项目实战

Flutter项目-AR眼镜控制端

个人开发中,当我们构建一个应用的时候,我们需要了解程序编译的入口、能力提供、UI 界面这三个方面,下面我根据我们AR眼镜控制端的代码结构和大家简单描述一下。

程序编译入口

使用Flutter提供的默认的main()函数,实现程序的编译和运行。

```
ilejaGlassControl_flutter 〉lib 〉 ੋ main.dart
                            ✓ ■ api
            the base_location.dart
            & base_network.dart
                                                    void main() async {
            the base_prefence.dart
                                                      WidgetsFlutterBinding.ensureInitialized();
            & base_routes.dart
            abase_sqlite.dart
                                                      runApp(GlassControllerApp(glassSN: await PreferenceManager.getGlassSn(), tokenStr: await
        > config
                                                      if (Platform.isAndroid) {
        > 🖿 data
        > pages
                                                            const SystemUiOverlayStyle(statusBarColor: Colors.transparent);
        > plugin
                                                         SystemChrome.setSystemUIOverlayStyle(systemUiOverlayStyle);
        > tools
        > 🖿 widgets
        🕻 main.dart
```

能力提供

项目中需要的能力有网络请求、数据持久化存储、位置更新、蓝牙连接、路由跳转、插件实现双端native化等。

网络请求,使用pub. dev代码库中提供的dio插件实现。dio是Flutter的 HTTP插件。支持 iOS、Android 。dio是一个强大的Dart Http请求库,支持 Restful API、FormData、拦截器、请求取消、Cookie管理、文件上传/下载、超时、自定义适配器等。使用自定义的ApiService类实现网络请求。

数据持久化存储(SharePreference+Sqlite),使用pub.dev代码库中提供的shared_preference插件和sqflite插件实现。shared_preference是Flutter的文件持久化存储,支持iOS、Android、Linux、web、windows。sqflite是Flutter的 SQLite 插件,支持 iOS、Android 和 MacOS。

路由跳转,使用MaterialApp中自带的routes管理路由,并将所有的路由声明和跳转放在RouterAPI中实现。

位置更新,使用pub. dev代码库中提供的amap_flutter_location插件实现。amap_flutter_location是Flutter的高德定位插件,支持iOS和Android。

插件实现双端native化,使用自定义的flutter_plugin实现iOS和Android的本地通信。主要用在高德搜索和自定义地图等方面。

项目中抽象能力调用的类如下:

```
✓ lib
✓ src
✓ api
Å base_location.dart
Å base_network.dart
Å base_prefence.dart
Å base_routes.dart
Å base_sqlite.dart
```

项目中使用的能力如下:

```
dependencies:
  flutter:
   sdk: flutter
 # The following adds the Cupertino Icons font to your application.
 # Use with the CupertinoIcons class for iOS style icons.
cupertino_icons: ^1.0.4
 animations: ^2.0.2
  #
dio: ^4.0.4
 device_info: ^2.0.3
 shared_preferences: ^2.0.12
 sqflite: ^2.0.1
  #
permission_handler: ^8.3.0
 amap_flutter_location: ^3.0.0
  #bloc:
 flutter_bloc: ^8.0.0
  equatable: ^2.0.3
 pin_code_fields: ^7.3.0
 encrypt: ^5.0.1
 video_player: ^2.2.10
  #Toast
 fluttertoast: ^8.0.8
 flutter_easyloading: ^3.0.3
 webview_flutter: ^3.0.0
 provider: ^6.0.2
```

```
#
flutter_blue: ^0.8.0

dev_dependencies:
   flutter_test:
      sdk: flutter
   flutter_lints: ^1.0.0
   flutter_native_splash: ^1.3.2

amap_flutter_map:
   path: ./flutter_plugins/amap_flutter_map
```

UI界面

UI界面使用继承StatelessWidget(无状态)和StatefulWidget(有状态)来实现。为了方便数据和界面的管理我们采用了Bloc模式进行开发和管理。

自定义的资源文件放在images和video文件夹中,并在pubspec. yaml中声明。

```
# The following section is specific to Flutter.
flutter:
    # The following line ensures that the Material Icons font is
# included with your application, so that you can use the icons in
# the material Icons class.
uses-material-design: true
assets:
    - images/
    - video/
```

自定义的页面的源文件放在src/pages目录下,并采用bloc设计模式实现。

```
🗡 🖿 pages
             > device

✓ Image: Home of the property of the prop
                          thome_mine.dart
                                                      thome_mine_bloc.dart
                                                      thome_mine_event.dart
                                                      thome_mine_state.dart
                                        thome_main.dart
                                        thome_scaffold.dart
            ✓ login
                          > inputSMSCode
                          ✓ loginMain
                                                      \rm login.dart
                                                      login_bloc.dart
                                                      login_event.dart
                                                      login_state.dart
                          > loginPassword
                          > setPassword
                                        login_agreement.dart

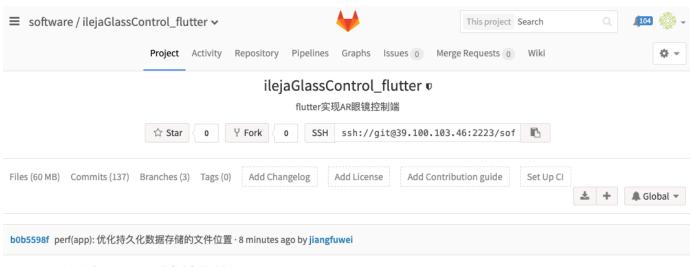
✓ Imavi

✓ Image: Yellow Toute

                                                      route_search.dart
                                                      toute_search_bloc.dart
                                                      toute_search_event.dart
                                                      toute_search_state.dart
                          > search
                           🕏 splash.dart
```

项目源码地址

ssh://git@39.100.103.46:2223/software/ilejaGlassControl_flutter.git



Flutter版本 - AR眼镜控制端

A new Glass Control Flutter application.

Getting Started

This project is a starting point for a Flutter application.

A few resources to get you started if this is your first Flutter project:

- Lab: Write your first Flutter app
- · Cookbook: Useful Flutter samples

For help getting started with Flutter, view our online documentation, which offers tutorials, samples, guidance on mobile development, and a full API reference.

Development Environment

Flutter SDK Version

• 2.8.1

Flutter SDK Download Url

- macOS: https://storage.flutter-io.cn/flutter_infra_release/releases/stable/macos/flutter_macos_2.8.0-stable.zip
- Windows: https://storage.flutter-io.cn/flutter_infra_release/releases/stable/windows/flutter_windows_2.8.0-stable.zip

Development Document

- 中文学习官方文档
- 中文学习实战文档
- 英文学习官方文档
- 官方软件包资源库