Gestures

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Gestures

- Interacting with your app by manipulating UI elements on the screen
- Gesture responder system manages the lifecycle of gestures
  - Phases of the touch: scrolling, sliding on a widget, tapping
- Best practices
  - Feedback/highlighting: show what's handling the touch
  - Cancel-ability: aborting an action mid-touch
- Touchable, TouchableHighlight components for easily handling tapping

PanResponder

- Reconciles several touches into a single gesture
- Makes single-touch gestures resilient to extra touches
- Can recognize simple multi-touch gestures
- Predictable wrapper of the responder handlers provided by the gesture responder system
  - Native event and gestureState provided as parameters to handlers: (event, gestureState) => { . . . }

PanResponder Gesture State

- stateID - ID of the gestureState- persisted as long as there at least one touch on screen
- moveX - the latest screen coordinates of the recently-moved touch
- moveY - the latest screen coordinates of the recently-moved touch
- x0 - the screen coordinates of the responder grant
- y0 - the screen coordinates of the responder grant
- dx - accumulated distance of the gesture since the touch started
- dy - accumulated distance of the gesture since the touch started
- vx - current velocity of the gesture
- vy - current velocity of the gesture
- numberActiveTouches - Number of touches currently on screen

PanResponder Handlers

- Ask to be the responder:
  - onStartShouldSetPanResponderCapture
  - onMoveShouldSetPanResponder
  - onMoveShouldSetPanResponderCapture
- Gesture started:
  - onPanResponderGrant
  - onPanResponderMove

PanResponder Handlers

- User released all touches:
  - onPanResponderTerminationRequest
  - onPanResponderRelease
  - onPanResponderTerminate