

- Final Project Requirements: Mobile Applications Course
- Threshold Requirements for the Final Project:
  - **Social Interaction and Remote Data:**
    - The project must include interaction with a remote database, including reading and writing text and images.
    - There must be social interaction where one user uploads content (text + image) and another user can view it.
    - **External API:** Display content retrieved from an external REST API.
    - **Restriction:** It is forbidden to create an Instagram app or any similar application.
  - **User Management:**
    - User registration via Firebase Authentication is required.
    - Automatic identification of a logged-in user when reopening the app.
    - An option to log out.
    - Display of a user profile screen (including image and name) and implementation of profile editing.
  - **Personal Content Management:** Each user must be able to view and manage the information they share:
    - Viewing their uploaded posts in a separate screen.
    - The ability to update a post (text and image) and delete an existing post.
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- Evaluation and Grading Criteria:
  - **App Completeness:** Logic in the "story," proper planning, correct operation of all functions, and reasonable design (using Material Design).
  - **Code Organization:**
    - Modular MVVM code, no duplications, clean and organized writing, and short functions.
    - Mandatory use of Google Design Guidelines (ViewModel, LiveData, ROOM).
  - **Navigation:**
    - Mandatory use of Navigation as taught in class (nav graph), using fragments and passing parameters via safeArgs.
  - **Data Management:**
    - No synchronous network access; implementation of spinners in appropriate places.
    - Local and remote storage, graduated loading, and implementation of image and object caching using a database (SQLite - Room).
    - It is forbidden to use Firebase features for local storage.
  - **Project Management:**

- The project must be managed in Git from the beginning.
- Server code will not be tested; the use of Firebase is recommended.

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- Project Submission Stages:
  1. **Project Definition:** Defining the app's purpose and functional requirements specification, including priorities (Must Have/Should Have) and future expansion plans.
  2. **App Design:** "Use Case" (user perspective story) and a Mockup of the app, ensuring consistency between them.
  3. **Project Submission:** Presentation of a working app, description of the code structure, and submission of the code for review.

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- Links to Github Code Examples from the Lecturer:

[AndroidActivityFundamentals](#) •

[KotlinPlayground](#) •

[Colman2026AndroidStudentsApp](#) •

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- Project to be Developed:
- **Design Link (Lovable):** <https://studytipsmockup.lovable.app/>
- Application Goal Definition
  - The purpose of this application is to provide users with a simple platform for sharing and discovering study tips.
  - Each user can post tips that include an image and written text.
  - The app focuses on community-driven content, allowing students to explore useful learning strategies shared by others and contribute their own insights.
  - **Main Goals:**
    - To enable users to post and browse study tips in a user-friendly environment.
    - To create a personal and social space where users can express their learning methods and help others.
- Functional Requirements Specification - Core Features
  - **User Authentication and Registration:**
    - The app allows users to sign up, log in, and log out.
  - **Post Creation:**
    - Users can upload a study tip including an image, a text title, and a detailed text description (the tip itself).
  - **Navigation Bar/Menu:**

- Allows movement between core screens: Home/Feed (with filter options), Create Post ('+' Button), and User Profile.
- **Motivational Quote Banner (External API Integration):**
  - Displays a motivational quote at the top of the home screen fetched from an external REST API.
  - A new quote is retrieved whenever the user opens the app or refreshes the feed.
- **Profile Page:**
  - Users can view their own tips, edit user information, change profile pictures, edit/delete their posts, and log out.
- **Future Improvements & App Expansion:**
  - Likes and comments on study tips.
  - Adding tags/labels (e.g., “Memory”, “Math”, “Time Management”).
  - Dark mode/theme selection.
  - Sorting and filtering by rating, date, subject, or popularity.
  - Saving favorite study tips to a personal collection.