“Bonjour”
Project Backlog

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Problem Statement

As technology advances, people have been spending increasingly more time with the virtual world and to some extent, neglected to meet people who share similar interests near them. The "Bonjour" app, which we are to develop, aims to help people notice whether they have met anyone nearby who shares common interests with them. It also provides a chance for people to develop potential friendship with others.

Background Information

As is said, wth the prevalence of mobile technology the virtual world is encroaching our real social life. Many software developers have noticed this, and tried to develop software to strengthen people's physical social connection. To make Bonjour stand out, we must beware similar apps in the market.

Applications like WeChat and WhatsApp have provided similar set of functionalities as Bonjour. They allow users to search and chat with nearby users, but do not provide any matching according to users' interests. But Bonjour will match users' common interest and display a list of potential friends.

Also, in those two apps, finding friends is mostly an add-on of the app, and users need to click the search button to perform searching. By contrast, in Bonjour, matching is the center, and is done automatically. Whenever there is someone who share's similar interests nearby, the application automatically matches the two users and send them a notification.

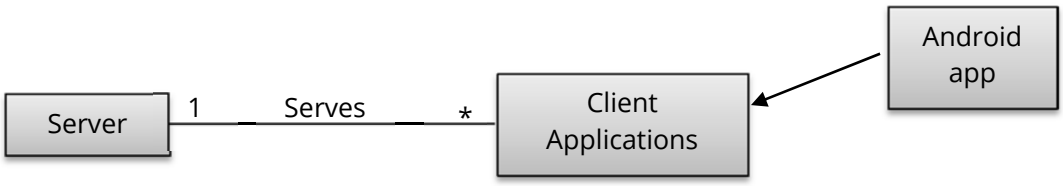
During later research of the project, we found that there is an app called Jack'd, which is similar to Bonjour in terms of functionality set. However, we have totally different target users. The target users of Jack'd are males who are willing to find male partners. For Bonjour, we do not limit our users, and does not encourage Jack'd's user pattern. Everyone who wishes to find new friends or project partners or any personal relationship can use Bonjour to their advantage.

Environment and System Model

Environment

- Client: Android 4.0.3 or newer, written in Java with Android SDK
- Server: PHP5 and MySQL5.6 on Apache 2 httpd

System Model: C/S architecture



Requirements

The requirements are categorized by the functional components of our application. Inside each major functional component, we have these types of requirements: functional requirements, and non-functional requirements, of which the latter includes software quality requirements, platform requirements, and process requirements.

User Identity

"User identity" is the set of functionalities the user identifies oneself with the application.

Basic properties:

a. User email is a string of the form `[-0-9a-zA-Z.+_]+@[-0-9a-zA-Z.+_]+\.[a-zA-Z]{2,4}`
b. User password is a string of length 6 to 32, allowing special characters.
c. User nickname is a string of length 4 to 20 of the form `[0-9a-zA-Z.+_]{4, 20}`
d. User age must be within the range of 13 to 100.

Basic behavior:

1. user registration
2. user log in
3. password reset
4. profile update

The following is the list of user stories.

<table>
<tr><th colspan="5">User.R01.Android</th><th>Done</th></tr>
<tr><td colspan="6">As a user, I want to register my own account.</td></tr>
<tr><td>Category</td><td>Functional</td><td>Priority</td><td>High</td><td>Hours</td><td>6</td></tr>
<tr><td>User story</td><td colspan="5">Related Use Cases: User.L01.Android
Steps:
<table><tr><td>Actor actions</td><td>System responses</td></tr><tr><td>1. Click the register button and agree with terms and conditions
3. Enter the username and password and click "Next"
5. Enter the basic user information and click "Next"</td><td>2. The register activity shows up
4. Move to the create profile UI
6. Move to the photo upload UI
8. The photo shows on the screen
10. Pop up a register result</td></tr></table></td></tr>
</table>

	7. Choose a photo on the phone 9. Click the confirm register button	message and return back to the login page
Comment		

User.L01.Android					Done
As a user, I want to log in with my account and password.					
Category	Functional	Priority	Normal	Hours	**4**
User story	Related Use Cases: Steps: Actor actions: 1. Run the app; 3. Enter the username and the password, click "Log in" button System responses: 2. Login page shows up; 4. Check the validity of username and password, log into the account or shows a failure message				
Comment					

User.RP.Android					Done
As a user, I want to change my password when I want to.					
Category	Functional	Priority	Low	Hours	**5**
User story	Related Use Cases: Steps: Actor actions: 1. Run the app; 3. Click the "Change Password" button; 4. Enter the previous password and new password; 5. Click the "Confirm Change" System responses: 2. Home Page shows up; 6. Replace the old password with the new one				

	button	
Comment		

User.RP2.Android				Done	
As a user, I want to reset my password when I could not log in.					
Category	Functional	Priority	Low	Hours	**3**
User story	Related Use Cases: Steps: Actor actions: 1. Run the app; 3. Click the "Recover lost password" menu button; 5. Type email address and confirm; 8. Answer the question System responses: 2. Home Page shows up; 4. System asks for the email address; 6. return a security question set by the user; 7. display the question; 9. Verify the answer, if correct, user can enter the new password				
Comment					

User.PU.Android				Done	
As a user, I want to view my profile.					
Category	Functional	Priority	Normal	Hours	**7**
User story	Related Use Cases: Steps: Actor actions: 1. Run the app; 3. Click the "My Profile" button System responses: 2. Home page shows up; 4. Provides user's information and edit profile button				

Comment	

Matching

The android app will collect the location information, and upload it to the server for matching purposes.

The basic behavior includes:

- Notification of location gathering
- Location gathering
- Showing a list of people nearby
- View the profile of those who are close to the user
- Matching between 2 users.

Match.Lg.Android			Done		
As a user, I want to upload my location information to the server and see the result.					
Category	Functional	Priority	Normal	Hours	**4**
User story	Related Use Cases: Steps: Actor actions: 1. Click the "Matchings" button in the Navigation Drawer; 3. Enter the matching range and click the confirm button System responses: 2. Matchings Page shows up, a dialog prompts out to ask the matching range (in meter); 4. Client updates the location information and send the request to the server; 5. Matched users show up on the screen				
Comment	(XB) We should provide a button to manually trigger location update.				

Match.PV.Android			Done		
As a user, I want to see those who are close to me.					
Category	Functional	Priority	Normal	Hours	**4**
User story	Related Use Cases:				

<table>
<tr><td></td><td>Steps:<table><tr><th>Actor actions</th><th>System responses</th></tr><tr><td>1. Click the “Matchings” button in the Navigation Drawer

3. Enter the matching range and click the confirm button</td><td>2. Matchings Page shows up, a dialog prompts out to ask the matching range (in meter)

4. Client updates the location information and send the request to the server

5. Matched users show up on the screen</td></tr></table></td></tr>
<tr><td>Comment</td><td></td></tr>
</table>

Other General, Non-functional Requirements

The following non-functional requirements apply to all the components of the project and must be pondered over at each step.

1. **Security**. Information that needs to be restored will be encrypted by RSA algorithm, while non-restorable information will be encrypted by MD5 algorithm. The request of information will need clearly defined permission level to be performed.
2. **Power Saving**. If not designed will, the app may become a battery killer.
3. **Stress**. Carefully design the algorithm so that the matching and listing operations will not cause the server and client to crash.
4. **Accuracy**. Be sure to enhance the accuracy of location information with the help of Wi-Fi and Bluetooth. Accurately reporting location is critical to the app.