

Flex Workout App

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PROBLEM

Create a simple, user friendly way for users to keep track of and create workout routines, as well as being able to keep track of their progress and calculate important metrics such as BMR or one-rep maxes

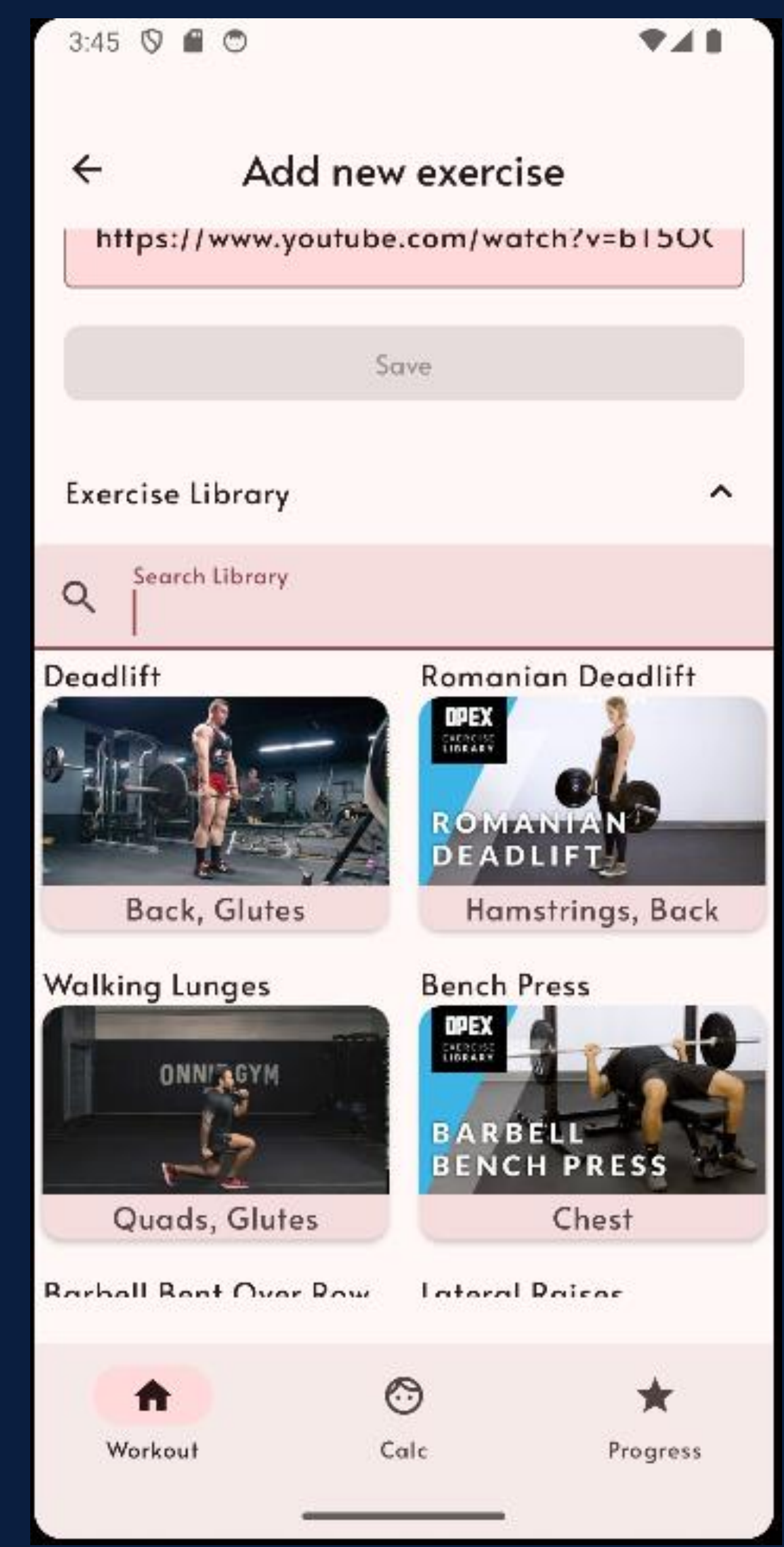
SYSTEM DESIGN

This project uses a two-tier architecture (Client and Database),

The user interacts with the front-end to store information or retrieve information about their workout routines.

VERIFICATION

Our app was tested by manually regression testing components when adding new features or entities to the application.



CURRENT SYSTEM

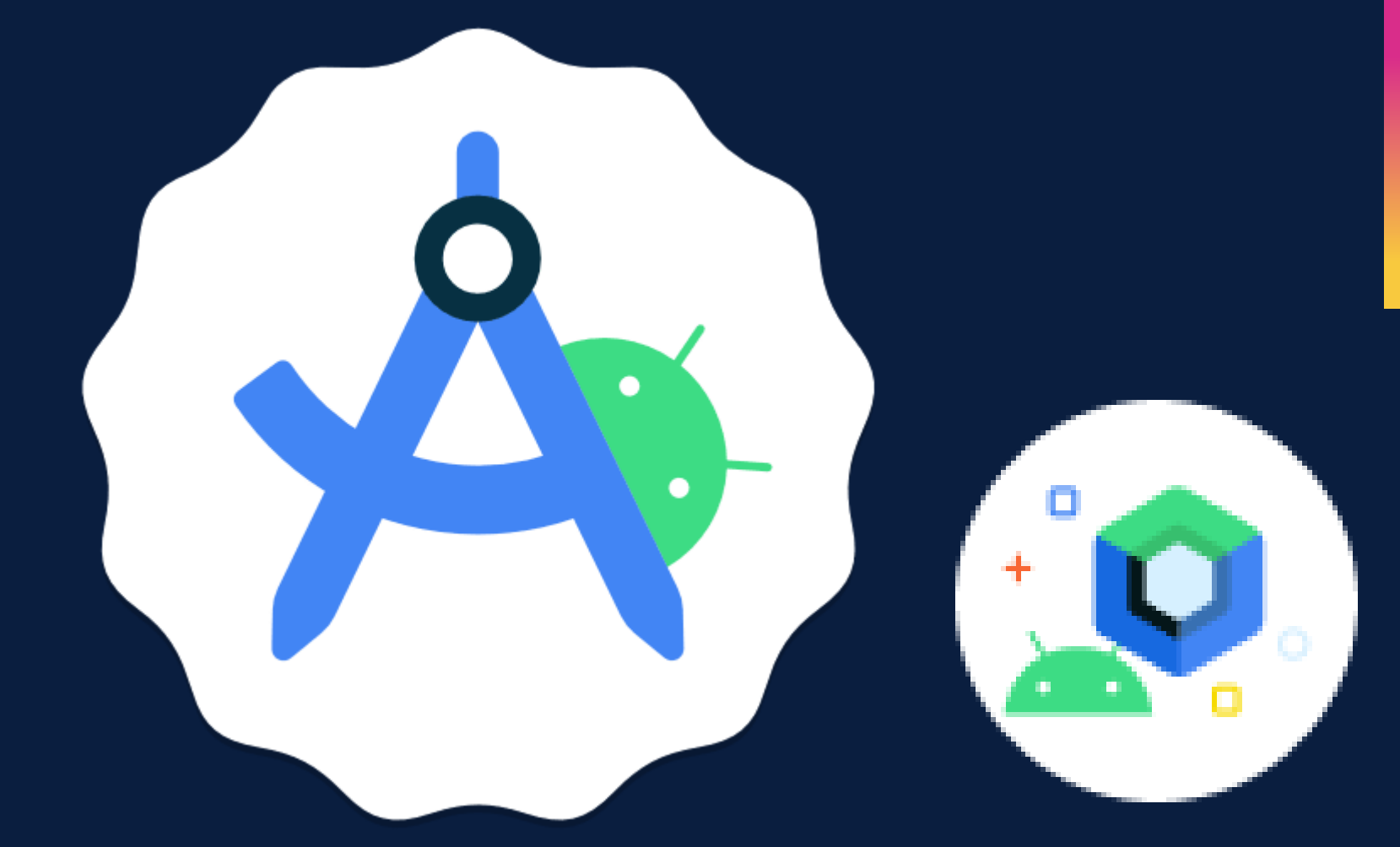
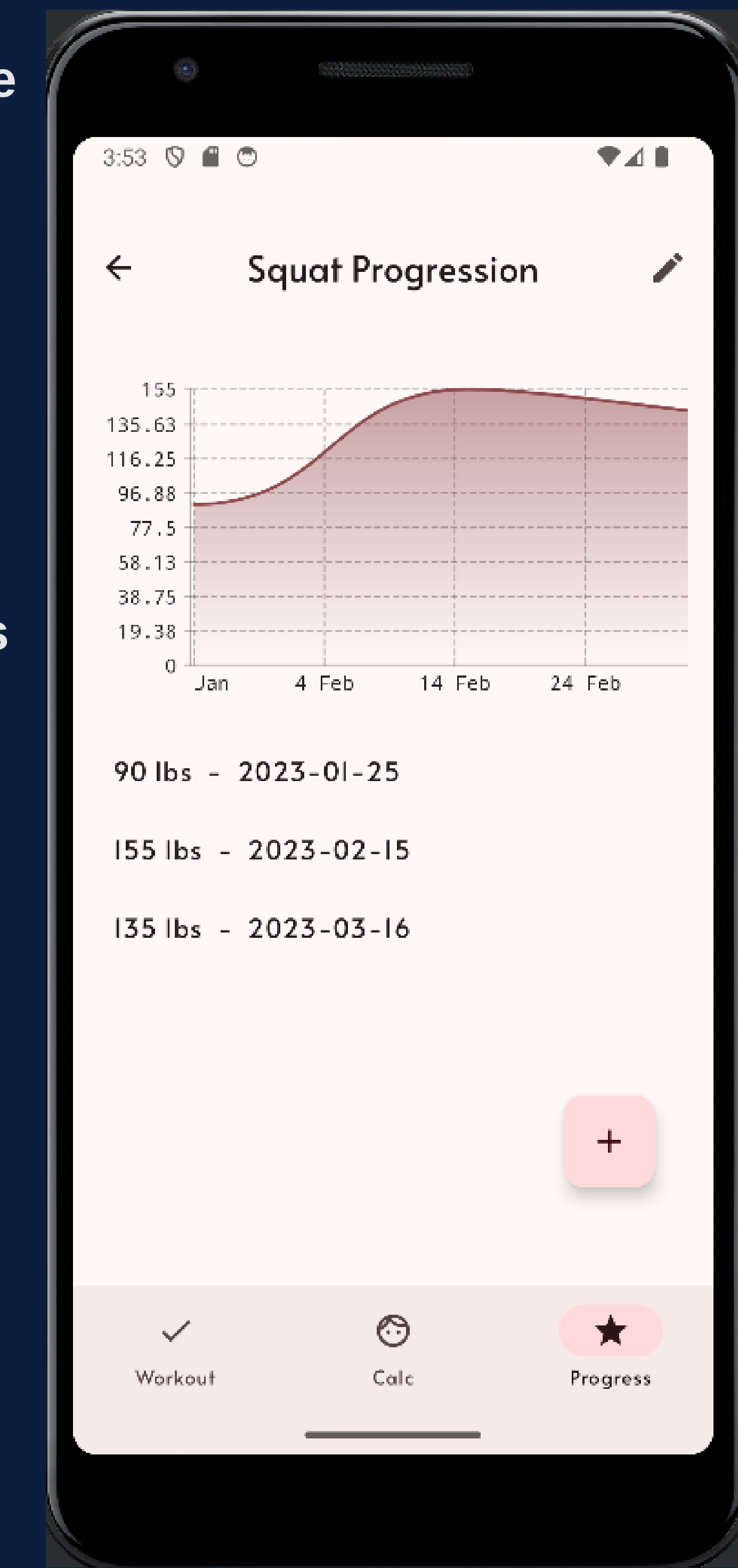
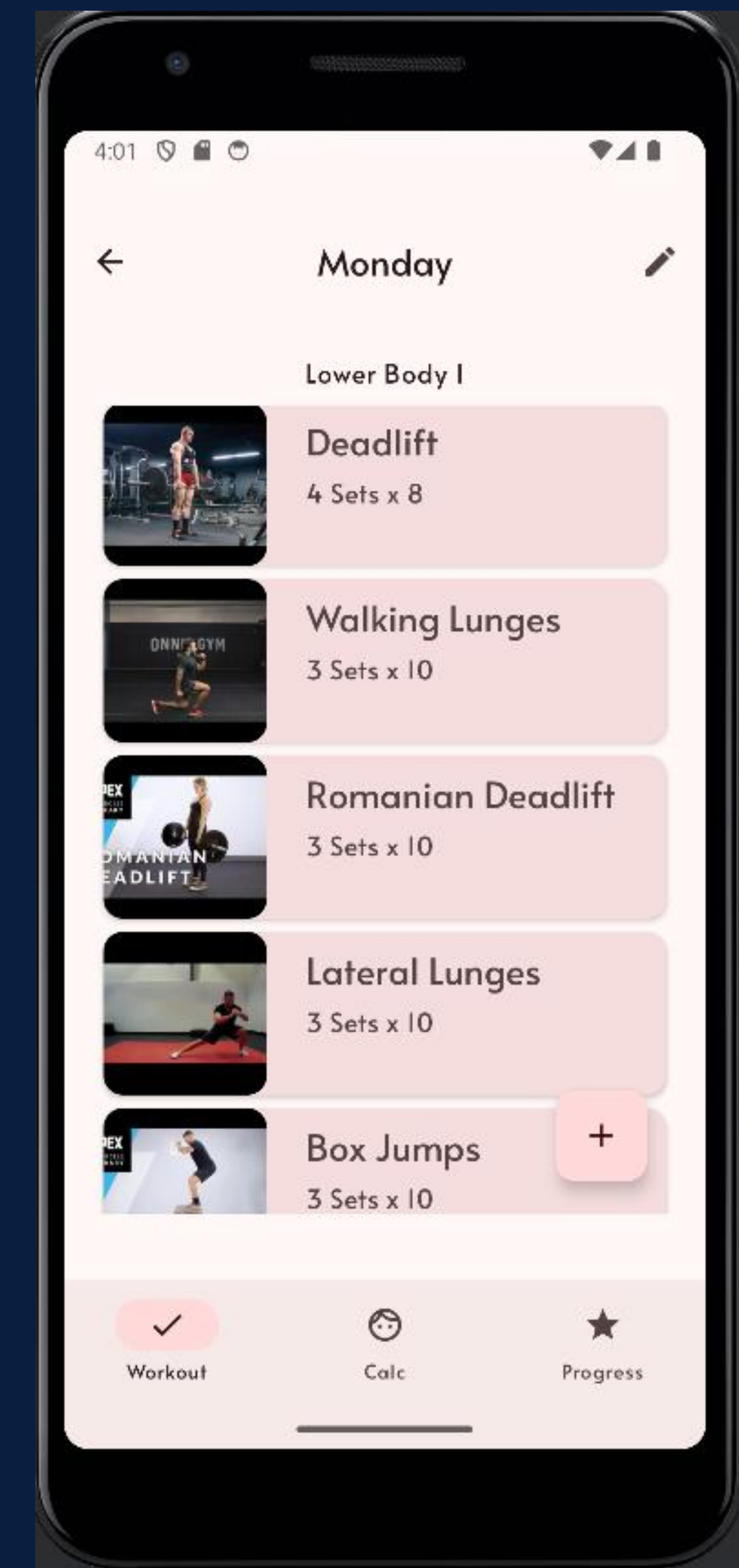
The current system involves having users manually enter their routine, and the exercises that belong to each routine, with the data persisting in a local database.

OBJECT DESIGN

The current objects in the project include routines and exercises, the routine is an independent entity, and exercises belong to the routine. A routine object must exist to able to add exercises to that routine. Each routine has a name and description. The exercise is the dependent object, which includes the exercise name, a youtube url, the number sets and repetitions for that exercise. The routine-to-exercises relationship is one to many.

SUMMARY

In short, we created an app where users can easily store and keep track of their workout routines and progression using Kotlin, Android Studio and Jetpack compose



REQUIREMENTS

Users of the app can build save their entire workout routines, and attach videos/demonstrations or specific instructions to different exercises in the workout plan, allowing users to be able to be able easily create workout routines that meet their needs and goals

IMPLEMENTATION

The implementation of our app uses Kotlin, and Jetpack Compose, a declarative UI framework created by Google for android development. The database is implemented using the Room library, an android library built into Jetpack Compose, which provides a layer of abstraction between a SQLite database

REFERENCES

- <https://developer.android.com/develop/ui/compose>
- <https://m3.material.io/>
- <https://kotlinlang.org/>