#### State Management

- StatelessWidget
- StatefulWidget

#### **Basic Widgets**

- · MaterialApp, Scaffold
- Text, TextSpan, RichText, Text.rich
- · Icon, Image
- · Card, ListTile

#### **Navigation Widgets**

- AppBar, SliverAppBar
- Drawer
- TabBar, TabBarView, BottomNavigationBar

#### **Routing Widgets**

- MaterialPageRoute class
- Navigator

#### **Layout Widgets**

- LayoutBuilder
- Center, Container, Padding, AnimatedContainer
- · SizedBox, FittedBox
- Row, Column, ListView, GridView, Wrap, SingleChildScrollView, PageView
- · Stack, Positioned, Align
- · Expanded, Flexible, Spacer
- AspectRatio
- ConstrainedBox

#### Input & Interactive Widgets

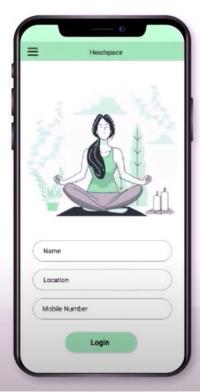
- GestureDetector
- ElevatedButton,
   FilledButton,
   OutlinedButton, TextButton
- PopupMenuButton
- Checkbox, Radio, Switch, Slider
- TextField, Form, TextFormField
- FloatingActionButton
- DropDownButton

#### **Other Widgets**

- · MediaQuery, Theme
- · Divider, VerticalDivider
- BottomSheet
- · Hero
- AnimatedBuilder
- CircularProgressIndicator, LinearProgressIndicator
- · FutureBuilder, StreamBuilder
- · Overlay class
- Dialog, AlertDialog, SnackBar, SimpleDialog
- Semantics
- · SafeArea

- ClipRRect
- Opacity
- RotationTransition
- FadeTransition

i







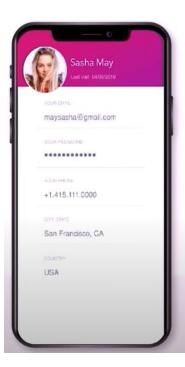
## **GALLERY APPS**





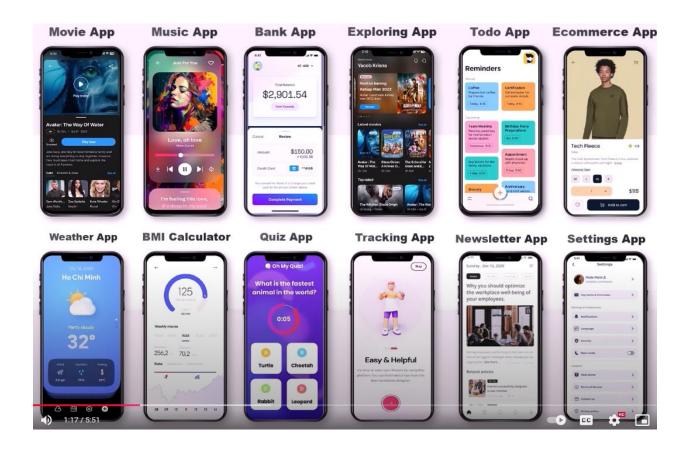


## **SOCIAL APPS**





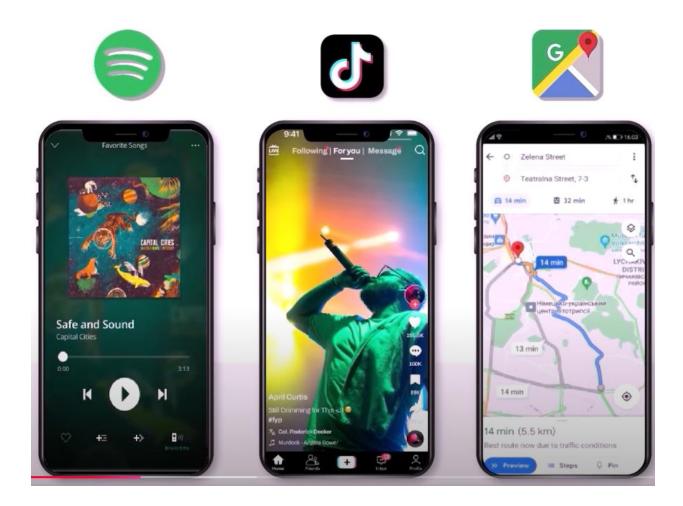




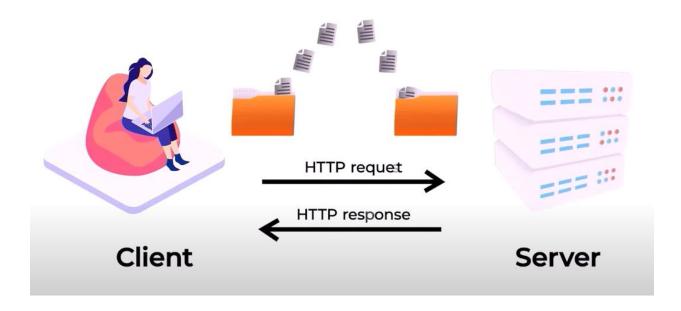
For many app UI: <a href="https://dribbble.com/tags/mobile-app-ui">https://dribbble.com/tags/mobile-app-ui</a>

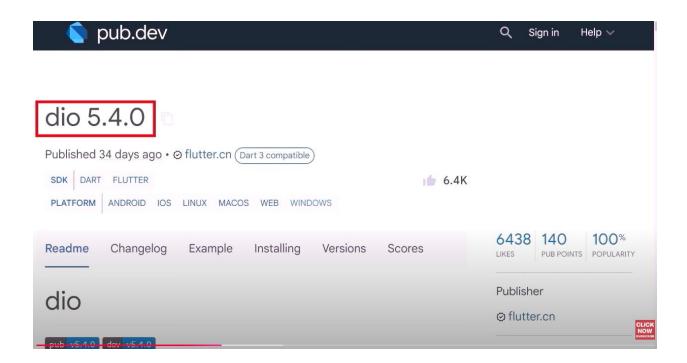
Search for (Keyword): Mobile App, E-commerce App, Delivery Apps,



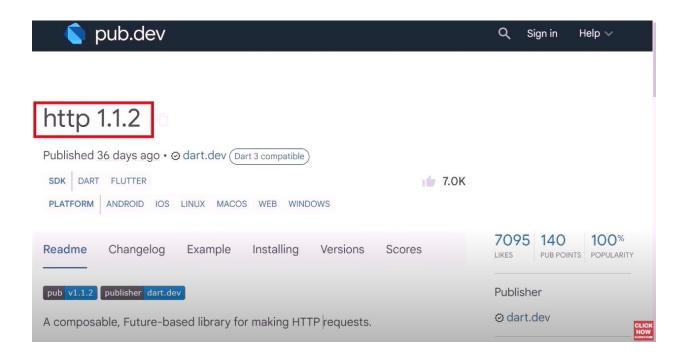


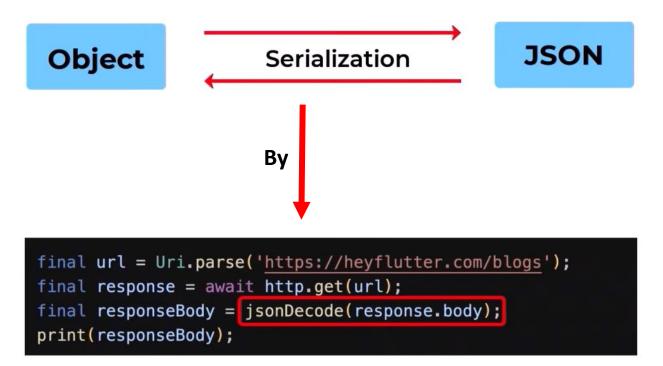
## **Networking:**





## Or





## Deserialization



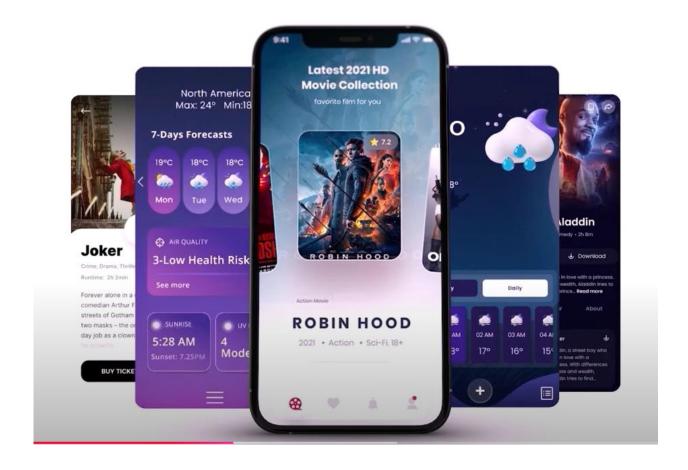
```
const data = ('name':'Haris','organization':'Hey Flutter');
final jsonString = jsonEncode(data);
print(jsonString);
///{"name":"Haris","organization":"Hey Flutter"}

Serialization

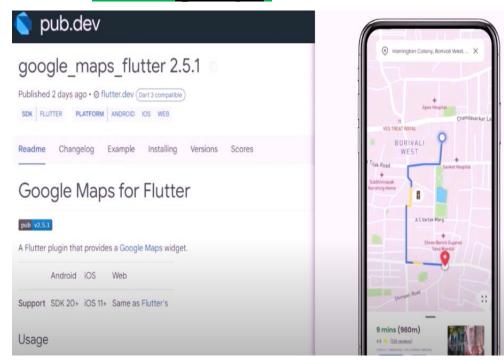
1:53/5:51
```



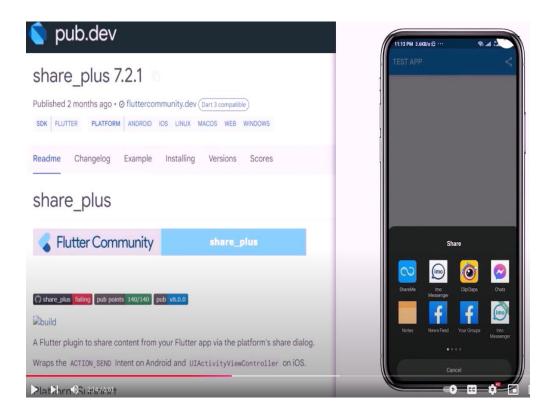
## Wheter app or Movie App for how to fetch data or communicate with API

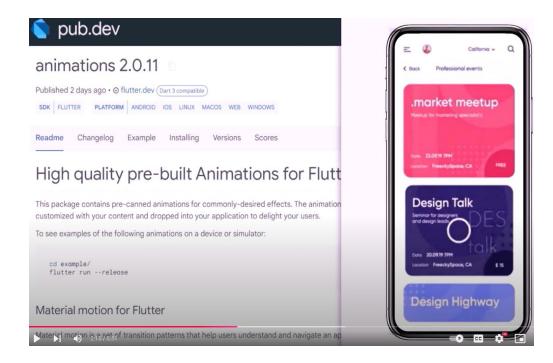


## **Pub.dev** pakages:



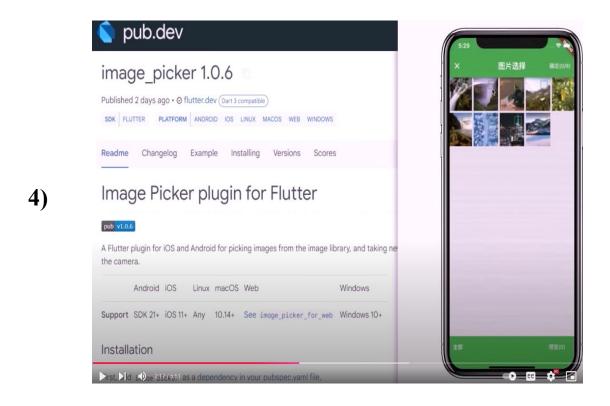
1)





2)

3)



## **Many More**

### **Most Popular Packages Database** · url\_launcher

- CachedNetworkImage
- Path Provider
- Font\_awesome\_flutter
- File Picker
- syncfusion\_flutter\_calendar
- · fl\_chart
- · flutter\_native\_splash
- · flutter\_screenutil
- smooth\_page\_indicator

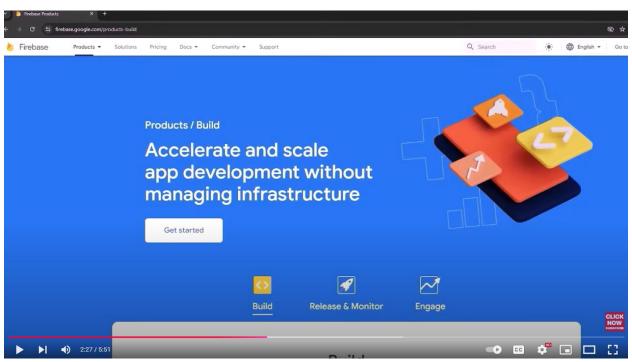
#### Shared Preferences

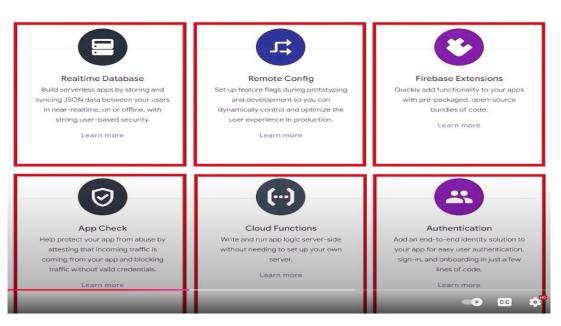
- Sqflite
- Hive
- Drift
- Object Box

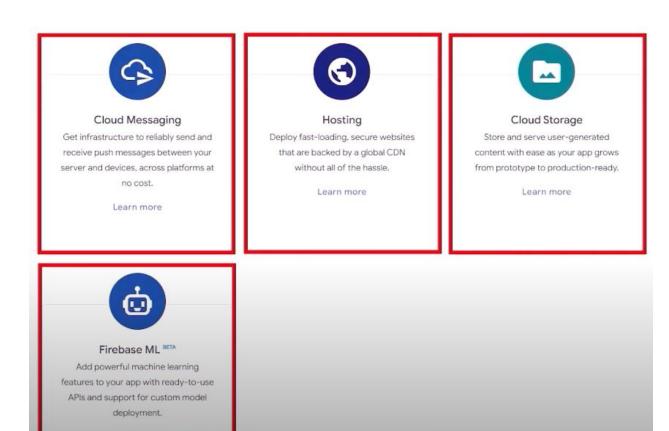
#### **Firebase**

- Authentication
- Storage (Firebase Storage)
- Firestore
- Push Notifications
- Firebase Analytics









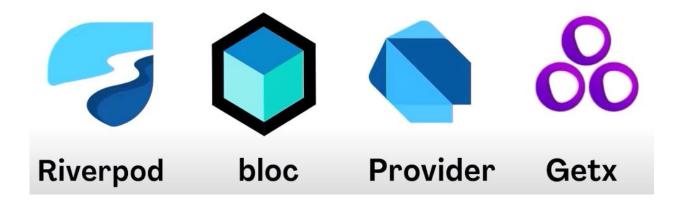
## **Alternative**



## STATE MANAGEMENT

```
class MyWidget extends StatefulWidget {
 const MyWidget({super.key});
 @override
 State<MyWidget> createState() => _MyWidgetState();
class _MyWidgetState extends State MyWidget> {
 int counter = 1;
 @override
 Widget build(BuildContext context) {
    return ElevatedButton(
      onPressed: () => setState(() => counter += 1),
      child: Text('$counter'),
    ); // ElevatedButton
```

## **YOU CAN CHOOSE BETWEEN**



## **StatelessWidget**

## StatefulWidget

```
class MyWidget extends StatefulWidget {
class MyWidget extends StatelessWidget {
                                                                    const 'vWidget({super.key});
  final int counter;
  final ValueChanged<int> onCounterIncremented;
                                                                   @override
                                                                                   createState() => //WidgetState();
                                                                    State<MyWidge
 const MyWidget({
   required this counter,
   required this.onCounterIncremented.
                                                                  class _MyWidgetState ex. nds _state MyWidget> {
   super.kev.
                                                                    int counter = 1;
 @override
                                                                    @override
                                                                    Widget build(BuildContext contex
 Widget build(BuildContext context) {
                                                                      return ElevicedButton(
  onPress_d: () => setState(() => c. inter += 1),
    return ElevatedButton(
     onPressed: () => onCounterIncremented(counter + 1),
                                                                        chil : Text('$counter'),
     child: Text('$counter'),
                                                                      ); ElevatedButton
```



Learn Git version management for with clients and team.

Learn Master git for seamless collaboration

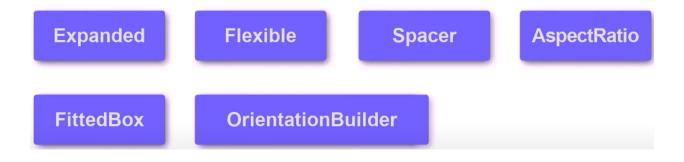
Learn commits, pull request, git init command, add ., git commit -m 'my message' git push origin branch-name,



```
class Home extends StatelessWidget {
  const Home({super.key});

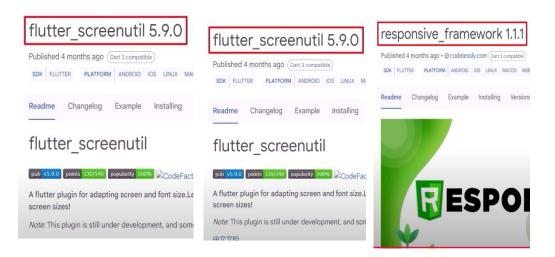
@override
Widget build(BuildContext context) {
  return LayoutBuilder(
  builder: (_, constraints) {
    final screenWidth = constraints.maxWidth;
    if (screenWidth < 600) {
      return buildMobile();
    } else if (screenWidth <= 800) {
      return buildTablet();
    } else {
      return buildDesktop();
    }
  }
  },
  );
}</pre>
```

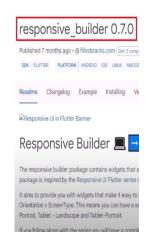
## **RESPONSIVE WIDGETS**



## **Advance**

## Different Responsive Packages like:-





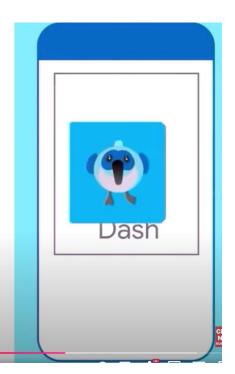
# ANIMATIONS

```
class MyHomePage extends StatelessWidget {
    @override
    Widget build(context) {
        ...
        Hero(
          tag: 'dash',
          child: Image.asset('images/dash.jpg'),
        )
        ...
    }
}
```

## Hero

## Animated Widgets

```
class MyHomePage extends StatelessWidget {
    @override
    Widget build(context) {
        ...
    Hero(
        tag: 'dash',
        child: Image.asset('images/dash.jpg'),
        )
        ...
}
```



## **Animations Courses**



Animations 1



Animations 2



**Animations 3** 

## **ORGANIZING CODE**

# MAJOR STEP DESIGN PRINCIPLES

**SOLID** Principles

**DRY**Don't repeat Yourself

KISS
Keep is simple, Stupid

YGNI
You ain't gonna need it

## **ARCHITECTURE**

Clean Architecture

MVC model-view-controller

**MVP** 

model-view-presenter

**MVVM** 

model view viewmodel

## **MASTER DESIGN PATTERNS**

#### **Creational Patterns**

- Abstract Factory
- Builder
- Factoru Method
- Prototype
- Singleton

#### **Structural Patterns**

- Adapter
- Bridge
- · Composite
- DecoratorFacade
- · Flyweight
- Proxy

#### **Behavioural Patterns**

- Chain of Responsibility
- Command
- Interpreter
- Iterator
- Mediator
- MementoObserver
- State
- Strategy
- · Template Method
- Visitor

# PUBLISH APP

