

ILT 5 - Pengenalan Flutter

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Aturan **Instructor/Expert Led Session**



Fokus Penuh



Always-on Camera



Raise hand atau Chat jika ingin bertanya



Mute jika sedang tidak berbicara

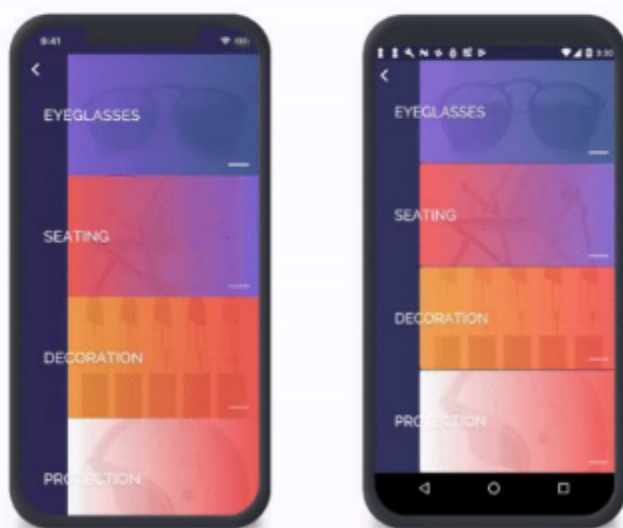
Porsi Skor Penilaian (Tech)

Jenis Aktivitas	Porsi Skor
Rata-rata Kuis pada ILT	20%
Aktivitas selama ILT (bertanya, menjawab, membantu diskusi)	10%
Aktivitas Forum Diskusi*	10%
Rata-rata Exam/Submission Project	60%

**Jika ditemukan peserta spamming pada forum diskusi, maka nilai terbaik yang bisa didapat adalah 60 (dari skala 100)*

Pengenalan Flutter

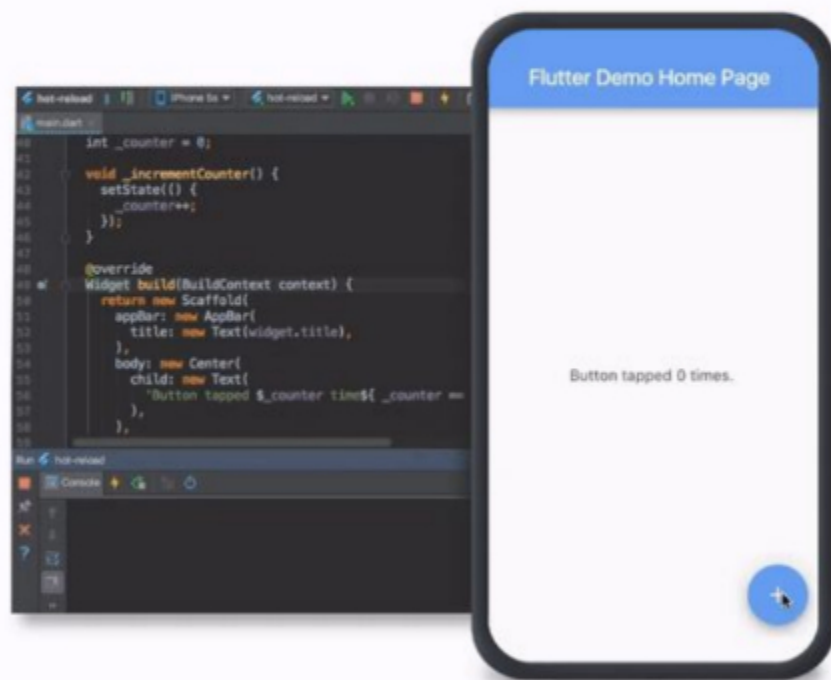
Apa itu **Flutter**?



“Flutter is Google's UI toolkit for building beautiful, natively compiled applications for mobile, web, desktop, and embedded devices from a single codebase.”
flutter.dev

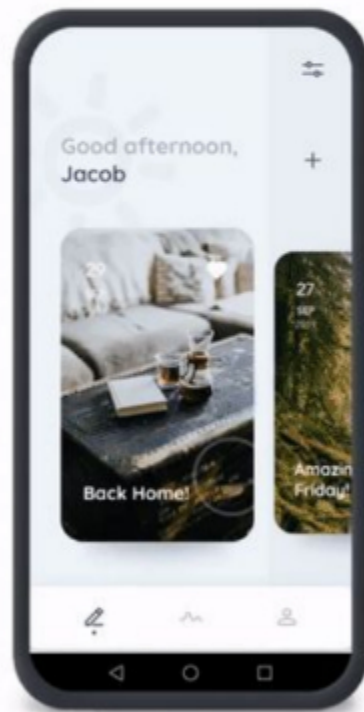
Apa yang membuat Flutter menarik?

- Pengembangan yang cepat



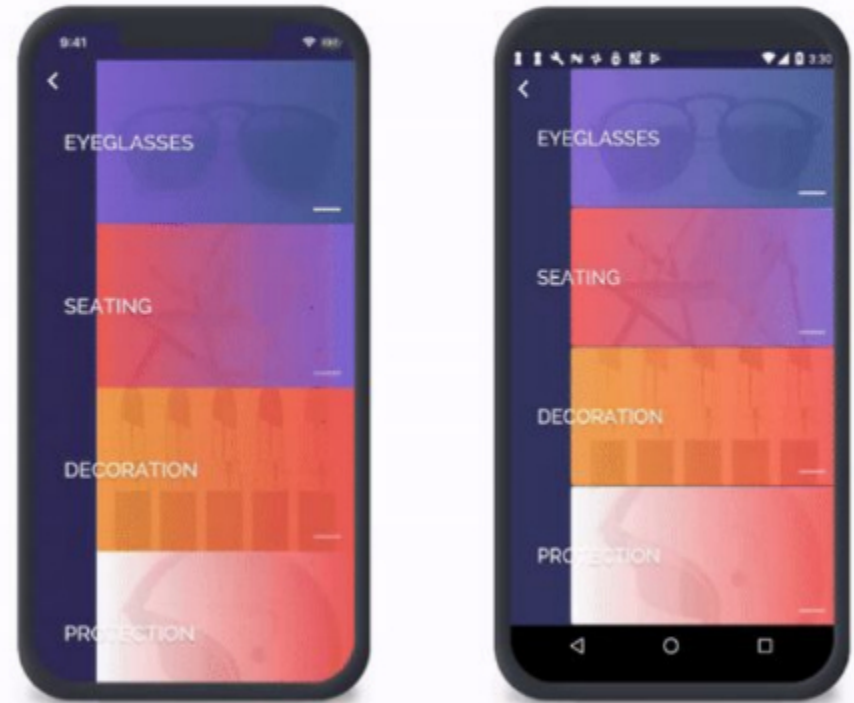
Apa yang membuat Flutter menarik?

- Pengembangan yang cepat
- UI yang cantik dan ekspresif



Apa yang membuat Flutter menarik?

- Pengembangan yang cepat
- UI yang cantik dan ekspresif
- Performa native



Android vs Flutter

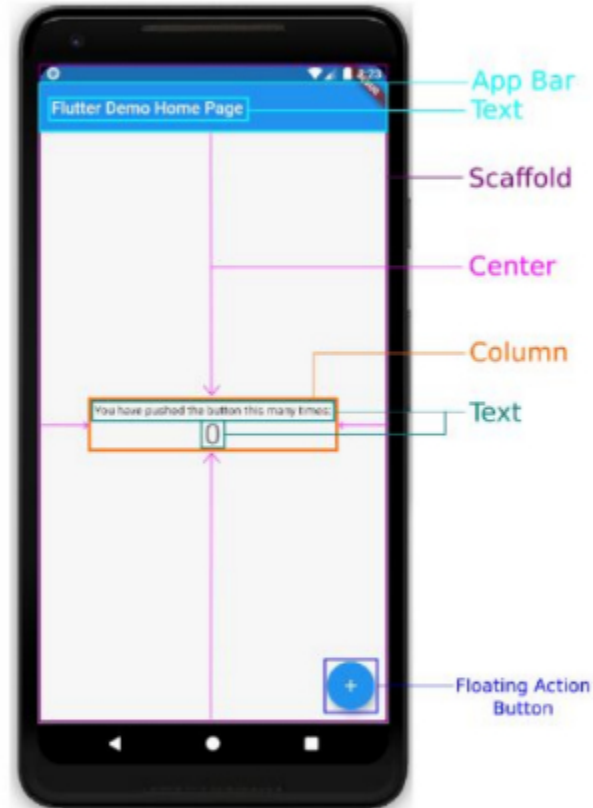
Android	Flutter
View	Widget
Intent	Routes
Executors/Coroutines	Future & async-await
Retrofit	http
Gradle	pubspec

Widget

In Flutter, everything is a widget

Widgets

- Komponen untuk membangun UI di aplikasi Flutter
- Stateless & Stateful
- Bisa merepresentasikan:
 - Structures : Button, Text, Image
 - Layout : Row, Column, Stack, Scaffold
 - Styles : TextStyle, Color, Padding
 - Animations : FadeInPhoto, ColorTween
 - Positioning & Alignment : Center, Padding



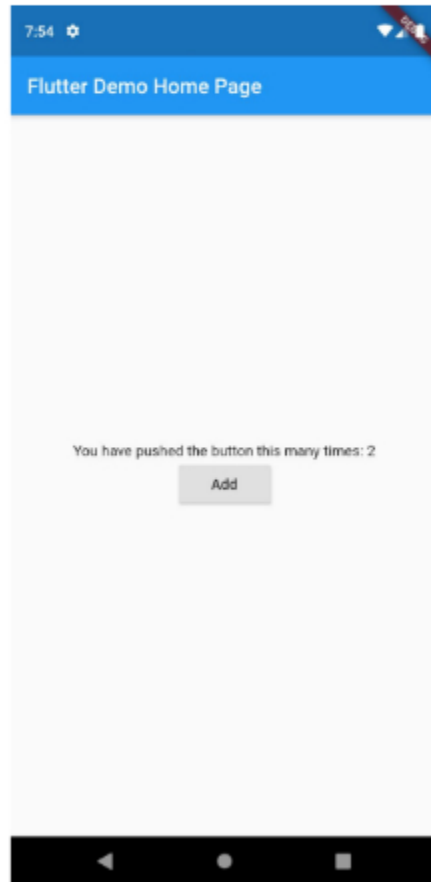
Stateless Widget

```
class MyHomePage extends StatelessWidget {  
  MyHomePage({Key key, this.title}) : super(key: key);  
  
  final String title;  
  
  @override  
  Widget build(BuildContext context) {  
    return Scaffold(  
      appBar: AppBar(  
        title: Text(title),  
      ),  
      body: Center(  
        child: Column(  
          mainAxisAlignment: MainAxisAlignment.center,  
          children: <Widget>[  
            Text(  
              'Hello :)',  
            ),  
          ],  
        ),  
      ),  
    );  
  }  
}
```



Stateful Widget

```
class MyCounter extends StatefulWidget {  
  @override  
  _MyCounterState createState() => _MyCounterState();  
}  
  
class _MyCounterState extends State<MyCounter> {  
  int _counter = 0;  
  
  void _incrementCounter() {  
    setState(() {  
      _counter++;  
    });  
  }  
  
  @override  
  Widget build(BuildContext context) {  
    return Center(  
      child: Column(  
        mainAxisAlignment: MainAxisAlignment.center,  
        children: <Widget>[  
          Text(  
            'You have pushed the button this many times: $_counter',  
          ),  
          RaisedButton(  
            onPressed: _incrementCounter,  
            child: Text('Add'),  
          ),  
        ],  
      ),  
    );  
  }  
}
```

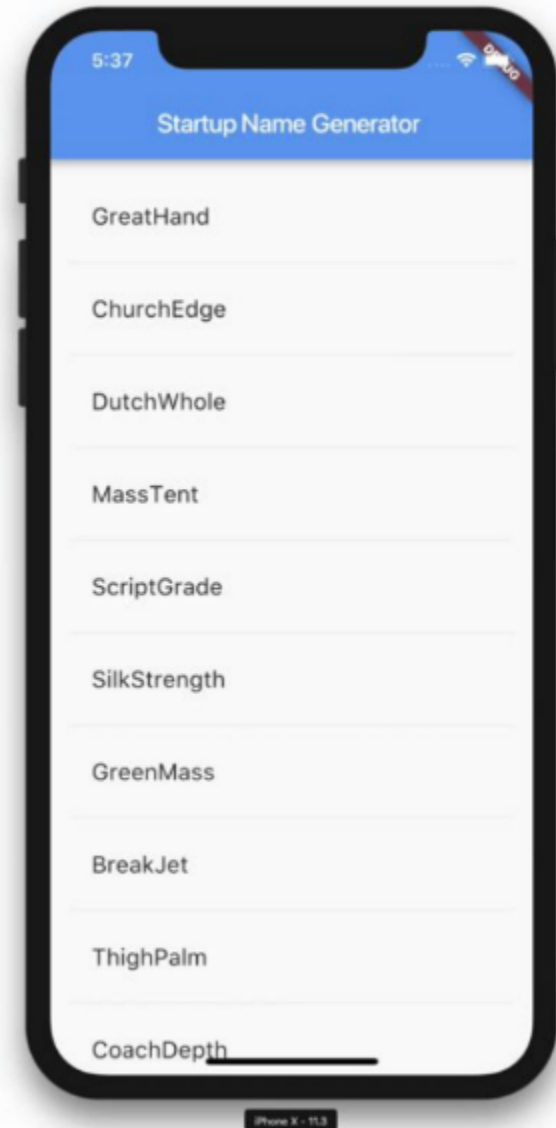




<https://romanjustcodes.web.app/#/workshops>

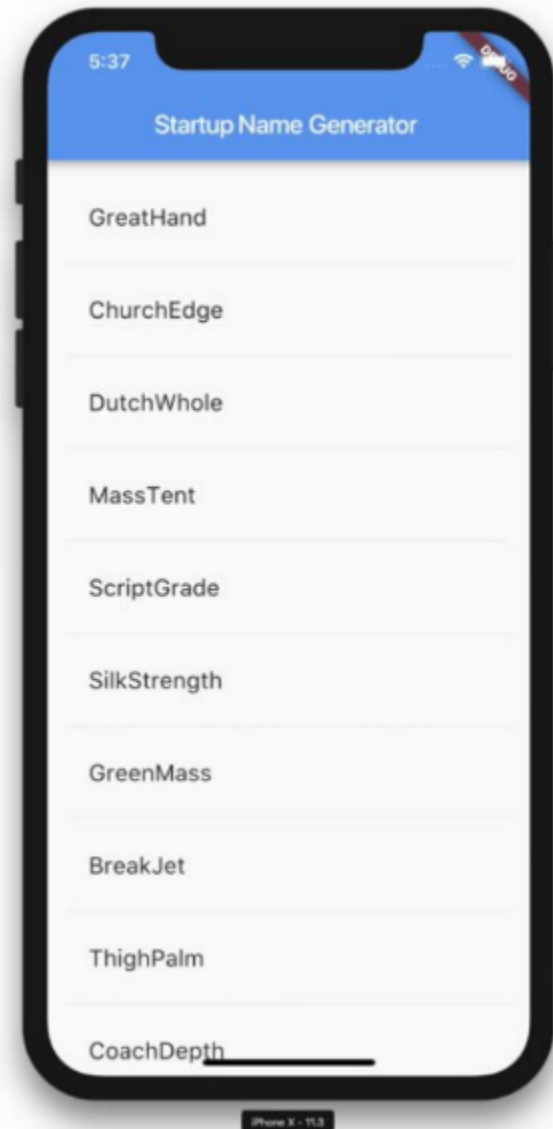
ListView

```
class MyPage extends StatelessWidget {  
  MyPage({Key? key}) : super(key: key);  
  
  final List<String> nameList = <String>[...];  
  
  @override  
  Widget build(BuildContext context) {  
    return Scaffold(  
      appBar: AppBar(  
        title: Text('Startup Name Generator'),  
      ),  
      body: ListView(  
        children: nameList  
          .map((e) => ListTile(  
            title: Text(e),  
          ))  
          .toList(),  
      ),  
    );  
  }  
}
```



ListView.builder

```
class MyPage extends StatelessWidget {  
  MyPage({Key? key}) : super(key: key);  
  
  final List<String> nameList = <String>[...];  
  
  @override  
  Widget build(BuildContext context) {  
    return Scaffold(  
      appBar: AppBar(  
        title: Text('Startup Name Generator'),  
      ),  
      body: ListView.builder(  
        itemCount: nameList.length,  
        itemBuilder: (context, index) {  
          return ListTile(  
            title: Text(nameList[index]),  
          );  
        },  
      ),  
    );  
  }  
}
```

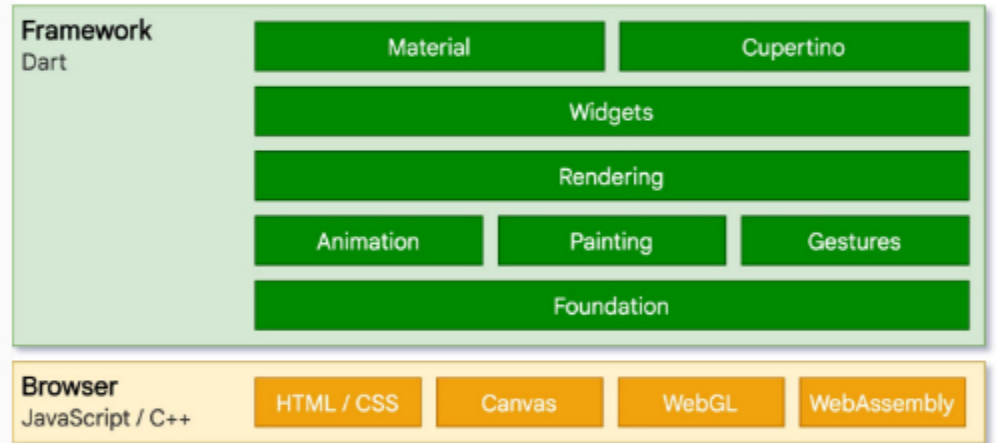


Katalog Widget

<https://flutter.dev/docs/development/ui/widgets>

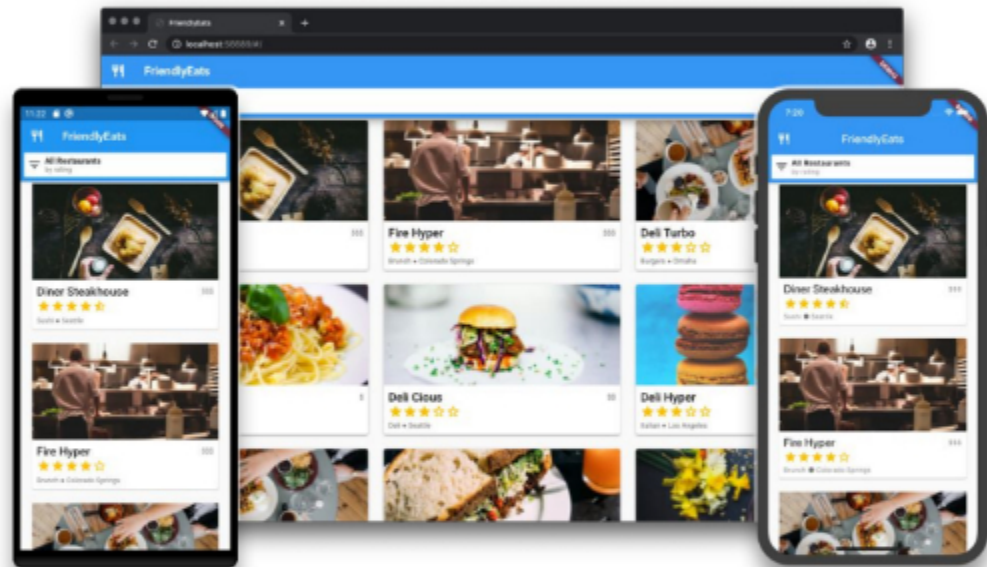
Flutter for Web

Flutter vs Flutter for Web



Flutter Web

- Stable sejak versi Flutter 2
- Digunakan untuk:
 - Progressive Web Apps (PWAs)
 - Single Page Apps (SPAs)
 - Existing Flutter mobile apps
- Tersedia dalam 2 renderers:
 - HTML renderer:
`flutter run -d chrome`
`--web-renderer html`
 - CanvasKit renderer:
`flutter run -d chrome`
`--web-renderer canvaskit`



Build Flutter

Flutter Build

```
flutter build apk/appbundle/ipa*/web
```



[LINK]

Pertanyaan sesi Talks

- Sudah berapa lama menggunakan Flutter?
- Apa impresi pertama saat menggunakan Flutter?
- Apakah sudah pernah mengembangkan aplikasi yang production ready menggunakan Flutter?
- Sebelumnya sudah pernah ngoding native? Jika iya apa perbedaan signifikan dengan mengembangkan aplikasi menggunakan Flutter?
- Kira-kira ada gambaran gak prospek Flutter kedepannya bakal seperti apa?

**akan diskip saat presentasi*

dicoding

Kampus
Merdeka
INDONESIA JAYA