WEATHER APP

Human-computer Interface

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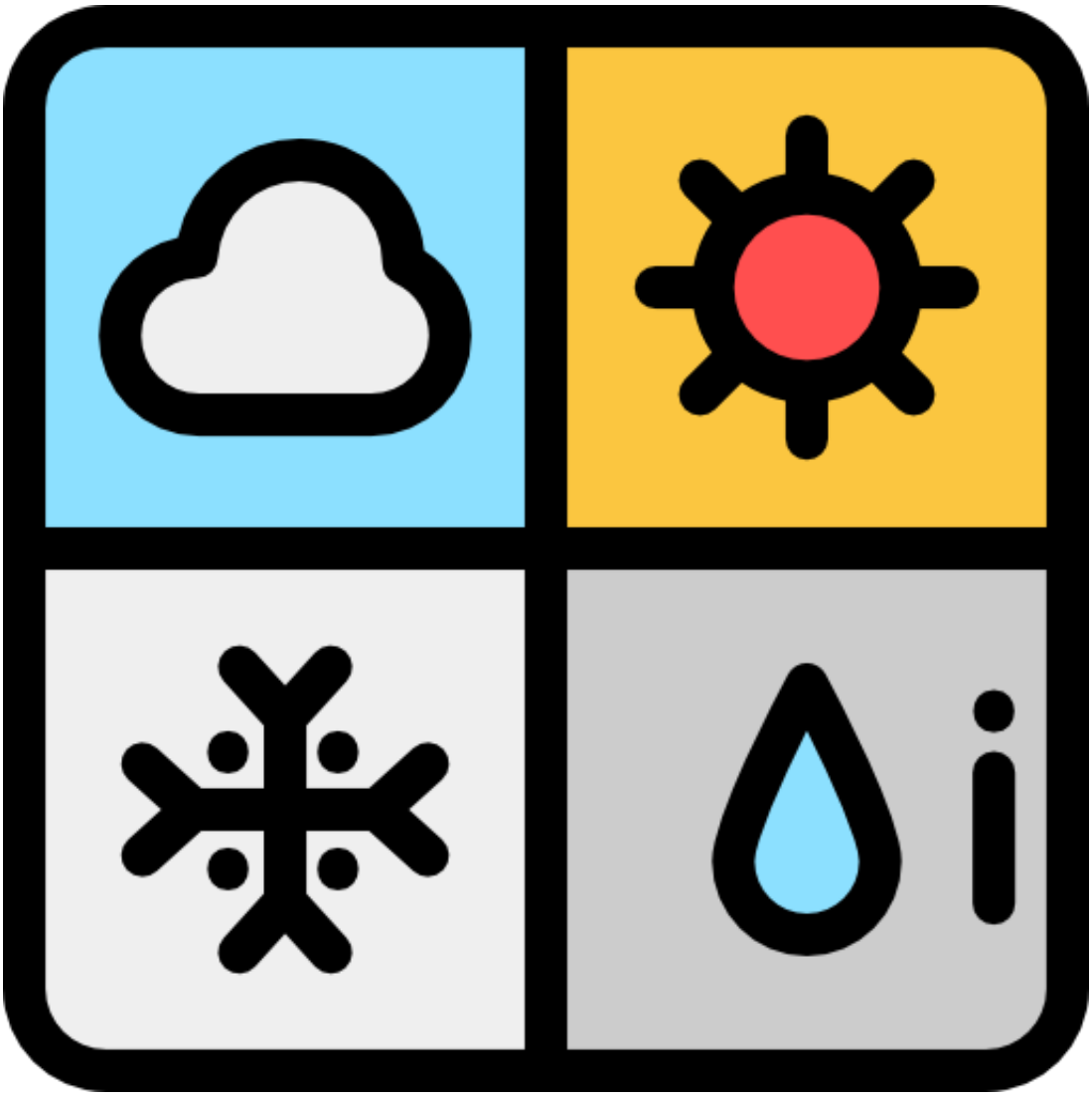
Section 8

Descriptions

We have unique weather app by which you can get the weather information of any city in the world. You will be able to see the exact current weather and temperature on a particular location.



Code

Lib/main.dart

```
import 'package:flutter/material.dart';
import 'package:weatherapp/main_screen.dart';
void main() {
  runApp(const MyApp());
}

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

  // This widget is the root of your application.
  @override
  Widget build(BuildContext context) {
    return MaterialApp(
      debugShowCheckedModeBanner: false,
      title: 'Flutter Weather App',
      theme: ThemeData(
        primarySwatch: Colors.amber,


      ),
      home: const HomeScreen(),
    );
  }
}
```

lib/main_screen.dart

```
import 'package:flutter/material.dart';
import 'package:weatherapp/data_service.dart';
import 'package:weatherapp/models.dart';

class HomeScreen extends StatefulWidget {
  const HomeScreen({Key? key}) : super(key: key);

  @override
  State<HomeScreen> createState() => _HomeScreenState();
}

class _HomeScreenState extends State<HomeScreen> {
  var city = TextEditingController();
  final dataService =DataService();
  WeatherResponse? _response ;
  @override
  void initState() {
    super.initState();
  }

  @override
  Widget build(BuildContext context) {
    return  Scaffold(
      backgroundColor: Colors.grey,
      appBar: AppBar(
        title: const Text("Weather APP"),
      ),
      body: Padding(
        padding: const EdgeInsets.all(20.0),
        child: Center(
          child: SingleChildScrollView(
            child: Column(
              mainAxisAlignment: MainAxisAlignment.center,
              children: [
                if(_response!= null)
                  Column(
                    children: [
                      Image(image:
NetworkImage('${_response?.iconUrl}')),

Text('${_response?.tempinfo?.temperature?.round()}°',
                      style: const TextStyle(fontSize: 40),
                      ),

Text('${_response?.weatherInfo?.description}'),
                      Text('${_response?.cityName}'),
```

```
                    const SizedBox(
                      height: 20,
                    ),
                  ],
                ),
              TextFormField(
                controller: city ,
                keyboardType: TextInputType.text,
                decoration: const InputDecoration(
                  labelText: "City",
                  border: OutlineInputBorder(),

              ),
                textAlign: TextAlign.center,
                onFieldSubmitted: (value) async{
                  final response = await
dataService.getWeatherbycity(city.text);
                  setState(() {
                    _response = response;
                  });
                },
              ),
              ElevatedButton(
                  onPressed: () async{
                    final response = await
dataService.getWeatherbycity(city.text);
                    setState(() {
                      _response = response;
                    });
                  },
                  child: const Text("Search")),
            ],
          ),
        ),
      ),
    );

  }
}
```

lib/data_service.dart

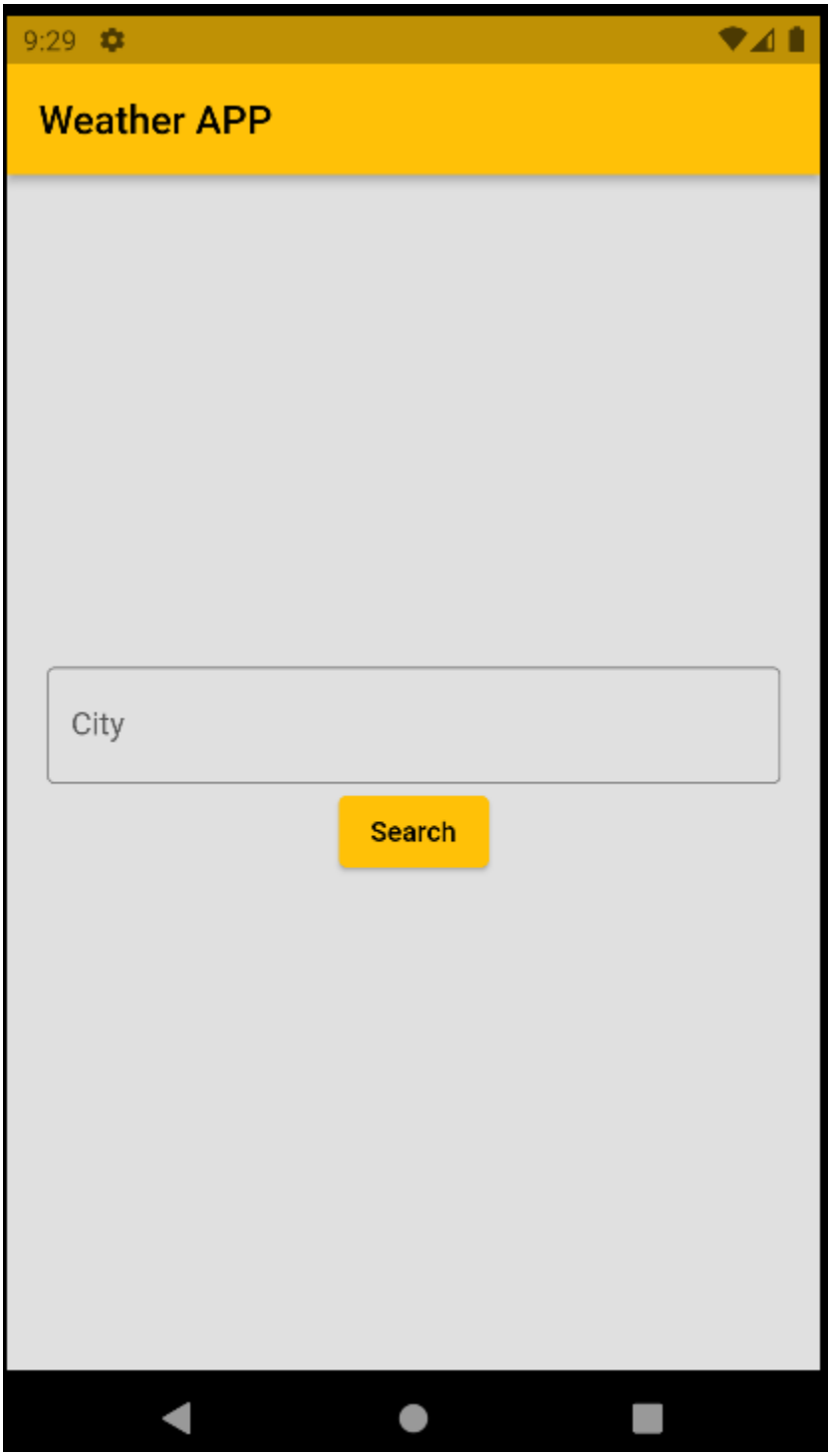
```
import 'dart:convert';
import 'package:http/http.dart' as http;
import 'package:weatherapp/models.dart';
class DataService {
  Future<WeatherResponse> getWeatherbycity(String city) async{
    final queary = {
      'q': city,
      'appid':'f35b2254a129d66303bb71038a7e6159',
      'units':'metric',
    };
    final uri =
Uri.http('api.openweathermap.org','/data/2.5/weather',queary);

    final response = await http.get(uri);
    final json = jsonDecode(response.body);
    return WeatherResponse.fromJson(json);

  }
}
```

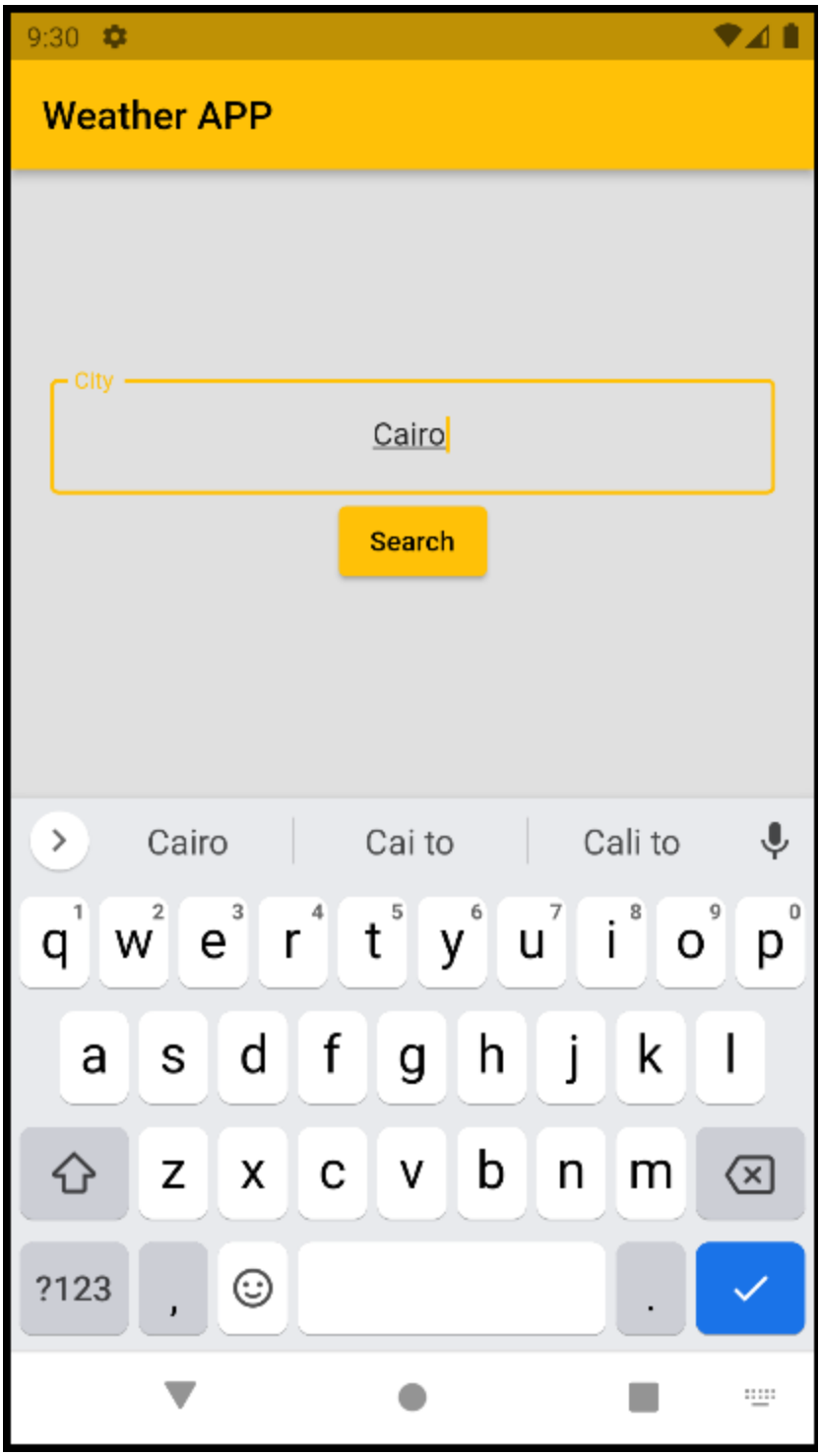
lib/models.dart

```dart
class WeatherInfo {
  final String? description;
  final String? icon;

  WeatherInfo({this.description, this.icon});
  factory WeatherInfo.fromJson(Map<String, dynamic> json){
    final description = json['description'];
    final icon = json['icon'];
    return WeatherInfo(
      description: description,
      icon: icon,
    );
  }
}
class TemperatureInfo {
  final double? temperature;
  TemperatureInfo({this.temperature});

  factory TemperatureInfo.fromJson(Map<String, dynamic> json){
    final temperature = json['temp'];
    return TemperatureInfo(temperature: temperature);
  }

}

class WeatherResponse{
  final String? cityName;
  final TemperatureInfo? tempinfo;
  final WeatherInfo? weatherInfo;

  String get iconUrl {
    return
'http://openweathermap.org/img/wn/${weatherInfo?.icon}@2x.png';
  }

  WeatherResponse({
    this.cityName,
    this.tempinfo,
    this.weatherInfo,
  });

  factory WeatherResponse.fromJson(Map<String, dynamic> json){

    final cityName = json['name'];

    final tempInfoJson = json['main'];
```

```
    final tempInfo = TemperatureInfo.fromJson(tempInfoJson);

    final weatherInfoJson = json['weather'][0];
    final weatherInfo = WeatherInfo.fromJson(weatherInfoJson);

    return WeatherResponse(
      cityName: cityName,
      tempinfo: tempInfo,
      weatherInfo: weatherInfo,
    );
  }

}
```

Screenshot




9:30
Weather APP
City
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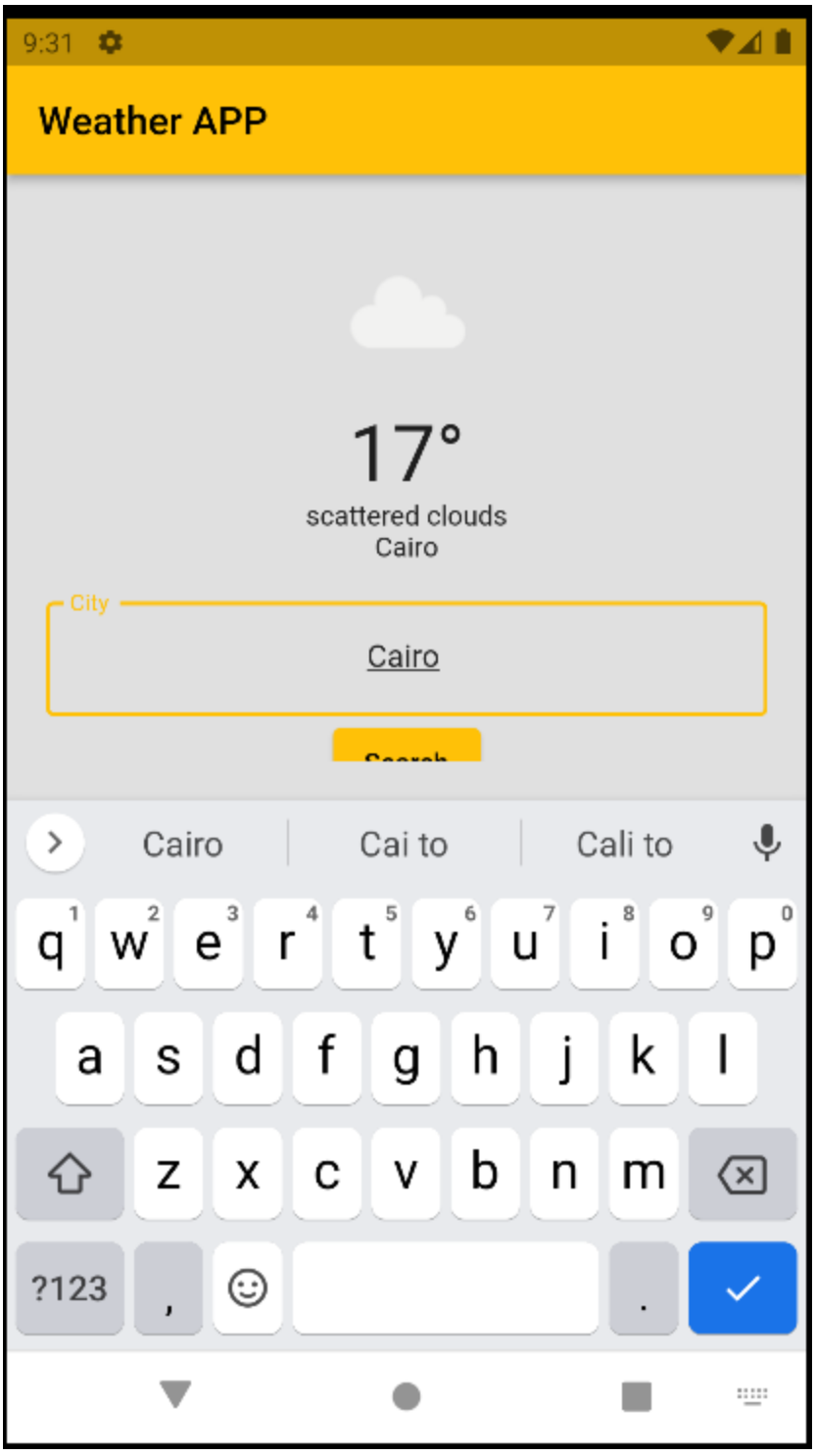
q w e r t y u i o p
a s d f g h j k l
z x c v b n m
?123


9:31
Weather APP
17°
scattered clouds
Cairo
City
Cairo
Cairo
Cai to
Cali to
q w e r t y u i o p
a s d f g h j k l
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,
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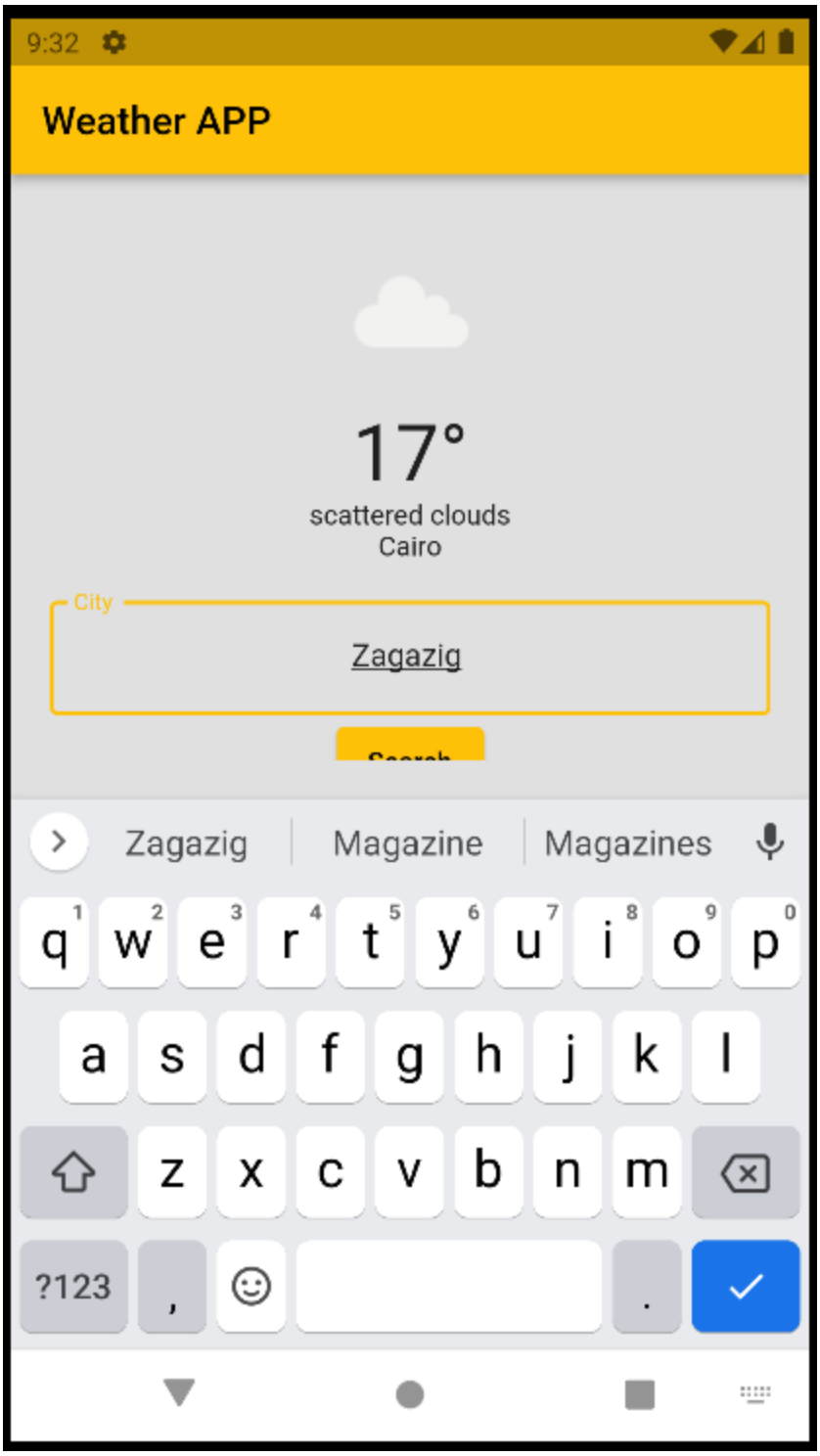
9:32
Weather APP
17°
scattered clouds
Cairo
City
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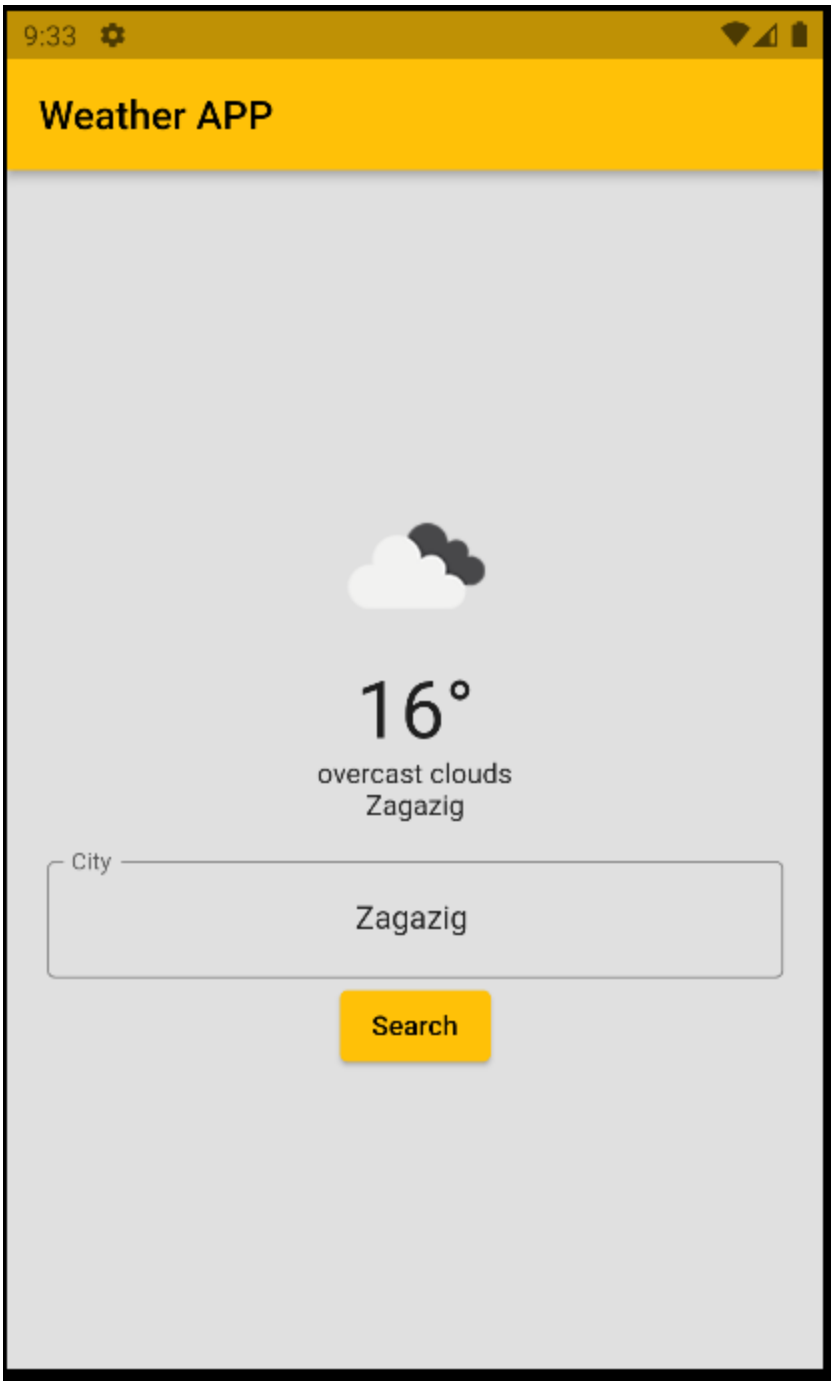
Magazine
Magazines


9:33
Weather APP
16°
overcast clouds
Zagazig
City
Zagazig
Search