



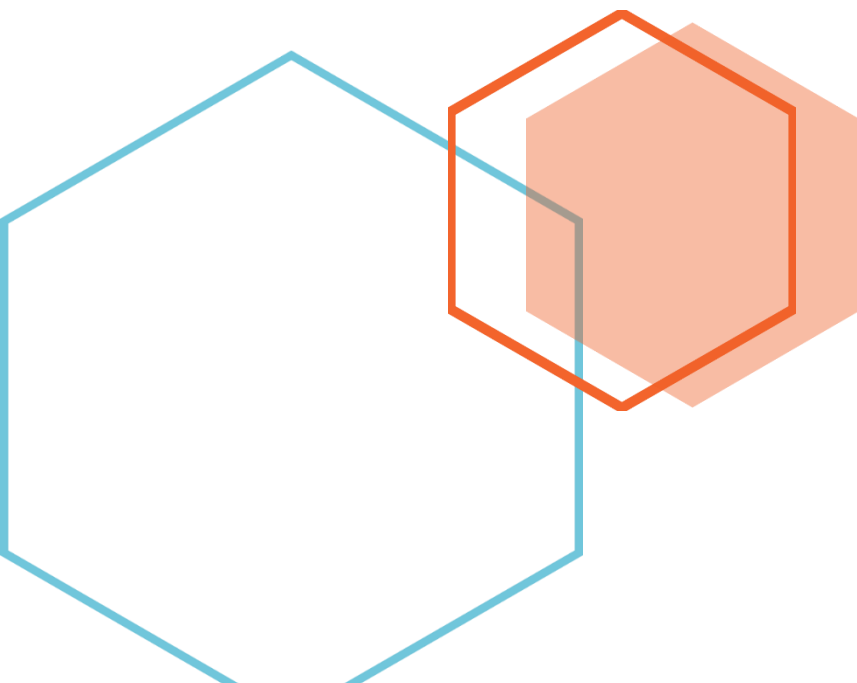
# [Compte Rendu]

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TP 1 ; Flutter

Développement Mobile et Systèmes Multi-Agents

L'Ecole Normale Supérieure de l'Enseignement Technique de  
Mohammedia (ENSET)



## Pubspec.yaml :

- Les dépendances utilisées

```
29 dependencies:
30   flutter:
31     sdk: flutter
32   http:
33   provider:
34   fluttertoast: ^8.0.9
35   url_launcher:
```

## Main.dart :

- Routage

```
main.dart x
1 import ...
11 void main(){
12   runApp(MyApp());
13 }
14 class MyApp extends StatelessWidget{
15   @override
16   Widget build(BuildContext context) {
17     return MultiProvider(
18       providers: [
19         ChangeNotifierProvider(create: (context) => (WeatherDataProvider()))
20       ],
21       child: MaterialApp(
22         theme: ThemeData(
23           primarySwatch: Colors.purple,
24         ), // ThemeData
25         routes: {
26           "/":(context)=>Home(),
27           "/contacts":(context)=>Contacts(),
28           "/github_users":(context)=>GitHubUsers(),
29           "/news":(context)=>News(),
30           "/covid":(context)=>Covid(),
31           "/weather":(context)=>Weather(),
32           "/about":(context)=>About(),
33         },
34       ), // MaterialApp
```

## Widgets :

```
drawer_item.dart x
1
2 import ...
4
5 class DrawerItem extends StatelessWidget{
6   String route;
7   String title;
8   Icon icon;
9   DrawerItem(this.title,this.route,this.icon);
10  @override
11  Widget build(BuildContext context) {
12    return ListTile(
13      onTap: (){
14        Navigator.pushNamed(context, route);
15      },
16      leading: icon,|
17      title: Text(
18        title,
19        style: TextStyle(fontSize: 20, color: Colors.deepPurple),
20      ), // Text
21    ); // ListTile
22  }
```

```
app_drawer.dart x
1 import ...|
4 class AppDrawer extends StatelessWidget {
5   @override
6   Widget build(BuildContext context) {
7     return Drawer(
8       child: ListView(
9         children: [
10          DrawerHeader(child: Column(
11            children: [
12              CircleAvatar(
13                backgroundImage: AssetImage("images/unnamed.jpg"),
14                radius: 50,
15              ), // CircleAvatar
16              SizedBox(height: 10),
17              Text("Amina Dahmouni"),
18            ],
19          )), // Column, DrawerHeader
20          DrawerItem("Home", "/", Icon(Icons.home)),
21          DrawerItem("Contacts", "/contacts", Icon(Icons.contacts)),
22          DrawerItem("Github Users", "/github_users", Icon(Icons.supervised_user_circle)),
23          DrawerItem("News", "/news", Icon(Icons.newspaper)),
24          DrawerItem("Covid 19", "/covid", Icon(Icons.airplay_rounded)),
25          DrawerItem("Weather", "/weather", Icon(Icons.ac_unit)),
26          DrawerItem("About", "/about", Icon(Icons.error)),
27        ],
```

## Contacts.dart :

```
contacts.dart x
1  import 'package:flutter/material.dart';
2  class Contacts extends StatefulWidget {
3    @override
4    State<Contacts> createState() => _ContactsState();
5  }
6  class _ContactsState extends State<Contacts> {
7    TextEditingController textController = new TextEditingController();
8    List<String> data=[];
9    @override
10   Widget build(BuildContext context) {
11     return Scaffold(
12       appBar: AppBar(
13         title: Text("Contacts"),
14       ), // AppBar
15       body: Padding(
16         padding: EdgeInsets.all(10),
17         child: Column(
18           children: [
19             Row(
20               children: [
21                 Expanded(
22                   child: TextFormField(
23                     decoration: InputDecoration(
24                       prefixIcon: Icon(Icons.contacts),
25                       hintText: "Enter a name",
26                       border: OutlineInputBorder(
27                         borderRadius: BorderRadius.circular(15)
28                       ), // OutlineInputBorder
29                     ), // InputDecoration
30                     controller: textController,
31                   ), // TextFormField
32                 ), // Expanded
33                 IconButton(onPressed: () {
34                   setState(() {
35                     data.add(textController.text);
36                   });
37                 }, icon: Icon(Icons.add)) // IconButton
38               ],
39             ), // Row
40             Expanded(
41               child: ListView.builder(
42                 itemCount: data.length,
43                 itemBuilder: (context, index) {
44                   return ListTile(
45                     leading: CircleAvatar(child: Text(data[index].substring(0,1))),
46                     title: Text(data[index]),
47                   ); // ListTile
48                 }, // ListView.builder
49               ), // Expanded
```

## Covid.dart :

```
github_users.dart × news.dart × covid.dart ×
1  import ...
8  class Covid extends StatefulWidget {
9      @override
10     State<Covid> createState() => _CovidState();
11 }
12
13 class _CovidState extends State<Covid> {
14     var stats;
15     var data;
16     String keyword = "Morocco";
17     TextEditingController textEditingController = TextEditingController();
18
19     @override
20     void initState() {
21         super.initState();
22         WidgetsBinding.instance?.addPostFrameCallback((timeStamp) {
23             textEditingController.text = "Morocco";
24             getStats();
25             searchCountry("Morocco");
26         });
27     }
28
29     getStats() {
30         String url = "https://covid-api.mmediagroup.fr/v1/cases";
31         http.get(Uri.parse(url)).then((response) {
32             setState(() {
33                 Map _json = json.decode(response.body);
34                 data=[];
35                 _json.values.forEach((element) {
36                     if( element!=null && element["All"]!=null ) {
37                         data.add(element);
38                     }
39                 });
40                 searchCountry(keyword);
41             });
42         }).catchError((onError) {
43             print("Error while calling the api ==> " + onError.toString());
44             Fluttertoast.showToast(
45                 msg: "Can't query data with Covid-19 Api !",
46                 toastLength: Toast.LENGTH_LONG,
47                 gravity: ToastGravity.SNACKBAR,
48                 timeInSecForIosWeb: 2,
49                 backgroundColor: Colors.red,
50                 textColor: Colors.white,
51                 fontSize: 16.0);
52         });
53     }
54 }
```

```

55 void searchCountry(String keyword) {
56   if( data !=null && (data as List).isNotEmpty) {
57     stats = [];
58     (data as List).forEach((element) {
59       if (
60         element["All"]["country"].toString().toLowerCase().contains(keyword.toLowerCase())
61         ||
62         element["All"]["abbreviation"].toString().toLowerCase().contains(keyword.toLowerCase())
63       ) {
64         (stats as List).add(element);
65       }
66     });
67   }
68 }

```

**Provider pour weather :**

```

weather_state.dart x
1  import 'package:flutter/cupertino.dart';
2
3  class WeatherDataProvider extends ChangeNotifier{
4
5    var data;
6
7    void setData( var data){
8      this.data = data;
9      notifyListeners();
10   }
11 }

```

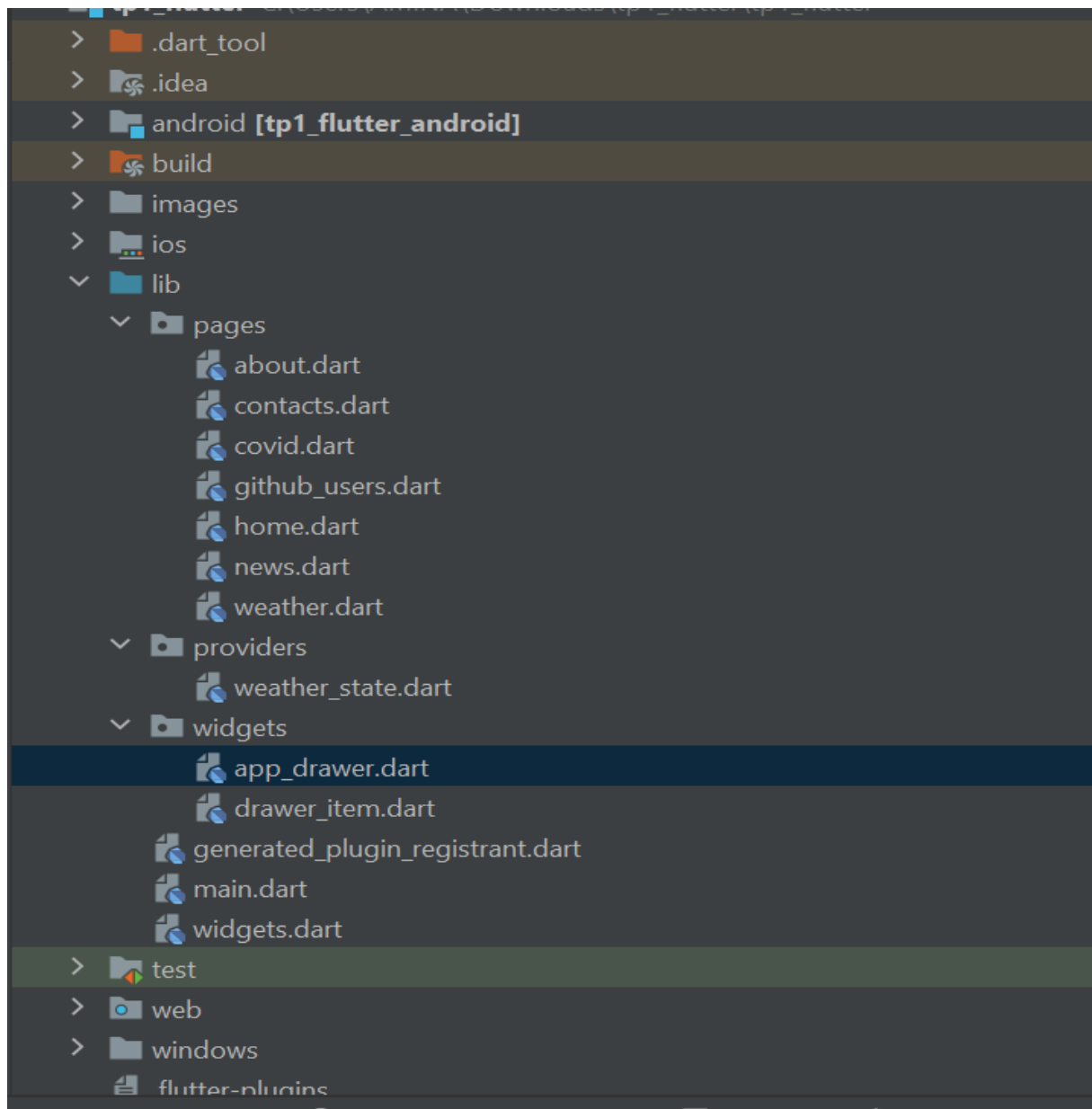
Pour afficher les informations dans la liste après chaque changement de la ville sélectionné

```

75  Padding(
76    padding: const EdgeInsets.only(top: 20, bottom: 10),
77    child: Consumer<WeatherDataProvider>(
78      builder: (context, weatherState, chid) {
79        if (weatherState.data == null) {
80          return Container();
81        }

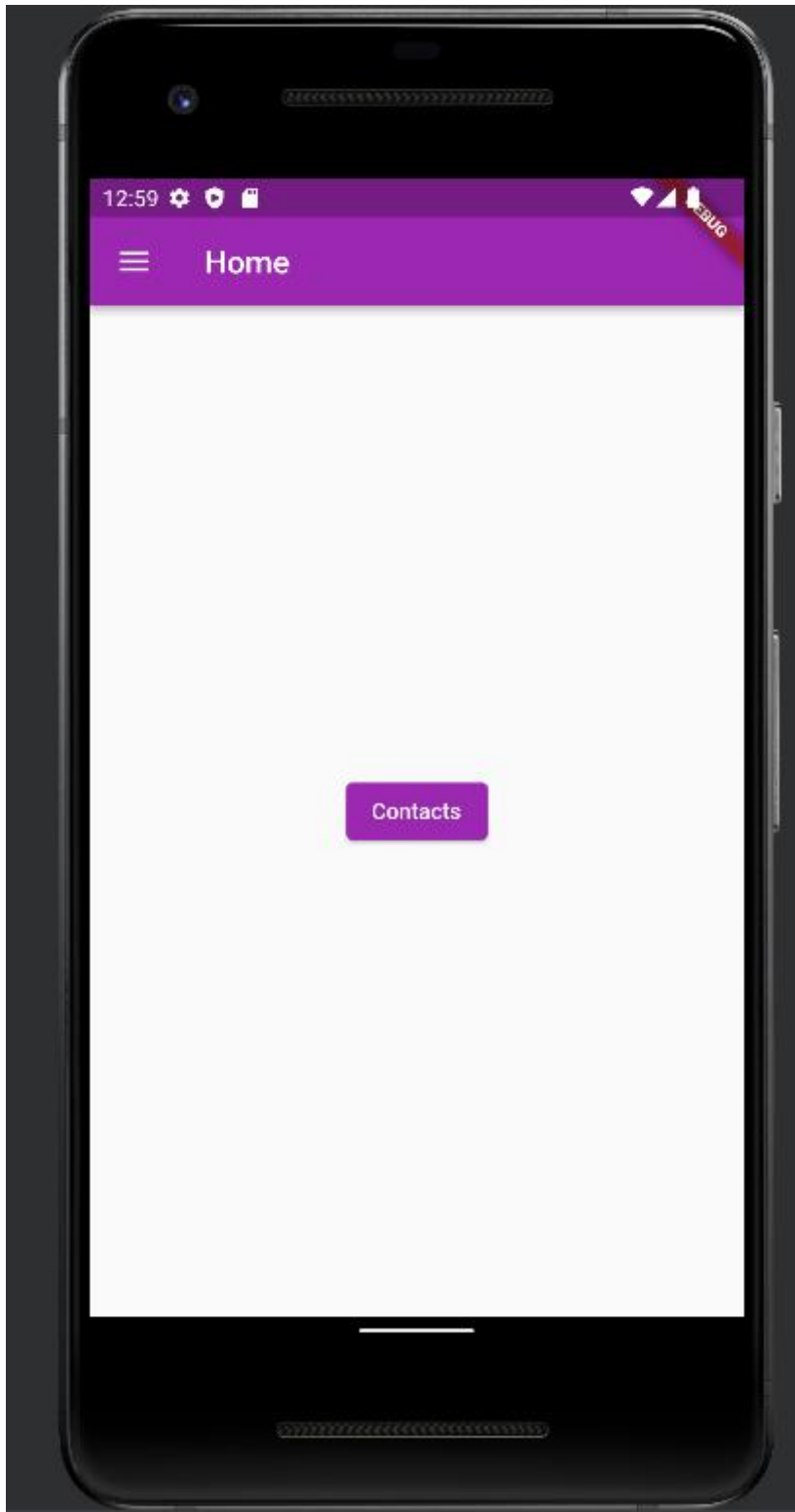
```

## La structure du projet :



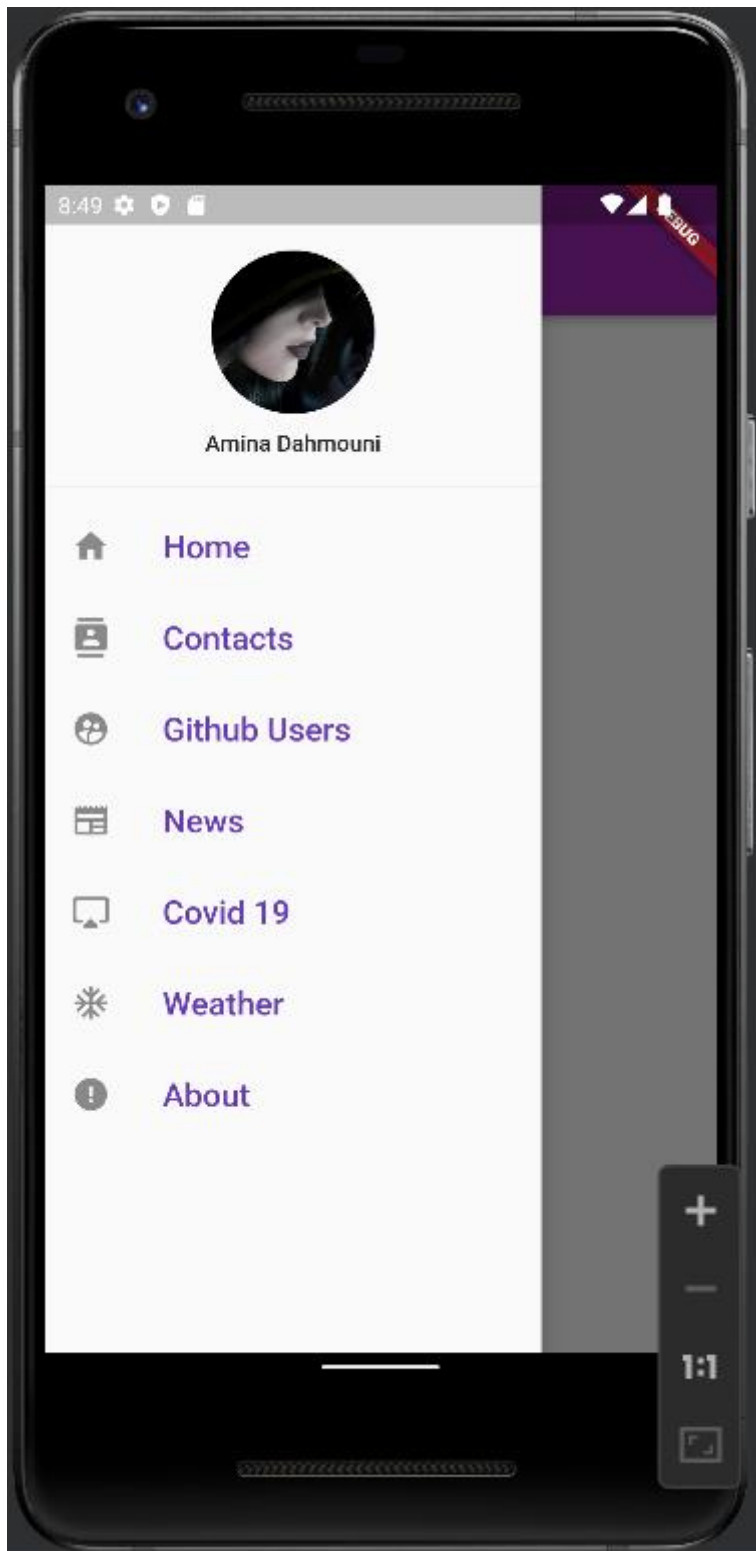
## Présentation de l'application :

- Home

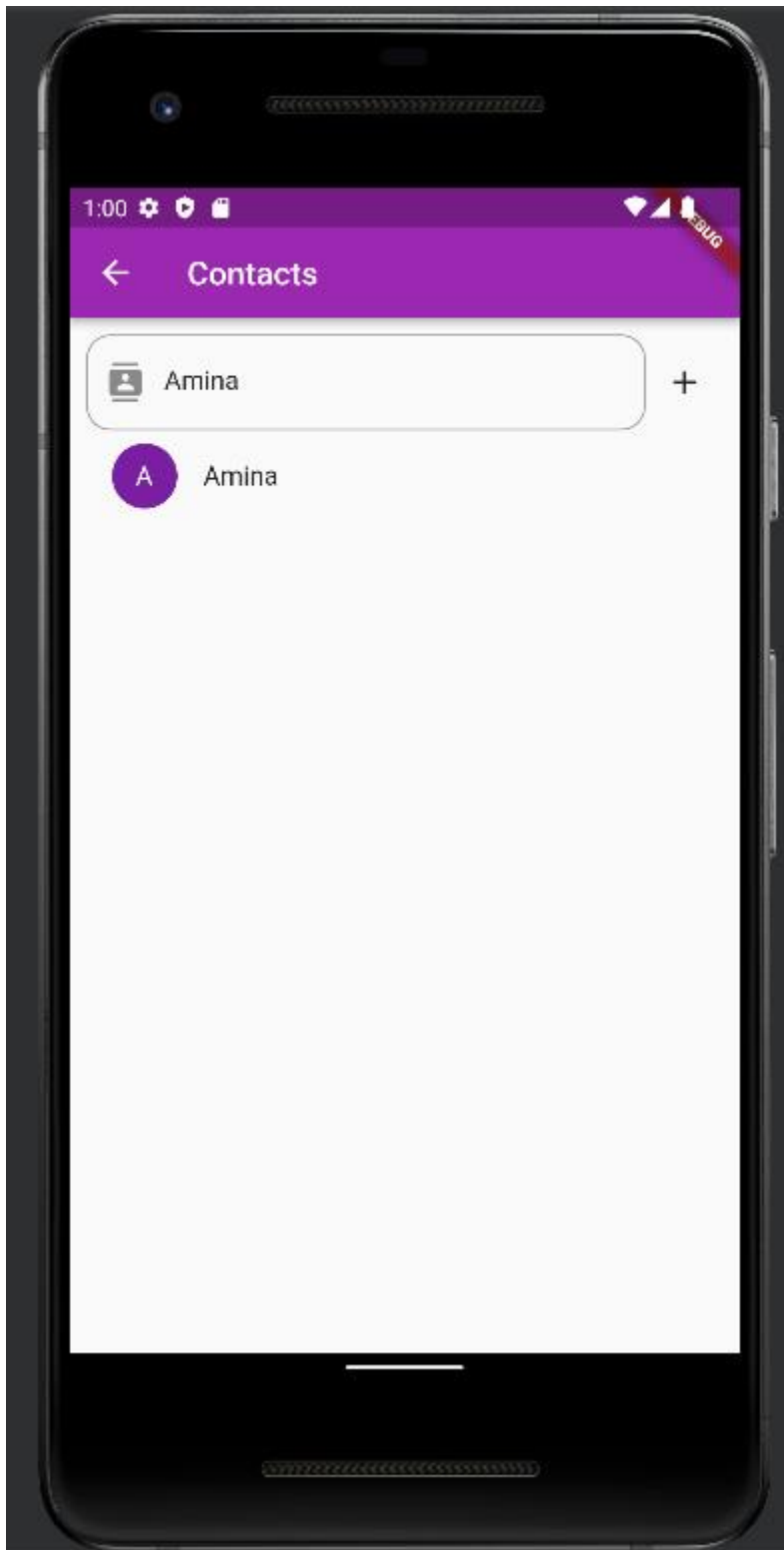




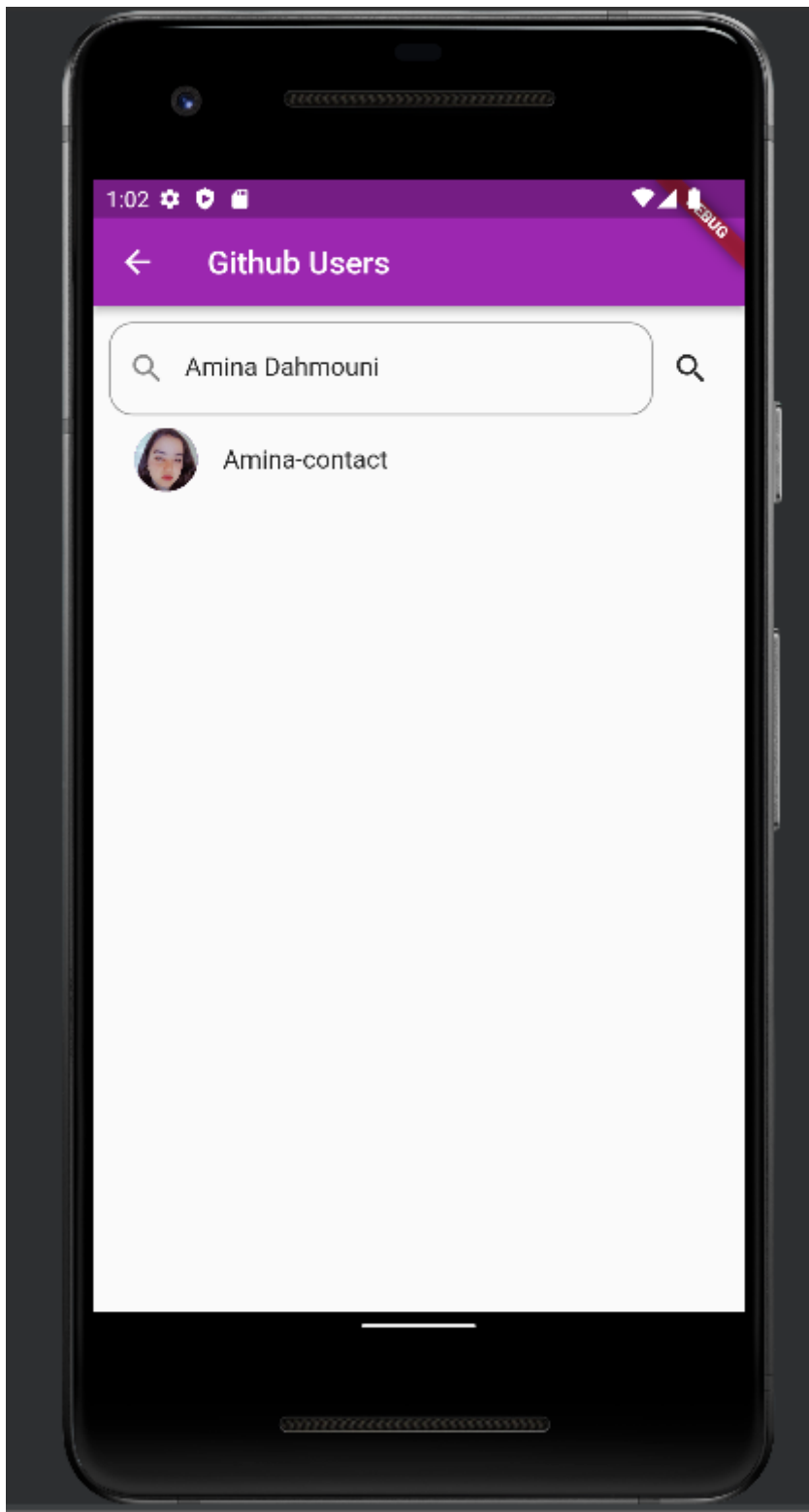
- Navigation dans les matériaux personnalisés



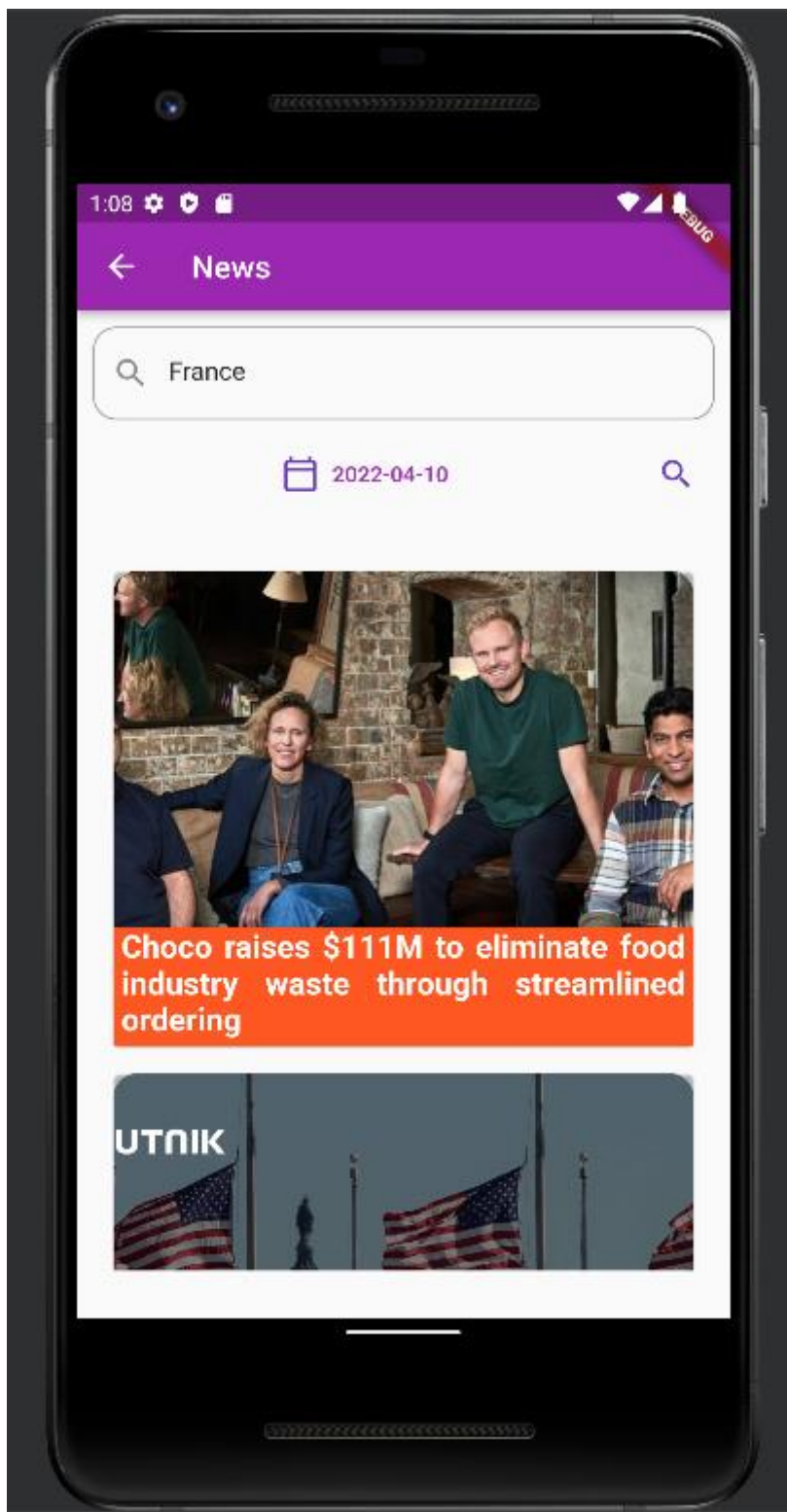
- Contacts : permet d'ajouter un contact dans la liste



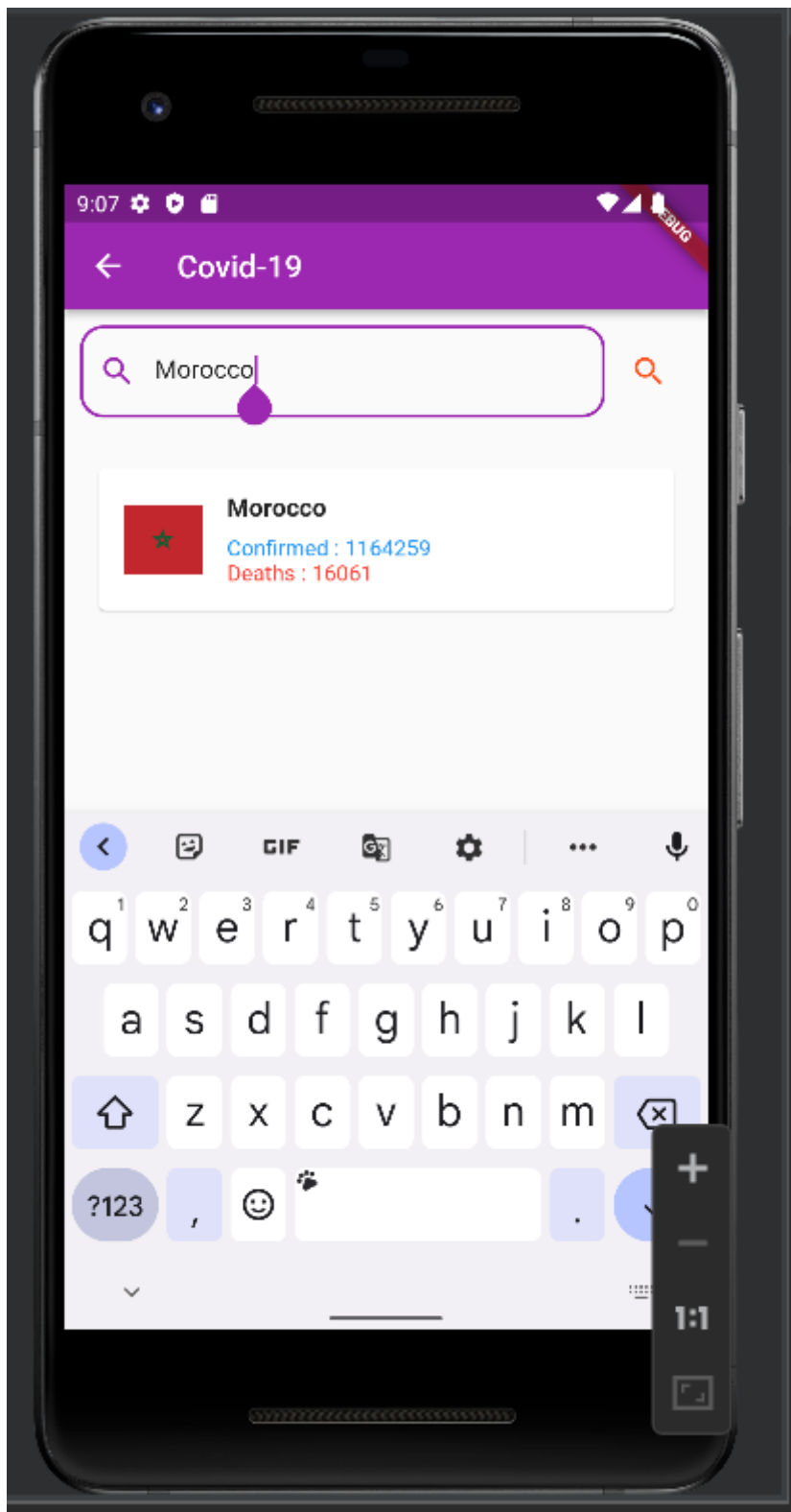
- Github-users : permet la recherche d'un utilisateur de github



- News : permet la recherche des articles par pays et date de publication



- Covid : permet de voir l'état sanitaire dans un pays à propos du covid-19



- Weather : voir la météo dans une ville sélectionnée

