

Assignment 03

Pirate Slang Conversion App Enhancements

In your last assignment, you built an app to translate arbitrary text into pirate slang. In this assignment, we will build up on those results and add additional functionality to it.

This includes adding notifications, a horizontal and vertical layout, as well as converting the plain Activity layouts into ones that use Fragments.

Convert history Activity to make use of Fragments

Until now, the Activities all use their own layout and the functionality is tied to the Activity itself. In order to provide different behavior based on different screen orientations or sizes, you will now convert the existing history Activity to a more generic implementation using a dedicated Fragment for displaying the history list and its items.

In the end, you will still end up with the same activity, but rather than adding the list view to the layout, the list view fragment is added to the Activity's layout.

It will probably take you a minute or two to realize what this switch means for reusability but we will come back later to this point and build up on the advancements you just implemented. The Android developer pages provide a good introduction into the use of Fragments.

(<https://developer.android.com/training/basics/fragments/index.html>,
<http://developer.android.com/guide/components/fragments.html>)

Post a Notification once a translation was made

Back in the translate Activity, we'll add functionality to post Notifications once a translation was successful. In order to do this, create an appropriate notification layout

(<http://developer.android.com/design/patterns/notifications.html>,
<http://developer.android.com/guide/topics/ui/notifiers/notifications.html>)

and post one each time the translation service successfully translated a text. The notification does not have to provide additional functionality like expanding or interaction (but it can ☺), but should display the latest input and output text (style and length is up to you).

Master Students: Add a new Activity and Fragment displaying the complete text of a history item

This applies to master students only!

For now, the app only displayed the last translation history in a list format, probably cutting most of the actual content. Therefore, we are now adding a new history detail view that displays a single item that was previously selected in the list. This should be based on a new Fragment displaying the original text and the translation (same as with the translate Activity, both taking up half of the screen), encapsulated in its own Activity.

The behavior should be as follows:

1. A click on a list item in the history list Fragment should notify the underlying Activity that an item was selected using a dedicated callback (e.g. create your own interface).
2. The underlying activity receives this callback and starts the newly created history details Activity.
3. In order for the details view Activity to know which translation it should display, you will have to provide either a reference (ID) or the complete translation in the starting Intent.
4. The back button on the new activity behaves as expected and brings you back to the history list

The Android resources provide a nice introduction to the Fragment communication:

<http://developer.android.com/training/basics/fragments/communicating.html>.

Submission

Please zip up your complete Android project and hand it in via Uniworx. Projects that do not compile due to errors will not be accepted.