

ANDROID BASED EXPENSE SPLIT APPLICATION

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ABSTRACT

This project is an attempt to manage our daily expenses in a more efficient and manageable way. With the help of the system user adds, delete and change, and even pay the bill to the borrower efficiently and can also attach the bill image (optional) as a reminder. The representation of the budget is the lucrative part of the system, in order to ease the understanding and incorporation for future planning.

Keyword: - *Android Studio, android sdk ,sdk build tools ,android emulators .*

1. INTRODUCTION

The objective behind this application is to design a refined system that allows the user to efficiently manage his or her expenses with others at ease. This application is perfect replace of papers records as it decreases paperwork and provide proper system. This application allows the user to share expenses with in a group or individual and send notification as a reminder to each person and also allows the users to pay their debts and ask for the payments of the expenses and be able to attach the bill along with the description.

1.1 Existing System

Systems used till now need some improvement for better performance. As there is no complete solution present easily, to do so a person has to keep a log in a diary or phone or any other application. And also the calculation needs to be done by the users which sometimes result in errors leading to losses. Due to lack of a complete expense tracking and payment system. There is a constant overload to rely on the daily entry of the expenditure and total estimation till the end of the month.

1.2 Proposed System Architecture

In System's architecture an android phone application software with internet connection is required, database and user are its components. It requires a fast internet connection as to interact with the database and server but work could be done using slow connection as well but it won't be much fast hence time lagging. The user will login to application using phone and enter his details. When his user type is verified access is given to user. The web application and android application access common database through internet. And can create groups in order to add more users to manage the expense with the fellow users and the data of those users will be automatically saved on the database of this application.

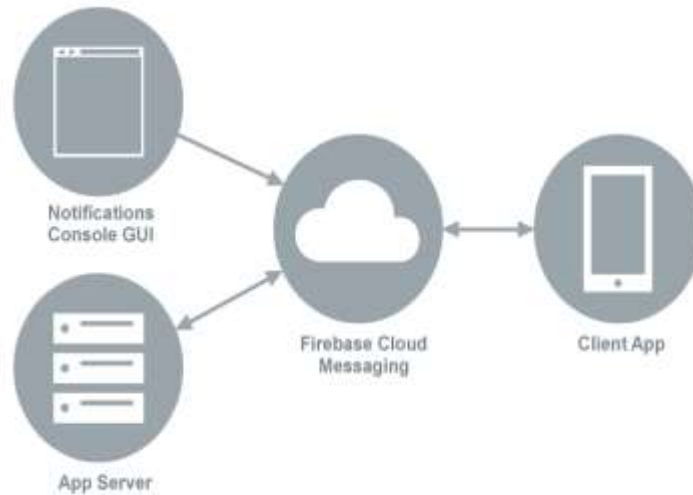


Fig1

2. MODULES

1. **LOGIN MODULE:** We authenticate the users providing username and password. If username and password matches then you will be taken to the screen.
2. **SESSION MODULE:** This module is responsible for creating a session when a user logs in and continues till he/she logs out or the session expires.
3. **ADD/DELETE BILL MODULE:**
This module is developed to enable the user to add or delete the expenses in the groups created by the user.
4. **PAYMENT MODULE:** This module is used to generate payments and ask for payments from the group members in debt.

2.2 Workflow

Detailed workflow is as follows:

1.REGISTRATION:

User has to register on the login/sign up page to create an account and further access of the application.

2.CREATING GROUP:

Users can login by entering correct password and details.

They will be transferred to respected page with options to create or view/edit the existing groups and add a description of the clicked image of the bill.

3.NOTIFICATIONS :

Now when a group is created or any activity performed in the group either it be adding another user, bill or any other activity in the group a notification pops up on the devices of the users existing in group.

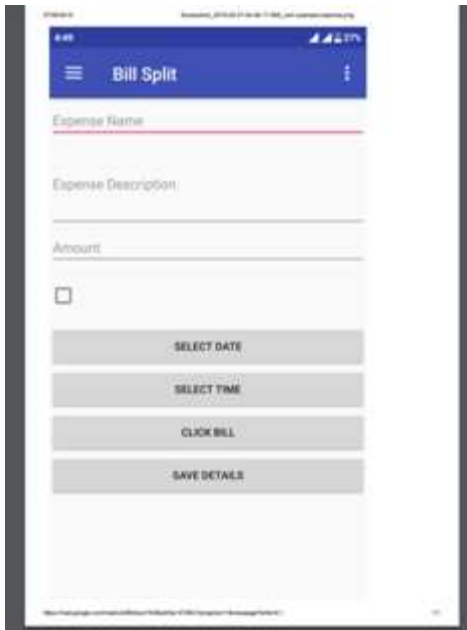


Fig 2.



Fig 3.

3. REQUIREMENT ANALYSIS

3.1 Hardware Requirement

- Intel Quad core(1.7 GHZ Processor or above)
- Minimum 100 GB HD
- Minimum 4 GB of RAM.

3.2 Software Requirement

- Android Studio.
- Firebase Admin sdk
- Android SDK

4. BENEFITS OF PROPOSED SYSTEM

This application we envisioned comes to practice, providing a centralized log inculcating all daily expenses. No more manual calculations with a user friendly interface. This is reliable, time savings and easy to control. And payment can also be made within the application by the users. It provides secure and a system that reduces resources required in traditional process. The proposed system provides the new way of computing and displaying an operation with responsive and attractive user-interface.

5. CONCLUSIONS

This application we envisioned comes to practice, providing a centralized log inculcating all daily expenses. No more manual calculations with a user friendly interface. This is reliable, time saving and easy to control. And payment can also be made within the application by the users. It provides secure and a system that reduces resources required in traditional process. The proposed system provides the new way of computing and displaying an operation with responsive and attractive user-interface.

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