

Name: Muhammad Afzal
Fellowship Track: Android(Flutter)

Week 01

During the initial meeting, I gained an understanding of the fellowship program's components, goals, objectives, and requirements. I provided information about my experience with Flutter through a Google form, indicating having an intermediate level of knowledge. Additionally, I set up a GitHub repository to showcase my progress and receive feedback on my assignments. A subsequent meeting with mentors and participants focused on discussing the program's roadmap and upcoming milestones.

Week 02:

This week involved learning about REST APIs and state management using Provider in Flutter.

REST API: I explored resources on REST API and its utilization in Flutter, including the use of the http package for HTTP requests and Postman for endpoint testing.

State Management: I revisited the concepts of stateless and stateful widgets. I understood the need for state management to efficiently update the UI without rebuilding the entire widget tree. Among the various state management techniques, Provider was emphasized as an easy and popular choice.

MVVM: Additionally, I learned about the MVVM (Model-View-ViewModel) architecture, which separates business logic from the UI.

Week 03:

During this week, the focus was on working with Firebase in Flutter. The topics covered included Firebase Authentication, Cloud FireStore, and Firebase Storage.

Firebase Authentication: I gained knowledge of Firebase Authentication's services, SDKs, and UI libraries, which enable user authentication using various methods.

Firebase Database: I learned about Firebase Database, a cloud-hosted, real-time JSON-based database suitable for mobile apps.

Firebase Storage: I explored how to upload images to Firebase Storage and store their URLs in the Realtime Database.

Week 04-07:

These weeks encompassed a range of topics such as animations, advanced UI, platform integration, performance, and an introduction to widgets. Details about each topic were covered separately, in my main [Github repository](#).

Week 08:

During this week, I submitted assignments from previous weeks, received feedback, and discussed challenges with our lead. I also planned for the upcoming weeks and established a roadmap.

Week 09–12:

In these weeks, the task was to create a clone of an existing application. I chose to build a clone of Instagram, considering its popularity and relevance. Using Flutter for the UI and Firebase for the backend, I aimed to gain a deeper understanding of the application and its functionalities. More details and code is available in the respective [Github Repository](#)

Week 13-(Final Project):

In this period, we were assigned to develop a complete Flutter application with all the required features and functionalities. I chose to build a mental fitness application called "75 Hard." This application is based on a 75-day challenge that involves following a strict diet and workout plan. If a day is missed, the challenge restarts from day 1.

Important links:

Main repository: <https://github.com/mafzaldev/bytewise-fellowship-flutter>

Instagram Clone repository: <https://github.com/mafzaldev/flutter-instagram>

Final Project repository: <https://github.com/mafzaldev/flutter-75-hard>