An Introduction to Flutter

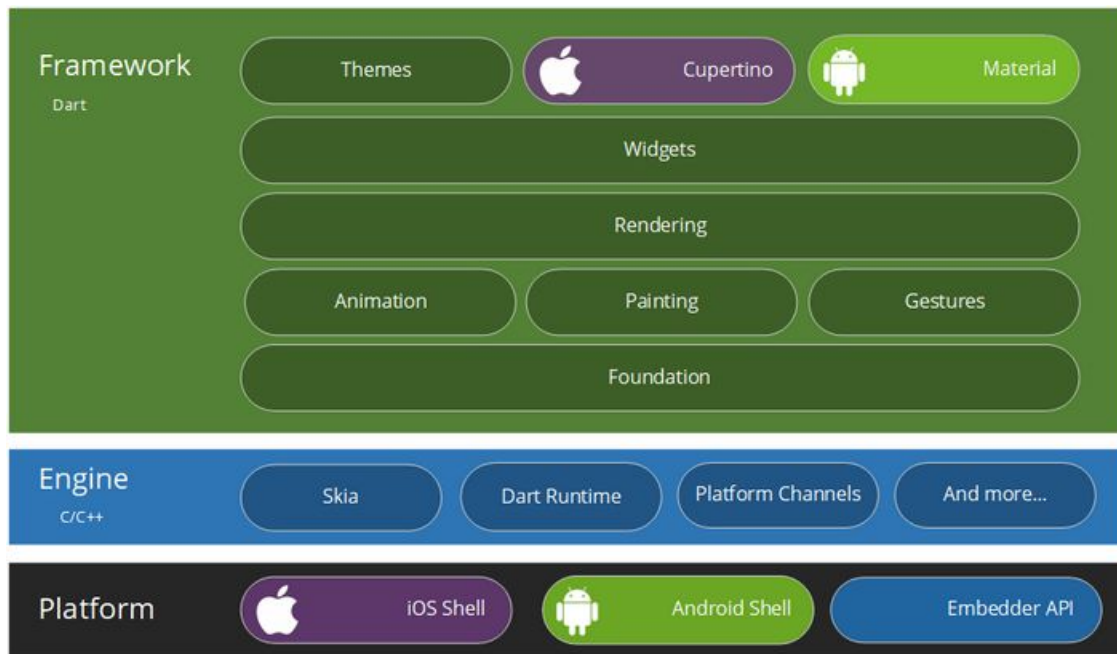Guy Starner, ghstarner@gmail.com,
@ghstarner

What is Flutter?

"Google's UI toolkit for building beautiful, natively compiled applications for mobile, web and desktop from a single codebase."

Flutter Essential Features

1. Fast - 60 fps, AOT compilation, draws all widgets

2. Productive - Single codebase, hot reload

3. Pretty - large collection of iOS and Android widgets including animations

4. Unified object model - everything's a widget, uses composition

5. Dart-based - Simple OO language

Flutter Architecture

https://github.com/flutter/flutter/wiki/The-Engine-architecture

Dart Essential Features

1. C++/Java-like syntax - control constructs, operators, etc.

2. Generic types and list, map, and set collections

3. OO with inheritance, interfaces, abstract classes/methods, public/private visibility, operator overloading

4. First class functions including keyword and positional parameters, default values, anonymous functions, closures

5. Asynchronous support including async, await, futures, streams, isolates (i.e., actors)

For Further Information

- Dart Language Tour - https://dart.dev/guides/language/language-tour

- Flutter website - https://flutter.dev/

- Flutter Youtube Channel

- Flutter on Medium - https://medium.com/flutter,

  https://medium.com/flutter-community

- "Practical Flutter: Improve your Mobile Development with Google's Latest Open-Source SDK," Frank Zammetti, July 19, 2019.

- Udemy class - Learn Flutter & Dart to Build iOS & Android Apps ($11.99)

- Udacity class - Build Native Mobile Apps with Flutter