

Practical 4

Introduction to Gestures

Introduction

- *Gestures* are primarily a way for a user to interact with a mobile (or any touch based device) application.
- Gestures are generally defined as any physical action / movement of a user in the intention of activating a specific control of the mobile device.
- Gestures are as simple as tapping the screen of the mobile device to more complex actions used in gaming applications.

Some of the widely used gestures

- **Tap** – Touching the surface of the device with fingertip for a short period and then releasing the fingertip.
- **Double Tap** – Tapping twice in a short time.
- **Drag** – Touching the surface of the device with fingertip and then moving the fingertip in a steady manner and then finally releasing the fingertip.
- **Flick** – Similar to dragging, but doing it in a speedier way.
- **Pinch** – Pinching the surface of the device using two fingers.
- **Spread/Zoom** – Opposite of pinching.

Panning – Touching the surface of the device with fingertip and moving it in any direction without releasing

Gesture Detector

- Flutter provides an excellent support for all type of gestures through its exclusive widget, **GestureDetector**.
- GestureDetector is a non-visual widget primarily used for detecting the user's gesture.
- To identify a gesture targeted on a widget, the widget can be placed inside GestureDetector widget.

GestureDetector will capture the gesture and dispatch multiple events based on the gesture

Gestures and the corresponding events

- Tap
 - onTapDown
 - onTapUp
 - onTap
 - onTapCancel
- Double tap
 - onDoubleTap
- Long press
 - onLongPress
- Vertical drag
 - onVerticalDragStart
 - onVerticalDragUpdate
 - onVerticalDragEnd
- Horizontal drag
 - onHorizontalDragStart
 - onHorizontalDragUpdate
 - onHorizontalDragEnd
- Pan
 - onPanStart
 - onPanUpdate