

Florida International University

Summer 2024 Senior Design Project

Flex Workout App

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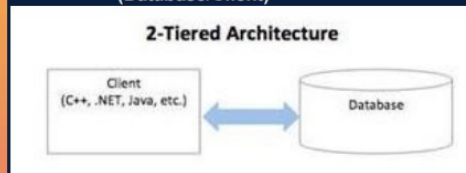
Instructor/Faculty: Masoud Sadjadi, Florida International University

PROBLEM

Create a simple way for users to keep track of their workout routines. And have way to calculate the basal metabolic rate and one rep max

SYSTEM DESIGN

A 2 tier architecture (Database/Client)



VERIFICATION

Manual Regression Testing and debugging

CURRENT SYSTEM

Kotlin and local database

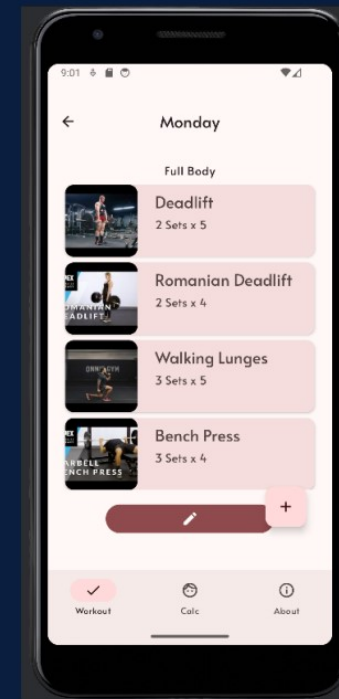


OBJECT DESIGN

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

We created an app to make it easy for the user to track their workouts, calories and one rep max. We used Kotlin with Material3 and a local database.



REQUIREMENTS

Create an organized way to track workouts. And have a way to calculate their basal metabolic rate and One Rep Max

IMPLEMENTATION

Kotlin, local database, and material3

Android Studio as the IDE



REFERENCES

<https://m3-material.io/>
<https://kotlinlang.org/>
<https://www.athlegan.com/calculate-1rm>
<https://www.calculator.net/calorie-calculator.html>
<https://github.com/PierfrancescoSoffritti/android-youtube-player>

ACKNOWLEDGEMENT

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