Design Document(FrienDo.)

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Project Description :

An Hybrid application that allows people to share their errands (ranging from errands to picking something up or dropping it off etc.) with their friends who can do it for them when they're in the vicinity. This application is meant to save time as people can simply ask their friends to get their work done for them instead of going there themselves or if they're in a different market. All the app users have to maintain a to-do list which is synchronized through cloud storage and is thus shared with the rest of their friends. Voila, now all of his friends can see what he needs and do it for him. In addition it allows people to broadcast messages containing a subject and a message body, so that his friends who are also free could join him by contacting him/her directly as they can see all the broadcasts made.

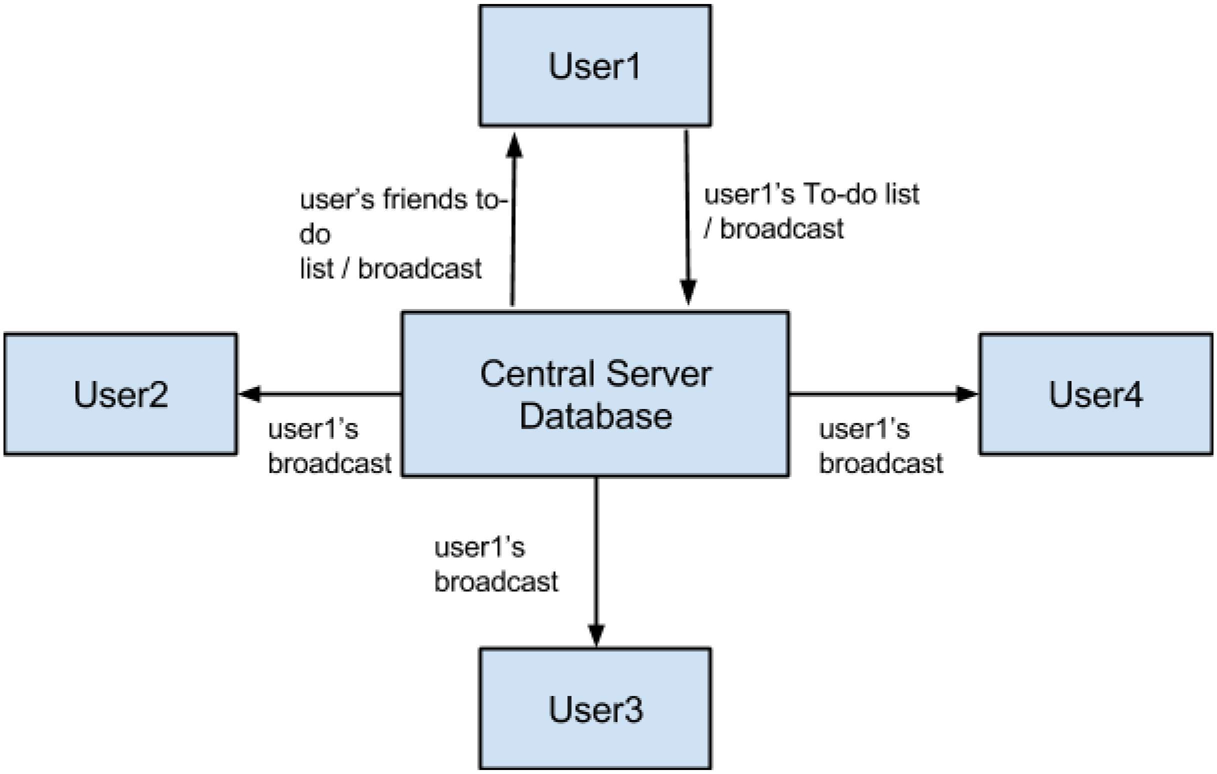
Technologies to be used :

1. Parse Cloud Platform
2. Phonegap/Cordova (CLI for Phonegap) Dev Platform

Operating System:

1. Android
2. iOS
3. Windows
4. Blackberry
5. Firefox OS

Architecture:



UI Details and Flow :

The main/welcome activity provides a login option to the existing users or a signup option(consisting of username and password) to the new users who have just downloaded the app. Once logged in, the user id directed to the welcome screen which consists of 5 options to lead him/her to different activities. They are -

- *Todo*
  In this activity , one can post about their todo-list of things. Once posted , it will automatically be saved on cloud along with the user currently signed in. These will be

shared with all the friends added by the user selected by the user.

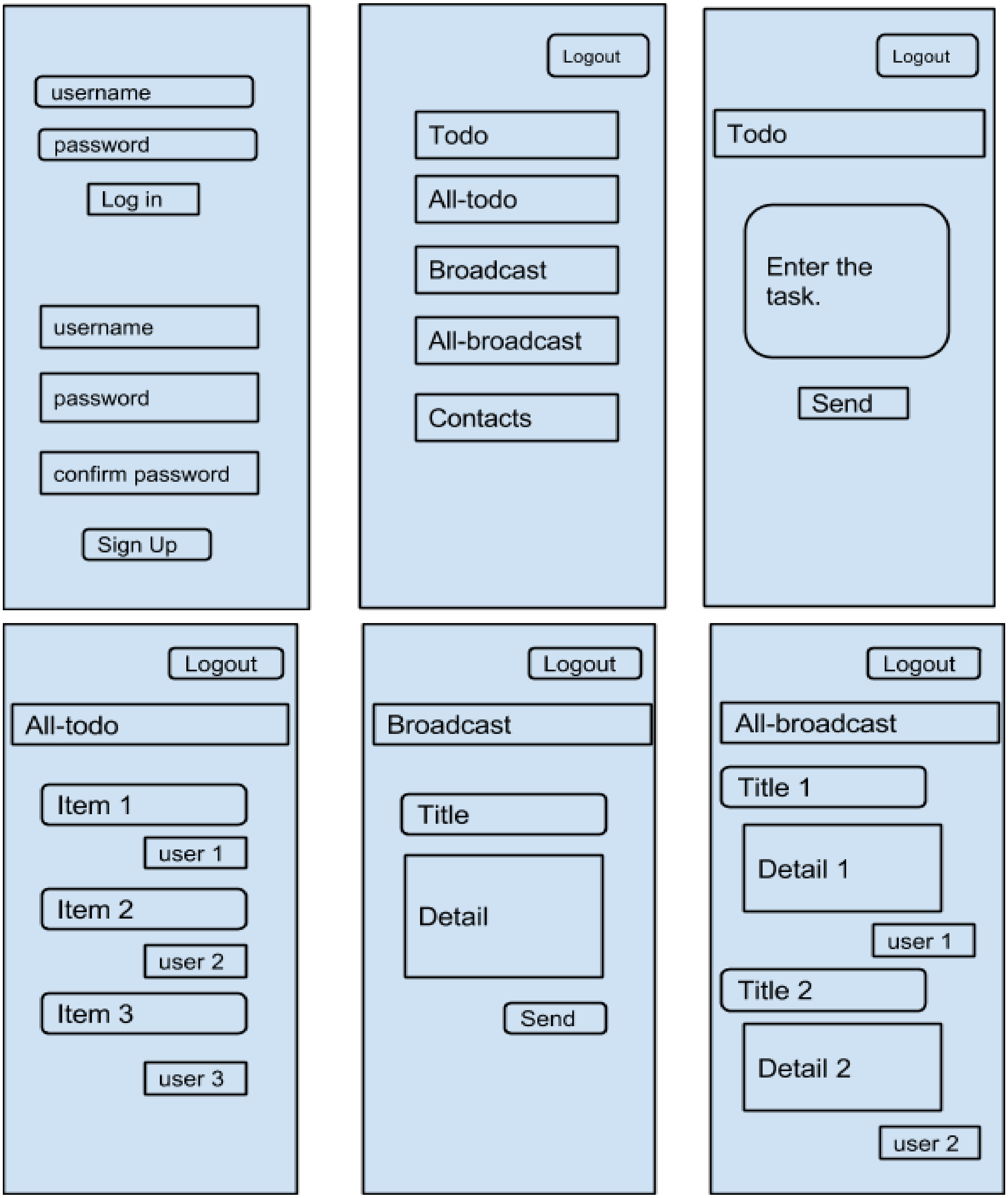
- *All-todo*
  In this activity , one can view the the entire merged list of todos of their friends.
  All the todo-items are visible in form of list and the user whom the todo-list belong is also displayed just below the item. To avoid duplication of effort the errand performed by a particular friend is struck off the list so that others don't end up doing the same thing. This is synchronised with the database on the cloud.

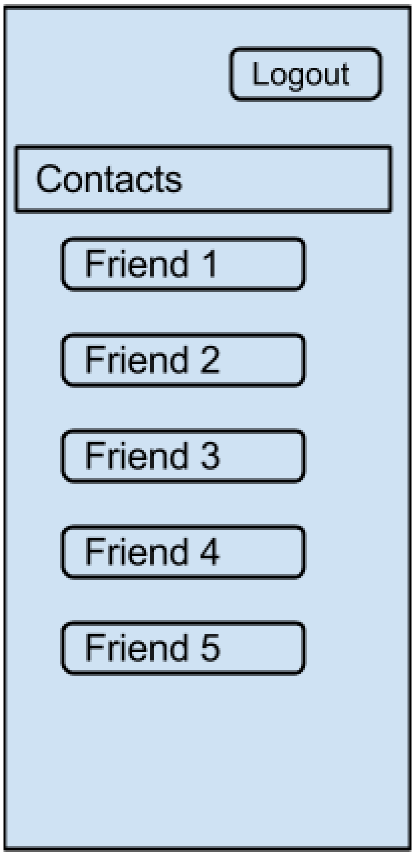
- *Broadcast*
  In Broadcast, user can broadcast about an event he is interested in as in he can simply post a message that will be visible to all his added friends. For example, if he wants to go watch a movie, he'll broadcast a message and that broadcast will be saved on cloud.

- *All-broadcast*
  In this activity , User will be able to see all the broadcast messages that have been posted by his/her friends. This way he can directly contact the friend who broadcasted it and accompany him.

- *Contacts*
  The entire friend list will automatically be synchronized with the contacts list stored on his phone.

Rough Layout of the all the activities of the application:





Other Implementation Details:

As mentioned above, we will be using -

a) Parse

- A cloud service used for server management and data storage.
- The database schema can be defined by using GUI interface of Parse which allows better control over creation and manipulation.
- Parse (by using free service) is reasonably fast in terms of getting server responses for given queries (as compared to others)

b) Phonegap

- PhoneGap is a free and open source framework that allows us to create mobile apps using standardized web APIs for the platforms (here android).
- Our app will be solely written in HTML, CSS and JS (including requests for cloud by using JS API of Parse). However, PhoneGap Build compiles the written application in whichever platform desired without the pain of interacting with native SDKs
- Cordova CLI will be used for to create applications and deploy them to android platform (It can similarly be used for other platforms.)