Helen Wang
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Align
Executive Summary

Typically people convert between time zones to coordinate times between people. Align is a time zone converting app that allows users to not just coordinate times of locations, but assign names of people to locations, allowing for an enhanced time-zone-converting experience.

Users add people they want to keep track of and assign a location to them. These contacts, along with their associated locations, are saved in an extensive list, from which users can select individuals with whom they would like to coordinate. While the app initializes with the current system time when the users first open the app, the users are able to scroll between the 1440 minutes in a day and view corresponding times for the selected contacts.

There are many time zone converter apps that currently exist in the Apple App Store, but most, if not all, simply display locations and their associated times. Adding this layer of customization is what differentiates Align from these other apps.

Align consists of three view controllers, each embedded in a navigation controller: the main view controller contains a table view displaying the selected contacts and a scroll view at the bottom used to scroll between times; the second view controller is a table view controller displaying all of the user's saved contacts and their associated locations; the third view controller contains two text fields for the user to input a name and location.

As the user scrolls the scroll view at the bottom of the main view controller, all of the times displayed (the user's time, displayed in a label, and the contacts' times in the table view) change accordingly. In addition, the background changes accordingly to mimic a sky's colors throughout a day. This effect is achieved by layering three images in the background of the view controller and adjusting their alpha values. The alpha values and the times correspond to the scroll view's position; this is implemented by use of a scroll view delegate method.

When the user navigates to the other view controllers, the 'state' of the background is preserved such that the other view controllers have the same background as the main view controller. This is achieved by passing the alpha values of each of the three background images to the subsequent view controllers, which each have a local copy of the images. The appropriate alpha values are then implemented.

From the second view controller containing all of the stored contacts, the user can select or deselect which individuals they would like to display on the main controller; the corresponding cells are highlighted. The user is also able to delete the contacts by swiping left on the appropriate cell in the table.

From the third view controller, which allows the user to add new contacts, alerts are triggered when a location is 'invalid' and when a contact already exists (i.e. there is a contact of the same name that is already saved). The locations that the user inputs must be one of the cities listed in the official time zone database, which can be accessed through the NSTimeZone class. As the current version of Align is limited to these locations, the user can only assign people to these 'valid' cities.

All of the user's saved contacts are stored in NSUserDefaults. Thus, if the user returns to the app after closing it, the user's contacts are preserved. The contacts last selected to be displayed on the initial view controller will also remain there upon reopening the app.