SỬ DỤNG FIREBASE(CRUD)

1. Thêm document

```
  Future<void> addUserToFB(
      {required String name,
      required String nickname,
      required DateTime birthday}) async {
    // Add a new document with random id to collection "User"
    final docUser = FirebaseFirestore.instance
        .collection('User'); // reference to collection "User"
    final json = {
      'id': docUser.id, // use id of document as id of user
      'name': name,
      'nickname': nickname,
      'birthday': birthday
    };
    await docUser.add(json);

    // Add a new document with id my-id to collection "User"
    final docUser = FirebaseFirestore.instance.collection('User');
    await docUser.doc("my-id").set(json); // reference to document "my-id" and add
json
  }
```

2. Lấy dữ liệu từ Firebase:
   2.1. Dùng StreamBuilder:

```
Stream<List<User>> getUserFromFBByFirstWay() {
    // tạo stream
    final docUser = FirebaseFirestore.instance
        .collection('User'); // reference to the document User

    // docUser.snapshots() to get list of all documents in collection User in json
    return docUser.snapshots().map((snapshot) {
      return snapshot.docs.map((doc) => User.fromJson(doc.data())).toList();
      // doc.data() to get the data of document in json
    });
  }
```

   2.2. Đọc dữ liệu ra list:

```
getUserFromFBBySecondWay() async {
    final docUser = FirebaseFirestore.instance.collection('User');
    final snapshot = await docUser.get();
    list = snapshot.docs.map((doc) => User.fromJson(doc.data())).toList();
  }
```

   2.3. Đọc dữ liệu bằng ID:

```
Future<User?> readUserByID() async {
    final docUser = FirebaseFirestore.instance.collection('User').doc("my-id");
    final snapshot = await docUser.get();
    if (snapshot.exists) {
      return User.fromJson(snapshot.data()!);
    }
  }
```

*** ĐƯA DỮ LIỆU VÀO

```
// dùng StreamBuilder để đưa stream vào listview
          Expanded(
            child: StreamBuilder<List<User>>(
                stream: getUserFromFBByFirstWay(),
                builder: (context, snapshot) {
                  if (snapshot.hasError) {
                    return Text('Error: ${snapshot.error}');
                  } else if (snapshot.hasData) {
                    final users = snapshot.data!;

                    return ListView(
                      shrinkWrap: true,
                      children: users.map((user) {
                        return ListTile(
                          title: Text(user.name),
                          subtitle: Text(user.nickName),
                          trailing: Text(user.birthday.toString()),
                        );
                      }).toList(),
                    );
                  } else {
                    return const Center(child: CircularProgressIndicator());
                  }
                }),
          ),
```

```
// Dùng FutureBuilder để đưa 1 doc ra
          Expanded(
              child: FutureBuilder<User?>(
                  future: readUserByID(),
                  builder: (context, snapshot) {
                    if (snapshot.hasError) {
                      return Text('Error: ${snapshot.error}');
                    } else if (snapshot.hasData) {
                      final user = snapshot.data;

                      return user == null
                          ? const Center(child: Text('No user'))
                          : ListTile(
```

```
                            title: Text(user.name),
                            subtitle: Text(user.nickName),
                            trailing: Text(user.birthday.toString()),
                          );
                    } else {
                      return const Center(child: CircularProgressIndicator());
                    }
                  }))
```

3. Update:

```
  updateUser() {
    final docUser = FirebaseFirestore.instance.collection('User').doc("my-id");
    docUser.update({
      // 'name' : FieldValue.delete(), // delete a field of doc
      'name': 'Nguyen Van A',
      'nickname': 'NVA',
      'birthday': DateTime.now()
    });
  }
```

4. Delete:

```
delteUser() {
    final docUser = FirebaseFirestore.instance.collection('User').doc("my-id");
    docUser.delete();
  }
```