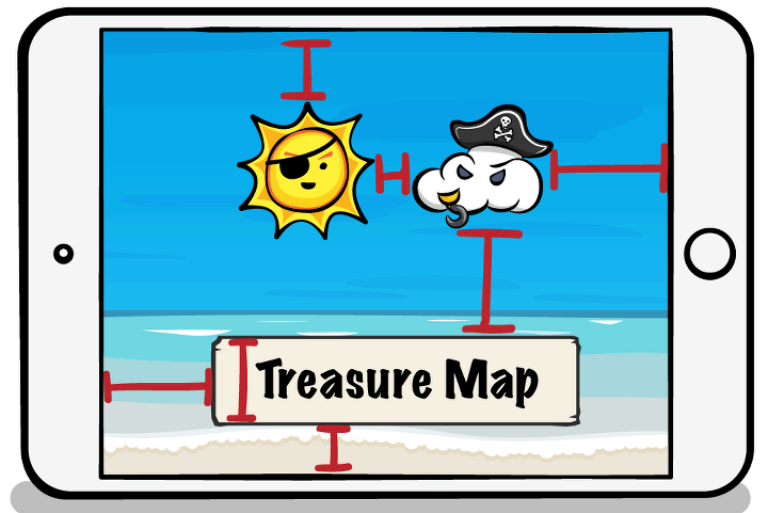


MASTERING

# AUTO LAYOUT



HANDS-ON CHALLENGES

## Mastering Auto Layout

Jerry Beers

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# Challenge #19: Adaptive Presentation

By Jerry Beers

When you present a view in a popover, like we do for the dictionary view in the demo, the system does the work of deciding how that view should actually be presented. In a horizontally compact environment, it will present the view as a full screen modal. In a horizontally normal, but vertically compact environment (like the iPhone 7 Plus in landscape) it will display as `formSheet`, like a modal, but with translucent space on the sides. For this challenge, you're going to override that default behavior and make the popover display as a popover in all environments. Then you'll see how to limit it to only certain environments.

## Prepare MenuViewController

First, there's some code you need to remove from `MenuViewController`. The `prepare(for:sender:)` method sets the delegate for the popover controller. You're going to set that a different way, so you can remove that whole method. The private extension of `String` at the top was only used by this method, so you can remove it too.

## Controlling the Adaptive Style

In `awakeFromNib` in the `DictionaryViewController`, you're going to add the code to assign the delegate. Add these lines right below the call to `super`:

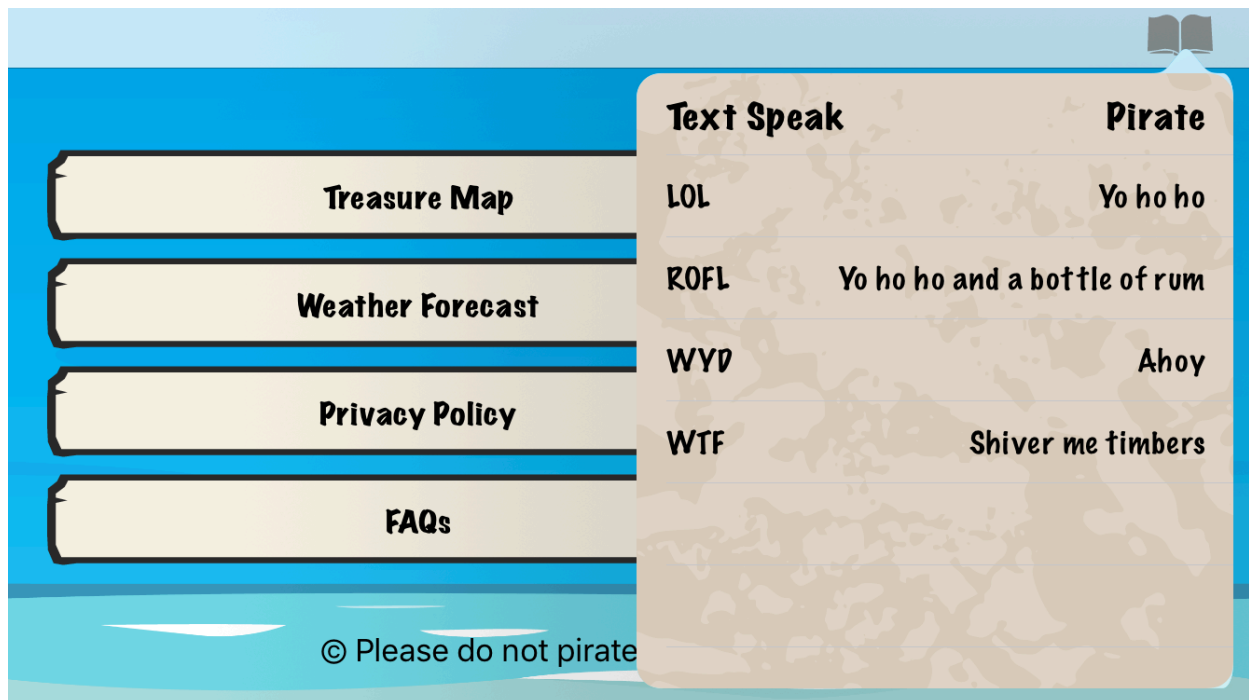
```
modalPresentationStyle = .popover
popoverPresentationController?.delegate = self
```

The order of these is important. As you can see the `popoverPresentationController` property is optional. If you don't set the `modalPresentationStyle` to `.popover`, it will be `nil` and you won't be able to assign the delegate. Now with that out of the way, let's control the adaptive style. Add this method to the extension, at the bottom:

```
func adaptivePresentationStyle(for controller:
    UINavigationController, traitCollection:
    UITraitCollection) -> UIModalPresentationStyle {
    return .none
}
```

This code is simple, but what it does is override the default behavior. It basically says that there should be *no* adaptive style for this view controller. So in every case, it will be presented as a popover and not adapt to the environment.

If you build and run, no matter the device or orientation, the dictionary should now present as a popover.



## Limiting the Environment

Now that you have control over that presentation, let's add our own limits to the popover presentation. If we only want it to present as a popover when the vertical size class is regular, but go back to using the modal when the vertical size class is compact, we'd add logic to the `adaptivePresentationStyle` method to accomplish this. Replace the code in that method with the following:

```
if traitCollection.verticalSizeClass == .regular {
    return .none
} else {
    return .fullScreen
}
```

Remember, in this case `.none` means, "don't adapt the presentation, just use

popover". It's important to note that although the `UIModalPresentationStyle` has several choices, the only ones that are valid to return from this method are `fullScreen`, `overFullScreen`, `formSheet`, or `none`.