Activities and Intents

Due Date: Sunday, September 29th @11:59pm 2019

Project Details:

Design and implement an app that contains two activities. The main activity contains a welcome text (not editable) and two buttons. Upon pressing the button labeled "Address", the app displays a second activity containing a read-only text field and an edit text field. The read-only text field prompts the device user to enter a street address in the edit text field. When the user is done entering the address, she will press the done or return key in the soft keyboard. The activity must now check whether any content was entered by the user. In this case, the activity will set a result code of "**RESULT OK**". If, however, the user failed to enter any text in the edit text field, the activity sets a result code of "**RESULT CANCELED**". Either way, the second activity terminates itself, thereby causing the first activity to become visible again.

Upon returning from the second activity, the first activity checks whether the result code was "**RESULT OK**". In this case, the user may press the second button labeled "Map" in the first activity causing the device to display a map centered on the address entered previously by the user. However, if the result code was "**RESULT CANCELED**", when the user presses the second button, the first activity displays a toast message informing that device user that she failed to enter an address in the second activity.

Note that the second activity must return automatically to the first activity after a user enters an address and presses the return or done key.

Implementation Details:

You are not responsible for coding or downloading additional apps; you may assume that a suitable "Maps" app is already installed on your device even though you don't know what that app is.

Use an intent extra to pass the address from the second activity to the first activity.

Create an instance of the *Toast* class with the static message *makeText()*, which takes as input 3 arguments. You can then display the toast by calling method *show()* on the instance. See the online documentation for additional details.

Use an *EditText* widget to enter the address in the second activity. Implement Java interface *TextView.OnEditorActionListen* when defining a listener for the edit text. Read the Android documentation on the *TextView* class in order to define the listener.

Use functions *Uri.parse()* and *Uri.encode()* to create the data in the intent to be passed to the "Maps" ac- tivity. The data must conform to scheme *geo*. The Uri is formatted in the following way:

Android platform:

For this project use a Pixel 2 XL AVD running Pie API 28, that you downloaded for Homework 1. You are not required to provide backward compatibility with previous Android versions.

Submission Details:

Submission instructions. *You must work alone on this project.* Submit the entire Studio project as a zip archive using the submission link in the assignment's page on Blackboard. No late submissions will be accepted.

Academic Integrity:

Unless stated otherwise, all work submitted for grading *must* be done individually. While we encourage you to talk to your peers and learn from them, this interaction must be superficial with regards to all work submitted for grading. This means you *cannot* work in teams, you cannot work side-by-side, you cannot submit someone else's work (partial or complete) as your own. The University's policy is available here:

https://dos.uic.edu/conductforstudents.shtml.

In particular, note that you are guilty of academic dishonesty if you extend or receive any kind of unauthorized assistance. Absolutely no transfer of program code between students is permitted (paper or electronic), and you may not solicit code from family, friends, or online forums. Other examples of academic dishonesty include emailing

your program to another student, copying-pasting code from the internet, working in a group on a homework assignment, and allowing a tutor, TA, or another individual to

write an answer for you. It is also considered academic dishonesty if you click someone else's iClicker with the intent of answering for that student, whether for a quiz, exam, or class participation. Academic dishonesty is unacceptable, and penalties range from a letter grade drop to expulsion from the university; cases are handled via the official student conduct process described at https://dos.uic.edu/conductforstudents.shtml.