

INTRODUCTION TO FLUTTER

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GDG Ghardaia

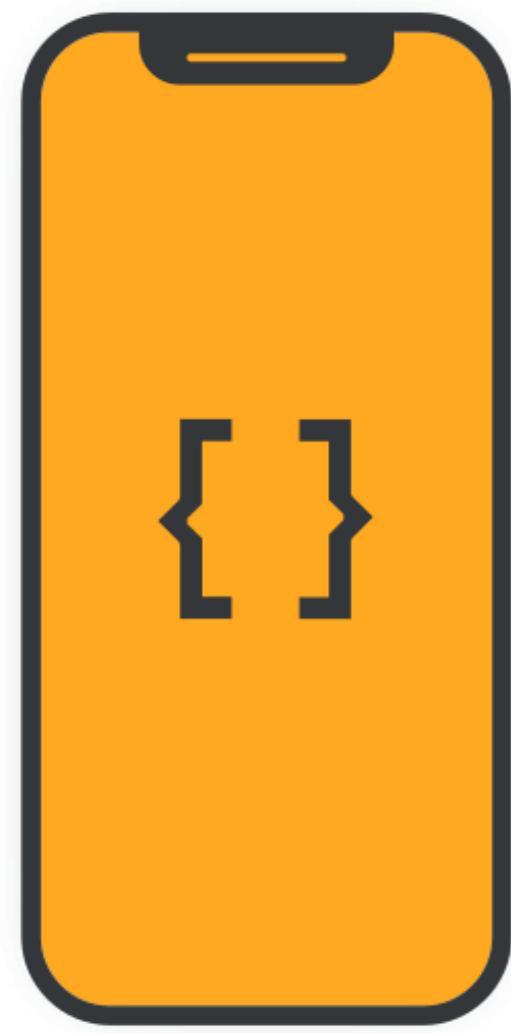
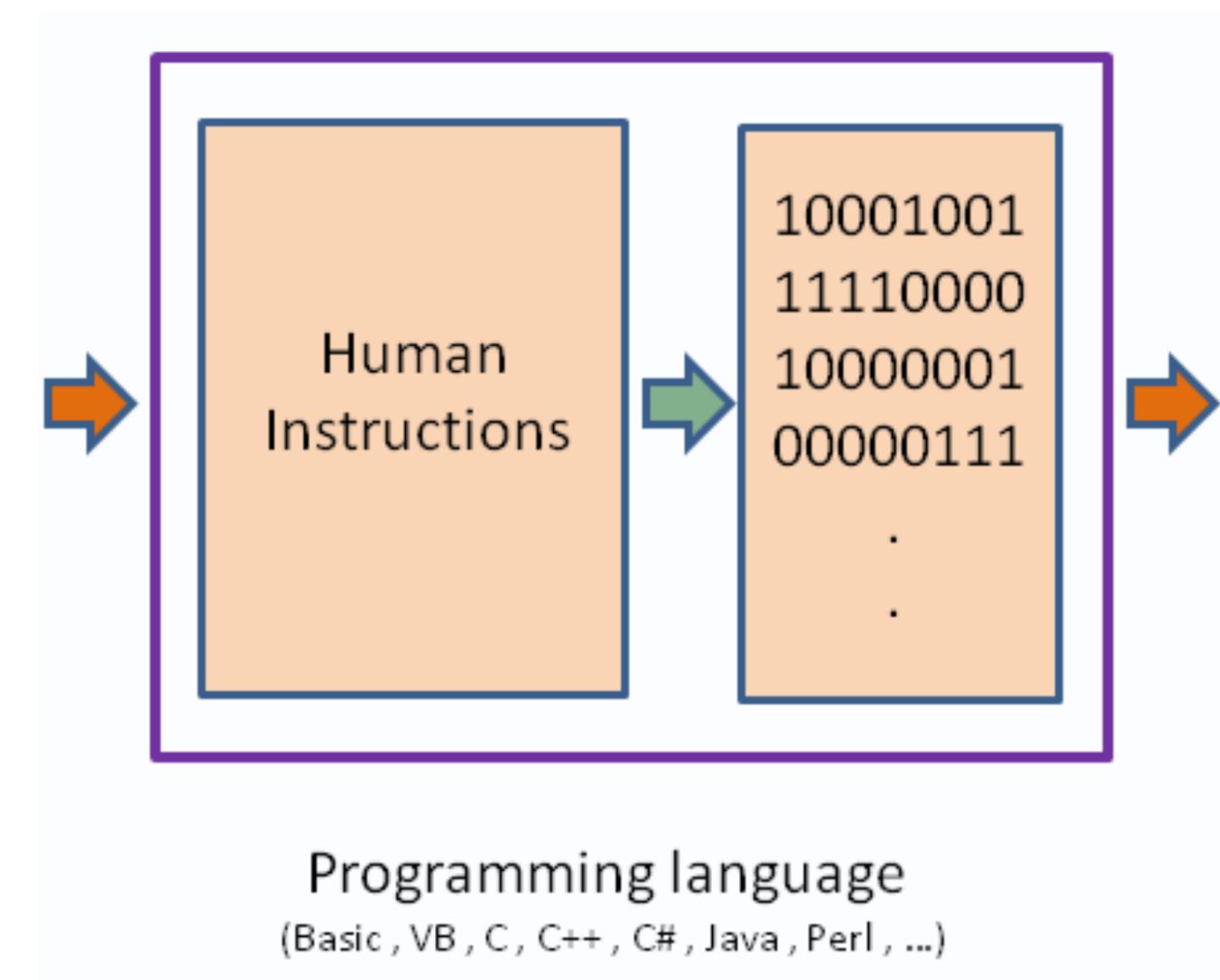


INTRODUCTION

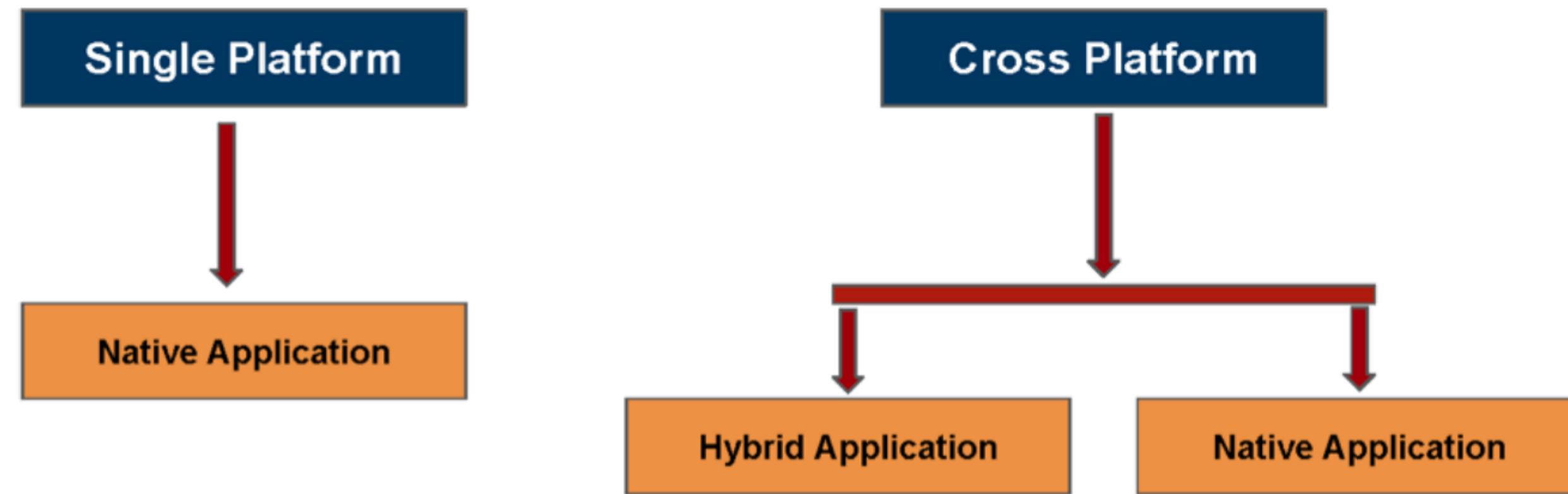
INTRODUCTION



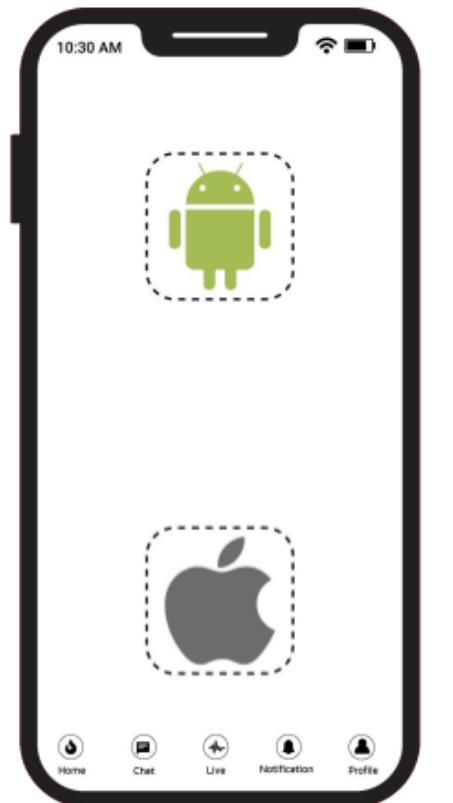
Problem



TYPES OF MOBILE DEVELOPMENT



NATIVE APPROACH (SINGLE PLATFORM)

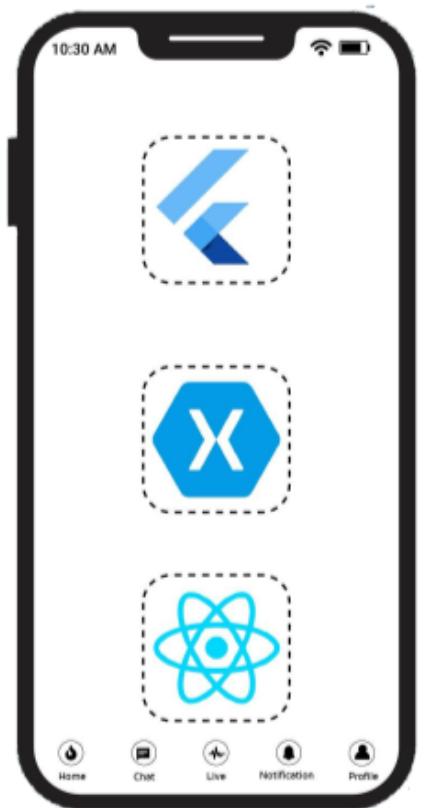


Java
Kotlin
Swift
Objective-c

CROSS-PLATFORM APPROACH (HYBRID)



CROSS-PLATFORM APPROACH



Google Flutter
Dart



C#



NativeScript
JavaScript

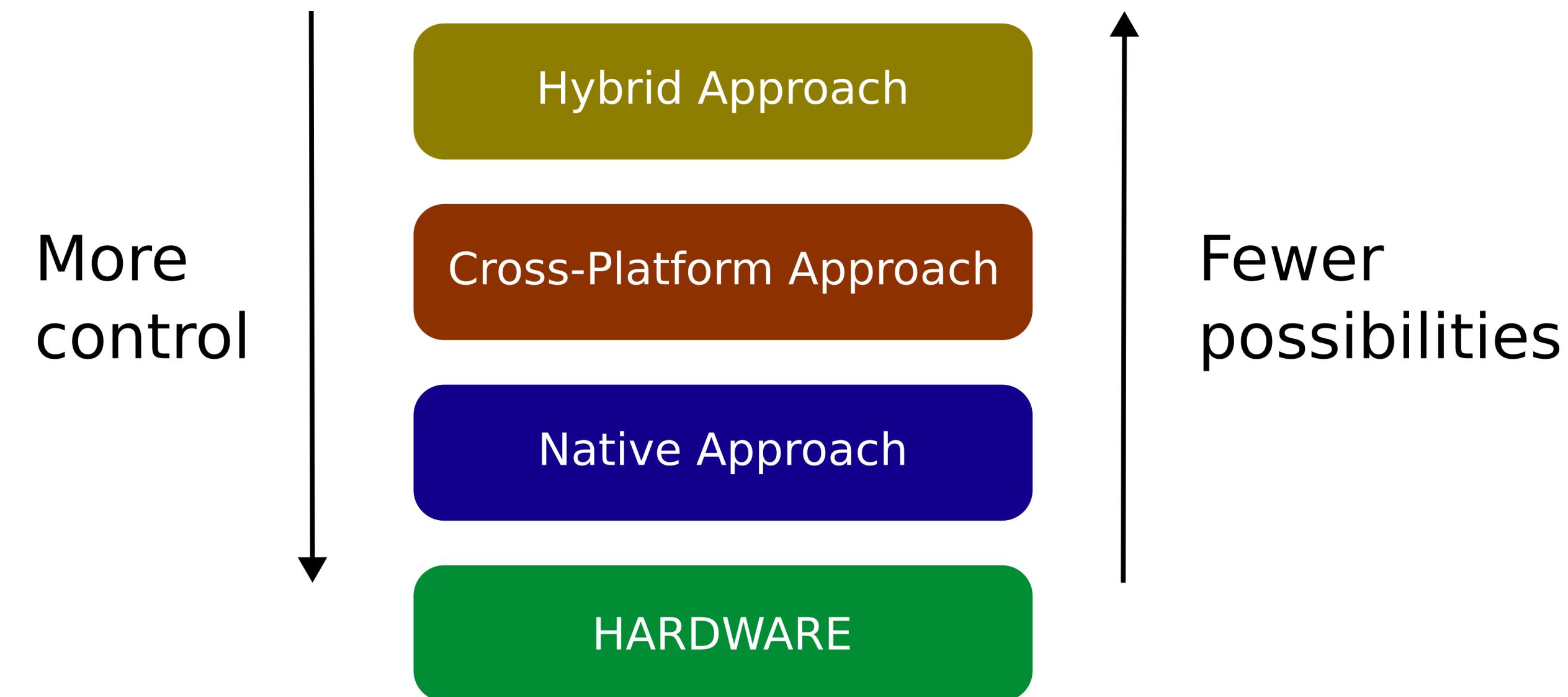


JavaScript



JavaScript

NATIVE APPROACH VS CROSS-PLATFORM APPROACH

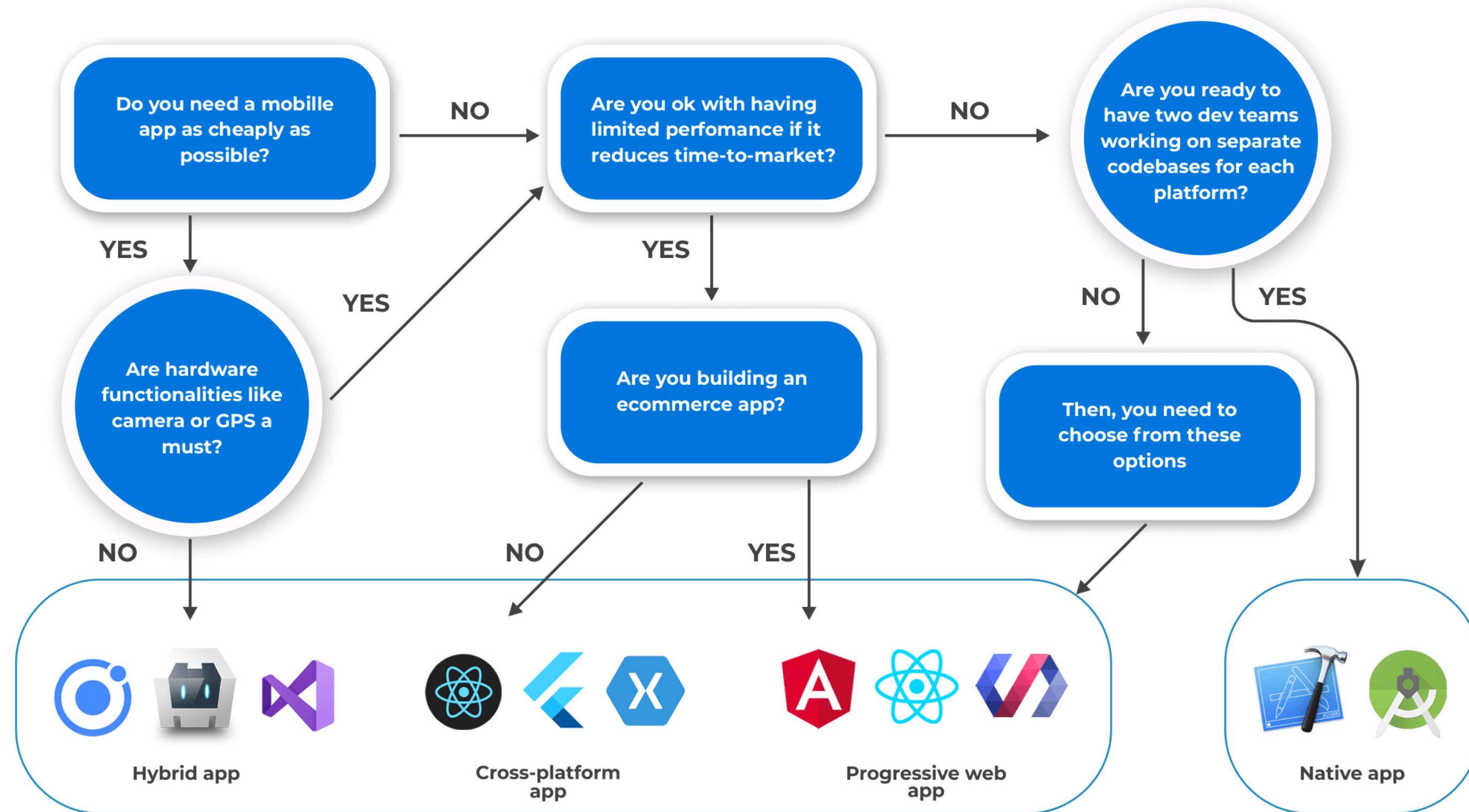


HOW DO YOU CHOOSE THE RIGHT TECHNOLOGY?

SELECTION CRITERIA AS A DEVELOPER

- The Community: How big and active is it?
- Documentation: how well structured is it?
- Prior experience in programming language
- Tutorials and Trainings
- Who is using this technology?

CHOOSE A DEV APPROACH FOR YOUR MOBILE APP

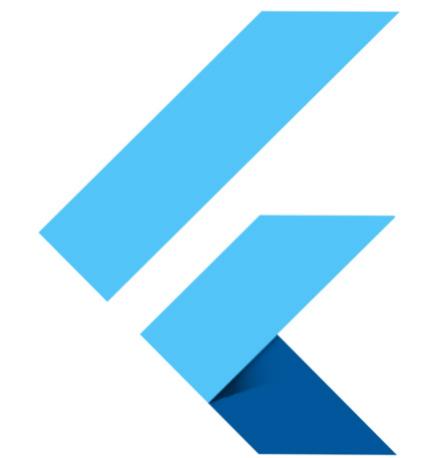


GOOGLE FLUTTER



Dart

THE PROGRAMMING LANGUAGE



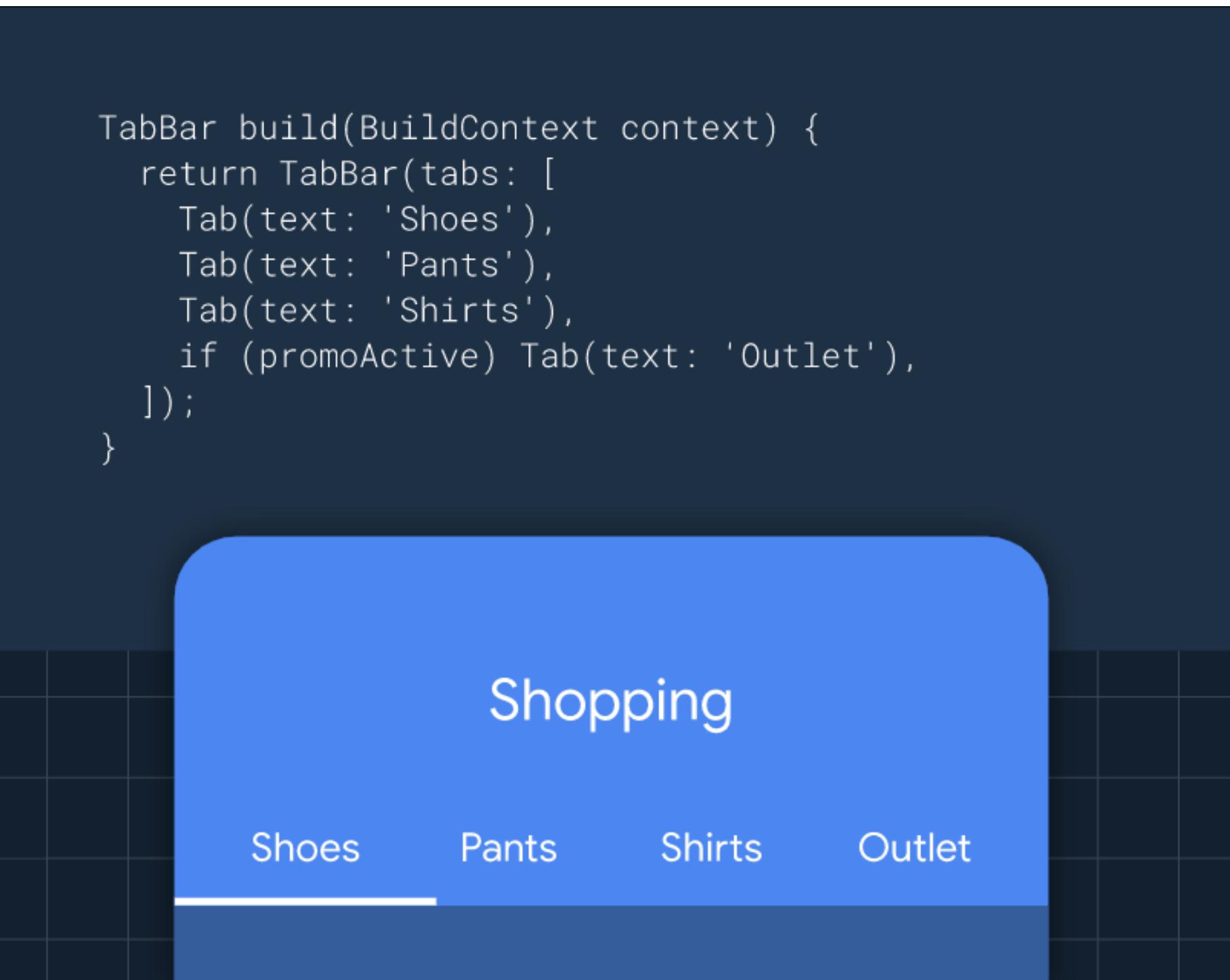
Flutter

THE FRAMEWORK

WHAT IS DART?

Dart is a client-optimized language for fast apps on any platform

```
TabBar build(BuildContext context) {  
  return TabBar(tabs: [  
    Tab(text: 'Shoes'),  
    Tab(text: 'Pants'),  
    Tab(text: 'Shirts'),  
    if (promoActive) Tab(text: 'Outlet'),  
  ]);  
}
```



WHO USE DART?

Google AdWords
AdSense
performance reports

Google internal
sales tool

Google Fuchsia

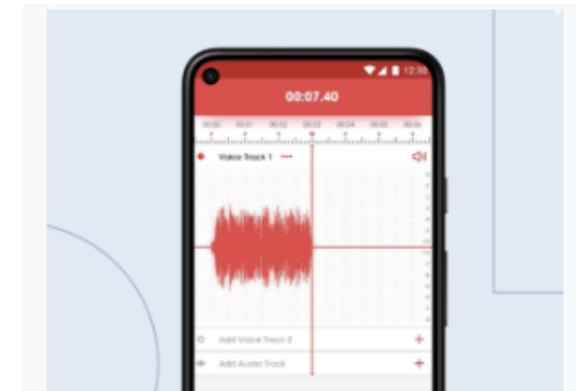
Mandrill

Google internal
CRM

Google Fiber

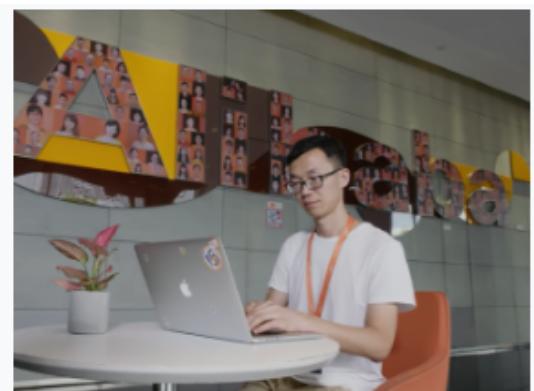
AdWords for video

Adobe



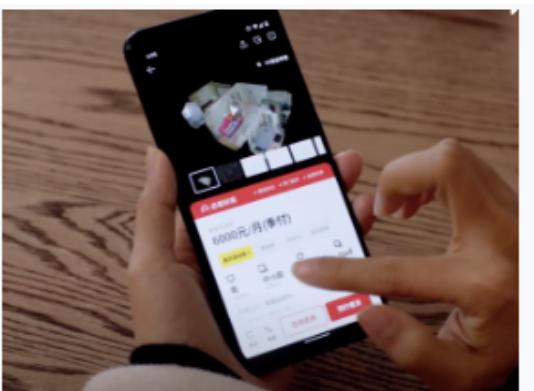
Abbey Road Studios

Reinventing the songwriting process
with Flutter



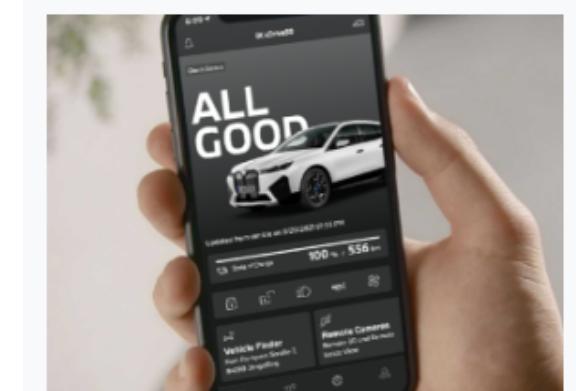
Alibaba Group

Alibaba scales China's largest second-hand marketplace with Flutter



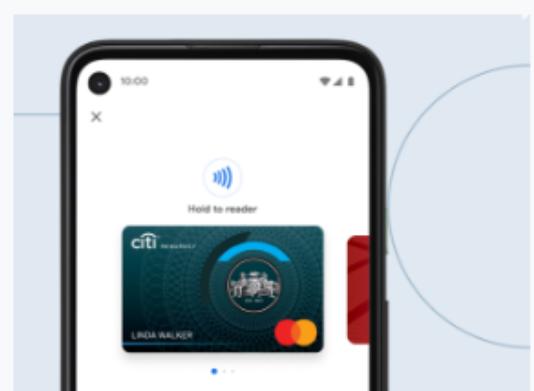
Beike

Beike helps users solve housing
problems with Flutter



BMW

Scaling customer-centric product
development at BMW Group with
Flutter



Google Pay

Going global at Google Pay with Flutter



ByteDance

Increasing productivity by 33% at
ByteDance with Flutter

WHAT MAKES FLUTTER UNIQUE?

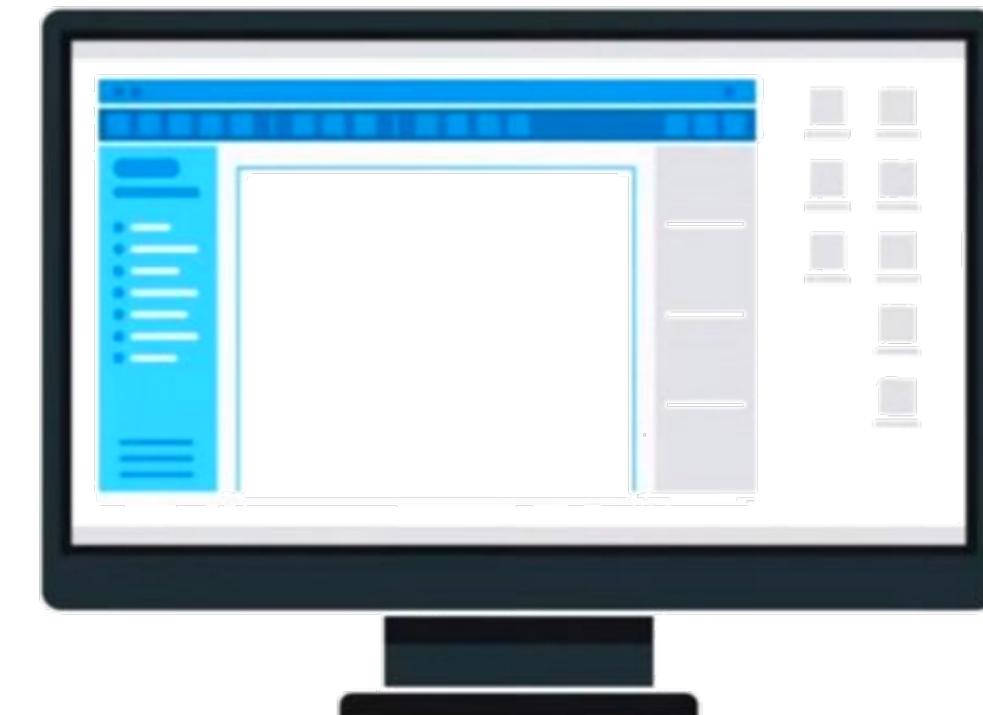
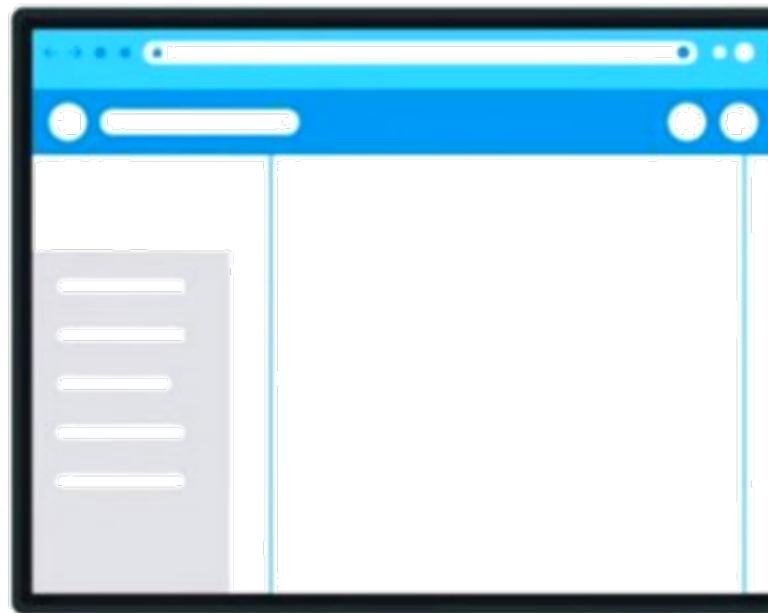


- Compiles to Native Code (ARM Binary code)
- No reliance on OEM widgets
- No bridge needed

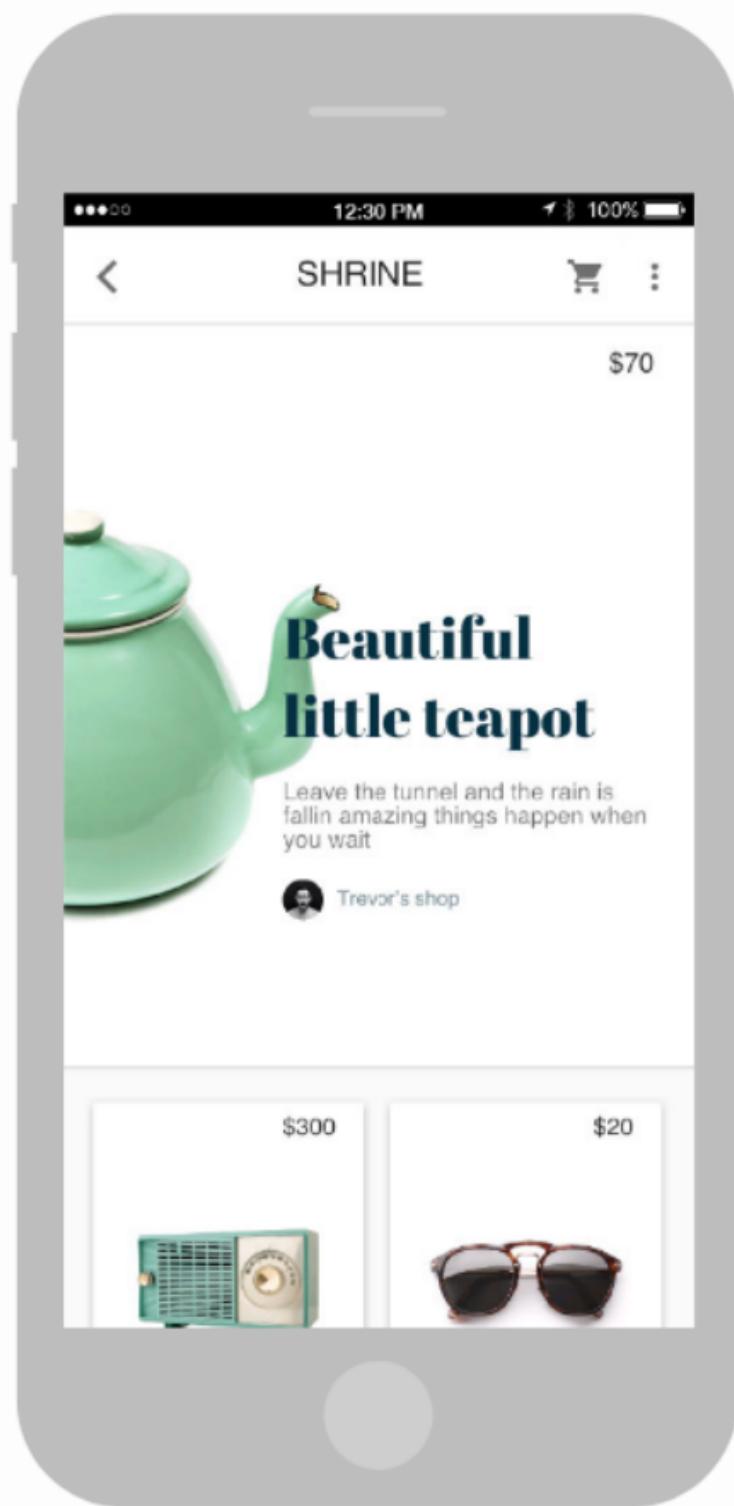
WHAT MAKES FLUTTER UNIQUE?



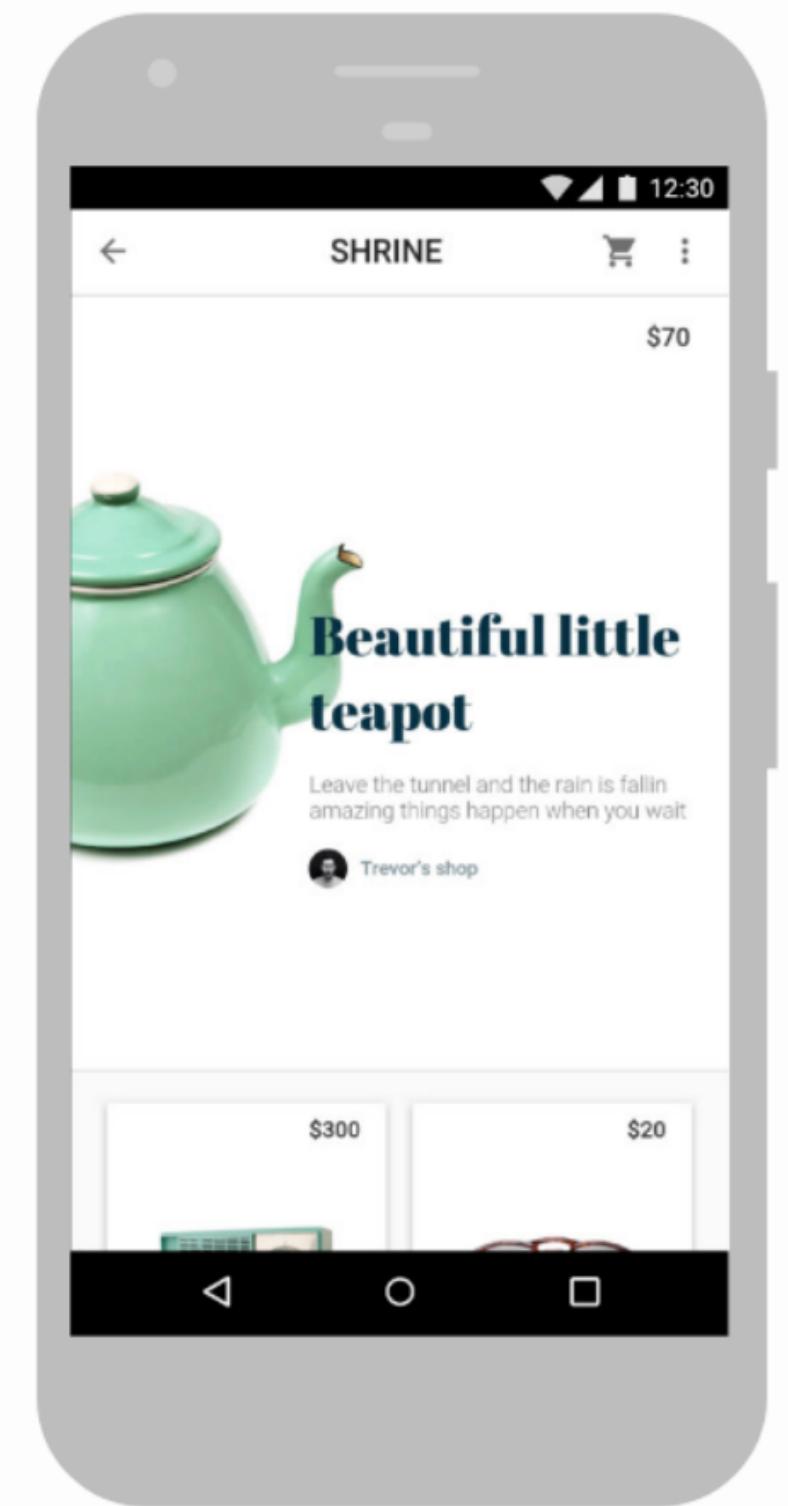
Flutter

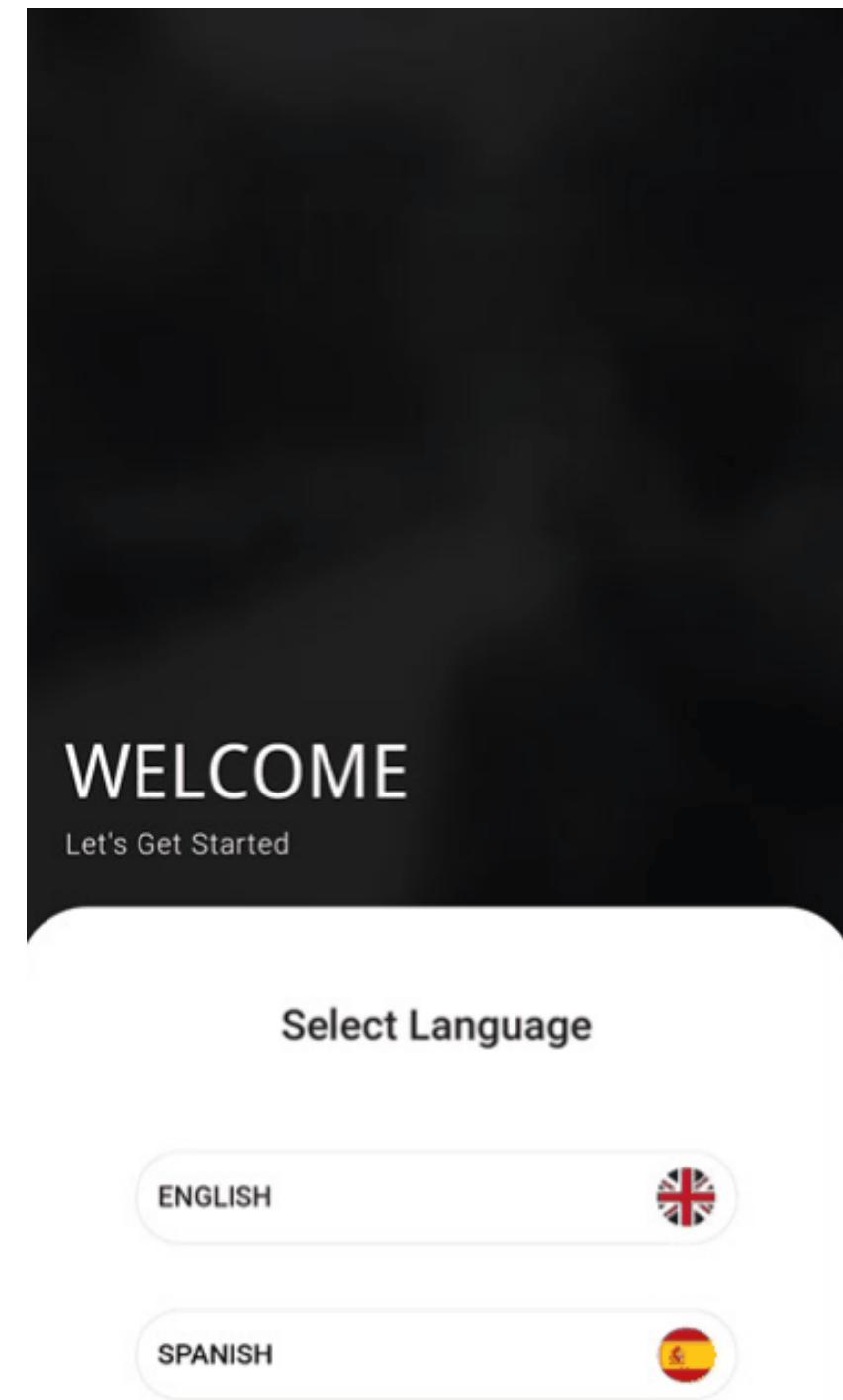


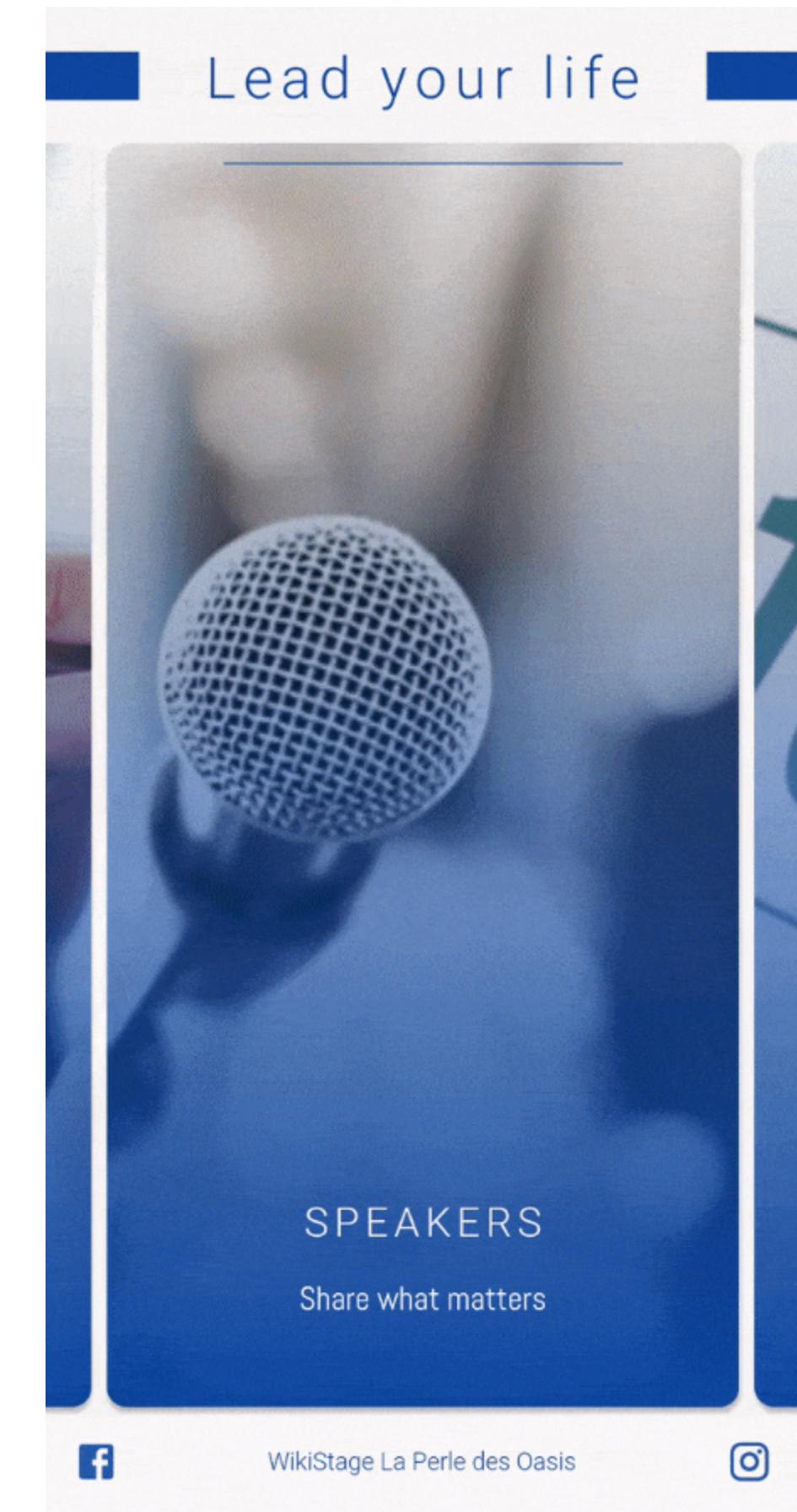
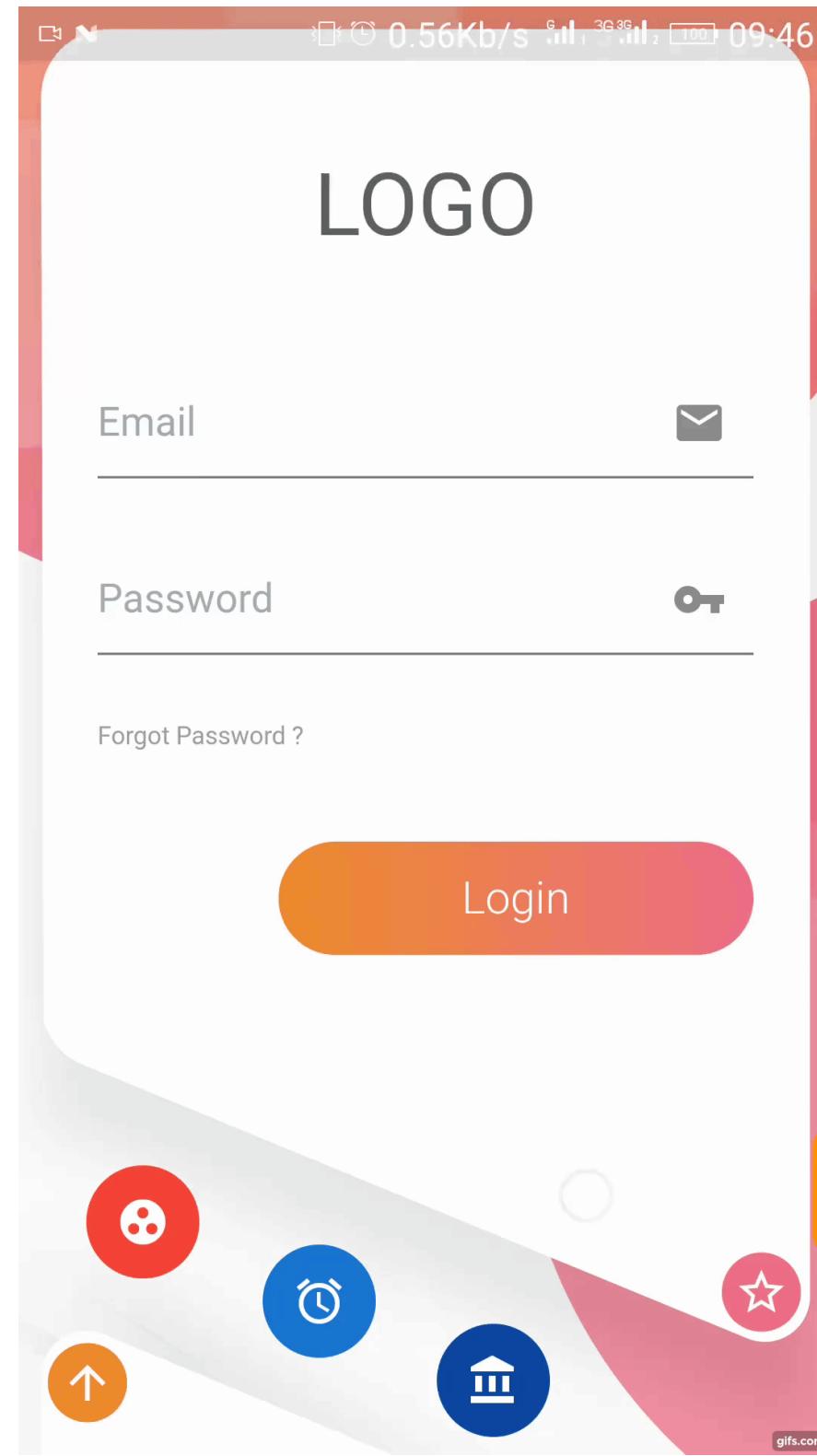
iOS



Android



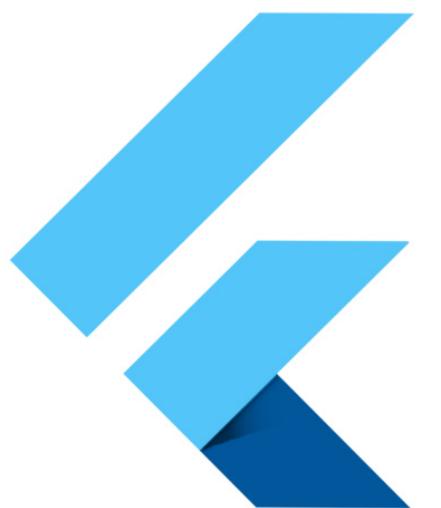




HOW TO START WITH FLUTTER?

INSTALLATION PROCESS

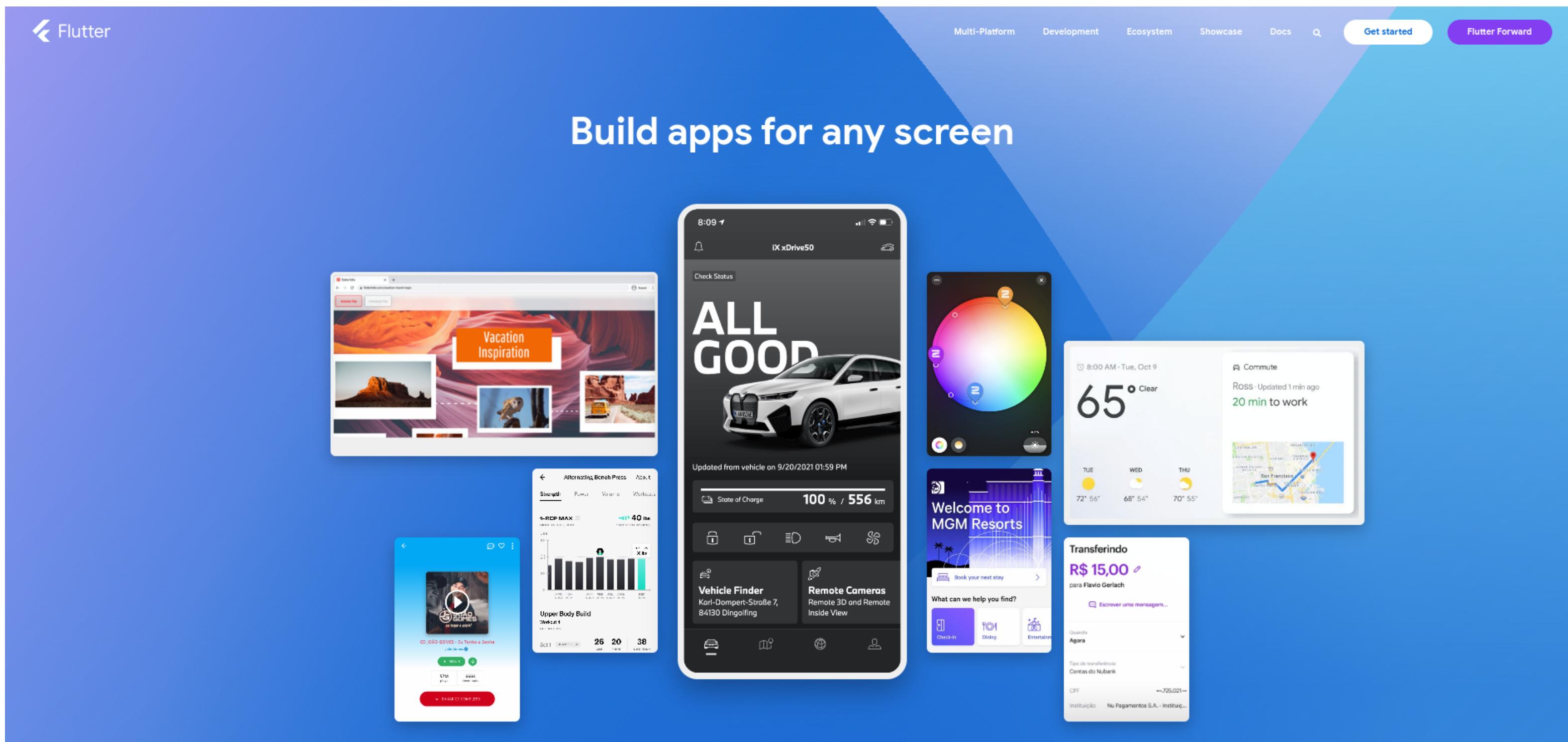
- Install JDK (Java Dev Kit)
- Insall Android Studio or VSCode
- Install Flutter SDK
- Install Git (Optional)
- Install Genymotion (Optional)



Flutter

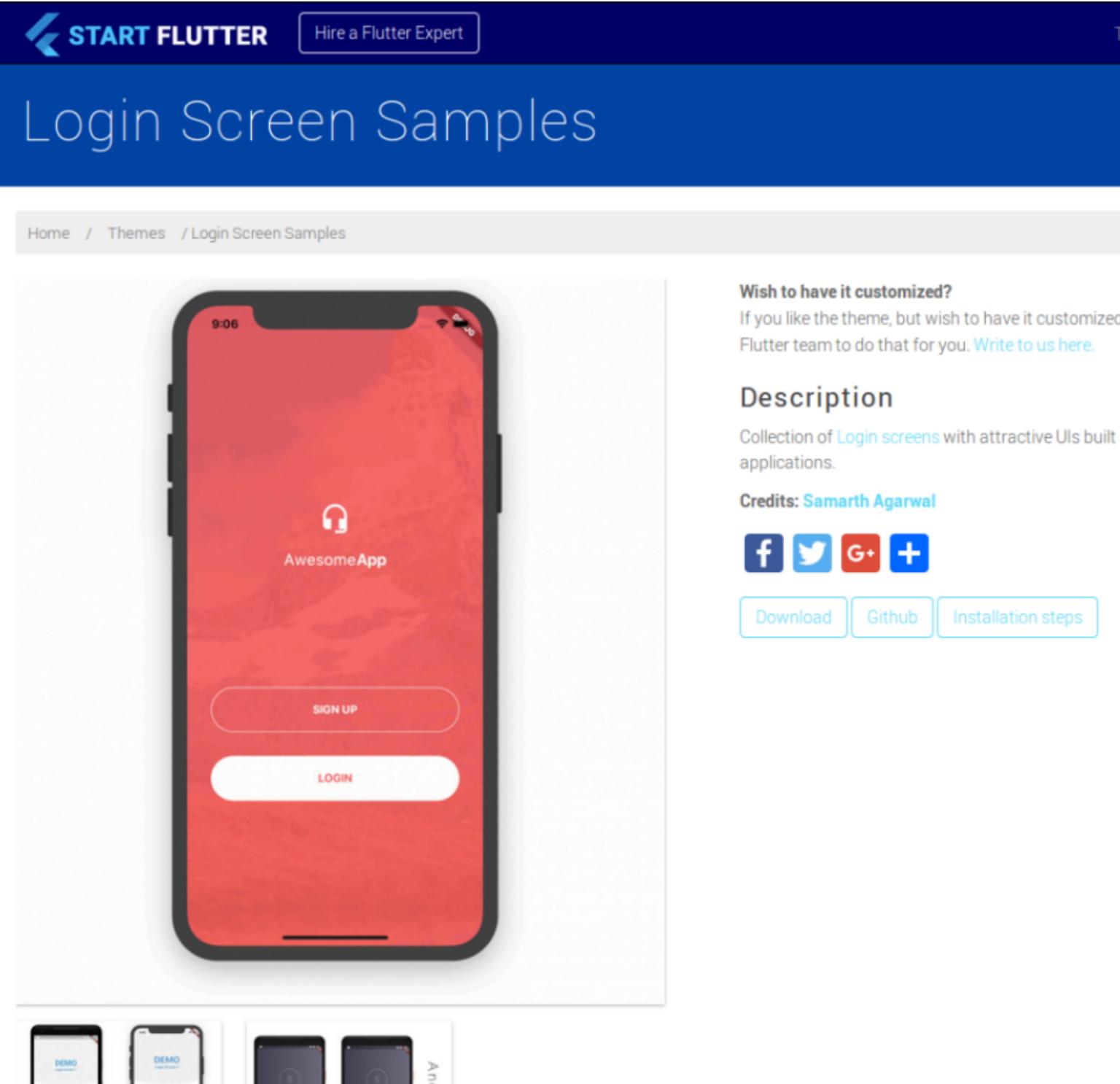
Everything is detailed on the official Flutter website:
<https://docs.flutter.dev/get-started/install>

USEFUL RESOURCES



<https://flutter.dev/>

USEFUL RESOURCES



The screenshot shows the Start Flutter website's "Login Screen Samples" page. At the top, there's a dark blue header with the "START FLUTTER" logo, a "Hire a Flutter Expert" button, and navigation links for "Themes", "Forum", and "Flutter Market". The main title "Login Screen Samples" is displayed in large white text on a blue background. Below the title, a breadcrumb navigation shows "Home / Themes / Login Screen Samples". The main content area features a large smartphone mockup with a red gradient background. On the screen, there's a logo for "AwesomeApp" with headphones, a "SIGN UP" button at the top, and a "LOGIN" button below it. To the right of the phone, there's a section titled "Wish to have it customized?" with a note about hiring the team. Below that is a "Description" section stating it's a collection of login screens with attractive UIs built using Flutter. It also credits Samarth Agarwal and provides social sharing icons for Facebook, Twitter, Google+, and LinkedIn, along with "Download", "Github", and "Installation steps" buttons. At the bottom, there are four smaller phone mockups labeled "DEMO", "Ari", and "Ami".

<https://startflutter.com/>

USEFUL RESOURCES

The screenshot shows the pub.dev homepage with a dark background. At the top center is the pub.dev logo with a blue hexagon icon. Below it is a search bar with the placeholder "Search packages". A banner below the search bar reads "The official package repository for Dart and Flutter apps. Supported by Google". The main content area is titled "Flutter Favorites" and describes it as "Some of the packages that demonstrate the highest levels of quality, selected by the Flutter Ecosystem Committee". It lists four packages: "provider", "win32", "network_info_plus", and "firebase_auth". Each package has a brief description, a GitHub icon, and a link to its page.

Sign in Help ▾

pub.dev

Search packages

The official package repository for Dart and Flutter apps. Supported by Google

Flutter Favorites

Some of the packages that demonstrate the [highest levels of quality](#), selected by the Flutter Ecosystem Committee

provider A wrapper around InheritedWidget to make them easier to use and more dashoverflow.net	win32 A Dart library for accessing common Win32 APIs using FFI. No C required! smooth.arts	network_info_plus Flutter plugin for discovering information (e.g. WiFi details) of the network. fluttercommunity.dev	firebase_auth Flutter plugin for Firebase Auth, enabling Android and iOS authentication using firebase.google.com
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<https://pub.dev/>

USEFUL RESOURCES

The screenshot shows the GitHub README.md page for the `awesome-flutter` repository. The page features a dark theme with a light-colored header bar. The main content area contains several sections:

- Instant Chat Integration:** Displays a screenshot of a messaging app interface with a car image and a keyboard.
- BMW Connect:** Displays a screenshot of a mobile application interface for a BMW 2 Series.
- Calendar Meteo:** Displays a screenshot of a weather forecast application for October 2018.
- with Stream!:** A section with the text "with Stream!".
- Contents:** A sidebar with a list of resources:
 - Articles
 - Videos
 - Components
 - Navigation
 - Template
 - Plugins
 - Frameworks
- Packages:** A section stating "No packages published".
- Contributors:** A section showing 312 contributors with a grid of profile pictures and a link to "+ 301 contributors".
- Languages:** A section showing Dart at 100.0%.

<https://github.com/Solido/awesome-flutter>

“Any fool can write code that a computer can understand. Good programmers write code that humans can understand”

— Martin Fowler

