Final Project – App for Social Good

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Motivation and Need:

Education is an important part in everyone’s life, and so are artistic pursuits. There are so many passionate students who want to learn and explore their interests, or just try out new things, but need a push in the right direction. The students may be artists or professionals who have excelled in their fields but want help in expanding their ideas and skillset and want a little bit of guidance. My proposed project aims to serve as an interface between the students who want to pursue their passion and can help other pursue their interests at the same time.

A student, no matter what area of study he is pursuing, benefits a great deal from a mentor to help solve doubts, guide, instruct, and help learn from the challenges. The application targets two such groups of people, mentors and mentees. The beauty of the project lies in the fact that the same person can act as both, mentor and mentee.

**Example:**

Student A is good at playing guitar but doesn’t know how to code.

Student B is good at coding, but wants to learn how to play a guitar.

The app will help the students connect to each other and both students can learn and guide the other person at the same time.

App Description:

App Name: **InstaGuru**

Key Features

1. **SIGN UP**: The user signs up with following details:

* Name
* Date of Birth
* Phone
* Mentor for
* Wants to learn
* About Yourself/Description
* Images

1. **Find/Browse**: For a user, the application looks for people who are good at things User wants to learn. User can also search for people based on other interests they may have.
2. **View Profile**: User can look at different profiles to see if they are a good match.
3. **Connect**: User can then send a message and the other person will receive message and contact details.

Technology Items:

* **REST service** – API is developed manually to support backend features for the application. Endpoints are:
  + /adduser – used to add userinfo to the database. Returns userid and name in a JSON string.
  + /getmatches/<userid> - Returns JSON array of all users whose requirement matches with the user whose userid is passed in API request.
  + /getsearch/<searchterm> - Matches all users based on searched term.
* **SharedPreferences** - When the user signs up, the app stores userid and user’s name in the shared preferences. When app is started again later, we first check if userid is present in preferences. If shared preference is present, then we don’t show register page and load the matches list directly.
* **JSON** – All the data that is received from the backend server is in JSON format.
* **Images** – While signing up in the application, user has the option to upload up to 4 images. Images are also displayed in the list for every user. For loading images from web, Picasso library is used.
* **3 Activities with fragments** – There are 3 activities in the application:
  + **MainActivity/MainFragment**: This activity has the register page. Once user registers, then this page has code to check shared preferences and load the second activity.
  + **MatchesActivity/MatchesFragment**: This activity shows a list of all user matches. There is also a search bar using which user can search for specific things.
  + **InformationActivity/InformationFragment**: This activity shows the information about the user selected in the second activity. User has the option to send an SMS.
* **ListView with custom view/adapter:** On the second activity, there is a list that is created using custom adapter which shows all users that are a match of the current user.
* **Photo Library**: On the first activity for signing up, user has the option to access the phone’s gallery and select up to 4 images.
* **SMS**: On the third activity where user can see a match’s information, there the user can also send a text message for contacting match.

Summary of Technology Items

* Target SDK: API22
* 3 Activities with fragments, 3 Intents
* Persistent Storage: JSON, SharedPreferences, MYSQL on backend server
* Has Images
* App uses a custom adapter and a connected ListView
* Third party API – Created API to use just for this project
* Items from list/additional items: Picasso library, photo library, SMS
* Custom Launcher item present
* Application tested on One Plus One

WireFrames:

 

