

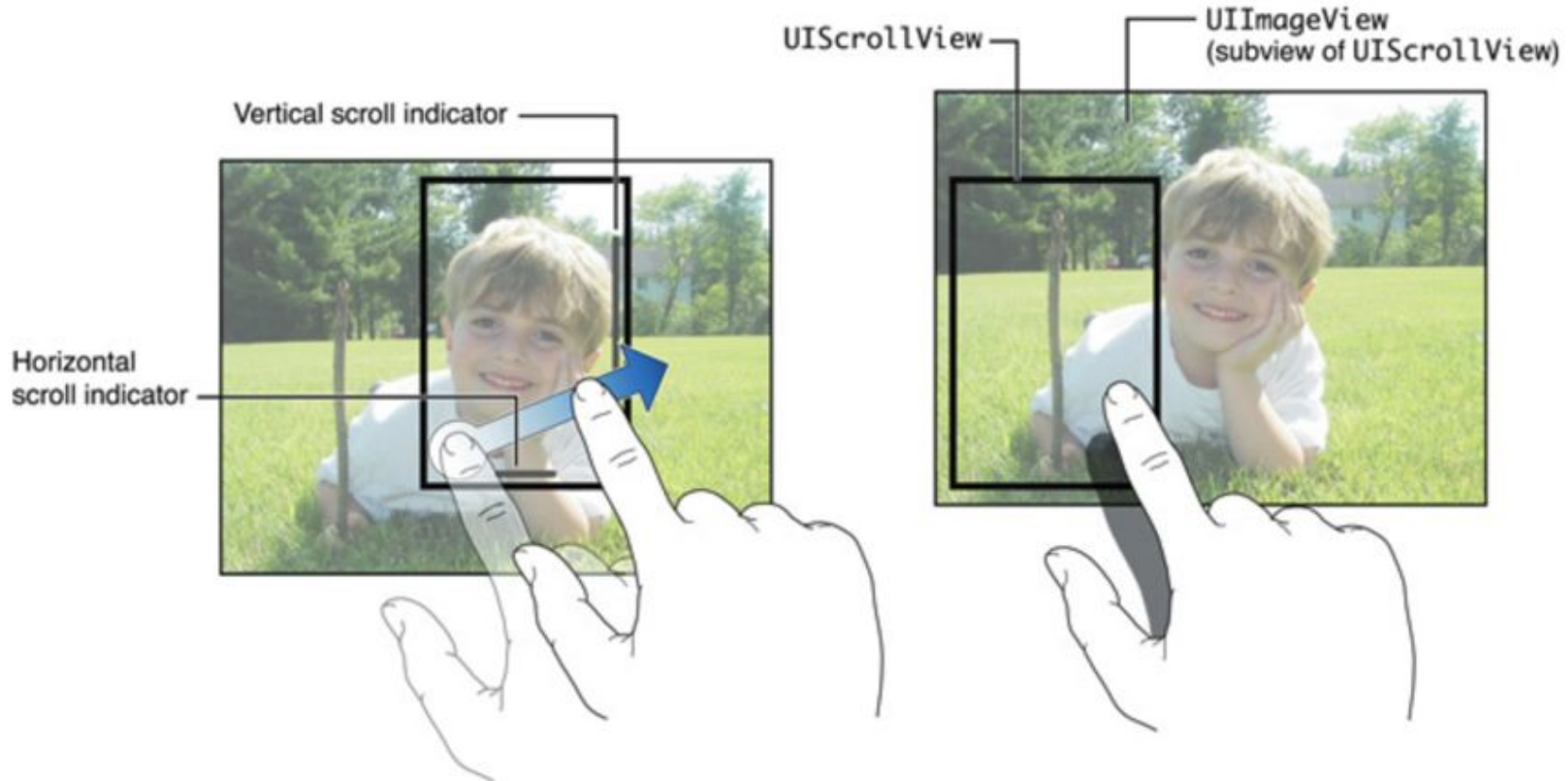
UIScrollView

W3D1

Hello UIScrollView

- "Supports the display of content that does not fit entirely on the screen and enables users to scroll and zoom the content." -- Apple
- UITableView, UICollectionView, etc. subclass it.
- Can be nested.





Scroll indicators are displayed only during the drag process

UIImageView new position

Introduction

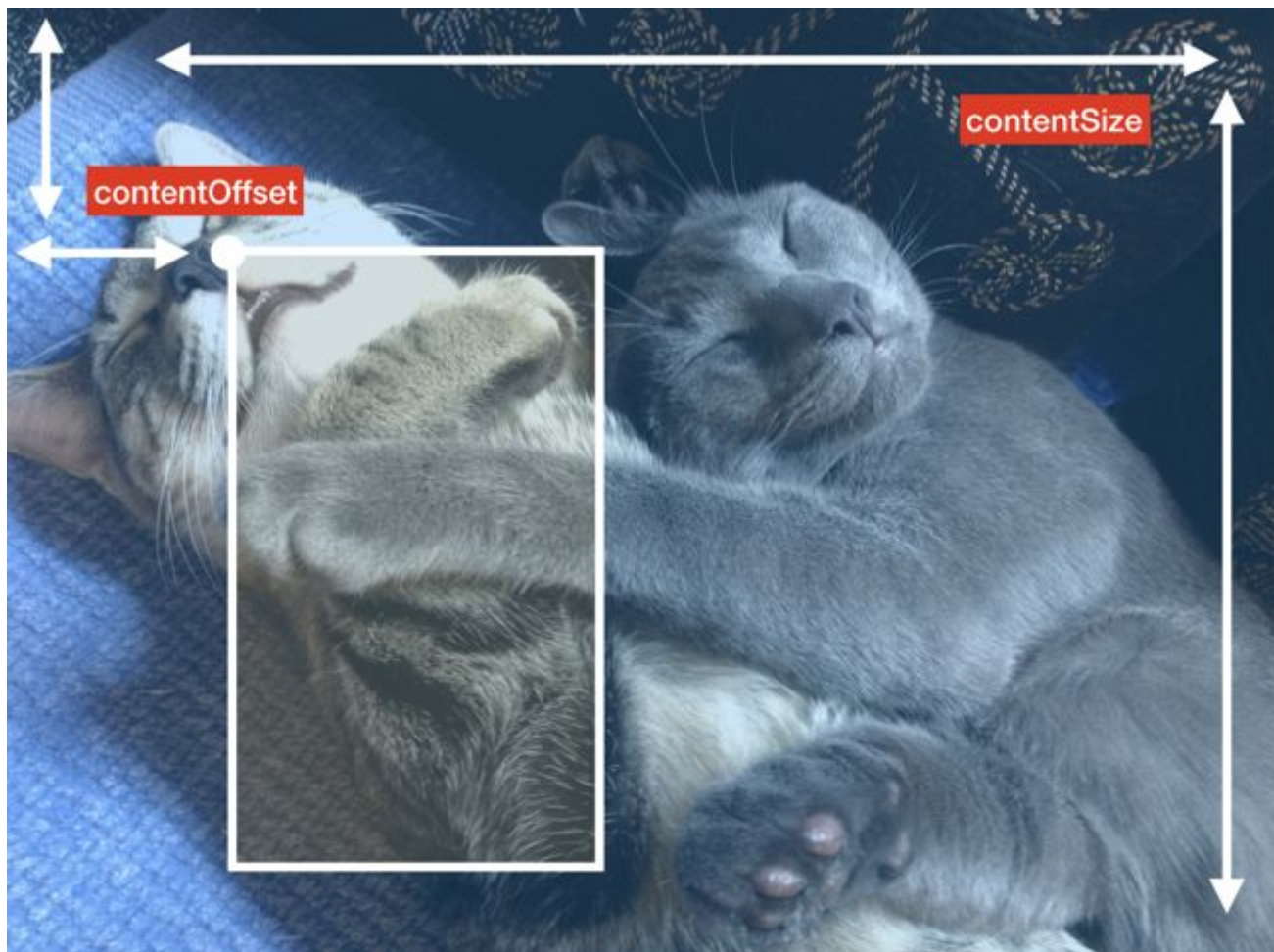
2 primary functions:

1. It allows *panning* (scrolling).
2. Allows zooming using a pinch gesture.

(These gestures are properties)

Creating UIScrollView

- Add UIScrollView (same as any other UIView) as a subview.
- Add any subviews to UIScrollView using frames or AL.
- Must specify the *contentSize* of the UIScrollView.
- *contentSize* is the total size of the scrollable area.
- *contentOffset* is the offset between the origin of the scrollView and the origin of the content area. Can be used to scroll or get scroll position. (bounds origin)



Adding Content

- Add subviews to the scrollview.
- You can add multiple subviews as content or a single subview.
- You can add subviews to a single container view, which is best for handling zooming.

UIScrollViewDelegate

- Use UIScrollViewDelegate for receiving scroll and zoom related callback events.
- - *scrollViewDidScroll*: is called whenever the scrollview scrolled!
- - *scrollViewDidEndDecelerating*: is called when the scrollview stops scrolling.
- Check documentation.

Zooming

- *pinchGestureRecognizer*

Setup Zooming:

1. set *minimumZoomScale* & *maximumZoomScale*.
2. set *delegate*.
3. implement delegate method: - *viewForZoomingInScrollView* & return view to zoom, usually a container view.

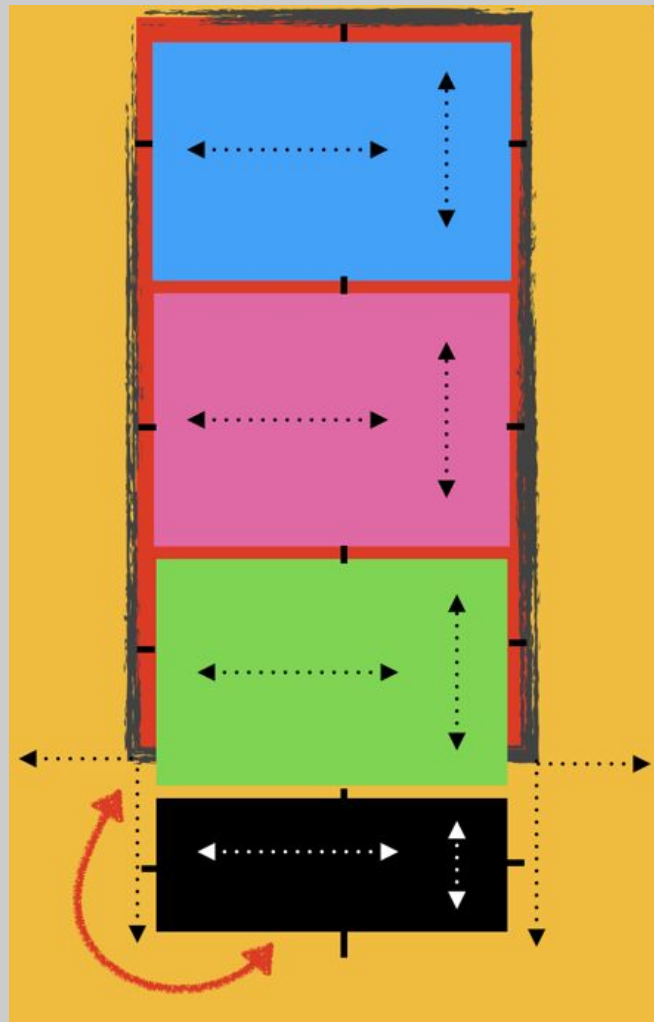
Paging

- UIScrollView can also restrict scrolling to a single page at a time. (Paging)
- E.g. Onboarding tutorial screens.
- *scrollView.pagingEnabled = YES;*
- Vs. UIPageViewController.



Auto Layout

- UIScrollView requires a *contentSize*.
- AL must provide sufficient constraints to compute *contentSize*.
- UIImageView gets intrinsic *contentSize* of its containing image. Just pin it to all sides of scrollview.
- AL must be able to compute the height and width of each size + all views must be pinned to the edges of the scrollview.



Demo

EXAM