

UI COLLECTION VIEW

#UICOLLECTIONVIEWKRAKOW

@MACIEJOCZKO

INTRODUCTION

UI!=NS



ios 6

**“UICOLLECTIONVIEW IS THE NEW
UITABLEVIEW. IT'S THAT IMPORTANT.**

NSHipster

“UICOLLECTIONVIEW IS AWESOME!

My Friend

**“THE UICOLLECTIONVIEW CLASS
MANAGES AN ORDERED COLLECTION
OF DATA ITEMS AND PRESENTS THEM
USING CUSTOMIZABLE LAYOUTS.**

Apple

UICOLLECTIONVIEW ALLOWS

- » to have totally custom layout
- » to dynamically change layouts
- » to have interactive transitions between layouts

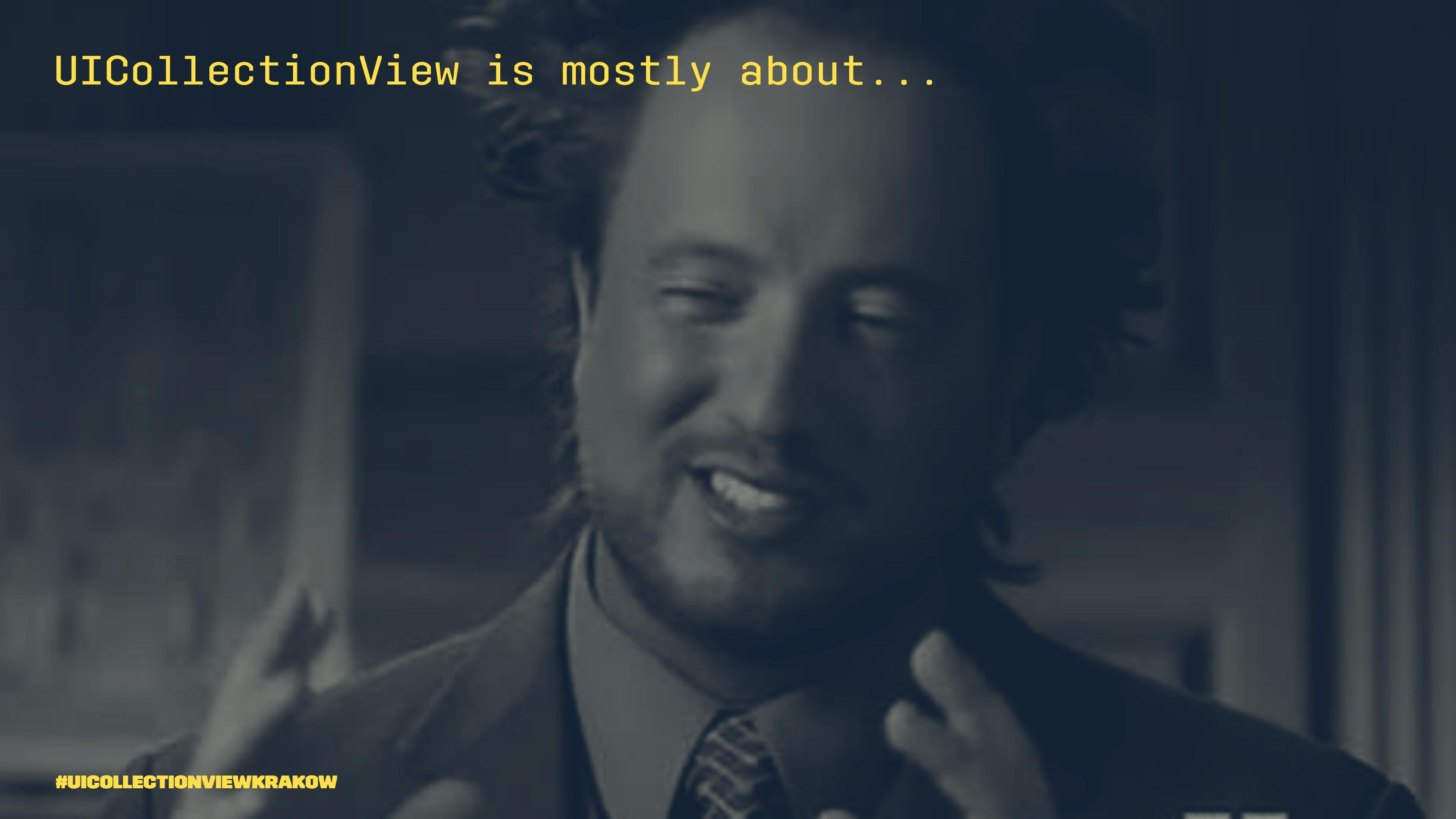
UICOLLECTIONVIEW IS

- » subclass of UIScrollView
- » sibling of UITableView

UICOLLECTIONVIEW ALLOC INIT

- » initWithFrame:collectionViewLayout:
- » UICollectionViewController

UICollectionView is mostly about . . .

A dark, moody portrait of a man with his hand near his face. He has short hair and is wearing a light-colored shirt. The lighting is dramatic, with strong shadows.

#UICOLLECTIONVIEWKRAKOW

GRADS

Explore

Search

All Categories

Popular



Everything



Gifts



Videos



Animals



Architecture



Art



Cars & Motorcycles



Celebrities



Design



DIY & Crafts



Education

Potassium	Europium	Europium	Phosphorus
39.0963	151.964	151.964	30.973762
20	116	25	2
Ca	Lv	Mn	
Calcium	Livermorium	Manganese	
40.078	[293]	54.938045	



My Meals



+ New Meal

OCTOBER 2012

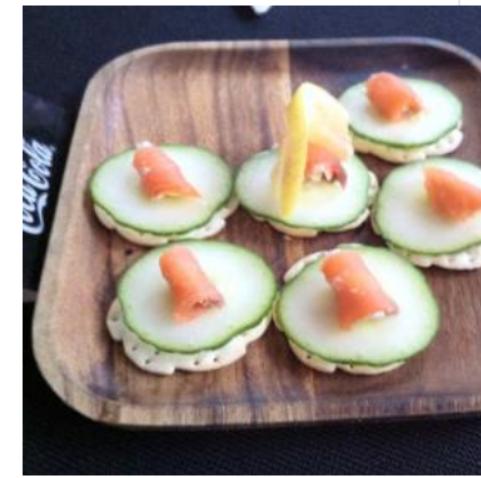
Mediterranean Vegetarian Buffet 10/11

Fadi's Mediterranean Grill



Smoked Salmon Bites 10/6

Astoria Caffe & Wine Bar



Chicken Caesar Salad with Chicken 10/10

la Madeleine Country Fre...



SEPTEMBER 2012

Astoria Salad 9/11

Astoria Caffe & Wine Bar



Boiled Cajun Shrimp 9/2

Flying Fish





Apple Details Special (RED) Shopping Day Gift Card Amounts for Black Friday
100 MacRumors / 2 hours ago

App Store Competitive Index

iPhone 6 Launch Drives Record App Store Downloads in October
100 MacRumors / 3 hours ago

Don't expect to get a virtual Omega, Cartier or other big-name watch face on your Apple Watch
37 9to5Mac / 4 hours ago

New Chase ad for Apple Pay focuses on small businesses, features Jack Antonoff's Bleachers band

Ad Age reports that Chase is running its first TV ad for Apple Pay, focusing on use in small businesses, and featuring Fun lead guitarist Jack Antonoff's side indie band Bleachers. The ad, 23 9to5Mac / 5 hours ago

Chase Launches Apple Pay Ad Campaign Featuring Jack Antonoff's Bleachers and Small Businesses
100 MacRumors / 5 hours ago

App Store Competitive Index

Report: App Store downloads surge to highest ever in October following iPhone 6/6 Plus launch
142 9to5Mac / 5 hours ago



2014

STY

1	2	3	4	5		
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

LUT

1	2					
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28		
					29	30
					31	

MAR

1	2					
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28		
					29	30
					31	

KWI

1	2	3	4	5	6	
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				
			26	27	28	29
			30	31		
					30	

MAJ

1	2	3	4			
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	
			26	27	28	29
			30	31		
					30	

CZE

LIP

1	2	3	4	5	6	
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			
			25	26	27	28
			29	30		
					29	30

SIE

1	2	3	4	5	6	7
8	9	10	11	12	13	14
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31
			25	26	27	28
			29	30		
					29	30

WRZ

PAŹ

1	2	3	4	5		
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		
			24	25	26	27
			28	29	30	31
					29	30

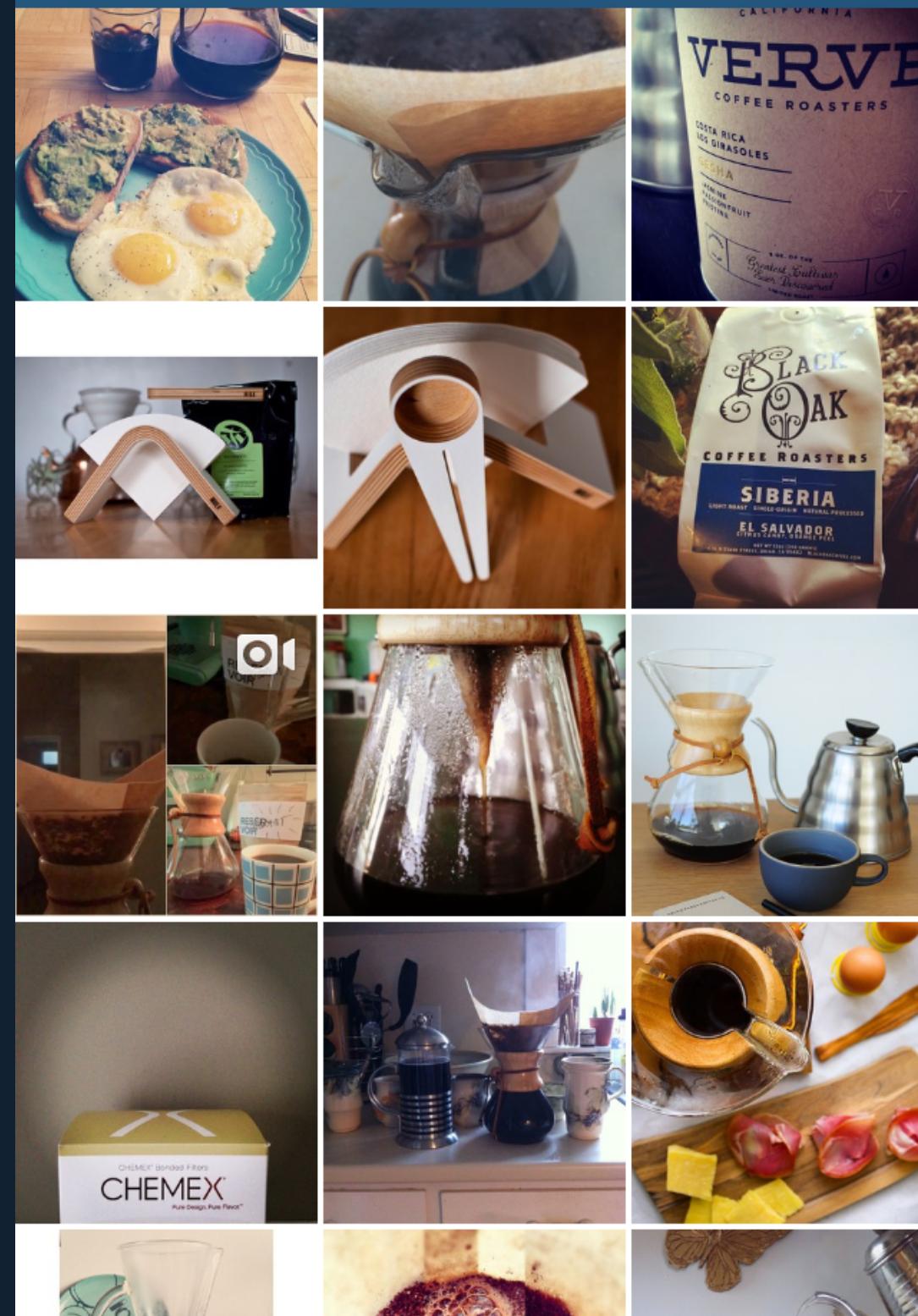
LIS

1	2					
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
			24	25	26	27
			28	29	30	31
					29	30

GRU



#CHEMEX



what is possible. Creat...
1295 51 1

Renee Word.
Powiązany Pin

Edward Ziskin
Mobile UI Design

Powiązany Pin

PRS Guitars Private Stock

David James guitars

Inspirational Patterns that can be interpreted by #SICIS The Art Mos...

Aleksandra Szewc Ephemeral

#UICOLLECTIONVIEWKRAKOW

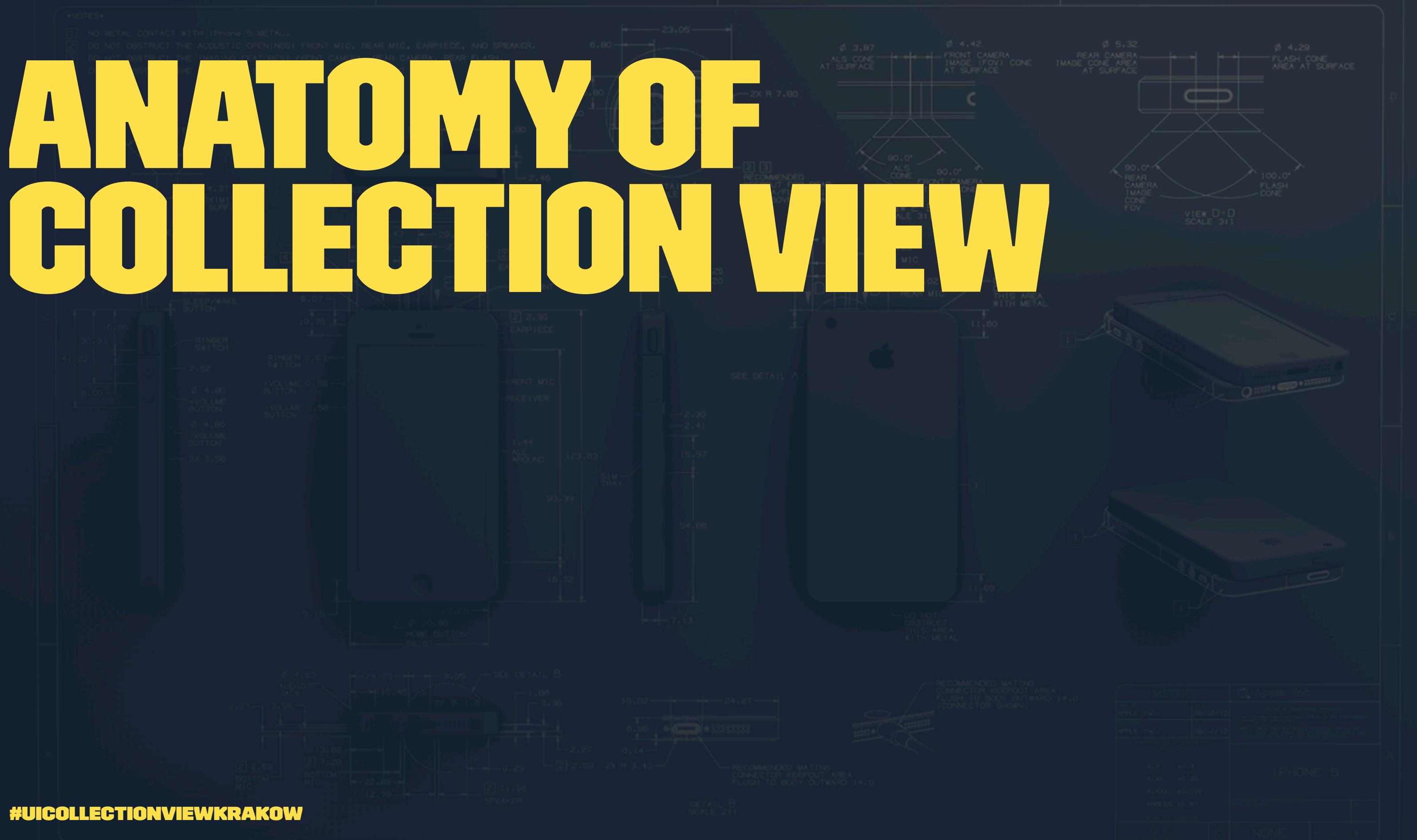
A PRS Guitars Private Stock guitar with a unique, swirling wood grain finish.

An aerial photograph of a person swimming in clear, turquoise-blue water with a visible grid pattern on the ocean floor.

A photograph of a modern interior space featuring recessed ceiling lights and hanging decorations.

ANATOMY OF COLLECTION VIEW



CELL SUPPLEMENTARY VIEW DECORATION VIEW

CELL FOR ITEM

- » Tied to content
- » No predefined style
- » New way of creation
- » UICollectionViewCell subclass

SUPPLEMENTARY VIEW

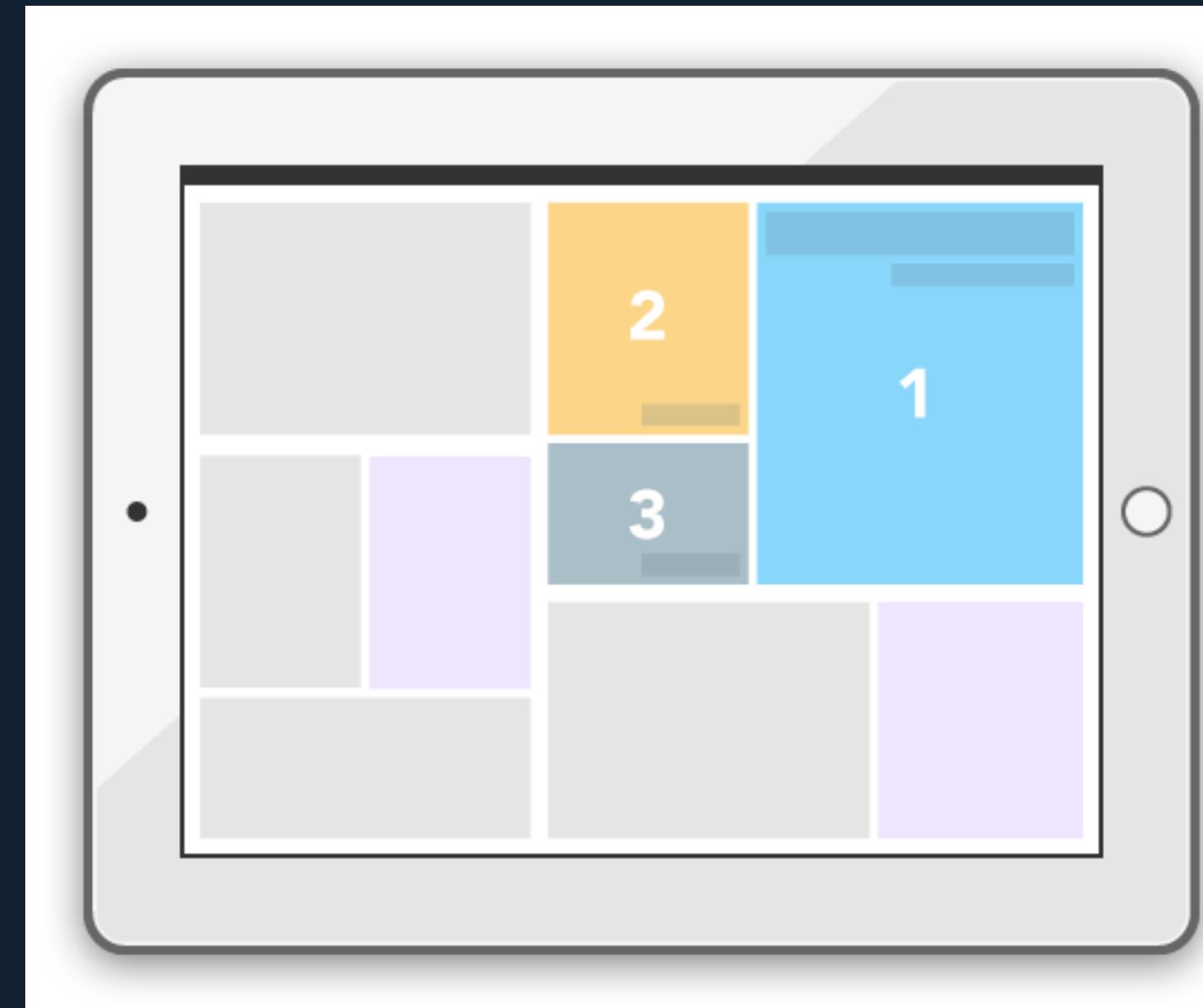
- » Tied to content but separate from cells
- » Driven by section data
- » View of a kind
- » UICollectionViewReusableView subclass

DECORATION VIEW

- » Not tied to content
- » Created in layout subclass
- » UICollectionViewReusableView subclass

LAY YOU OUT

LAYOUT: POSITION



LAYOUT: ANIMATIONS & TRANSITIONS

Listopad 2014



HOW TO CREATE CUSTOM LAYOUT?

DERIVE FROM UICOLLECTIONVIEWLAYOUT

override methods

collectionViewContentSize

layoutAttributesForElementsInRect:

layoutAttributesForItemAtIndexPath:

layoutAttributesForSupplementaryViewOfKind:atIndexPath:

layoutAttributesForDecorationViewOfKind:atIndexPath:

shouldInvalidateLayoutForBoundsChange:

OVERRIDE EVEN MORE...

prepareForCollectionViewUpdates:

initialLayoutAttributesForAppearingItemAtIndexPath:

initialLayoutAttributesForAppearingSupplementaryElementOfKind:atIndexPath:

initialLayoutAttributesForAppearingDecorationElementOfKind:atIndexPath:

finalLayoutAttributesForDisappearingItemAtIndexPath:

finalLayoutAttributesForDisappearingSupplementaryElementOfKind:atIndexPath:

finalLayoutAttributesForDisappearingDecorationElementOfKind:atIndexPath:

finalizeCollectionViewUpdates

ATTRIBUTES¹

Object that manages the layout-related attributes for a given item.

¹ UICollectionViewLayoutAttributes

ATTRIBUTES¹

- » frame, center, size
- » alpha, hidden
- » zIndex
- » transform 3D

¹ UICollectionViewLayoutAttributes

LAYOUT: RECAP

- » positioning
- » animations & transitions
- » subclassing
- » UICollectionViewLayoutAttributes

DATA SOURCE DELEGATE

DELEGATE

- » Selection & highlight tracking callbacks
- » Tracking the removal of views
- » Layout transition callback
- » Menu actions callbacks

DATA SOURCE

- `(NSInteger)numberOfSectionsInCollectionView:(UICollectionView *)collectionView`
- `(NSInteger)collectionView:(UICollectionView *)collectionView
numberOfItemsInSection:(NSInteger)section`
- `(UICollectionViewCell *)collectionView:(UICollectionView *)collectionView
cellForItemAtIndexPath:(NSIndexPath *)indexPath`
- `(UICollectionViewReusableView *)collectionView:(UICollectionView *)collectionView
viewForSupplementaryElementOfKind:(NSString *)kind
atIndexPath:(NSIndexPath *)indexPath`

DATA SOURCE

- `(NSInteger)collectionView:(UICollectionView *)collectionView
numberOfItemsInSection:(NSInteger)section`
- `(UICollectionViewCell *)collectionView:(UICollectionView *)collectionView
cellForItemAtIndexPath:(NSIndexPath *)indexPath`

collectionView:cellForItemAtIndexPath:

```
MyCell *cell = [collectionView dequeueReusableCellWithReuseIdentifier:@"MY_CELL_ID"];
if (!cell) {
    cell = . . .
}
// Configure the cell's content
return cell;
```

collectionView:cellForItemAtIndexPath:

```
MyCell *cell = [collectionView dequeueReusableCellWithIdentifier:@"MY_CELL_ID"  
               forIndexPath:indexPath];  
// Configure the cell's content  
return cell;
```

VIEW CLASS REGISTRATION

```
[collectionView registerClass:[MyCell class]
    forCellReuseIdentifier:@"MY_CELL_ID"]
```

```
[collectionView registerClass:[MySupView class]
    forSupplementaryViewOfKind:@"MY_KIND"
    withReuseIdentifier:@"MY_CELL_ID"]
```

```
[collectionView registerClass:[MyDecoView class]
    forDecorationViewOfKind:@"MY_KIND"]
```

Popular



Editors



Upcoming



Fresh



Market



Search



You

FLOW LAYOUT

#UICOLLECTIONVIEWKRAKOW

FLOW LAYOUT³

- » Line oriented
- » Grid or group of lines
- » Predefined supplementary views: header & footer

³ UICollectionViewFlowLayout

FLOW LAYOUT: CUSTOMIZATION

- » itemsize
- » inter item spacing
- » line spacing
- » scroll direction²
- » reference sizes
- » section insets

² Can't be set through UICollectionViewDelegateFlowLayout delegate.

FLOW LAYOUT



RECAP

UICOLLECTIONVIEW ANATOMY

LAYOUT & ATTRIBUTES

DATA SOURCE & DELEGATE

FLOW LAYOUT

**HTTPS://GITHUB.COM/MOBILE-ACADEMY/
IOS-UICOLLECTIONVIEW-SEED**

TASK

Create simple
CollectionViewController with
flow layout and inject it to
RootViewController as its
content.

```
// AppDelegate.m

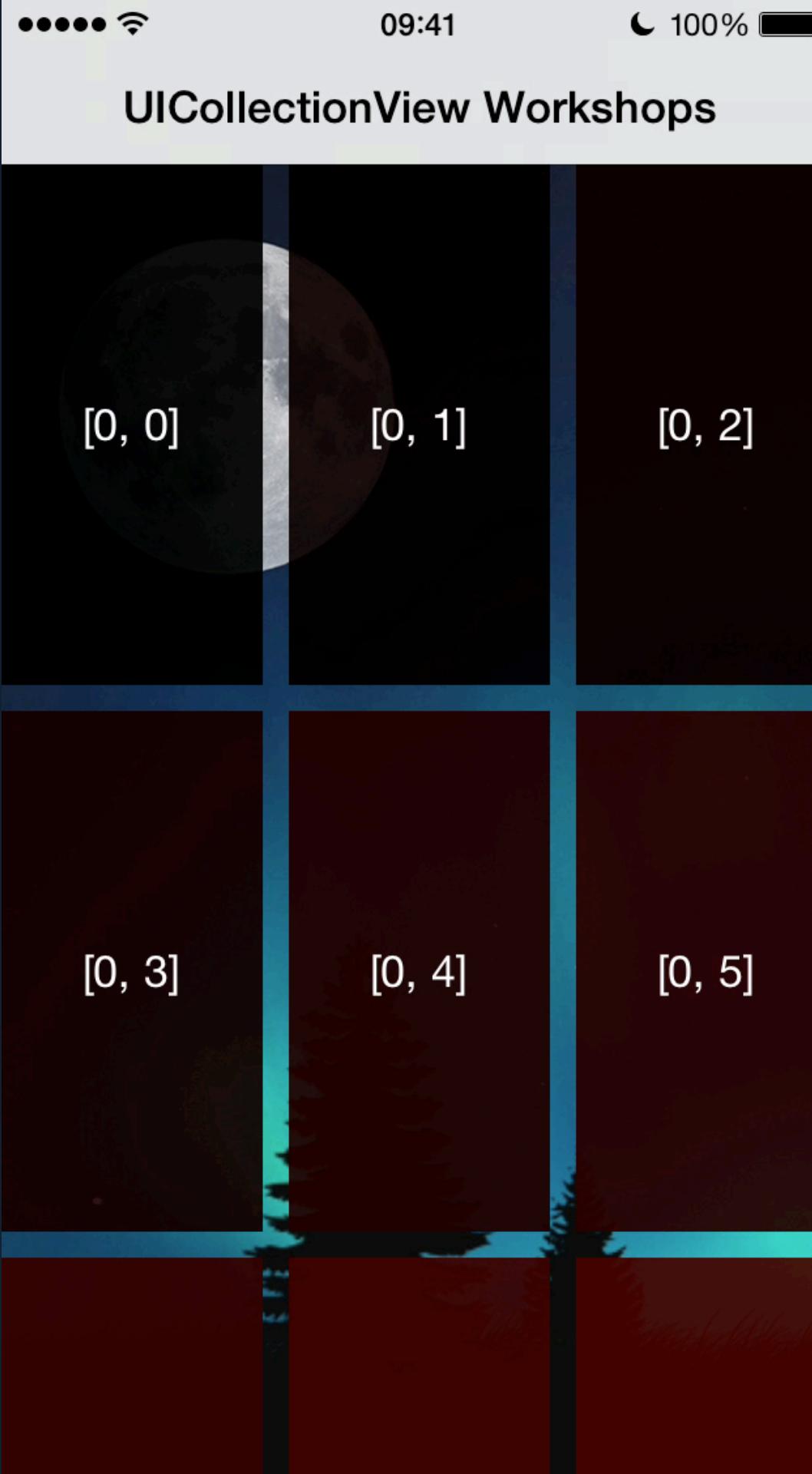
CollectionViewDataSource *dataSource = [CollectionViewDataSource new];

CollectionViewController *cVC =
[[CollectionViewController alloc] initWithDataSource:dataSource];

RootViewController *rootVC =
[[RootViewController alloc] initWithContentController:cVC];

self.window.rootViewController =
[[UINavigationController alloc] initWithRootViewController:rootVC];
```

#UICOLLECTIONVIEWKRAKOW



#UICOLLECTIONVIEWKRAKOW

#UICOLLECTIONVIEWKRAKOW

THANKS!

@MACIEJOCZKO