

## Initial Project Ideas

### 1. Online used item market for BU students

#### Features:

1) This app will be the used item trade platform only for BU students. This application will use the library from Google which can identify the users' identities that make sure they must be BU students.

2) Sellers can set the bidding mode for their commodities, also they can set fixed prices for their products.

3) In this app, the buyer can contact the seller directly if the customer has questions about the item. The system will automatically generate a chat room for them.

### 2. Student Academic Resources share App

1. This app creates a study resources library for BU students that can help them get a high academic achievement at BU

1) This app is developed for BU students only. Users can only use the app with a valid BU email.

2) Students can upload their course materials such as lecture notes, homework, and exams into the course folder.

3) To unlock the documents students can either pay the monthly membership fee or upload their study resources.

- 4) Students can write comments to the course and the course's professor.

### 3. BU Emergency Response App

This app is designed mainly for students to call the police, share the dangerous situation, record the audio files as proof, and check the environment around them anytime.

Features:

- 1) Pretty convenient interface which has a really big alarm button for students to call the 911 or campus police. Also a more brilliant thing is users can set the shortcut key (like pressing the lock/unlock button on the phone twice) to call the police without unlocking the phone and opening the App. (Students can set these preferences in setting)
- 2) While calling the police, the App will invoke the recording function in the phone automatically to record the proof. Meanwhile, the App will get the GPS of the device automatically and utilize crowdsourcing to upload the situation to the community of this App to share the emergent situation with other BU members. Besides, the App will automatically send a message containing a brief text and the GPS of the device to the emergency contact. (Students can set these preferences in setting)
- 3) Another main feature of this App is that it has a real-time map which is about the BU neighborhood. Users can review and check this map to see if there exists some dangerous situation around them. And all

of the students can update the information of this map manually, such as by reporting weird conditions.

**Question 4.1 -4.10 in the textbook:**

1. The TableLayout class can be used to organize various GUI components  
As a table of rows and columns
2. . The direct superclass of LinearLayout and RelativeLayout  
ViewGroup
3. TableLayout and TableRow are direct subclasses of  
ViewGroup
4. The RelativeLayout class is a good choice to organize various GUI components  
So that we position components relative to other components
5. . In what package is the Intent class  
android.activity
6. After you have created an Intent for a new activity, what method of the Activity class do you call with that Intent parameter in order to start a new activity?  
startActivity
7. What method of the Activity class is automatically called when an activity is about to restart?onRestart
8. What methods of the Activity class (and in what order) are automatically called when an activity is first created?  
onCreate, onStart, and onResume (in that order)
9. . What method of the Activity class is automatically called when an activity becomes invisible to the user?  
onStop
10. 0. Two activities can share the same database  
Yes, but it is only possible by writing to and reading from a SQLite database