



Building Live with Flutter

Bandung, December 20, 2021

Erico Darmawan Handoyo

Parahyangan Catholic University – Computer Science [2001 – 2005]

SKRIPSI: Algoritma Genetik sebagai Fungsi Pruning Algoritma Minimax pada Permainan Triple Triad Card

Bandung Institute of Technology – Software Engineering [2008 - 2010]

THESIS: Pembangunan Aplikasi Digital Color Advisor untuk Aplikasi Web



Erico Darmawan Handoyo

Maranatha Christian University [2005 - sekarang]

- Mobile Programming
- UI/UX
- Digital Education
- Game Programming
- Multimedia Technology



Erico Darmawan Handoyo

Book Author [2009 - 2011]

- Pemrograman Dasar C – Java – C# Yang Susah Jadi Mudah!!
- Pemrograman Berorientasi Objek C# Yang Susah Jadi Mudah!!



Erico Darmawan Handoyo

Private Training [for company only]



Online Class [coming soon] + Workshop

**Bengong
bareng
Erico**



Erico Darmawan Handoyo

Publications:

https://www.researchgate.net/profile/Erico_Handoyo

YouTube Channel [Flutter]:

<http://www.youtube.com/c/EricoDarmawanHandoyo>

Group FB Komunitas Flutter Indonesia:

<https://www.facebook.com/groups/komunitas.flutter.indonesia>

Tokopedia Academy:

<https://academy.tokopedia.com/partnership/erico>



Erico Darmawan Handoyo

My Journey in Mobile Programming World:

Windows Phone (2008 – punah) → Xamarin → Flutter

My hobbies:



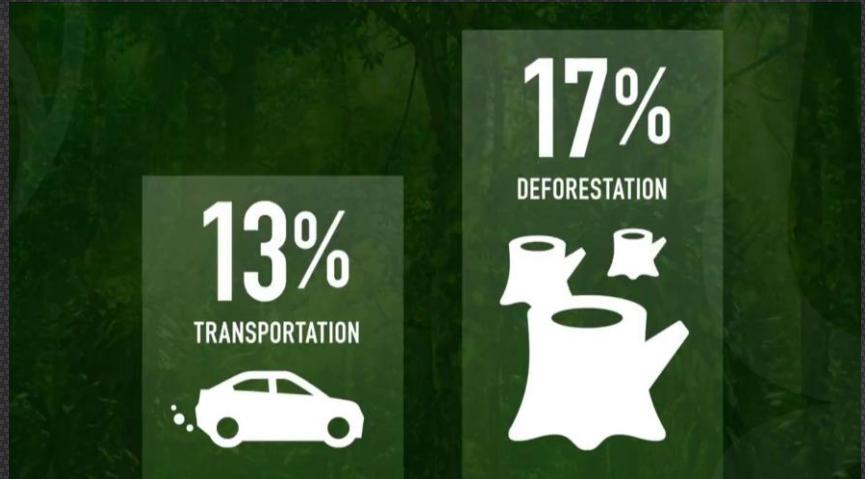








Inspiration from Borneo, Indonesia



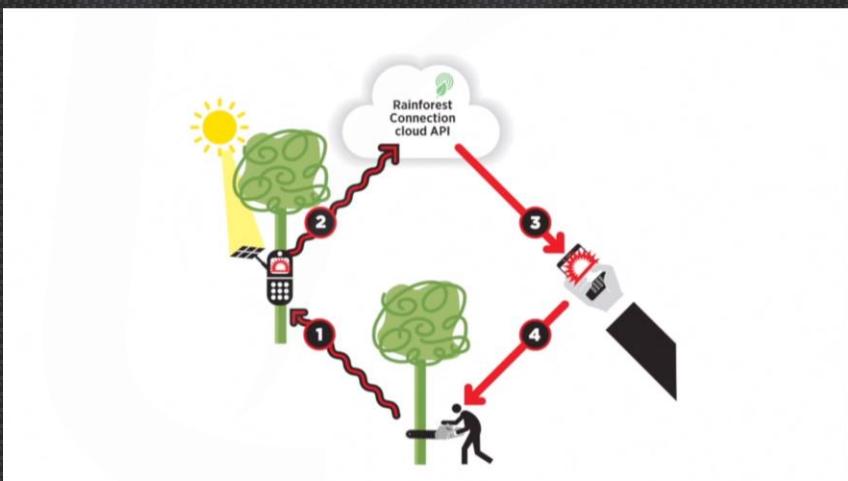
Topher White - Conservation technologist



Inspiration from Borneo, Indonesia



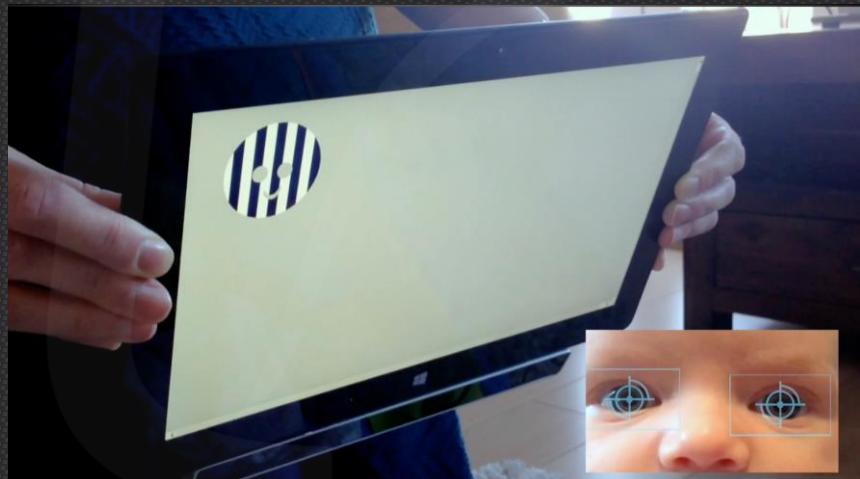
Topher White - Conservation technologist



Inspiration from Kenya



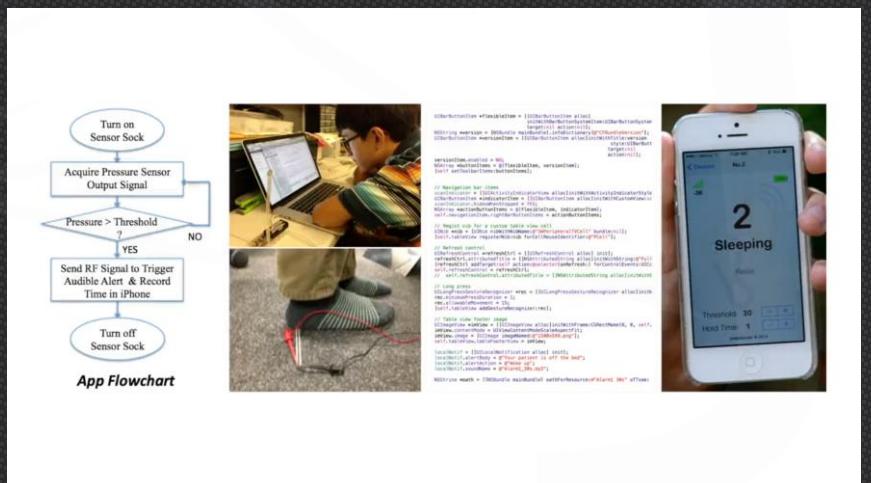
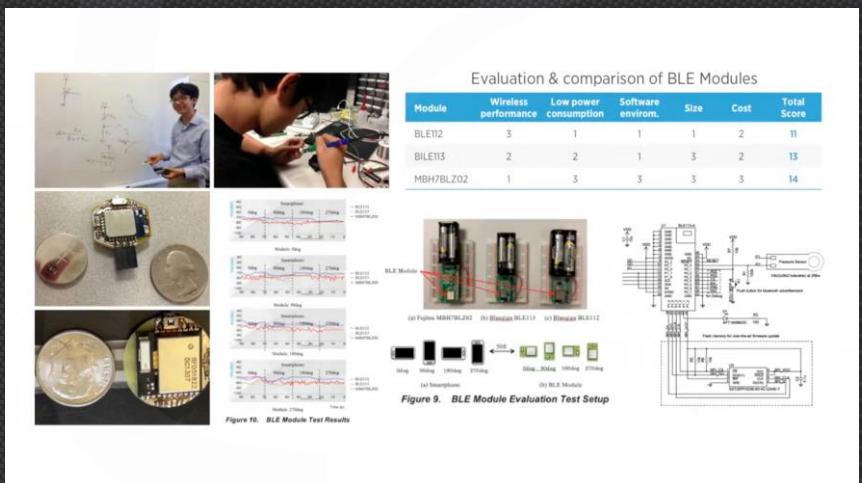
Andrew Bastawrous · Eye surgeon, inventor



Inspiration from Family

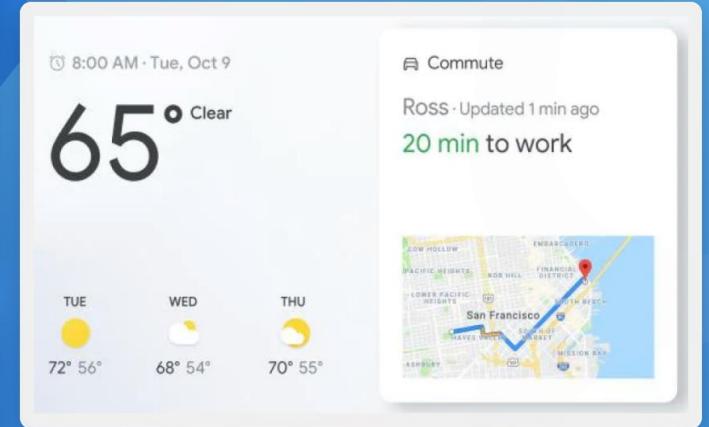
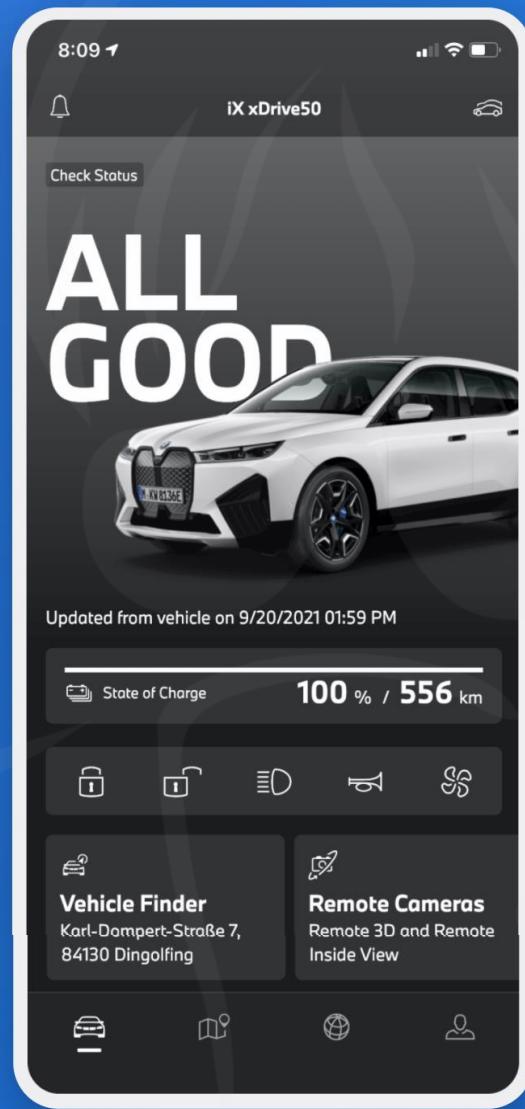
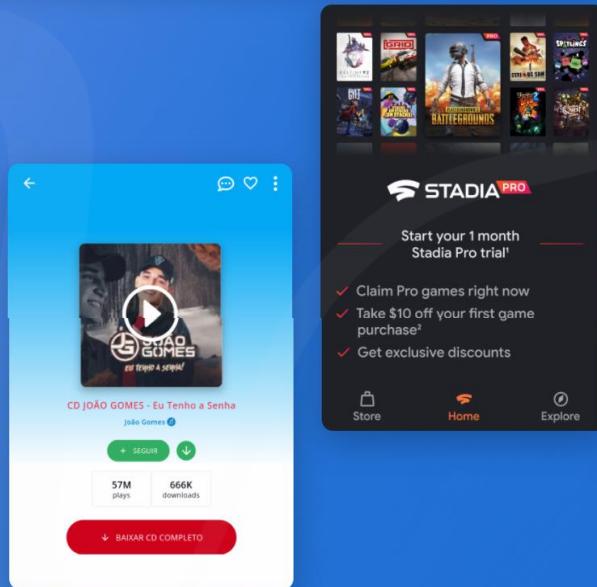
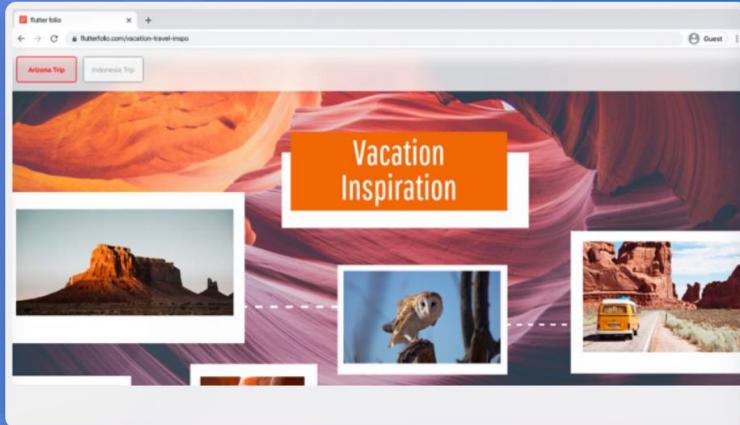


Kenneth Shinozuka: Smart product inventor



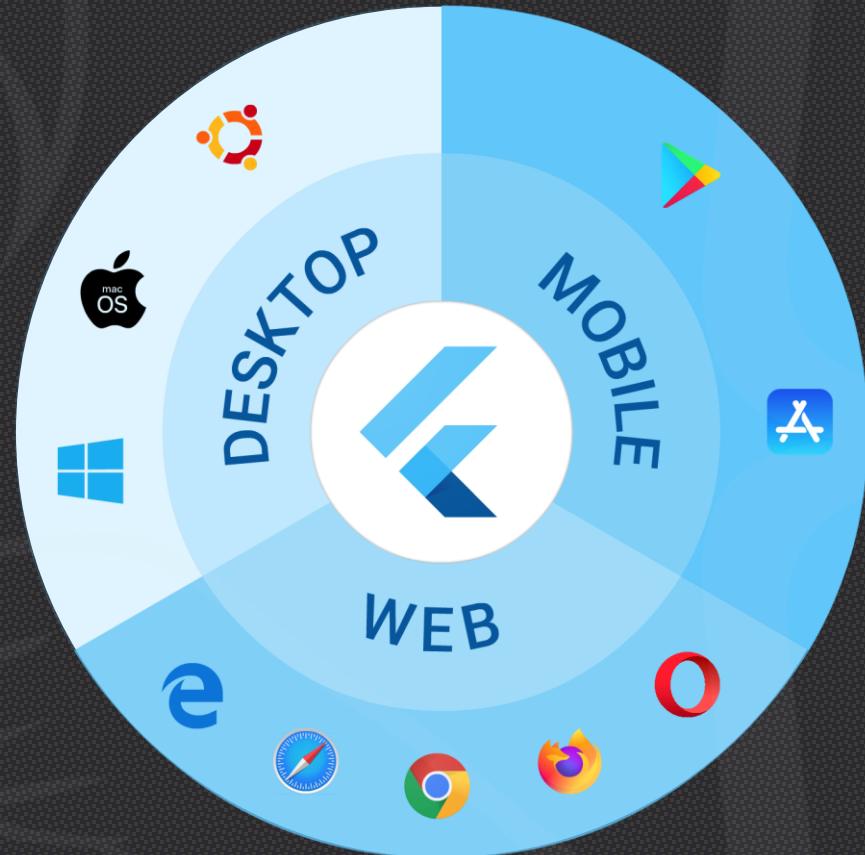


Flutter is an open-source framework by Google for building beautiful, natively compiled, multi-platform applications from a single codebase.

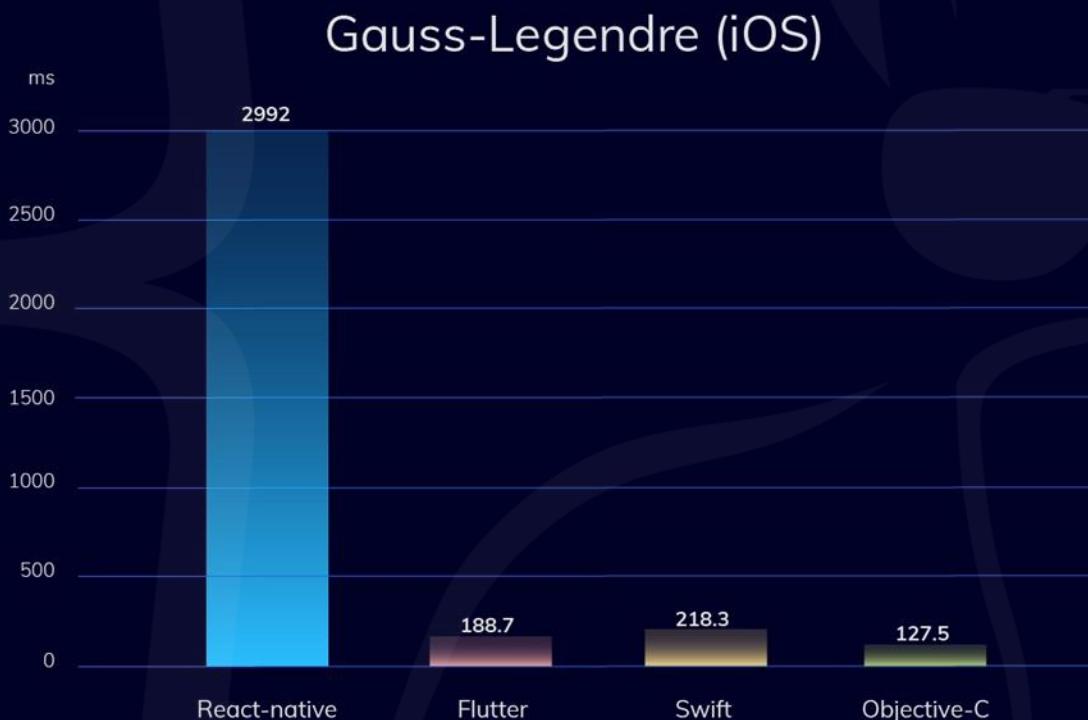


Multiplatform

- Single codebase.
- Same look & feel across devices.
- Cheaper development cost.
- Shorten development time.
- Taking opportunity faster.



Native Performance

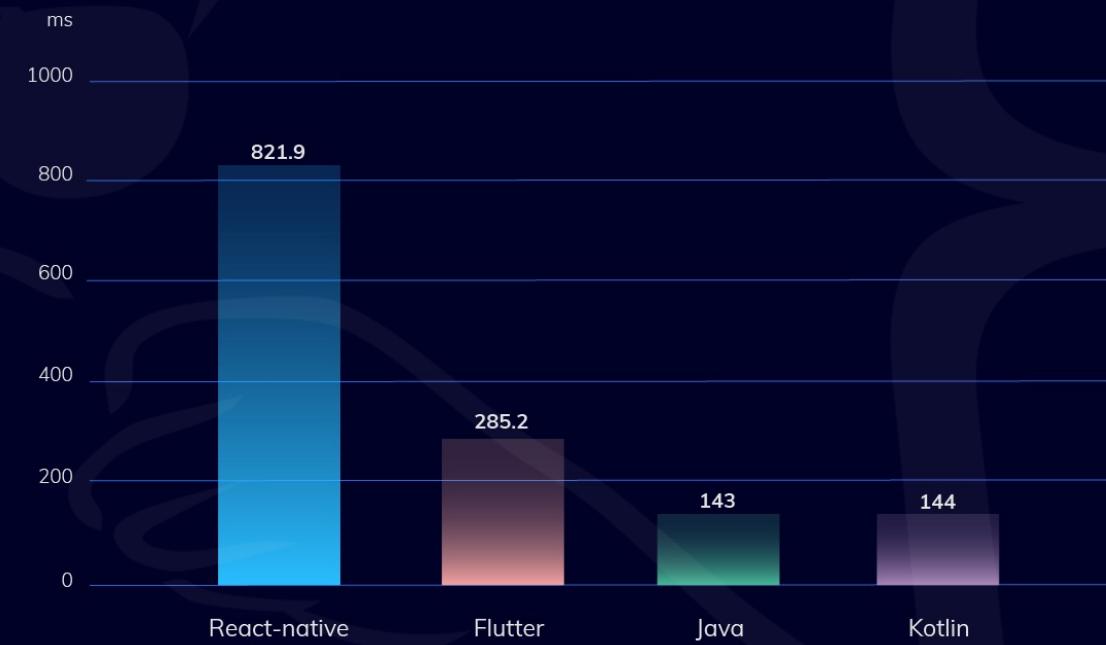


Native Performance

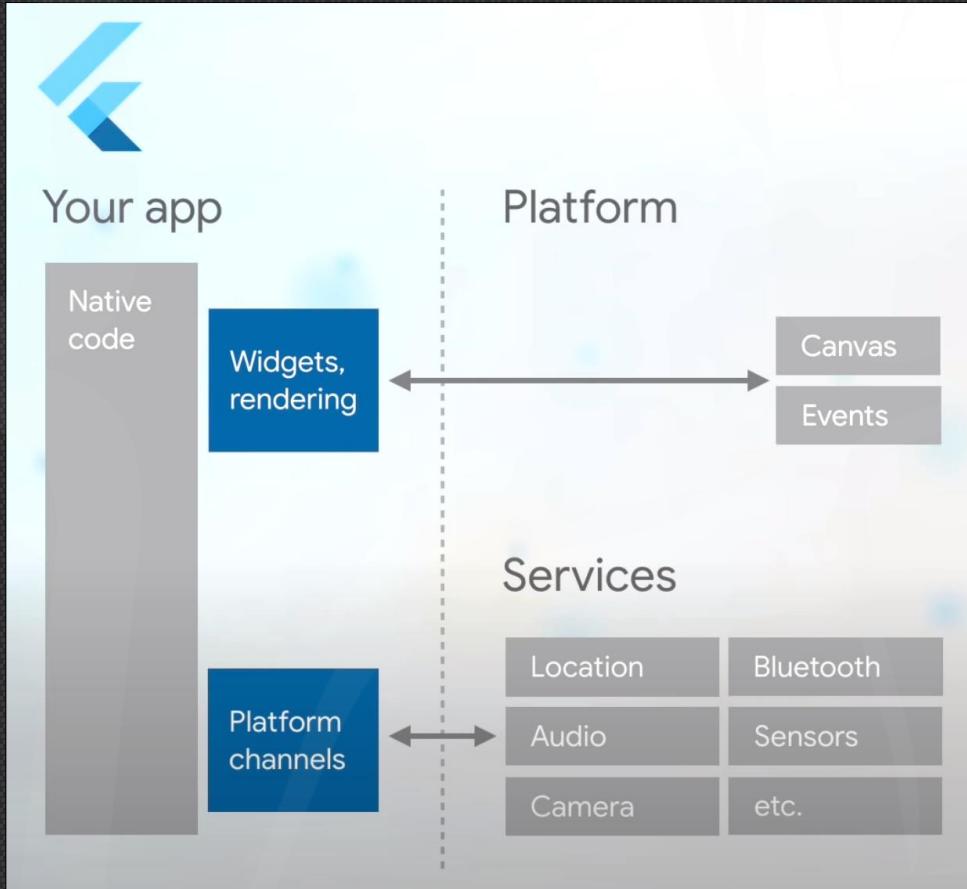
Gauss-Legendre (Android)



Borwein algorithm (Android)



Native Performance



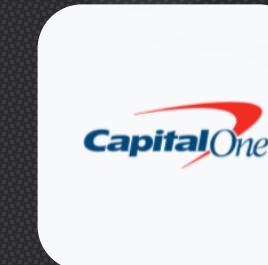
Flutter Engine: ± 3.5 MB

Minimal Flutter App (APK): ± 4.3 – 4.6 MB



Stable & Reliable Trusted by many

Flutter is supported and used by Google, trusted by well-known brands around the world, and maintained by a community of global developers.



350k+
apps created

2m+
developers

19k+
Flutter & Dart
packages



Showcase in Indonesia



- **Jago** by Bank Jago
- **KB Bukopin Mobile Banking** by PT Bank KB Bukopin Tbk.
- **Wokee+** by PT Bank KB Bukopin Tbk.
- **JKN Mobile** by BPJS Kesehatan
- **Pikobar** by Pemerintah Provinsi Jawa Barat
- **Summerville TR Mobile** by PT. Summerville Property Management
- **Dokar (Desa Online Kendal Terintegrasi)** Kab. Kendal by Pemerintah Kabupaten Kendal



Flutter at Gojek, journey so far by Abhay Sood

Fuchsia Operating System

Fuchsia is a new open-source operating system created at Google from the (Zircon) kernel up to meet the needs of today's growing ecosystem of connected devices.

Fuchsia Interface Definition Language (FIDL)

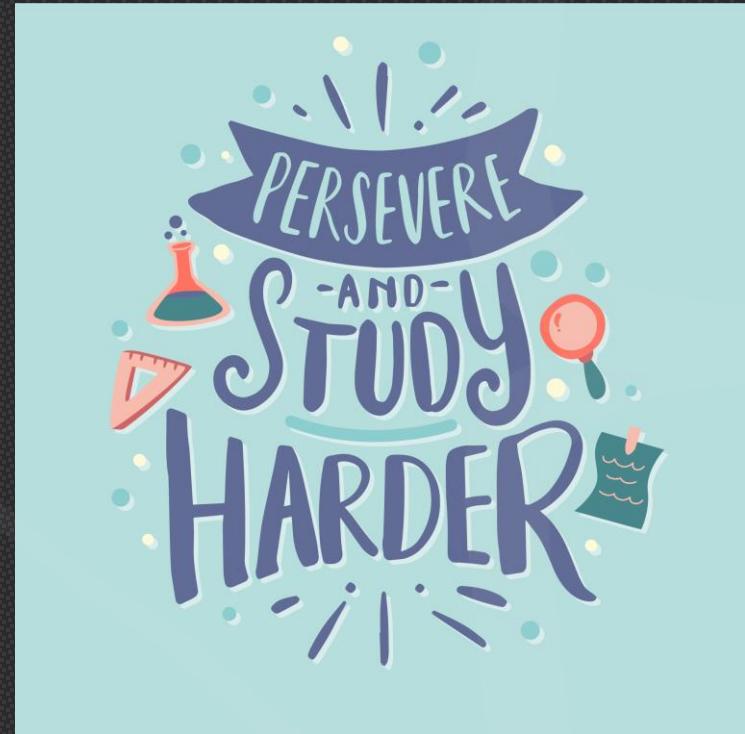
The language used to describe interprocess communication (IPC) protocols used by programs running on Fuchsia.

- C
- Low-Level & High-Level C++
- **Dart**
- Go
- Rust



Keep in mind!!!!

- Everybody can be a programmer.
- You don't need a “programming talent”.
- If you want to be a real programmer, learn the “why”, not “how to”!
- Mastering thing takes time. Be patient!
- Stop comparing yourself with other and keep going!



Where should we start?



The Concept of **Object Oriented Programming**

- Flutter using Dart
- Dart is an Object Programming Language
- You should **master OOP** to write Flutter Program **effectively & efficiently**

LEARN MORE

Pemrograman Berorientasi Objek Dart:

<https://youtube.com/playlist?list=PLZQbl9Jhl-VDeCuNNp7C2SR1lFsljQRQo>

Where should we start?

- Start with Flutter Basics (Fundamental things)
- State Managements
- Consuming API
- Flutter Testing



Flutter Tutorial Chapter 1 Wrap Up | Learning Path:
<https://youtu.be/7TOMseh9I2c>



- When you learn the conceptual skill ("why"), **DO NOT MIND:**
- Version matter
 - Syntax matter
 - Null safety matter

Common mistakes

Impatience & Laziness

- Skipping fundamental things / underestimating conceptual things.
- “Learning by doing” without sufficient knowledge.
- Lack of exploring.
- Reluctance to learn English.

Dunning–Kruger effect



References

- How is Flutter different for app development:

<https://youtu.be/l-YO9CmaSUM>

- Flutter vs Native vs React-Native: Examining performance:

<https://medium.com/swlh/flutter-vs-native-vs-react-native-examining-performance-31338f081980>

- How big is the Flutter engine?:

<https://flutter.dev/docs/resources/faq#how-big-is-the-flutter-engine>

- Introduction to Fuchsia

<https://fuchsia.dev/fuchsia-src/get-started/learn/intro>

- Google's New OS Is HERE!

<https://youtu.be/JJ1rlffXKGo>

- Google Fuchsia OS — Everything you need to know:

<https://medium.com/@sales8.vtnetzwelt/google-fuchsia-os-everything-you-need-to-know-e273b2115087>

References

- Getting to know Fuchsia, Google's open-source operating system:

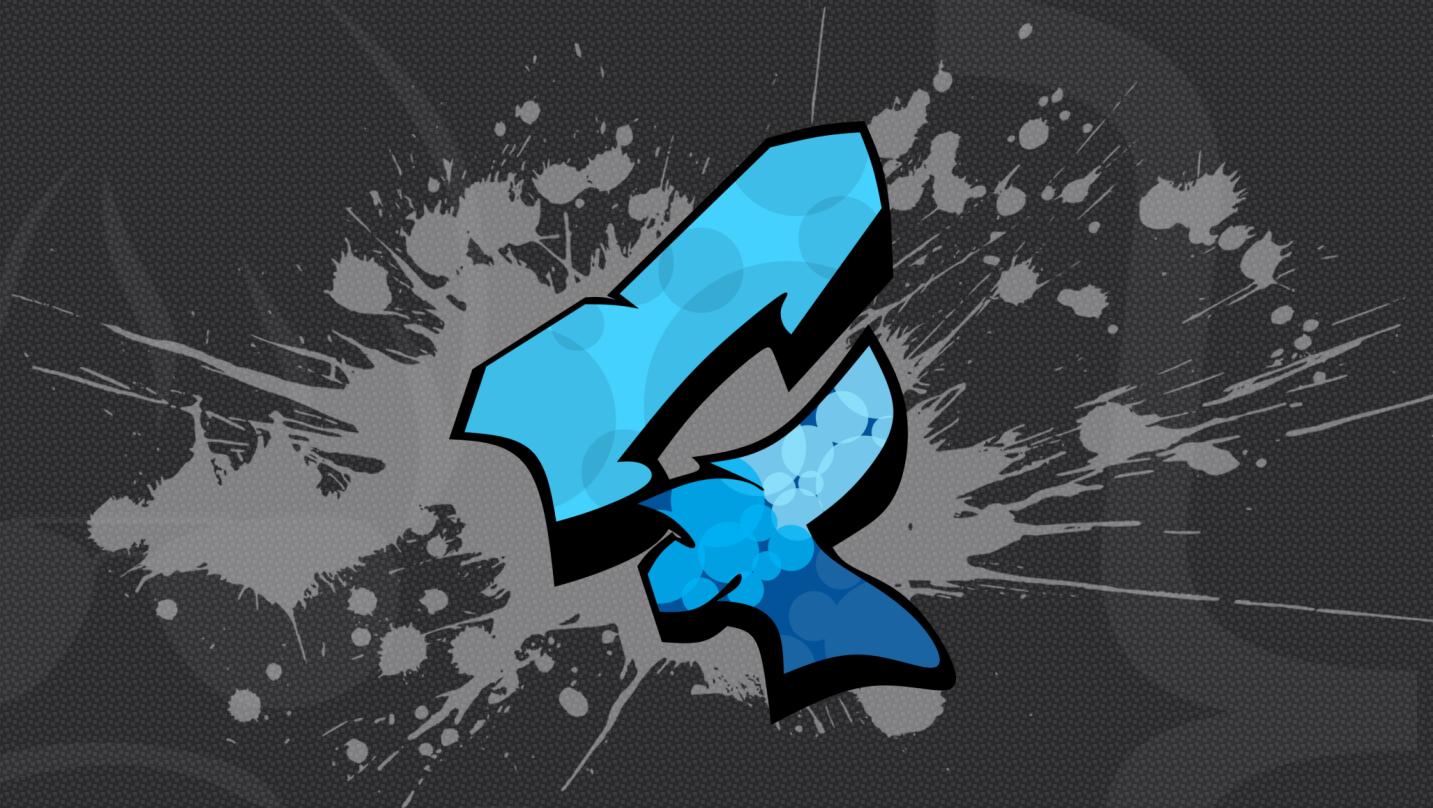
<https://blog.codemagic.io/fuchsia-os-preview/>

- FIDL Overview:

<https://fuchsia.dev/fuchsia-src/concepts/fidl/overview>

- Flutter at Gojek, journey so far

<https://abhaysood.medium.com/flutter-at-gojek-journey-so-far-87b3db4f62ff>



You can get this presentation at:

<https://tinyurl.com/webinar-erico-des2021>