

Canvas Pro: Jetpack Compose Drawing App

A lightweight, high-performance drawing application for Android built entirely with **Jetpack Compose**. It demonstrates how to handle complex touch gestures and real-time path rendering on a Canvas.

Features

- **Freehand Drawing:** Smooth, low-latency drawing using the `detectDragGestures` API.
 - **Dynamic Toolset:** * **Color Palette:** Choose between multiple vibrant colors.
 - **Adjustable Brush:** Slider-controlled stroke width (5f to 80f).
 - **Undo Support:** Quickly remove the last stroke.
 - **Clear Canvas:** Reset the drawing board with one tap.
 - **Polished Rendering:** Uses `StrokeCap.Round` and `StrokeJoin.Round` to ensure lines look professional and smooth.
-

Technical Breakdown

The app utilizes a state-driven architecture to manage drawing data:

1. **Data Persistence:** A `DrawLine` data class stores the specific Path, Color, and `strokeWidth` for every individual stroke.
 2. **Gesture Detection:** * `onDragStart`: Initializes a new Path at the touch coordinate.
 - `onDrag`: Updates the path using `lineTo` as the finger moves.
 - `onDragEnd`: Finalizes the current stroke.
 3. **State Management:** Uses `mutableStateListOf` to track all lines, ensuring the UI recomposes efficiently when a new line is added or undone.
-

Getting Started

1. **Clone the repo:**

Bash

```
git clone https://github.com/[your-username]/CanvasPro.git
```

2. **Open in Android Studio:** Ensure you are using the latest version of Ladybug or newer for full Compose support.

3. **Sync & Run:** Deploy to an emulator or physical device running **Android 5.0 (API 21)** or higher.