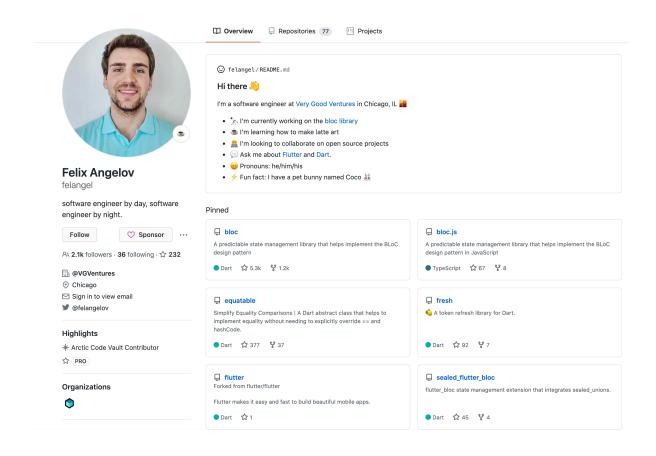


Go with the Flow using Navigator 2.0

Felix Angelov @ Very Good Ventures

Very Good Ventures, Chicago 🕶 🦄





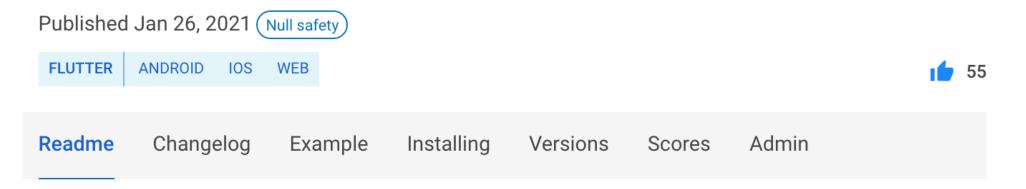
https://verygood.ventures

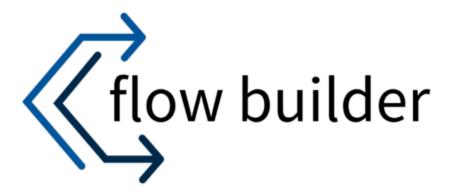
Agenda

- Intro to FlowBuilder
- How to use it
- · Demo

package:flow_builder

flow_builder 0.0.1-nullsafety.0 🗈





Flutter Flows made easy!



55 110 82% PUB POINTS POPULARITY

Metadata

Flutter Flows made easy! A Flutter package which simplifies flows with a flexible, declarative API.

Repository (GitHub)
View/report issues

Documentation

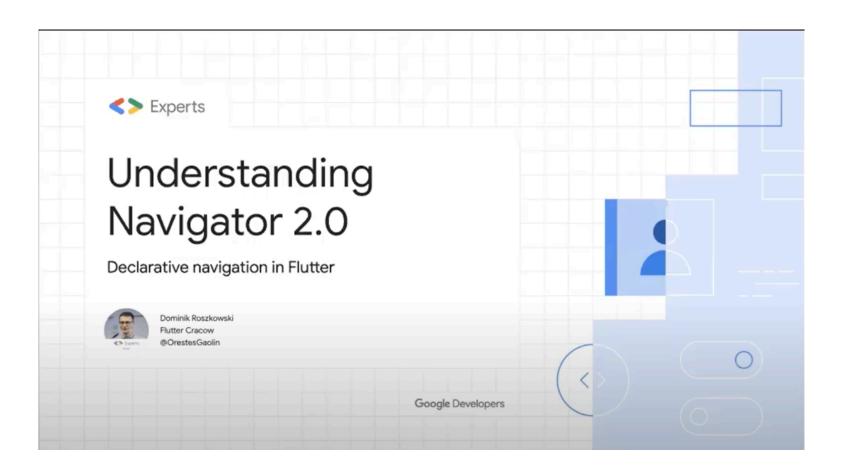
What is FlowBuilder?



? ? ?

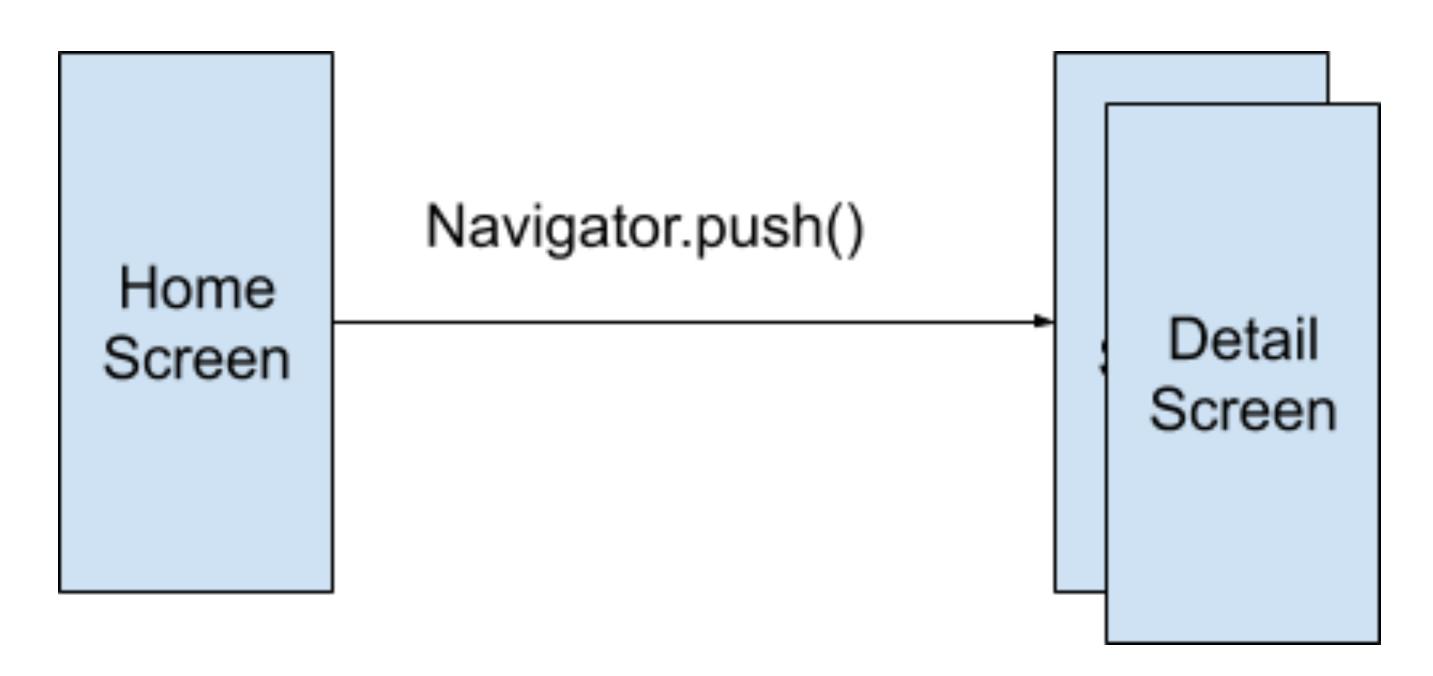
Navigator 2.0 Pages API Abstraction

In Depth Look at Navigator 2.0



https://youtu.be/GxoFl5kzJgE

Why Navigator 2.0 Pages API Abstraction?



Why Navigator 2.0 Pages API Abstraction?

```
// Return a Navigator with a list of Pages representing the current app state.
return Navigator(
 key: navigatorKey,
 onPopPage: _handlePopPage,
  pages: [
    MaterialPageBuilder(
      key: ValueKey<String>('home'),
      builder: (context) => HomePageWidget(),
    if (state.searchQuery != null)
     MaterialPageBuilder(
        key: ValueKey<String>('search'),
        builder: (context) => SearchPageWidget(),
   if (state.stockSymbol != null)
      MaterialPageBuilder(
        key: ValueKey<String>('details'),
        builder: (context) => DetailsPageWidget(),
);
```

Why Navigator 2.0 Pages API Abstraction?

"We hope that you'll join us in exploring what a higher-level API built on top of these features can do for users."

John Ryan

Why FlowBuilder?

- Small API Surface
- Pages = Function(State)
- Decouple Routing Logic from Widget Tree
- Flexible, Declarative API

Why FlowBuilder Cont.?

- Handles System Navigation
 - Android Hardware Back
 - iOS Edge Swipe
- Use alone or with existing state management
- Unit Test Routing Logic
- Widget Test Flows

How do I use it? 🚱



Add package:flow_builder

Add the dependency to your pubspec.yaml

```
dependencies:
   flow_builder: ^0.0.1-dev.13
```

\$ flutter packages get

Define Flow State

```
class Profile {
  const Profile({this.name, this.age});
  final String name;
  final int age;
  Profile copyWith({String name, int age}) {
    return Profile(
      name: name ?? this.name,
      age: age ?? this.age,
```

What is driving the navigation?

Create a FlowBuilder

```
return FlowBuilder(
 state: const Profile(),
 onGeneratePages: (Profile state, List<Page> pages) {
    return [
     ProfileName.page(),
      if (state.name != null) ProfileAge.page(),
    ];
```

Think of it like a Navigator widget

Tip: Create Static Page Methods

```
class ProfileName extends StatefulWidget {
  static MaterialPage page() => MaterialPage(child: ProfileName());
  @override
  _ProfileNameState createState() => _ProfileNameState();
// Later...
final page = ProfileName.page();
```



```
return FlowBuilder(
  state: const Profile(),
  onGeneratePages: onGenerateProfilePages,
// Easy to Unit Test the Routing Logic
List<Page> onGenerateProfilePages(Profile state, List<Page> pages) {
  return [
    ProfileName.page(),
    if (state.name != null) ProfileAge.page(),
  ];
```

Optionally, Provide your own FlowController

```
final controller = FlowController(const Profile());
return FlowBuilder(
  controller: controller,
  onGeneratePages: (Profile state, List<Page> pages) {
    return [
      ProfileName.page(),
      if (state.name != null) ProfileAge.page(),
void dispose() {
  controller.dispose();
  super.dipose();
```

Look Up the FlowController ••

```
@override
Widget build(BuildContext context) {
   final controller = context.flow<Profile>();
}
```

 Access the FlowController from within the subtree using the flow extension on BuildContext

Update the Flow State

```
OutlineButton(
  child: Text('Update Name'),
  onPressed: () {
    context.flow<Profile>().update((profile) {
      return profile.copyWith(name: 'Felix');
    });
  });
},
```

Triggers on Generate Pages with the updated state.

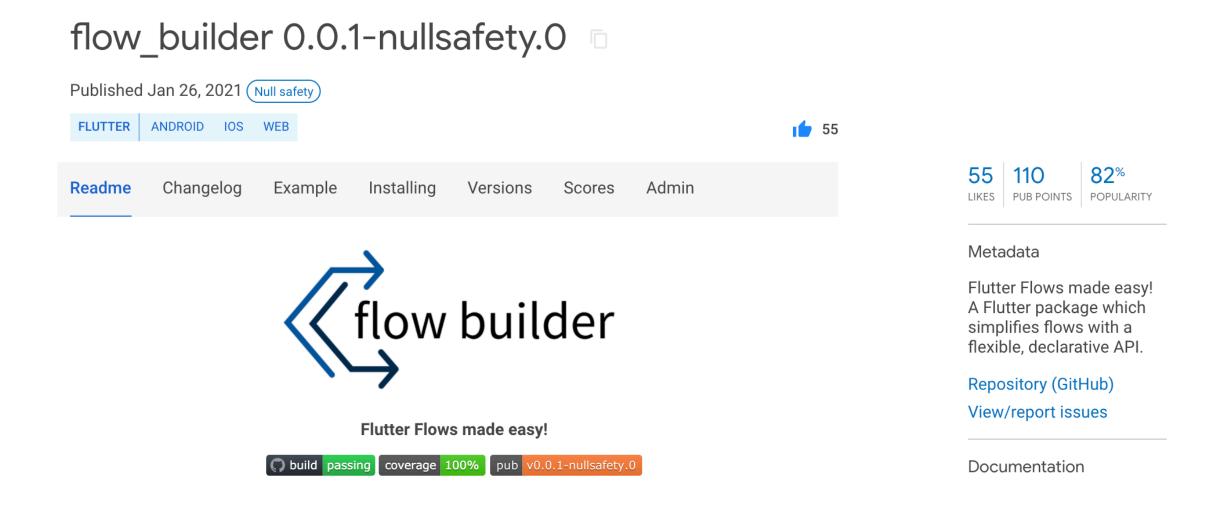
Complete the Flow

```
OutlineButton(
  child: Text('Update Age'),
  onPressed: () {
    context.flow<Profile>().complete((profile) {
      return profile.copyWith(age: 26);
    });
  },
},
```

Pops the entire flow and returns the resulting state.

Try it with Sound Null Safety Today!

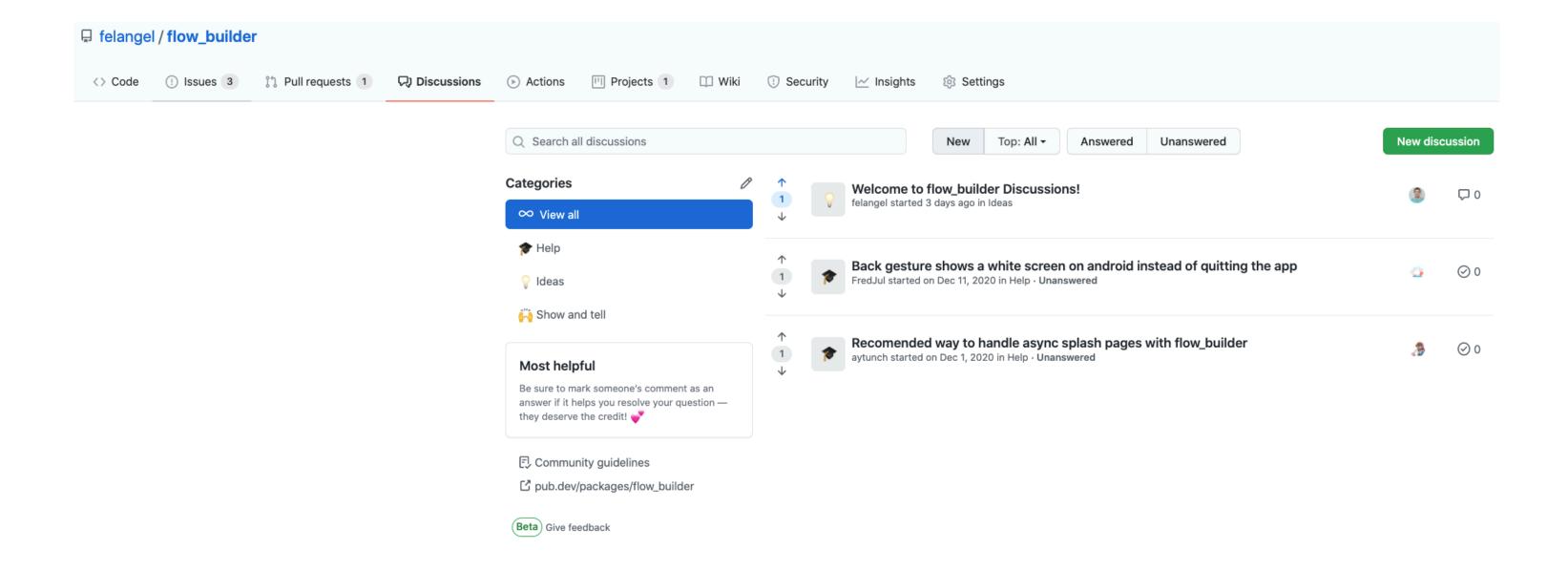




dependencies:

flow_builder: ^0.0.1-nullsafety.0

Start a Discussion!



@felangelov - Flutter Hub Meetup 2021

What's Next?





Demo Time

https://github.com/felangel/flutter_flows



Thank You!