

# iOS App Extensions

Hands-On Challenges

# iOS App Extensions Hands-On Challenges

Copyright © 2014 Razeware LLC.

All rights reserved. No part of this book or corresponding materials (such as text, images, or source code) may be reproduced or distributed by any means without prior written permission of the copyright owner.

This book and all corresponding materials (such as source code) are provided on an "as is" basis, without warranty of any kind, express or implied, including but not limited to the warranties of merchantability, fitness for a particular purpose, and noninfringement. In no event shall the authors or copyright holders be liable for any claim, damages or other liability, whether in action of contract, tort or otherwise, arising from, out of or in connection with the software or the use or other dealings in the software.

All trademarks and registered trademarks appearing in this book are the property of their respective owners.



# Challenge #2: Extension to App

In general, you want to keep your photo extension as minimal as possible. For the Hipsterize project, the settings screen is just in the app and not in the extension.

The app does keep a counter of how many photos have been processed, and displays the counter in the settings screen. However, the extension doesn't have a counter. That means the user isn't getting an accurate count of how many hipsters they've created!

In this short challenge, you'll add a separate counter for photos processed in the extension. You'll save this counter value to the `NSUserDefaults` in the shared container, and then access the value from the app to show on the settings screen.

## Getting Started

There are three parts to this challenge:

1. Setting up the actual counter and incrementing it from the extension.
2. Updating the settings interface to add a spot to display the new counter.
3. Reading the extension counter value from the app and displaying it.

The app already has a counter, so there's some code you can find if you want to try to implement a similar thing in the extension yourself. If you need more hints then feel free to continue reading!

## Saving the Counter

Open **PhotoEditingViewController.swift** and find `finishContentEditingWithCompletionHandler()`. This method is called when the user taps the Done button, so that's a perfect place to increment the counter.

Add the following code to that method, just before the `dispatch_async` call that performs the actual photo processing:

```
let counter =
    self.defaults.integerForKey("hipsterizeExtensionCounter")
defaults.setInteger(counter + 1,
    forKey: "hipsterizeExtensionCounter")
defaults.synchronize()
```



This will access a new key in the `NSUserDefaults` called `hipsterizeExtensionCounter`. The app uses `hipsterizeCounter` for its own counter, but you want a separate value.

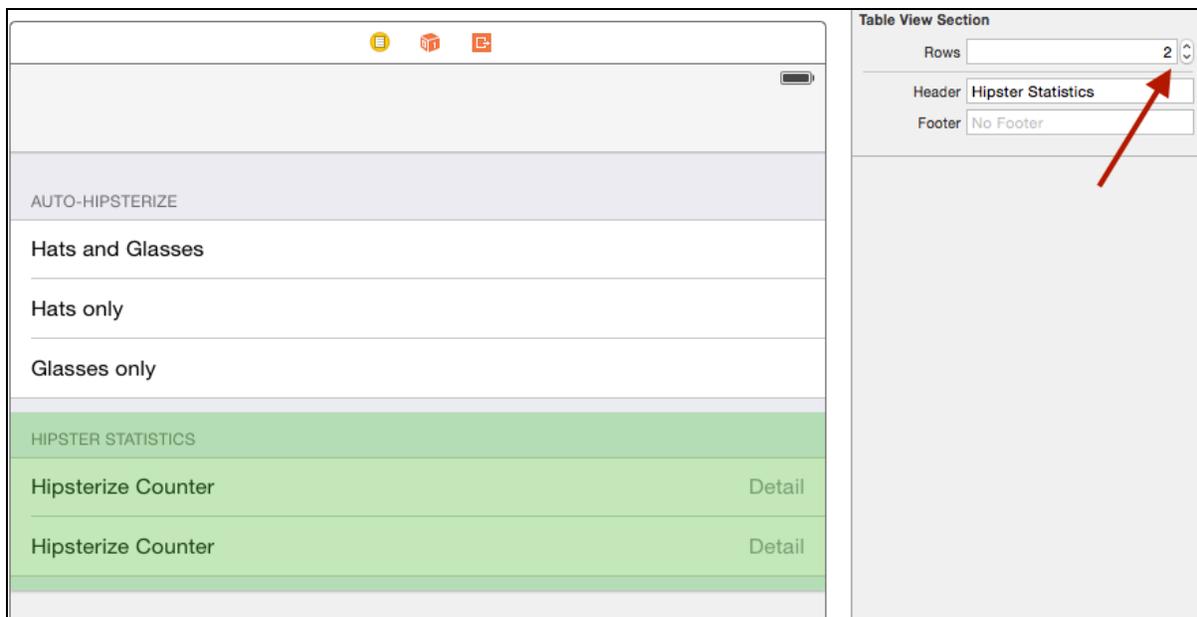
You then increment the value, and then save.

That's all you need to do to save shared data! Remember, the `NSUserDefaults` instance here is accessing the shared container area. So anything you write can be read from the app just as easily.

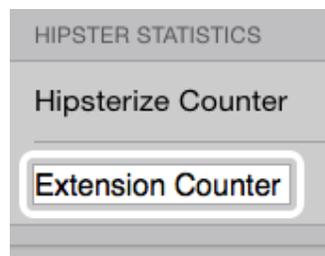
## Setting Up the App Interface

Next, you'll need to update the settings screen in the app. Open **Main.storyboard** and find the settings view controller. This is just a table view controller with static cells.

Select the second section of the table view containing the statistics, and change the number of rows to 2.



Next, select the new row and change the main label to "Extension Counter".



That's it for the storyboard interface. The final step is to load the counter value and then display it in the table view cell's detail text label.

## Reading the Counter Value

Open `SettingsTableViewController.swift` and find `tableView(_:willDisplayCell:forRowAtIndexPath:)`. Since this table view uses static cells, you'll use this method rather than `tableView(_:cellForRowAtIndexPath:)` to set the value.

The hipster statistics are in the second section, so change the code inside the `else if indexPath.section == 1` block to the following:

```
if indexPath.row == 0 {
    let counter = defaults.integerForKey("hipsterizeCounter")
    cell.detailTextLabel?.text = "\(counter)"
} else if indexPath.row == 1 {
    let counter =
        defaults.integerForKey("hipsterizeExtensionCounter")
    cell.detailTextLabel?.text = "\(counter)"
}
```

Reading data from a shared container `NSUserDefaults` is just as easy from reading from a standard one! Here, you're choosing between the `hipsterizeCounter` and `hipsterizeExtensionCounter` keys based on the row.

## How Hipster Are You?

To test this out, try hipsterizing photos from the app and then from the extension. Then, start the app and navigate to the settings screen to check the counter.

HIPSTER STATISTICS	
Hipsterize Counter	10
Extension Counter	42

Are you more of an app-hipster or an extension-hipster? Now that the app and extension can share settings data between them, you're cool either way!

