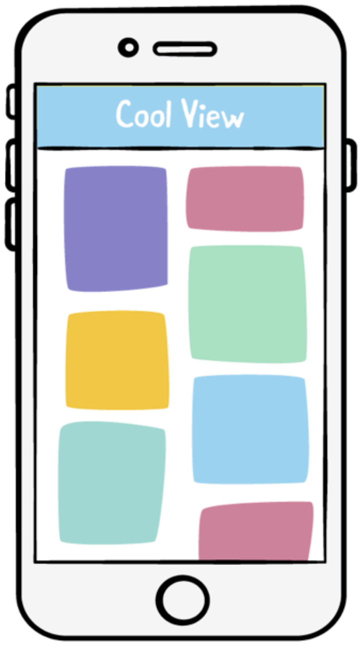
CUSTOM COLLECTION VIEW LAYOUT



HANDS-ON CHALLENGES

Custom Collection View Layout

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Insets and Cell Padding

With the basics of the Mosaic layout setup, how about you give the cells a little elbow room? Even though there are no predefined spacing properties in `UICollectionViewLayout`, we can implement our own.

Hints:

1. Maybe you can add a new `cellPadding` property to `MosaicViewLayout`?
2. You could also inset the content of the collection view.
3. Don't forget to take the inset into account when making calculations.

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

Solution

Open **MosaicViewLayout.swift** and add the following variable to the top of the class with the other properties:

```
var cellPadding: CGFloat = 0
```

The layout will use this property to hold the amount of desired cell padding.

Next, replace the `width` variable definition with this:

```
fileprivate var width: CGFloat {
  get {
    let insets = collectionView!.contentInset
    return collectionView!.bounds.width - (insets.left + insets.right)
  }
}
```

This takes the collection view's `contentInset` into account when returning the width of the collection view.

Now add this line to `prepare()` within the block that is stepping through each item, just after `let frame =...`:

```
let insetFrame = frame.insetBy(dx: cellPadding, dy: cellPadding)
```

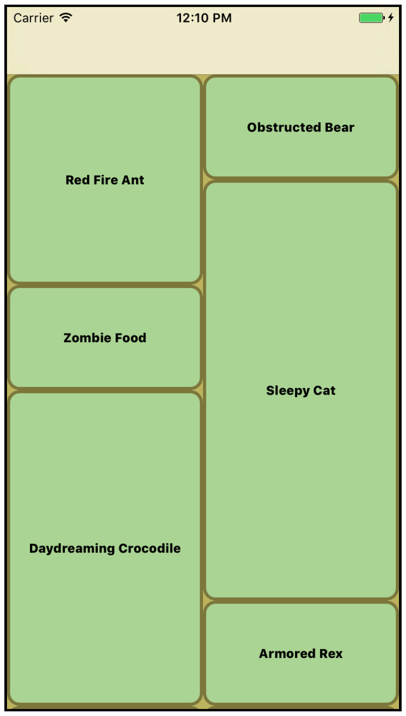
Here you are taking the calculated frame, and adding an inset by the amount of `cellPadding`.

Next, within the same block of code, change the line that sets `attributes.frame` to the following:

```
attributes.frame = insetFrame
```

This passes the new frame defined in `insetFrame` to the attributes frame property.

Build and run.



Oops! We forgot to set the insets and cell padding!

Open **MasterViewController.swift** and add these lines to `viewDidLoad()`:

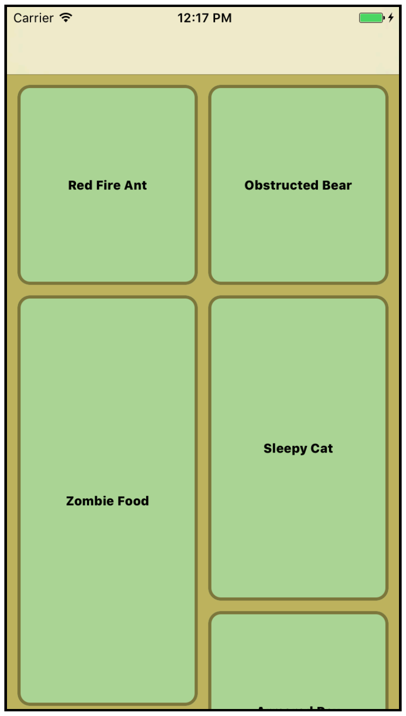
```
collectionView!.contentInset = UIEdgeInsets(top: 5, left: 5, bottom: 10,
  right: 5)

layout.cellPadding = 5
```

The first line insets the overall content so that it appears 5 pixels away from the edges of the screen.

The second line adds 5 pixels of padding so that each cell isn't touching each other.

Now do a build and run.



Now that's more like it!