

PayMeBack

Application Proposal

Project by:

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Introduction:

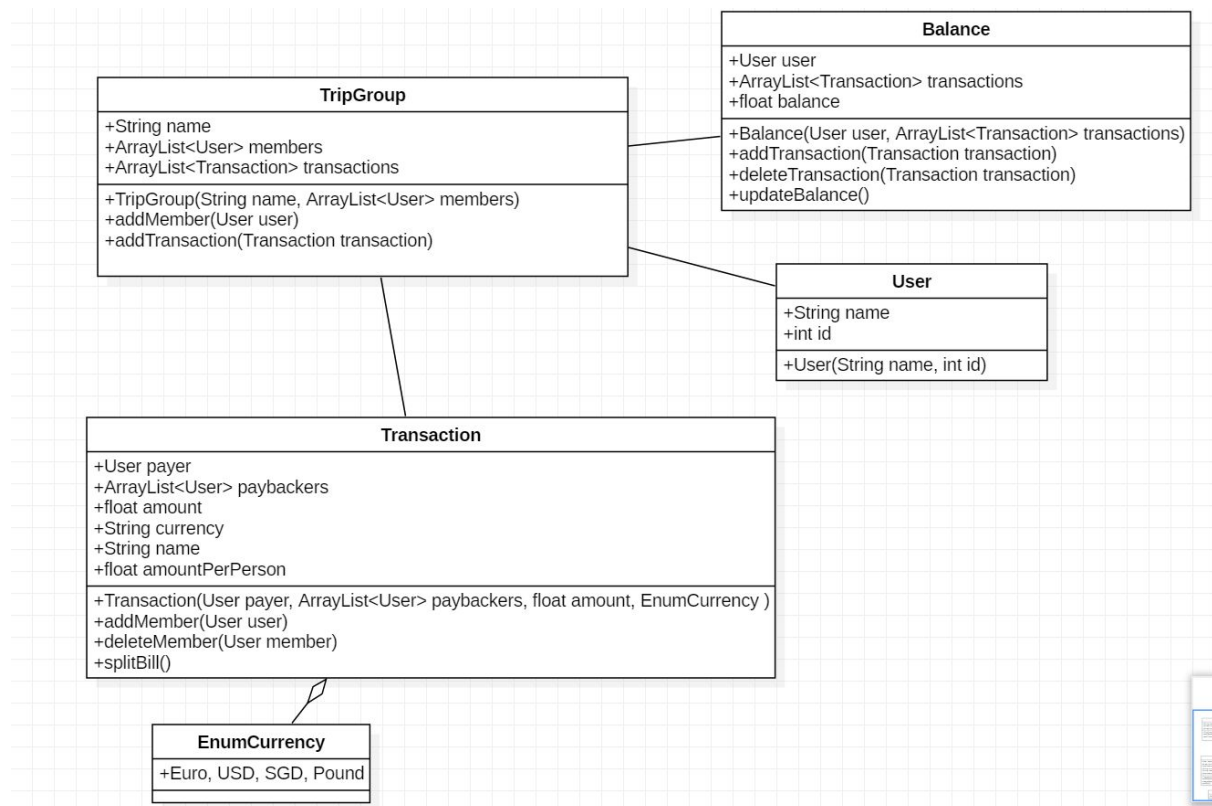
PayMeBack is a mobile phone application that helps facilitate and resolve monetary transactions for members of a group. One of the biggest challenges that most groups face is to split the bill fairly, and have each member of the group pay them back within a short period of time without forgetting about their debts. The aim behind this application is to ease this process and let the members of such social/ friend groups know how much they owe / are owed, with the option of sending notifications to remind someone about their debts.

Features:

- 1) A login page that requires a user's ID and password, alongside the option of creating a new account or to retrieve one's lost password
- 2) A server that is able to accommodate all its users and consistently update data and implement security features for each user.
- 3) A GUI that allows for :
 - a) The creation of groups for a trip/event where monetary transactions between its members are involved.
 - b) The creation of transactions between the people of the group (choosing the currency of the transaction, participants have to accept the transaction, the bill is split equally).
 - c) The ability to resolve transactions. The creditor can resolve a transaction once the debtor has paid the appropriate amount of money.
 - d) The creditor can send notifications to their debtors to perpetually remind them.

How the application works

- 1 - Create a group for a trip/event
- 2 - Add people in the group (they receive an invitation that they can accept)
- 3 - Select the currency of the transactions
- 4 - Once in the group, the person that paid creates 1 expense, add the participants of expense/event, and the amount of money.
- 5 - The app splits the amount between the number of people from this expense and sends a notification to everyone so they can confirm that they participated in the expense
- 6 - Once the person paid back, the person who paid can select "Paid" and the expense is deleted for that person



UML Proposal

Graphical Interface

- 1 - Login page with ID and password with forgot password and create user account
- 2 - Event/Trip Page with all the groups + “plus button” to create a new group (new page to select members, currency, topic/title of the group).
- 3 - When 1 group clicked, another page with all the members and the total of how much they owe (with green/red color)
- 4 - When clicked on 1 member of the group, pop-up history of the transactions appears ;
- 5 - In the history of the transactions, the person who receives money has the bottom “Paid” to delete a specific transaction + also button “Paid total” if the participant paid for all the events.



Timeline

- 1 - Paper prototyping (Deadline: 14 October 2019)
 - Paper prototype of graphical interference
 - Creating UML of classes, interfaces
 - Plan the architecture of the application
- 2 - Create the backend part (Deadline: 21 October 2019)
 - Creating classes objects
- 3 - Creating the Graphical Interface (Deadline: 28 October 2019)
 - Creating User Interface in AndroidStudio
- 4 - Testing (Deadline: 4 November 2019)
 - Engineer testing (It will be tested by the developers)
 - User testing (It will be tested by non-MCS Yale-NUS students)
- 5 - Creating presentation and the release of the application (Deadline: 11 November 2019)

Potential Libraries to use

- 1) Java HTTP Server library
- 2) Notification builder (Android Library)

GitHub Link

https://github.com/berkeutkuonder/YSC3232_SoftwareEngineering_FinalProject