

17th July 2025 (Thursday)

Today's class built upon the previous day's Firebase work, focusing entirely on Firebase Authentication. The session began with an overview of various authentication methods such as Email/Password, Google Sign-In, and Phone Authentication. The trainer emphasized that for our project, we would primarily use Email and Password Authentication, as it provides a simple yet secure login mechanism suitable for small-scale apps.

During the first hour, we created a Registration Activity with XML fields for username, email, and password. The design followed Material Design guidelines with proper spacing, hints, and validation messages. I then wrote Java code to implement user registration using FirebaseAuth's `createUserWithEmailAndPassword()` method. The trainer guided us through handling success and failure cases using Toast messages and Logcat output.

In the second hour, we developed the Login Activity, implementing `signInWithEmailAndPassword()` for existing users. We also discussed Firebase's built-in session management that automatically maintains user login status across app restarts. To make it more interactive, I displayed custom error messages like "Invalid credentials" or "Network error, please try again." The mentor reviewed my app and was pleased with my understanding of the logic.

By the end of the session, I had a functional registration and login system connected to Firebase. The trainer explained that this module forms the base of user authentication in real-world apps and will directly link with our chat feature later. It felt rewarding to see my first dynamic interaction between user input and cloud backend working perfectly.