

Weekly Report

Week – 05

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1. Introduction:

This report highlights the progress made during the fifth week of my internship at **CODELOUNGE Pvt. Ltd.** This phase marked the transition from planning to active development. The primary focus was on coding and implementing the Educator Portal of the E-Learn application.

2. Duration:

Week Duration:

12 February 2026 – 18 February 2026

3. Overview:

During this week, I began the development of the Educator Portal. The goal was to enable educators to manage their educational content effectively through a structured interface connected to Firebase.

The Educator Portal allows educators to:

- Create Courses
- Add Chapters inside courses
- Add Lectures and Quizzes inside chapters
- Edit and Delete educational content
- View and track created courses and associated materials

This week primarily focused on building functional screens and connecting them with Firebase for real-time data storage and retrieval.

4. Task Performed:

The following activities were carried out during this week:

- Set up Flutter project structure for development
- Configured Firebase Authentication and Firestore
- Developed Create Course screen
- Developed Create Chapter screen

- Developed Add Lecture screen
- Developed Create Quiz screen
- Implemented CRUD (Create, Read, Update, Delete) operations
- Connected all educator-related screens with Firebase
- Designed UI layouts for educator workflows
- Tested data flow between frontend and Firestore.

5. Learning Outcomes:

The fifth week provided valuable foundational learning, including:

- Practical implementation of CRUD operations using Firebase
- Structuring hierarchical Firestore collections
- Managing real-time data updates
- Implementing role-based functionality
- Improving state management and navigation handling in Flutter
- Building production-oriented form validation logic

6. Challenges and Solutions:

Challenges:

- Designing nested Firestore collections efficiently
- Handling data consistency during updates and deletions
- Managing screen navigation between multiple educator workflows.

Solutions:

- Structured Firestore using logical parent-child collections
- Implemented validation and safe deletion logic
- Organized navigation flow with structured routing.

7. Conclusion:

The fifth week marked the beginning of active development. The Educator Portal was successfully implemented with working CRUD functionality connected to Firebase. This phase strengthened backend integration skills and provided hands-on experience in building structured educational management systems.