Collection Views

Hands-On Challenges

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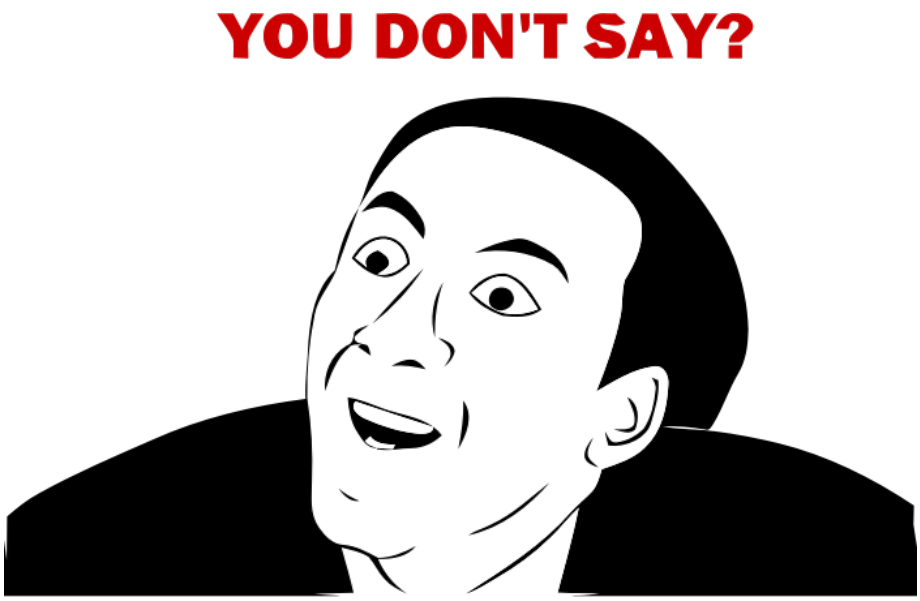
Challenge C: The Four Seasons

In the demo you learnt how to create a custom section header view that displayed the title of the given section by subclassing UICollectionReusableView. It definitely serves it's purpose, but is a touch on the bland side.



What you need to do is inject a little color!

If you open **Images.xcassets** in the **Resources** group you'll notice four images named after each of the four seasons. Your challenge this time is to display the appropriate seasonal image in each section header.

> **Hint**: The images also share their names with the section titles supplied by the data source, and you're already retrieving the title for a given section in `collectionView(_:viewForSupplementaryElementOfKind:atIndexPath:)`. Maybe you could use that?

Before you turn the page for our solution, be sure to give it a try for yourself first!

Solution

Open **SectionHeaderView.swift** from the **Views** group, and add the following IBOutlet property declaration just below the existing one:

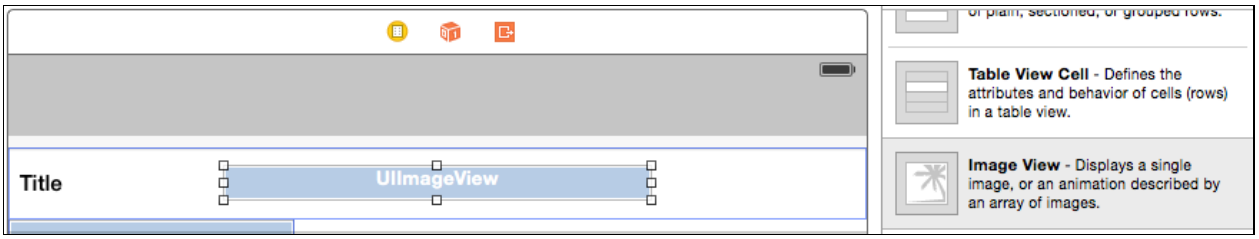
```
@IBOutlet private weak var iconImageView: UIImageView!
```

Then, below the `title` property, declare a second property that'll manage the icon to be displayed:

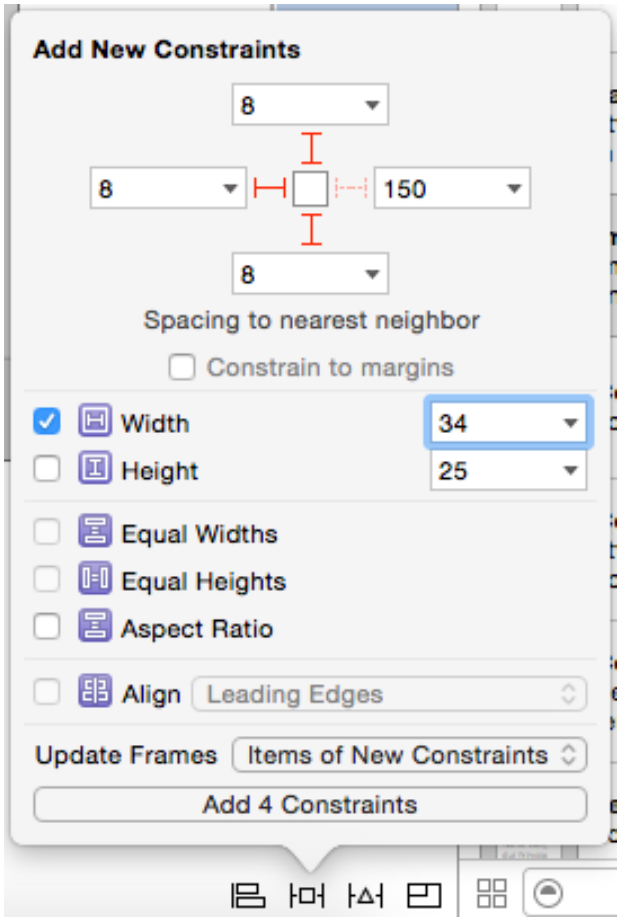
```
var icon: UIImage? {
  didSet {
    iconImageView.image = icon
  }
}
```

Here you also add a property observer which is responsible for updating the image view whenever the icon is set.

Next, open **Main.storyboard** from the **Layout** group and drag an **Image View** from the Object Library onto the section header view in Master View Controller:



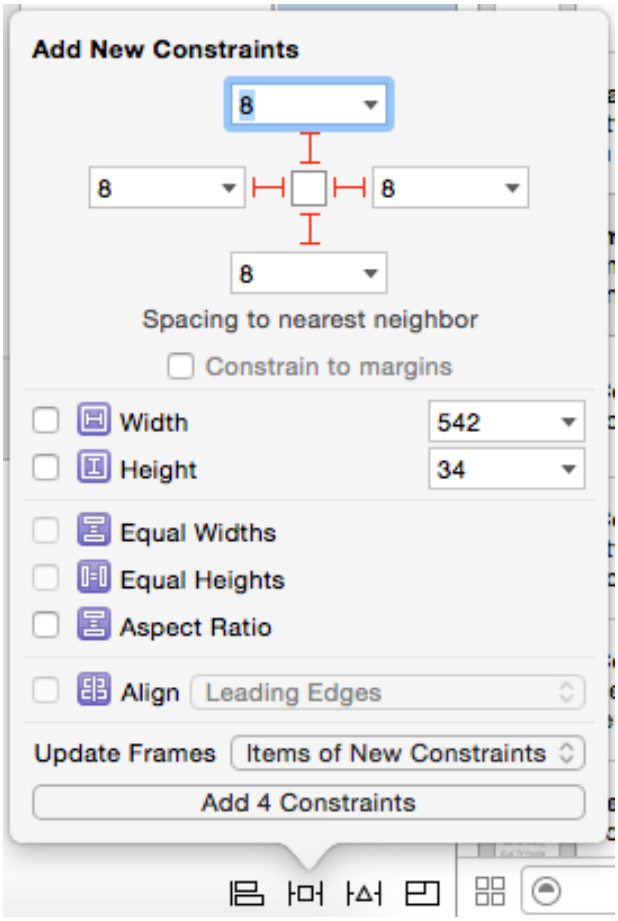
With the image view selected, add the following constraints using the **Pin** button located at the bottom of the storyboard canvas:



Make sure you uncheck **Constrain to margins**, and select **Items of New Constraints** from the Update Frames menu. Click **Add 4 Constraints** to add the constraints.

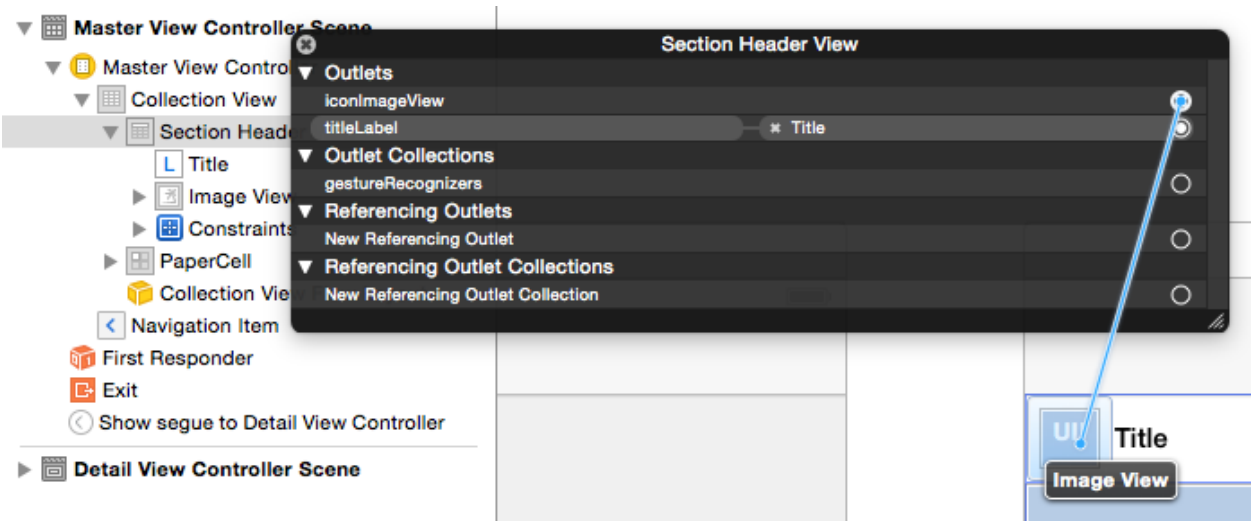
Select the title label in the Document Outline, and then click the **Resolve Auto Layout Issues** button, found to the right of the Pin button (the one that looks like a Tie Fighter). From the popup menu, choose **Clear Constraints** from the Selected Views section. This removes the existing constraints from the title label. You'll now add some new ones that take into account the new image view.

With the title label still selected, open the Size Inspector and set **X** to 50 and **Width** to 542. Then, click the Pin button and add the following new constraints:



Once again, make sure you uncheck **Constrain to margins**, and select **Items of New Constraints** from the Update Frames menu. To wrap this step up, click **Add 4 Constraints** to insert the new constraints.

The final thing you need to do in Interface Builder is to connect the image view outlet you added to `SectionHeaderView` to the image view you just added to the section header. Right-click on Section Header View in the Document Outline and drag from the **iconImageView** outlet in the popup to the **Image View** object in the section header to connect the two:



Finally, open **MasterViewController.swift** and locate `collectionView(_:viewForSupplementaryElementOfKind:atIndexPath:)`. Add the following statement just below where you set the title on the header:

```
sectionHeaderView.icon = UIImage(named: title)
```

Here you're loading an image from the bundled asset catalog that has the same name as the section title, and setting it as the icon on the section header view.

Build and run. You'll find that you custom section headers are now adorned with the relevant season-depicting icon: