1 # Table Of 'Contents'{
2
3
4   Thursday,   Session 1
5   Feb 23th
                   < Introducing Mobile Dev by
6   targeting Flutter ... >
7   Friday,   Session 2
8   Feb 25th
                   < Introduction to Dart ... >
9
10   Saturday,   Session 3
      Feb 27th
11   < Flutter Layouts ... >
12
13
14   }

1 # Aymen's Flutter 'RoadMap' {

2

3   Step 01 : Dart   The initial plan should be deeply focused over
4   Language   the language in which you will be building your
                                      app. So focus the mainly over DART LANGUAGE
5

6   Step 02 :   Explore the Flutter Ecosystem : yaml file,
       Flutter   main method, runApp method, MaterialApp,
7   Ecosystem   StatelessWidget vs StatefulWidget ...

8

9   Step 03 :   You should be knowing the mostly used widgets
       Flutter Widgets   in Flutter. Everything in Flutter is a widget.

10

11   Step 04 : Build   Build your own App by linking Flutter
       your own   concepts: screen navigation, code management,
12   creativity   App design.

13

14 }

Aymen's Flutter 'RoadMap' {

```
1
2
3      Step 01 : Dart          The initial plan  should be deeply focused over
4      Language                the language in which you will be building your
                               app. So focus the mainly over DART LANGUAGE
5
6      Step 02 :               Explore the Flutter Ecosystem : yaml file,
7      Flutter                 main method, runApp method, MaterialApp,
       Ecosystem               StatelessWidget vs StatefulWidget ...
8
9      Step 03 :               You should be knowing the mostly used widgets
       Flutter Widgets         in Flutter. Everything in Flutter is a widget.
10
11     Step 04 : Build         Build your own App by linking Flutter
12     your own                concepts: screen navigation, code management,
                               App design.
13     creativity
14  }
```
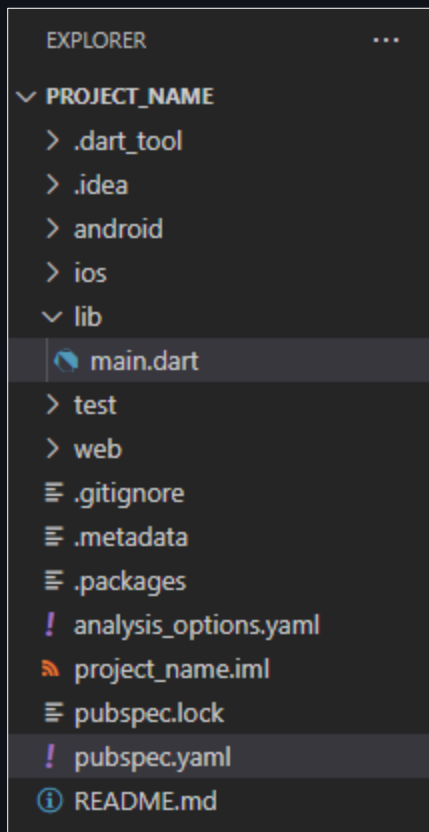
```
1    Flutter 'Ecosystem' {
2
3            [ Flutter Project ]
4
5
6        • Create new project (command) :
7
8                flutter create project_name
9
10       • we are mostly interested in the 2
11         files :
12
13               main.dart & pubspec.yaml
14   }
```

EXPLORER   ...

∨ PROJECT_NAME
  > .dart_tool
  > .idea
  > android
  > ios
  ∨ lib
    🔹 main.dart
  > test
  > web
  ≡ .gitignore
  ≡ .metadata
  ≡ .packages
  ! analysis_options.yaml
  🔖 project_name.iml
  ≡ pubspec.lock
  ! pubspec.yaml
  ⓘ README.md

```
1   Flutter 'Ecosystem' {
2
3
4
5
6
7
8          [ pubspec.yaml ]
9
10
11
12
13      }
14
```

```yaml
! pubspec.yaml ●

! pubspec.yaml
  1    name: project_name
  2    description: A new Flutter project.
  3
  4    publish_to: 'none' # Remove this line if you wish to publish to pub.dev
  5
  6
  7    version: 1.0.0+1
  8
  9    environment:
  10     sdk: ">=2.15.0 <3.0.0"
  11
  12   dependencies:
  13     flutter:
  14       sdk: flutter
  15
  16     # The following adds the Cupertino Icons font to your application.
  17     # Use with the CupertinoIcons class for iOS style icons.
  18     cupertino_icons: ^1.0.2
  19
  20   dev_dependencies:
  21     flutter_test:
  22       sdk: flutter
```

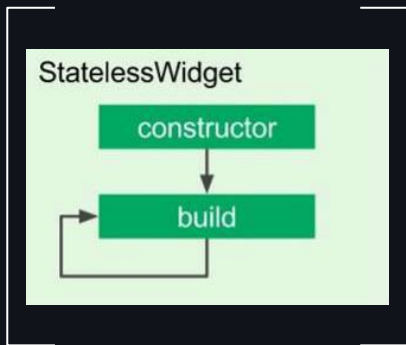# Flutter 'Ecosystem' {

[main.dart]

}

```dart
main.dart

lib > main.dart > _MyHomePageState > build
1   import 'package:flutter/material.dart';
2
    Run | Debug | Profile
3   void main() {
4     runApp(const MyApp());
5   }
6
7   class MyApp extends StatelessWidget {
8     const MyApp({Key? key}) : super(key: key);
9
10    // This widget is the root of your application.
11    @override
12    Widget build(BuildContext context) {
13      return MaterialApp(
14        title: 'Flutter Demo',
15        theme: ThemeData(
16          primarySwatch: Colors.blue,
17        ), // ThemeData
18        home: const MyHomePage(title: 'Flutter Demo Home Page'),
19      ); // MaterialApp
20    }
21  }
22
```
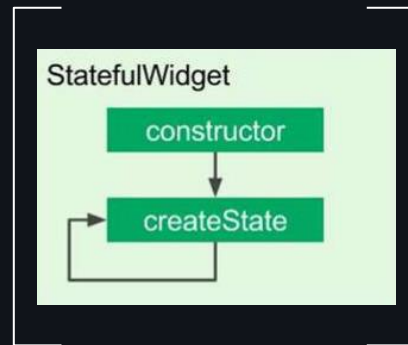
1 Flutter 'Ecosystem' {

2

3   [StatelessWidget vs StatefulWidget]

4

5

6

7

8

9

10

11 < A single StatelessWidget   < A StatefulWidget creates
12 can build in many different   anew State object for each
      Build Contexts :   Build Contexts : Scorallable,
13 AssetImage, Text ... >   Animatable ... >

14 }

1 **Flutter 'Ecosystem' {**

2

3   **[StatelessWidget vs StatefulWidget]**

4

5 ```dart
   class MyHomePage extends StatelessWidget {
     const MyHomePage({ Key? key }) : super(key: key);

     @override
     Widget build(BuildContext context) {
       return Container(

       );
     }
   }
   ```

   ```dart
   class MyHomePage extends StatefulWidget {
     const MyHomePage({ Key? key }) : super(key: key);

     @override
     _MyHomePageState createState() => _MyHomePageState();
   }

   class _MyHomePageState extends State<MyHomePage> {
     @override
     Widget build(BuildContext context) {
       return Container(

       );
     }
   }
   ```

11

12   **< StatelessWidget >**   **< StatefulWidget >**

13 **}**

14

1 # Aymen's Flutter 'RoadMap' {

2

3 Step 01 : Dart
4 Language

The initial plan should be deeply focused over the language in which you will be building your app. So focus the mainly over DART LANGUAGE

5

6 Step 02 :
   Flutter
7 Ecosystem

Explore the Flutter Ecosystem : yaml file, main method, runApp method, MaterialApp, StatelessWidget vs StatefulWidget ...

8

9 Step 03 :
   Flutter Widgets

You should be knowing the mostly used widgets in Flutter. Everything in Flutter is a widget.

10

11 Step 04 : Build
12 your own
   creativity

Build your own App by linking Flutter concepts: screen navigation, code management, App design.

13

14 }

```
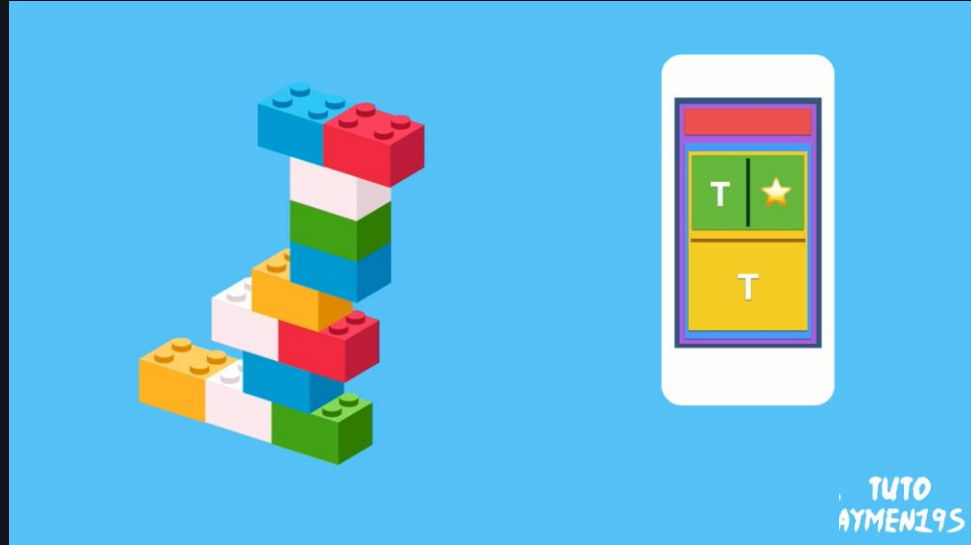1   Aymen's Flutter 'RoadMap' {
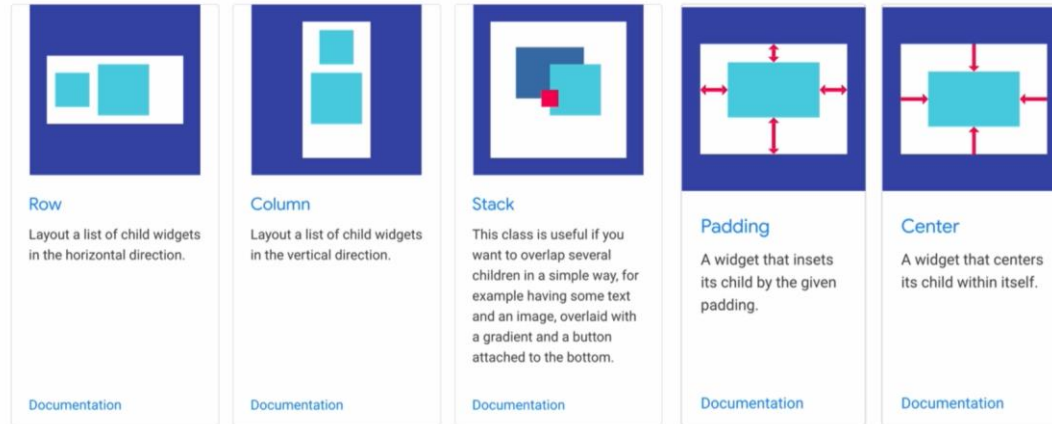2
3        Step 01 : Dart         The initial plan  should be deeply focused over
4        Language              the language in which you will be building your
5                              app. So focus the mainly over DART LANGUAGE
6        Step 02 :             Explore the Flutter Ecosystem : yaml file,
7        Flutter              main method, runApp method, MaterialApp,
         Ecosystem            StatelessWidget vs StatefulWidget ...
8
9        Step 03 :             You should be knowing the mostly used widgets
         Flutter Widgets      in Flutter. Everything in Flutter is a widget.
10
11       Step 04 : Build       Build your own App by linking Flutter
12       your own              concepts: screen navigation, code management,
         creativity            App design.
13   }
14
```

```
 1  Flutter 'Widgets' {
 2
 3          [ It's all about widgets in flutter ]
 4
 5
 6
 7
 8
 9
10
11
12
13  }
14
```

1   Flutter 'Widgets' {
2
3   [Widget catalog]
4
5
6
7
8
9
10
11
12
13
14 }

Row — Layout a list of child widgets in the horizontal direction.

Column — Layout a list of child widgets in the vertical direction.

Stack — This class is useful if you want to overlap several children in a simple way, for example having some text and an image, overlaid with a gradient and a button attached to the bottom.

Padding — A widget that insets its child by the given padding.

Center — A widget that centers its child within itself.

Documentation   Documentation   Documentation   Documentation   Documentation

```
1   Flutter 'Widgets' {
2
3
4
5
6
7
8              [ Container ]
9
10
11
12
13
14  }
```

```
 1   Flutter 'Widgets' {
 2
 3
 4
 5
 6
 7
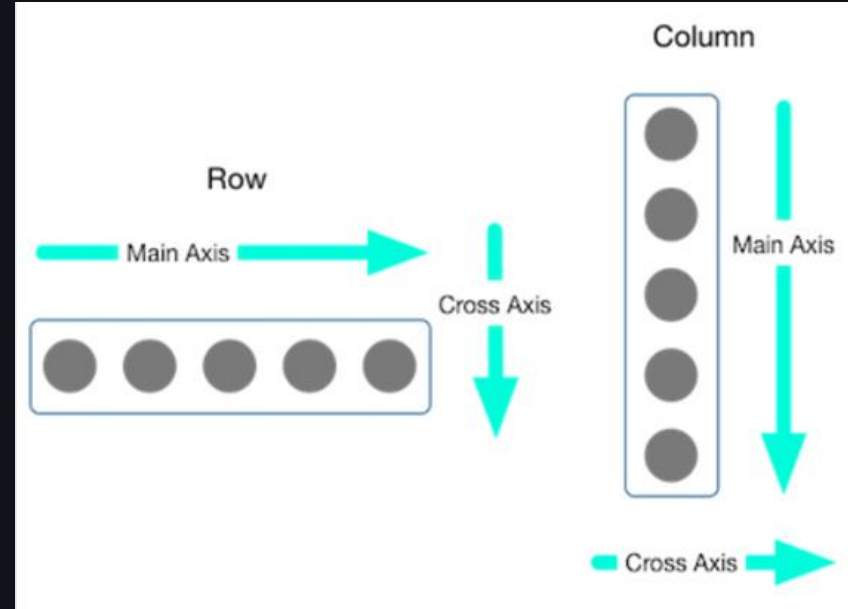 8              [ Rows & Columns ]
 9
10
11
12
13   }
14
```

```
1   Flutter 'Widgets' {
2
3
4
5
6
7
8           [ Rows & Columns ]
9
10
11
12
13  }
14
```
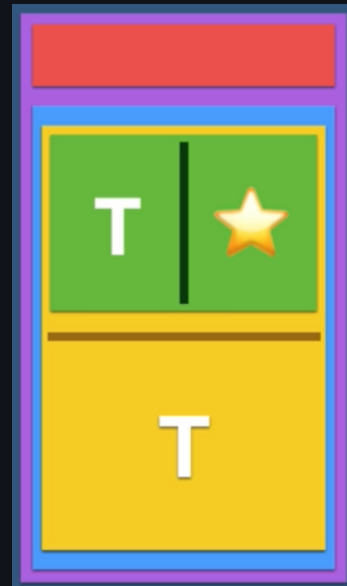

justify-content

flex-start

flex-end

center

space-between

space-around

Half Equal Equal Half

space-evenly

Equal Equal Equal Equal

```
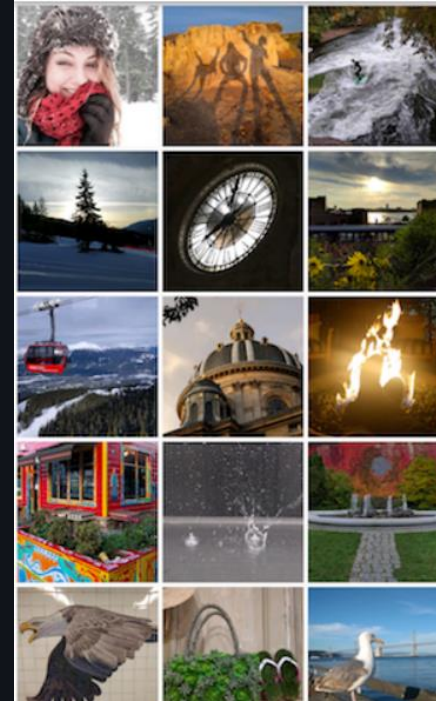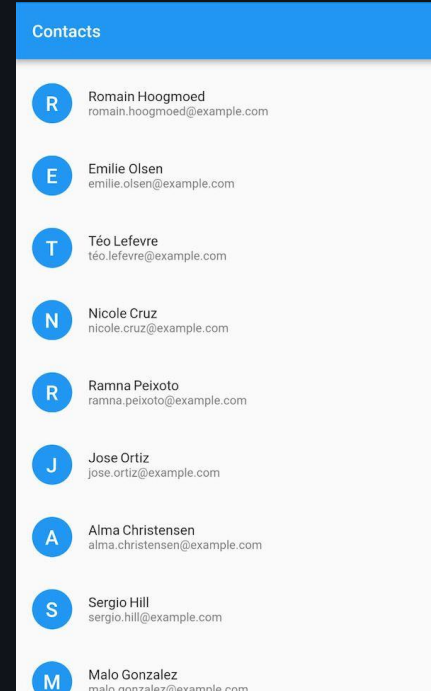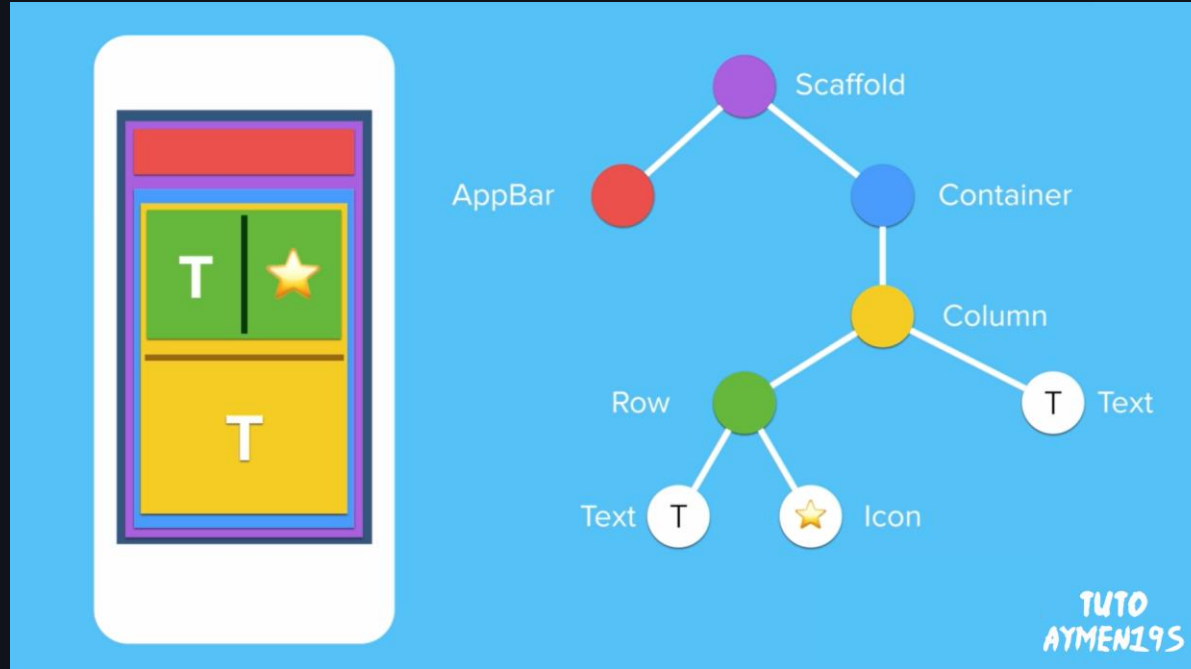1    Flutter 'Widgets' {
2
3
4
5
6
7
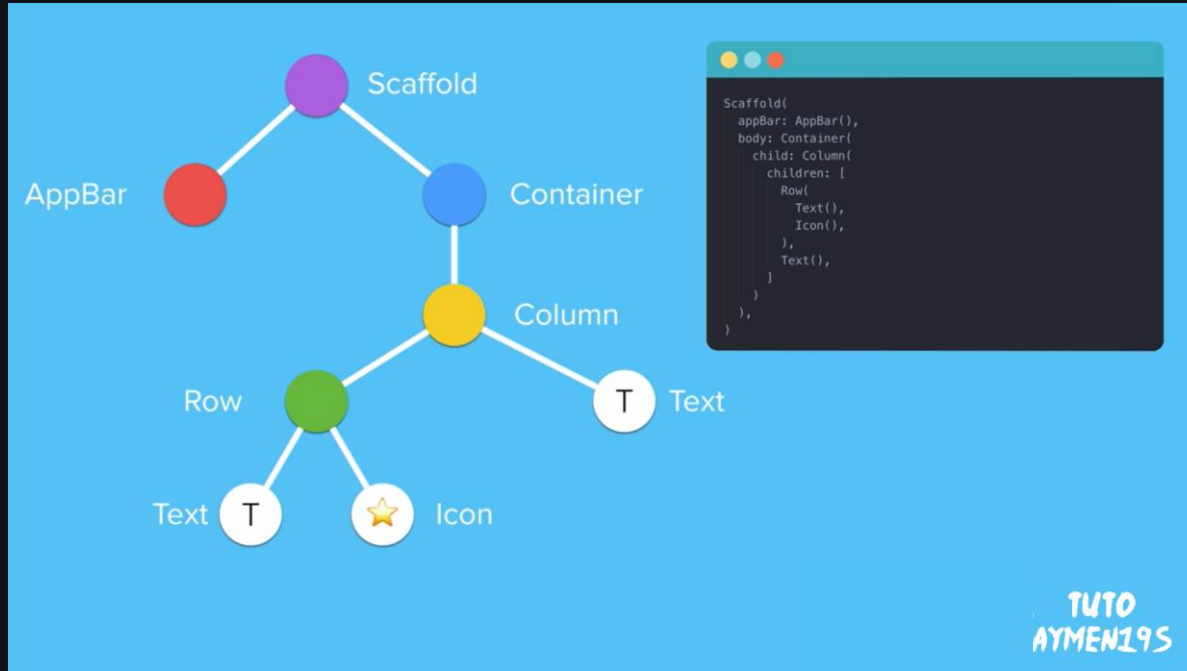8                    [ GridView ]
9
10
11
12
13
14   }
```

GDG Algiers

1 Flutter 'Widgets' {
2
3
4
5
6
7
8
9
10
11
12
13
14 }

Flutter 'Widgets' {

```
1
2
3
4
5
6
7
8
9
10
11
12
13 }
14
```

GDG Algiers

```
1   Aymen's Flutter 'RoadMap' {
2
3       Step 01 : Dart        The initial plan  should be deeply focused over
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6       Step 02 :            Explore the Flutter Ecosystem : yaml file,
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11      Step 04 : Build      Build your own App by linking Flutter
12      your own             concepts: screen navigation, code management,
                             App design.
13      creativity
14  }
```

Aymen's Flutter 'RoadMap' {

1

2

3   Step 01 : Dart   The initial plan should be deeply focused over
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7   Ecosystem   StatelessWidget vs StatefulWidget ...

8

9   Step 03 :   You should be knowing the mostly used widgets
     Flutter Widgets   in Flutter. Everything in Flutter is a widget.

10

11   Step 04 : Build   Build your own App by linking Flutter
     your own   concepts: screen navigation, code management,
12   App design.
     creativity
13 }

14

```
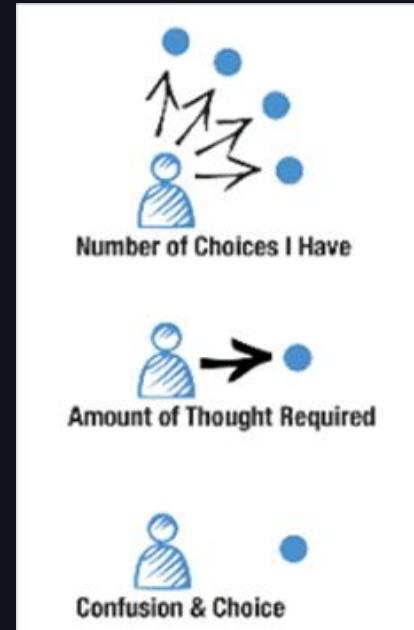1    Build your own 'App' {
2
3        'Some Mobile App
4        Design concepts'
5
6
7
8        [ Minimize Cognitive Load ]
9
10
11
12
13
14   }
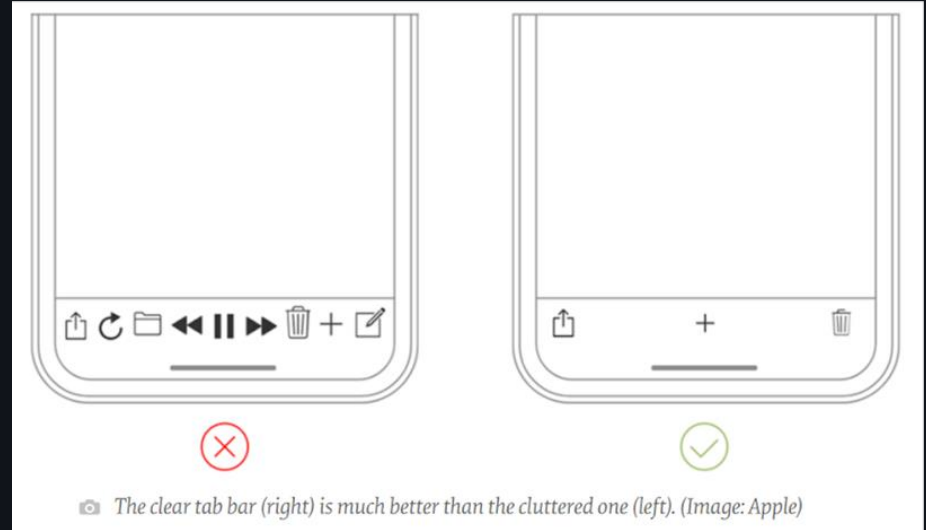```



Number of Choices I Have

Amount of Thought Required

Confusion & Choice

```
 1   Build your own 'App' {
 2
 3       'Some Mobile App
 4       Design concepts'
 5
 6
 7
 8       [ Decluttering ]
 9
10
11
12
13
14   }
```


The clear tab bar (right) is much better than the cluttered one (left). (Image: Apple)

```
 1   Build your own 'App' {
 2
 3        'Some Mobile App
 4        Design concepts'
 5
 6
 7        [Offload tasks & Minimize
 8                  efforts ]
 9
10
11
12
13
14   }
```

```
1   Build your own 'App' {
2
3       'Some Mobile App
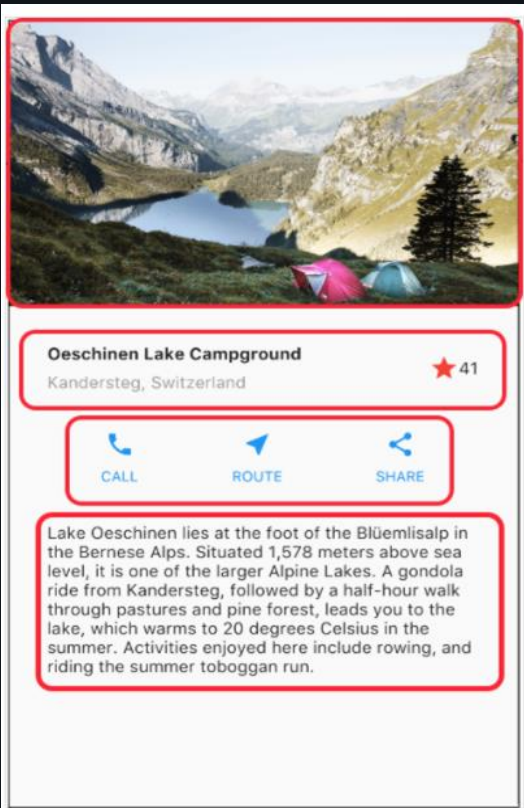4        Design concepts'
5
6
7       [ Make it clear
8        when loading is
9          occurring ]
10
11
12
13
14   }
```
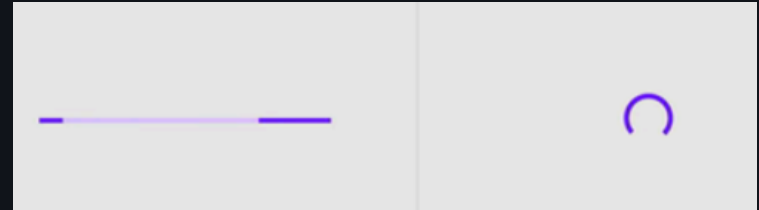
Exercise < /1 > {

```
1
2
3
4
5
6       • Which widgets are used in this
7         screen?
8
9       • Draw the widget tree.
10
11
12
13
14  }
```


Oeschinen Lake Campground   ★41
Kandersteg, Switzerland

CALL   ROUTE   SHARE

Lake Oeschinen lies at the foot of the Blüemlisalp in the Bernese Alps. Situated 1,578 meters above sea level, it is one of the larger Alpine Lakes. A gondola ride from Kandersteg, followed by a half-hour walk through pastures and pine forest, leads you to the lake, which warms to 20 degrees Celsius in the summer. Activities enjoyed here include rowing, and riding the summer toboggan run.

```
1   Exercise < /2 > {
2
3
4
5
6       • Which widgets are used in this
7         screen?
8
9       • Draw the widget tree.
10
11
12
13
14  }
```

```
1   Exercise < /3 >{
2              <
3        [▦]      ▪ Open DartPad in your browser.
4                 ▪ Choose a screen Design together.
5              >  ▪ Build the screen in DartPad.
6   }
7
8   Exercise < /extra >
9   {
10             <
11       [▤]      ▪ Create new project in your desktop.
12                ▪ Open your code editor (preferably VsCode).
13             >  ▪ Build "_____" App.
14  }
```
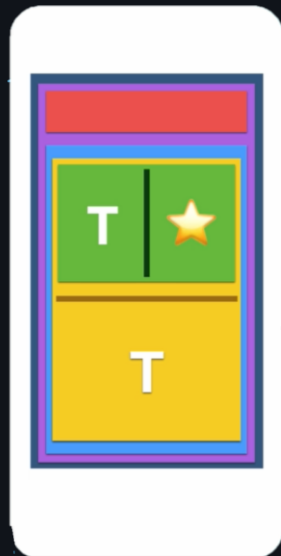
```
1    Thanks; {
2
3        'Do you have any questions?'
4
5            ha_krioudj@esi.dz
6            +213 656 12 37 58
7            [LinkedIn] [Instagram] [Facebook] [Twitter] [GitHub]
8
9            linkedin.com/in/aymene-krioudj-685883162/
10           instagram.com/aymen.krdj/
11           facebook.com/aymene19s/ (AymEn Krdj)
             twitter.com/aymen_krdj/
12           github.com/aymenkrioudj/
13
14
```

1 # Alternative 'Resources' {

2

3   Here is an assortment of alternative resources to
4   help you learn more about Flutter

5

6   * The official website "flutter.dev".
7   * Flutter Medium articles.
8   * YouTube playlist "Widget of the week".
9   * The Complete 2021 Flutter Development
10   Bootcamp with Dart by The App Brewery.
11   * Stack Overflow "Flutter questions &
12   answers".

13

14 }

Acknowledgements & 'Rating' {

Thank you for participating in my sessions in GDB. I hope you had as much fun attending as we had delivering them.

I invite you to fill this anonymous form and be as honest as possible 👀

Your opinion matters to me, some constructive criticism is always welcomed so we can be the best version of ourselves 🤭

Thanks in advance and until the next adventure! 🤭

}