Flutter on the Web and Desktop
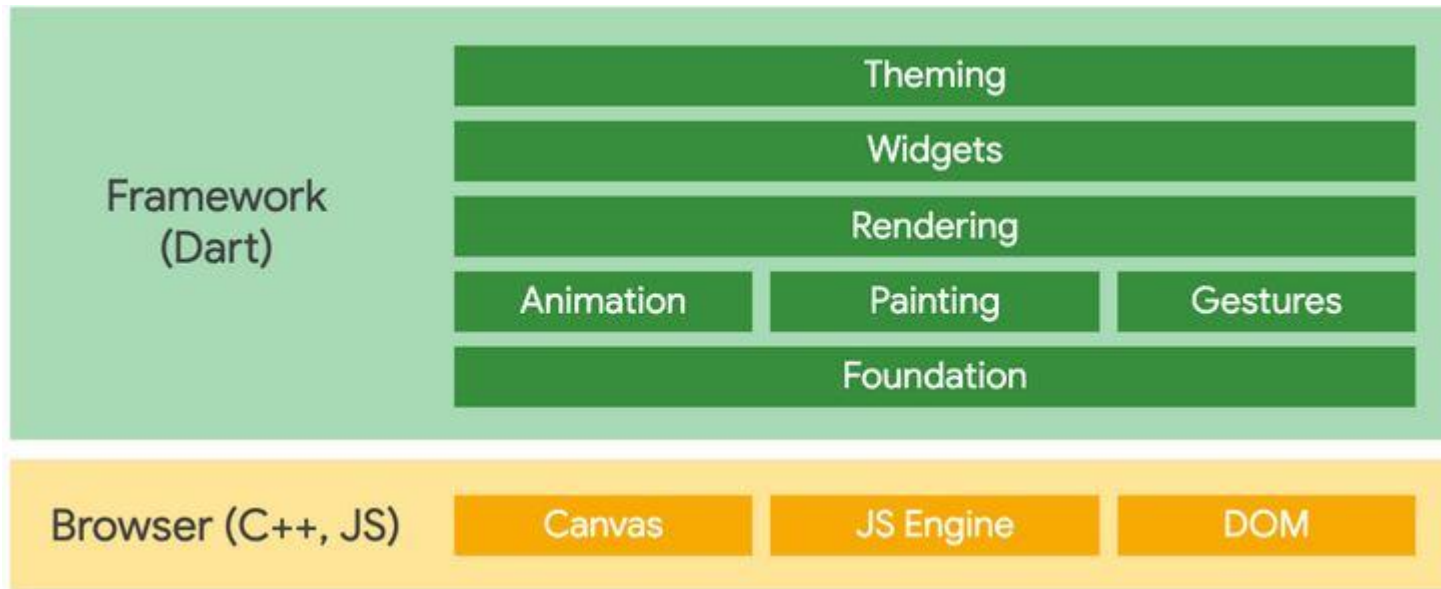
Guy Starner, ghstarner@gmail.com,
@ghstarner, github.com/ghstarner

Flutter Web Architecture

Setting up a web app

 # Install Chrome

$ flutter channel beta

$ flutter upgrade

$ flutter config --enable-web

 # Create web app in IDE or using flutter command line

$ flutter run -d chrome   # or choose device in IDE and run

Web Limitations

1. Must use Chrome to debug. (Can use "web-server" device too.)

2. Hot reload does not work.

3. May have CORS (Cross Origin Resource Sharing) errors that have to be fixed on web server.

4. Code size at least 300 KB

5. Plugin/package support is limited. (Filter on "web" on pub.dev.

6. File IO and copy/paste do not work (latter works on mobile web).

7. Accessibility supported only on mobile web. Working on desktop web.

Setting up a desktop app

$ sudo apt install clang

$ flutter channel master

$ flutter upgrade

$ flutter config --enable-linux-desktop

$ flutter precache --linux

$ git clone https://github.com/google/flutter-desktop-embedding.git

$ cd flutter-desktop-embedding/example   # or open "example" in an IDE

 # Update pubspec.yaml with any packages your app uses

 # Replace lib/main.dart with your .dart files and add

 #   1. import 'package:flutter/foundation.dart' show debugDefaultTargetPlatformOverride;

 #   2. debugDefaultTargetPlatformOverride = TargetPlatform.fuchsia;

$ flutter run   # or run from IDE

Desktop Limitations

1.   Very few plugins available. (Plugin API is still in flux.)

2.   Need to reclone flutter-desktop-embedding-project when flutter changes.

3.   Only debug mode is currently supported.

4.   Need to add fonts to pubspec.yaml.

5.   Need to override target platform.

6.   Native features may not work, e.g., copy/paste, io (?)

For Further Information

- Flutter on the Web
  - Official Directions - https://flutter.dev/docs/get-started/web
  - Beta announcement -
    https://medium.com/flutter/web-support-for-flutter-goes-beta-35b64a1217c0
- Flutter on the Desktop
  - MacOS only - https://flutter.dev/desktop
  - Official Directions for Linux/Windows -- https://github.com/flutter/flutter/wiki/Desktop-shells
  - How to (Use "flutter config --enable-linux-desktop" instead of setting
    ENABLE_FLUTTER_DESKTOP)
    https://medium.com/flutter-community/flutter-for-desktop-create-and-run-a-desktop-application
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