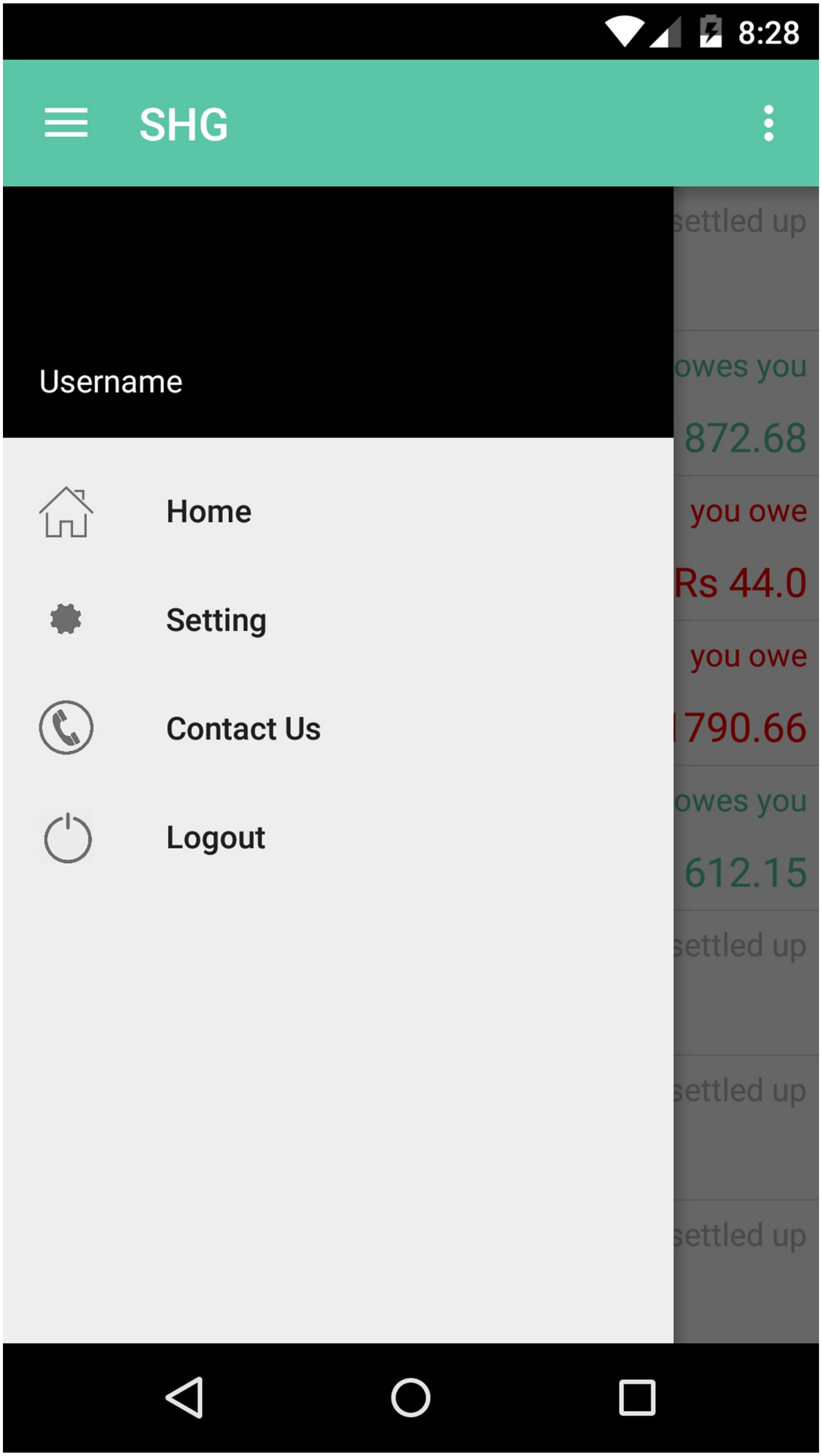
Loan
You paid ₹100.00
t
₹

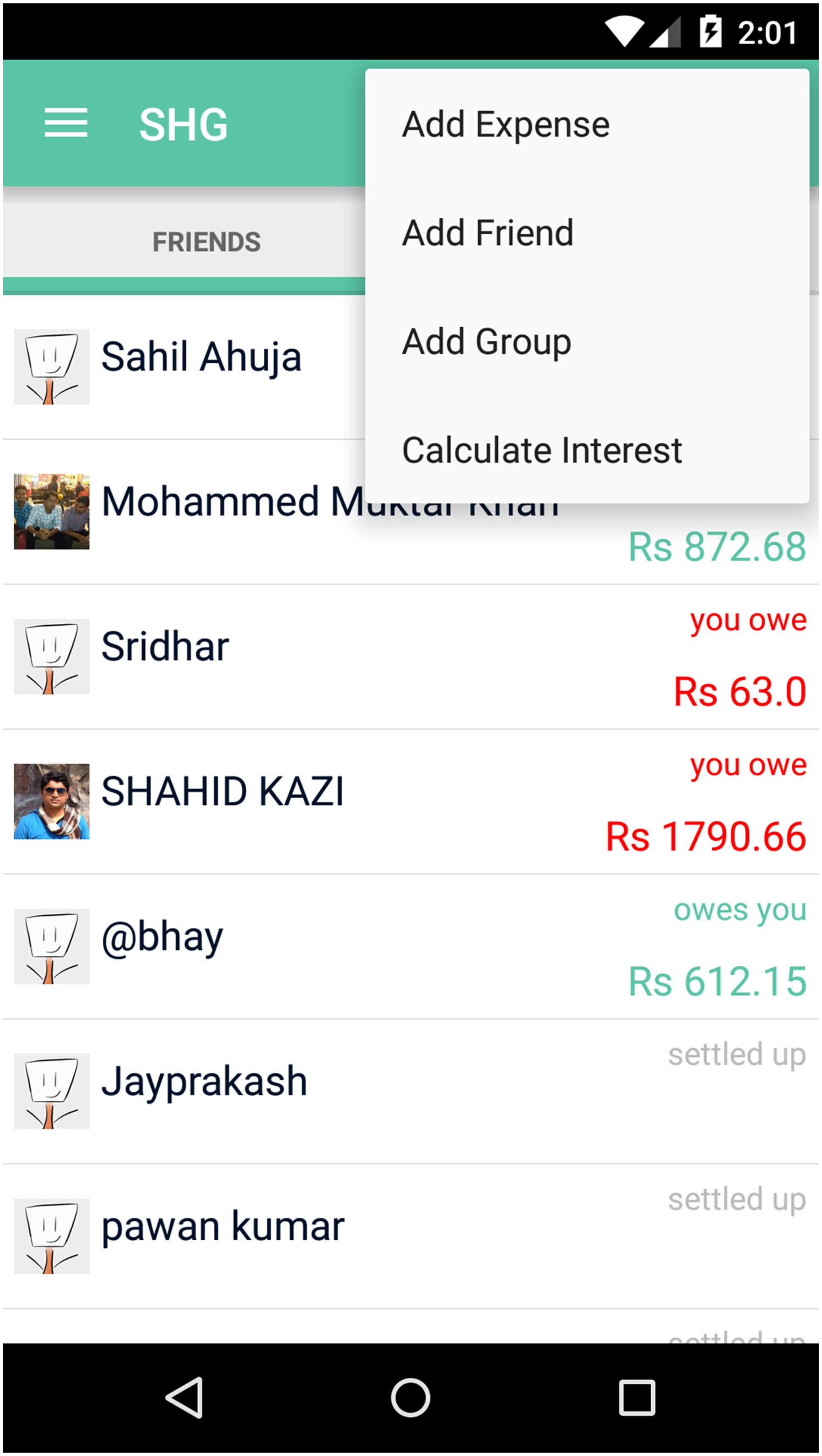


F001

AUGUST 2016

Curd	@jju paid ₹35.00	you borrowed ₹5.83
Chickn	SHAHID K. paid ₹280.00	you borrowed ₹46.66
Vegetables	@jju paid ₹221.00	you borrowed ₹36.83
Led bulb for inverter	You paid ₹305.00	you lent ₹254.17
Garbage	Mohammed M. paid ₹100.00	you borrowed ₹16.66
Servent aunty sal adv	Mohammed M. paid ₹100.00	you borrowed ₹16.66
Internet	You paid ₹1161.00	t ₹967.50


8:28
SHG
Username
Home
Setting
Contact Us
Logout
settled up
owes you
872.68
you owe
Rs 44.0
you owe
790.66
owes you
612.15
settled up
settled up
settled up



2:01

SHG

Add Expense

Add Friend

Add Group

Calculate Interest

FRIENDS

Sahil Ahuja		
Mohammed Muktar Khan		Rs 872.68
Sridhar	you owe	Rs 63.0
SHAHID KAZI	you owe	Rs 1790.66
@bhay	owes you	Rs 612.15
Jayprakash	settled up	
pawan kumar	settled up	
	settled up	

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. Implimentation is completely based on Material design specifications.

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

This app uses Okhttp and Picasso for showing images.
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 in oAuth, 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 and oAuth to the server..

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 and OAuth

Implement Google Play Services for Google Sign-In and oAuth
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.