Activities and Intents

Due Date: Sunday, September 26th 2021 @11:59pm

Project Details:

Design and implement an app with the following functionality. The app starts off with a main activity containing a welcome text and two buttons. Upon pressing the first button, your 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 person's name in the edit text field. A legal name consists at least of a first name and a last name, each containing a sequence of alphabetical characters and separated by one or more space characters. Leading and trailing white space characters should be ignored. When the user is done entering the name, she will press the done or return key in the soft keyboard. The activity must now check whether a legal name was entered by the user. In this case, the activity will set a result code of "RESULT OK"; otherwise, 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 in the first activity causing the device to display the contacts activity, while displaying the name that was entered in the second activity in the "Edit Contact" activity. You must use an existing Contacts app pre-installed in your device when displaying the "edit contact" activity. (You are not allowed to specify what app should be used for the editing the contact activity.) However, if the result code was "RESULT CANCELED", when the user presses the second button, the first activity displays a toast message informing the device user that they entered an incorrect name and includes the name (entered by the user in the second activity) in the toast.

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

Implementation Details:

Your main activity must have separate layout files for landscape and portrait orientations and appear as described bellow depending on the orientation of the device. With a device (or emulator) in portrait orientation, the welcome text and each button will be in a vertical line, one underneath the other. With a device (or emulator) in landscape orientation, the welcome text should display above the two buttons but the buttons should be arranged next to each other, horizontally, underneath the welcome text.

| Welcome text | | Welcome text |

| Button one | Button one | Button two |

| Button two | | |
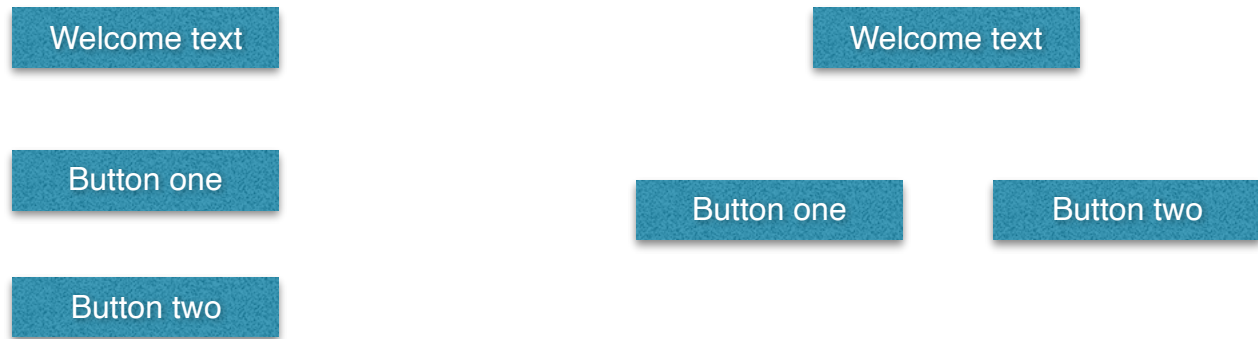
Portrait orientation   **Landscape orientation**

Your app has no knowledge of the specific app to be invoked for editing the contact. You are not responsible for coding or downloading additional apps; you may assume that a suitable contacts app is already installed on your device even though you don't know what that app is.

You should use an ActivityResultLauncher to start the child activity for a result. See the SimpleCounter4_newResult sample app for how to use. Use an intent extra to pass the name 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 name in the second activity. When defining a listener for the edit text, you can implement Java interface TextView.OnEditorActionListener . Read the Android documentation on the TextView class in order to define the listener.

Android platform:

For this project use a Pixel 3a XL AVD running Android 11 (API level 30), 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:

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