



ONE FRAMEWORK TO RULE THEM ALL

- Meet Flutter-

NUNI Webinar

2020. 08. 22



It began with the unbounded desire of the race of man.

Computer to break the limit of human being computing ability.

Web technology to satisfy the desire of getting many information at once.

Mobile technology to overcome the power of time and space.

Many tried to dominate each platform. But.. the best is yet to come..



for another thing is made. In the state of California, in Mountain View..

One of the leading company, Google..

forge in perseverance.. a powerful framework to control all platforms.

And into this framework, it pours its power, its effort, and its will to dominate all platforms.



One Framework To Rule Them All..

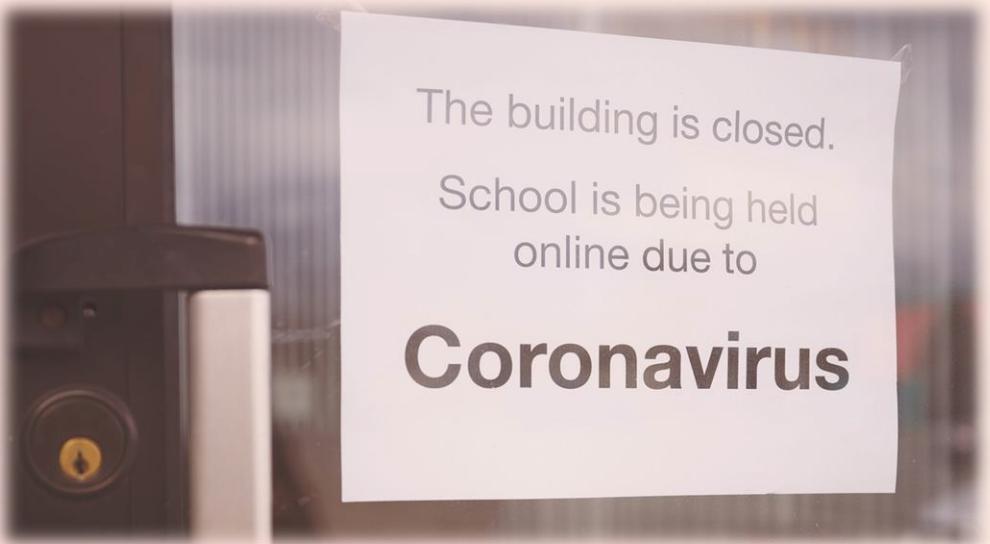


meet
FLUTTER

Hi. My name is Erico Darmawan Handoyo



- ▶ A Lecturer (Maranatha University)
- ▶ Flutter Tutorial Creator at YouTube
- ▶ Flutter Trainer
 - Game Programming
 - Computer Graphic
 - User Interface/User Experience
 - ➡ Mobile Programming with Flutter





DIGITAL AROUND THE WORLD IN 2020

THE ESSENTIAL HEADLINE DATA YOU NEED TO UNDERSTAND MOBILE, INTERNET, AND SOCIAL MEDIA USE

TOTAL
POPULATION



7.75
BILLION

URBANISATION:

55%

UNIQUE MOBILE
PHONE USERS



5.19
BILLION

PENETRATION:

67%

INTERNET
USERS



4.54
BILLION

PENETRATION:

59%

ACTIVE SOCIAL
MEDIA USERS



3.80
BILLION

PENETRATION:

49%



we
are
social

K
KEPIOS

JAN
2020

GLOBAL DIGITAL GROWTH

THE YEAR-ON-YEAR CHANGE IN ESSENTIAL INDICATORS OF DIGITAL ADOPTION

TOTAL
POPULATION



we
are.
social

+1.1%

JAN 2020 vs. JAN 2019

+82 MILLION

UNIQUE MOBILE
PHONE USERS



KEPIOS

+2.4%

JAN 2020 vs. JAN 2019

+124 MILLION

INTERNET
USERS



KEPIOS

+7.0%

JAN 2020 vs. JAN 2019

+298 MILLION

ACTIVE SOCIAL
MEDIA USERS



KEPIOS

+9.2%

JAN 2020 vs. JAN 2019

+321 MILLION

SOURCES: POPULATION: UNITED NATIONS; MOBILE: GSMA INTELLIGENCE; INTERNET: ITU; GLOBALWEBINDEX; GSMA INTELLIGENCE; EUROSTAT; LOCAL TELECOMS REGULATORY AUTHORITIES AND GOVERNMENT BODIES; SOCIAL MEDIA PLATFORMS' SELF-SERVICE ADVERTISING TOOLS; APJII; KEPIOS ANALYSIS; SOCIAL MEDIA: PLATFORMS' SELF-SERVICE ADVERTISING TOOLS; COMPANY ANNOUNCEMENTS AND EARNINGS REPORTS; CAFEBAZAAR. ALL LATEST AVAILABLE DATA IN JANUARY 2020. ♦ **COMPARABILITY ADVISORY:** SOURCE AND BASE CHANGES.



INDONESIA

TOTAL
POPULATION**272.1**
MILLION

URBANISATION:

55%MOBILE PHONE
CONNECTIONS**338.2**
MILLION

vs. POPULATION:

124%INTERNET
USERS**175.4**
MILLION

PENETRATION:

64%ACTIVE SOCIAL
MEDIA USERS**160.0**
MILLION

PENETRATION:

59%we
are
social

KEPIOS

JAN
2020

DIGITAL GROWTH INDICATORS

CHANGES IN KEY INDICATORS OF DIGITAL ADOPTION



INDONESIA

TOTAL
POPULATION



we
are.
social

+1.1%

JAN 2020 vs. JAN 2019

+2.9 MILLION

MOBILE PHONE
CONNECTIONS



KEPIOS

+4.6%

JAN 2020 vs. JAN 2019

+15 MILLION

INTERNET
USERS



KEPIOS

+17%

JAN 2020 vs. JAN 2019

+25 MILLION

ACTIVE SOCIAL
MEDIA USERS



JAN 2020 vs. APR 2019

+12 MILLION

SOURCES: POPULATION: UNITED NATIONS; MOBILE: GSMA INTELLIGENCE; INTERNET: ITU; GLOBALWEBINDEX; GSMA INTELLIGENCE; EUROSTAT; LOCAL TELECOMS REGULATORY AUTHORITIES AND GOVERNMENT BODIES; SOCIAL MEDIA PLATFORMS' SELF-SERVICE ADVERTISING TOOLS; APJI; KEPIOS ANALYSIS; SOCIAL MEDIA: PLATFORMS' SELF-SERVICE ADVERTISING TOOLS; COMPANY ANNOUNCEMENTS AND EARNINGS REPORTS; CAFEBAZAAR. ALL LATEST AVAILABLE DATA IN JANUARY 2020. ♦ **COMPARABILITY ADVISORY:** SOURCE AND BASE CHANGES.

MOBILE INTERNET USE

INTERNET USERS WHO ACCESS THE INTERNET VIA MOBILE PHONES

TOTAL NUMBER
OF MOBILE
INTERNET USERS**171.0**
MILLIONMOBILE INTERNET USERS
AS A PERCENTAGE OF
TOTAL INTERNET USERS**98%**SHARE OF ALL INTERNET
USERS ACCESSING
VIA SMARTPHONES***96%**SHARE OF ALL INTERNET
USERS ACCESSING
VIA FEATURE PHONES***5.3%**AVERAGE DAILY TIME SPENT
USING THE INTERNET
ON MOBILE DEVICES**4H 46M**

SOURCES: ITU; GLOBALWEBINDEX; GSMA INTELLIGENCE; EUROSTAT; SOCIAL MEDIA PLATFORMS' SELF-SERVICE ADVERTISING TOOLS; LOCAL GOVERNMENT BODIES AND REGULATORY AUTHORITIES; APJII (ALL LATEST AVAILABLE DATA IN JANUARY 2020). TIME AND SHARE DATA VIA GLOBALWEBINDEX (Q3 2019) ***NOTE:** FIGURES FOR SHARE BY MOBILE DEVICE TYPE REPRESENT EACH DEVICE'S SHARE OF TOTAL INTERNET USERS AGED 16 TO 64, NOT JUST SHARE OF MOBILE INTERNET USERS. ♦ **COMPARABILITY ADVISORY:** SOURCE CHANGES.



This is our era



Why Flutter?

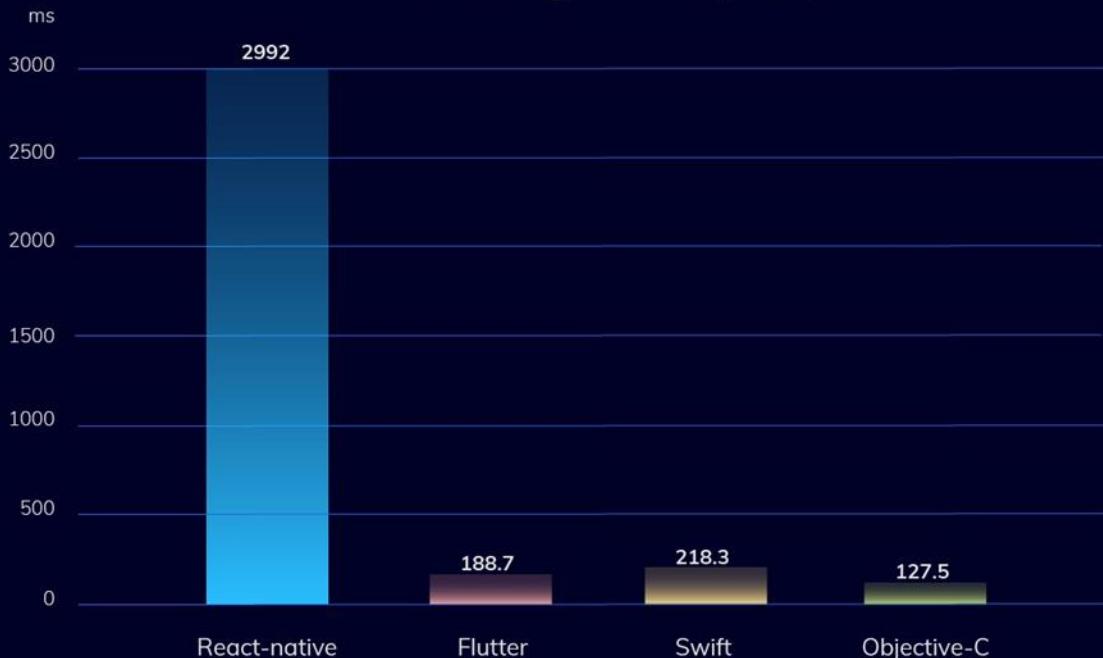
Multi platform

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

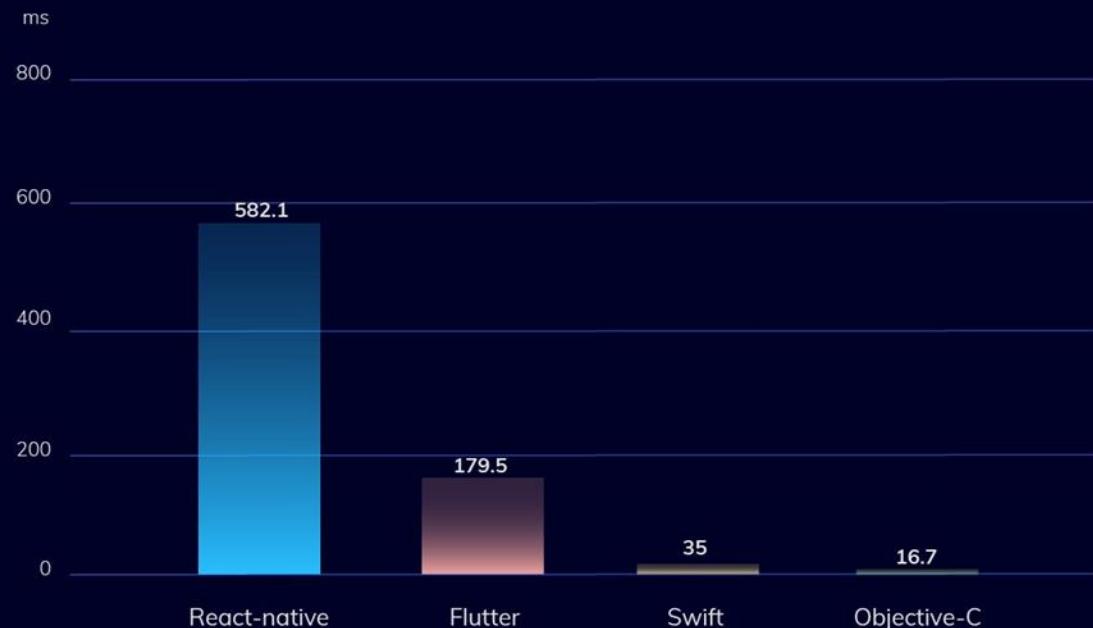


Native Performance

Gauss-Legendre (iOS)

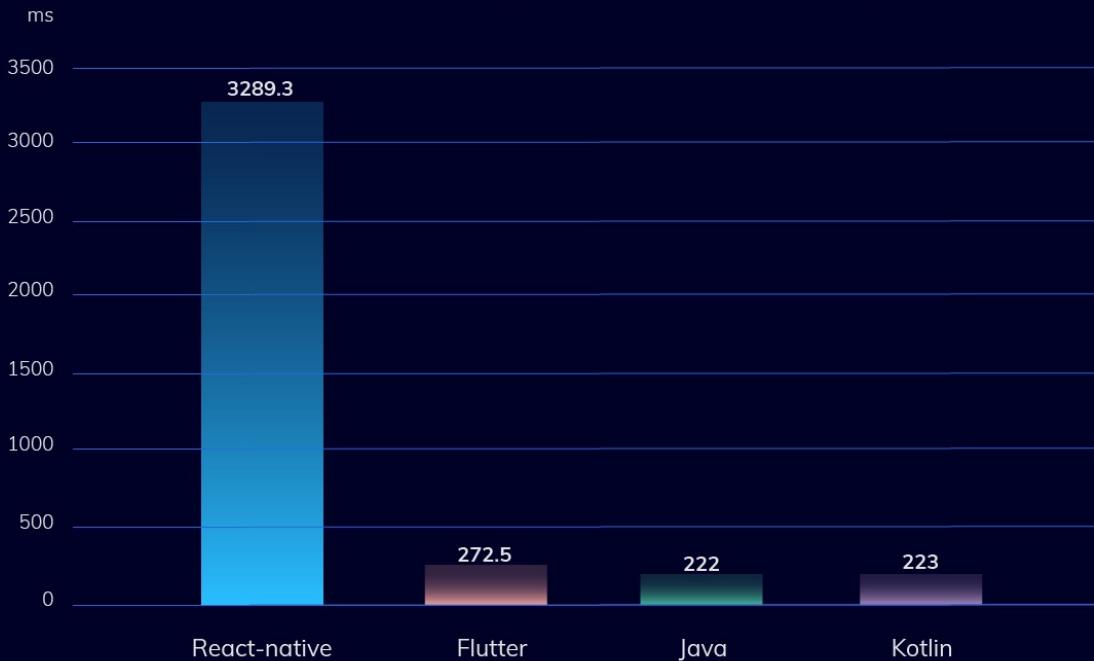


Borwein algorithm (iOS)

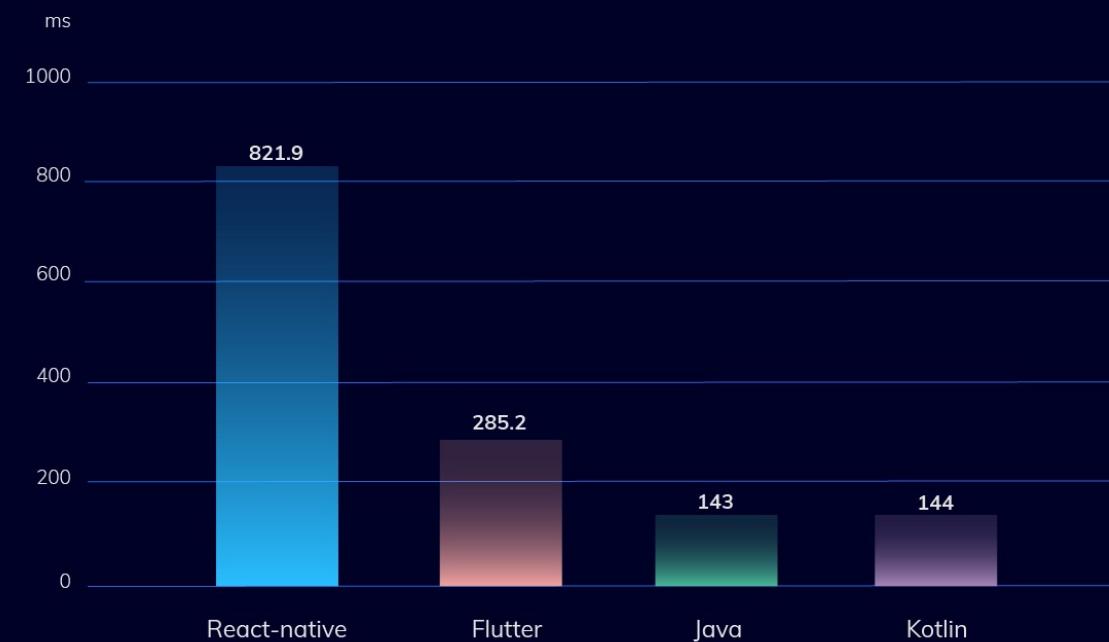


Native Performance

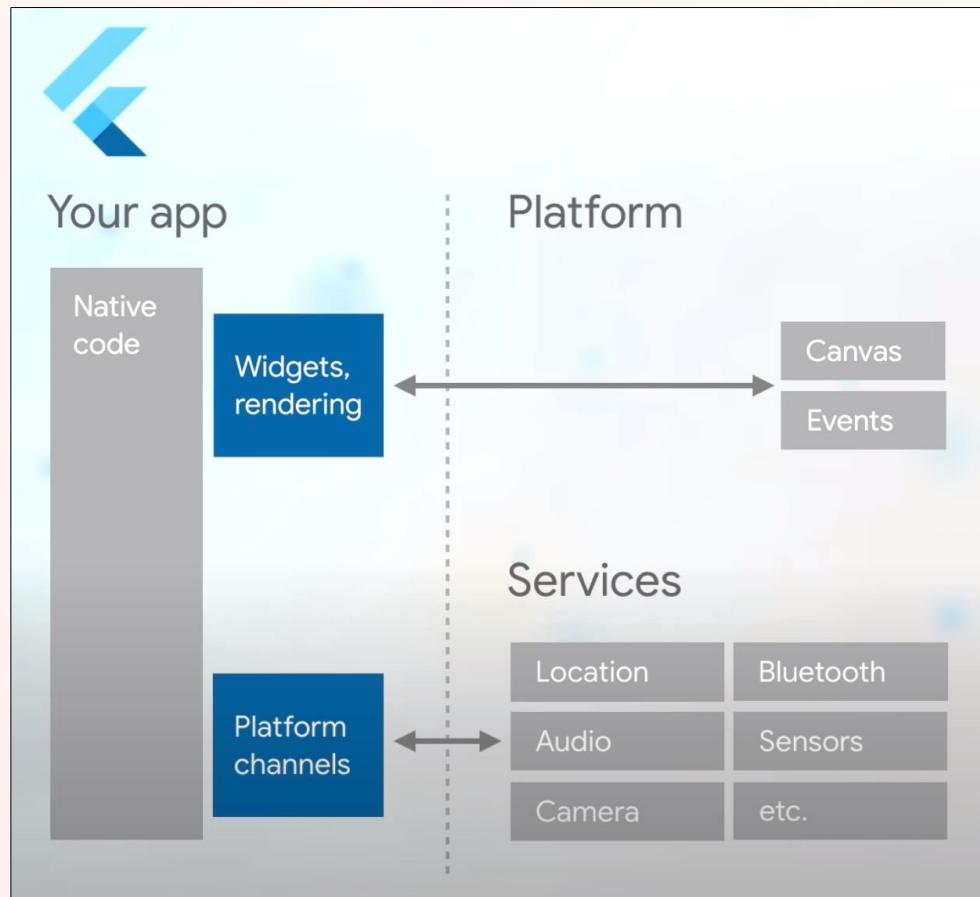
Gauss-Legendre (Android)



Borwein algorithm (Android)



Native Performance



Flutter Engine: ± 3.5 MB

Minimal Flutter App (APK): $\pm 4.3 - 4.6$ MB

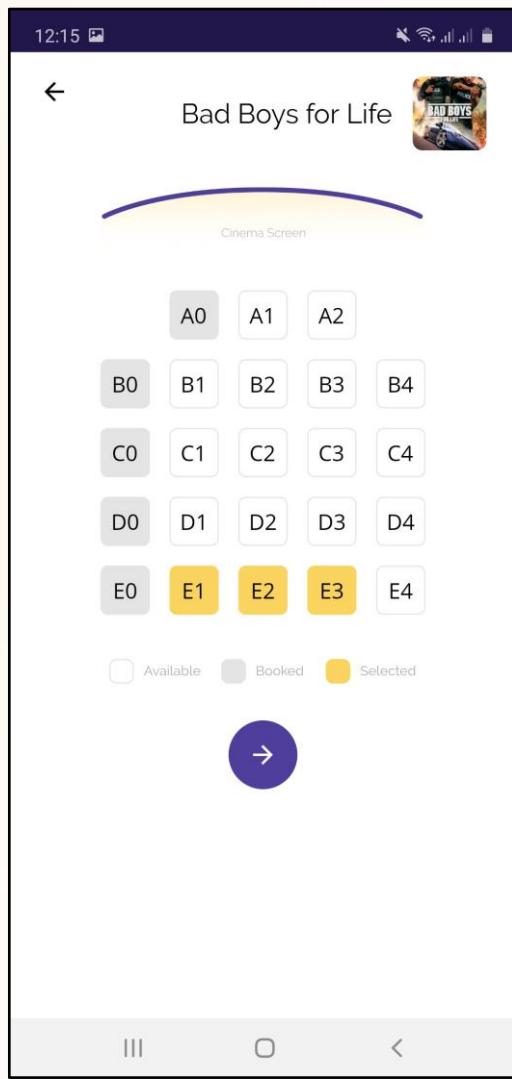
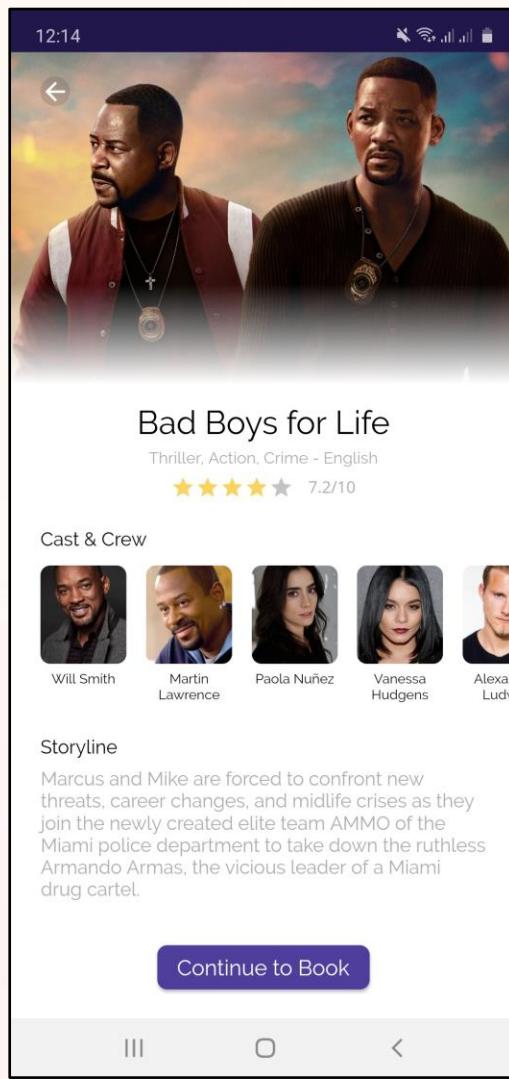
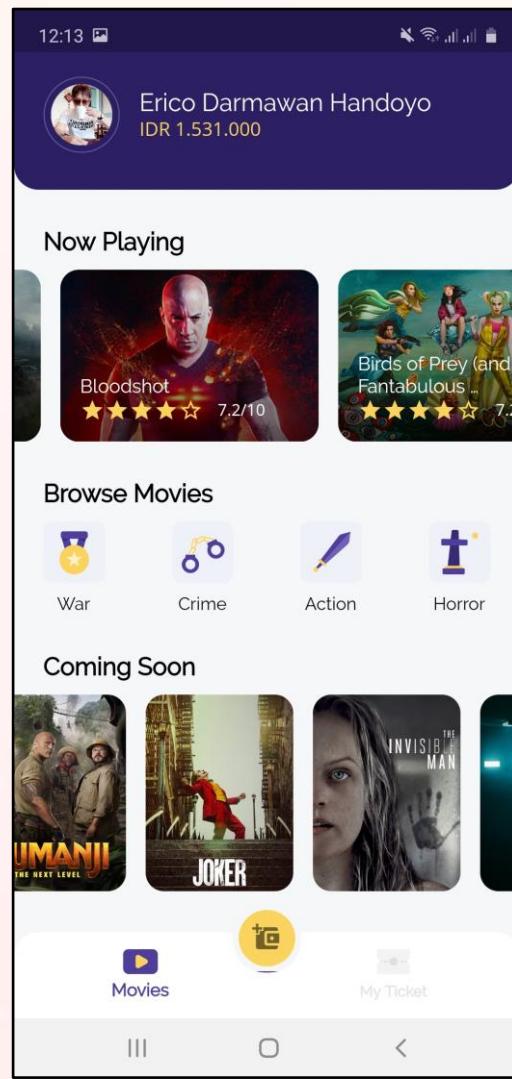


Flutter and Fuchsia

The Next Big Thing



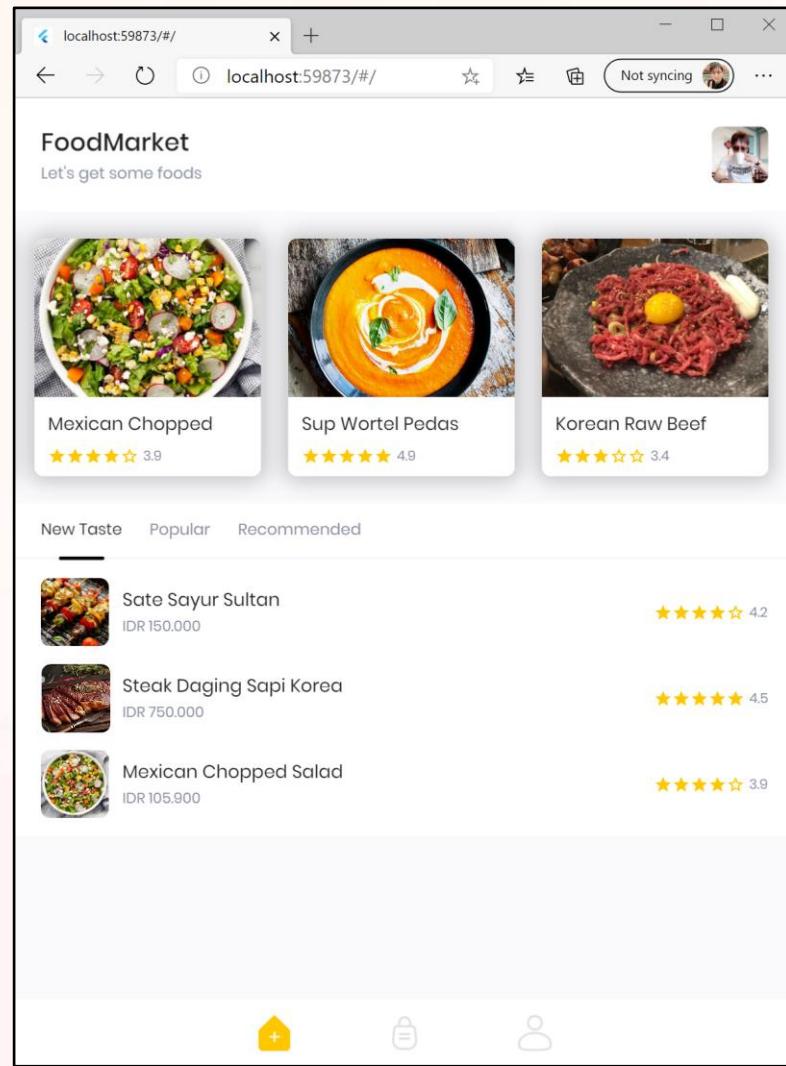
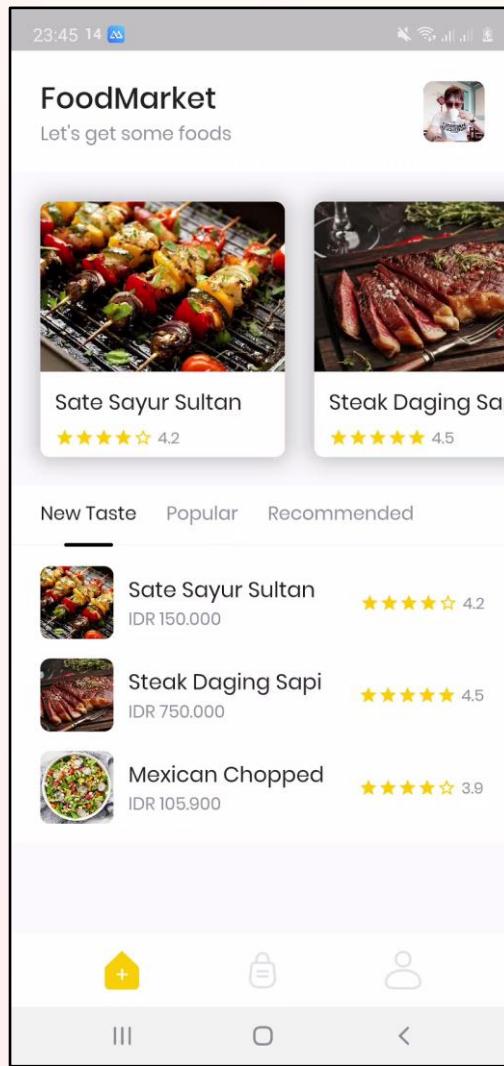
Flutter Showcase



A promotional card for the Flutix app. It features a purple film reel icon and a yellow ticket stub icon. The text "Flutix" is at the top, followed by "Erico Darmawan Handoyo Libraries & Demo" and a "3+" rating. A note says "This app is compatible with your device." At the bottom, the URL "shorturl.at/fyB69" is displayed in a large, bold font.



Flutter Showcase



*UI design by BWA

Flutter Showcase



Grab

Flutter helped Grab build the merchant app for its fast-growing food delivery business.

[Download ▾](#)



Abbey Road Studios

Abbey Road Studio's Topline app continues the studio's tradition of innovation.

[Download ▾](#)



Alibaba Group

Flutter helped bring a new app for the world's biggest online marketplace to life.

[Learn more ↗](#) [Download ▾](#)



Baidu

Baidu Tieba is the largest Chinese communication platform hosted by Chinese search engine company Baidu.

[Download ▾](#)



Nubank

Flutter helped Nubank in its mission to end the complexity of traditional banks and put financial control back in the hands of the user.

[Learn more ↗](#) [Download ▾](#)



PHILIPS hue

Flutter brought intuitive controls to Philips Hue apps, allowing users to set the mood and sync their smart lights to their media quickly and easily.

[Learn more ▾](#)



EMAAR

Global property developer, Emaar built a new app designed for mobile-first interaction with unique blockchain-based features.



Greentea

An internal customer management app used widely by Google sales that provides rich visualizations for tracking sales targets.

Flutter Fundamentals

- ❖ Object Oriented Programming with Dart - 13 videos [on going]
- ❖ Flutter Tutorial (Fundamentals) – 93 videos [on going]



<https://www.youtube.com/c/ericodarmawanhandoyo>

References

- ❖ Digital 2020: Indonesia:

<https://datareportal.com/reports/digital-2020-indonesia>

- ❖ How is Flutter different for app development:

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

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

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

- ❖ Flutter and Fuchsia – The next big thing:

<https://medium.com/flutterdevs/flutter-and-fuchsia-the-next-big-thing-b0688674b681>

- ❖ How big is the Flutter engine?:

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

- ❖ Flutter 2020: The State of Cross-Platform:

<https://medium.com/swlh/flutter-2020-state-of-cross-platform-814f1d8ff16>



Thank you

You can get this presentation at
shorturl.at/sCNR4



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