Johns Hopkins Engineering

User Experience

Module 3

Gestures

Gestures

- iOS comes with a set of gestures that can be called with specialized API classes

- From an Interface Builder perspective, Gestures are simply additional objects that can be added to your storyboard, can be designated an IBOutlet, and can be assigned an IBAction to define code that executes in response to the gesture

UITapGestureRecognizer

- The simplest gesture that can be made is a tap (or a touch of the screen)

- Can detect 1 or more taps, as long as the gesture recognizer code knows to look for that number

UISwipeGestureRecognizer

- If you want to respond to a swipe – where the finger moves across the screen without coming off the surface – use a UISwipeGestureRecognizer

- The swipe is considered a complete action – there is no tracking of location or speed (see next slide)

UIPanGestureRecognizer

- If you want to respond to a pan (or a drag) – where one or more fingers moves across the screen without coming off the surface – use a UIPanGestureRecognizer

- Translation and velocity information can be retrieved from this gesture recognizer

UIPinchGestureRecognizer

- A pinch is defined as 2 fingers on the screen, moving away from or towards each other

- If the distance between the fingers decreases (they are moving together), that is considered a zoom-out

- If the distance between the fingers increases (they are moving apart), that is a considered a zoom-in

UIRotationGestureRecognizer

- When 2 touches are detected, and they are moved apart from each other in a circular motion, a UIRotationGestureRecognizer is used to respond to the motion.

- Direction and speed can be retrieved from the gesture recognizer

UILongPressGestureRecognizer

- A UILongPressGestureRecognizer looks for one or more fingers pressing on the screen for a minimum amount of time

- While being pressed, the fingers must stay relatively still; otherwise the gesture will fail

UIScreenEdgePanGestureRecognizer

- A UIScreenEdgePanGestureRecognizer is used to handle pan (drag) gestures that start near the edge of the screen

- Usually used to initiate view controller transitions

- Mail.app and Safari.app use this to navigate to previous screens