

AxiL University Hybrid App

Axil university is an imaginary university which requires an Hybrid mobile application developed in Flutter for their students and the application which is handed over is intended to fulfill all the requirements provided by the authority. All technical and non-technical details are pointed out below:

1. The application is completely offline. No need to connect to the internet to fetch data. All JSON responses can be found in the 'assets/json' folder.
2. There is no online database system. So the developer introduced a data structure(List) in SharedPreferences which acts as a local database. When the app is launched for the first time, It gets initialized with one user with email, first name, last name, phone number and password (which is encrypted using bCrypt).
3. The application does support only portrait orientation. No landscape orientation functionality is provided.
4. Although the application is completely offline, it does check whether an active internet connection is available to mimic how it should be done in an actual app.

5. **If there is an active connection, the login page will be rendered if not already logged in. There is only one user currently in the database. To pass the login stage, a student/authority must provide these credentials first:**

Email: student_one@axiluniv.com

Pass: password

Passwords are not stored in plain text.

6. **If a user forgets password, password recovery system is added. The new password must pass all the validation tests to replace the old password. As this is an offline app, providing email and changing password is done on one page.**
7. After successful login, the login credentials and auth credentials are stored. Auth credentials are returned from static JSON file. Users will be redirected to the main page.
8. The main page has a bottom navigation bar which has mainly two pages: HomePage and ProfilePage.
9. HomePage mimics how specific data (In this case Course information) for a student will be loaded. This page is completely dynamic and has an infinite scrollview. Just updating JSON data will add more data to this page. Pressing on a single course card will pop up

a dialog box to view details of that course.

- 10. ProfilePage lets a student update their image, first name, last name and phone number by pressing the 'SAVE' button that is on the top right corner. Email can not be updated as it functions as the primary key. The user update is saved in a local data structure which acts as the database and keeps information until the application remains in the device.**
11. The application handles the Camera and Storage Permissions perfectly.
12. There is a Drawer in HomePage where the functional logout button is designed.
13. The APIs calls are made in MainClient.dart file which is a Singleton class. Although all calls are made in the local system, server API calls are included for SignIn and GetMainFeed methods in comment sections to demonstrate how these will be done in real apps.
14. The user data structure which acts as the database of this app is designed properly to handle multiple users but as the Registration process was not included in the requirements this is not implemented.
15. The application is rigorously tested in Samsung S9, Samsung A50 and Samsung S6(VM). But a bug is a part of the development cycle and if found any, please provide the information to the developer.
- 16. Github Link of the complete project: https://github.com/Yunus0or1/basic_flutter . It is being requested to view all the commit history to understand the complete development cycle of this application.**

THANK YOU