The Applicants' Workout Application

Forrest Brown, Evan DiFilippo, and JP Burger

Names

Team Members

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Project Advisor

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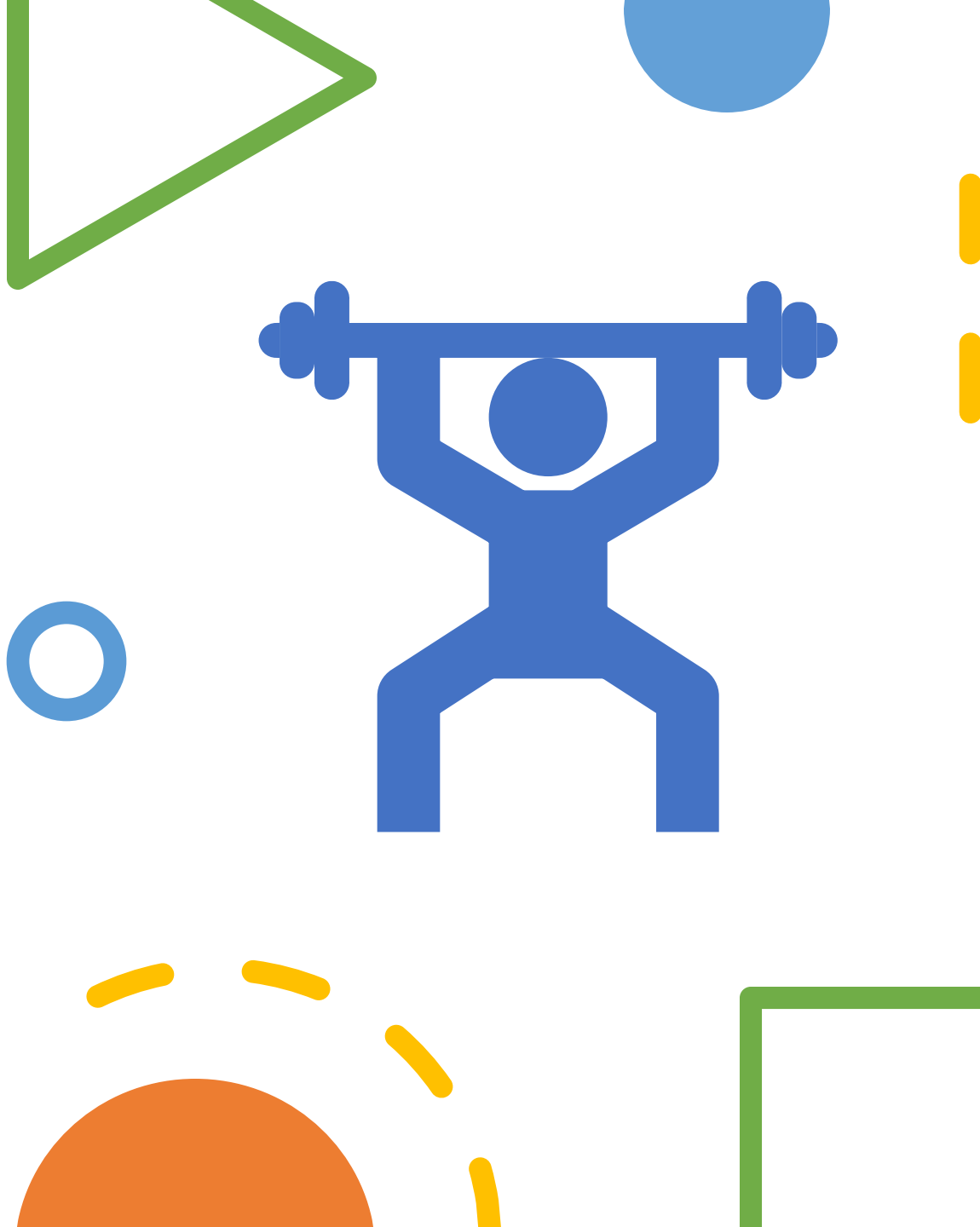
Project Abstract

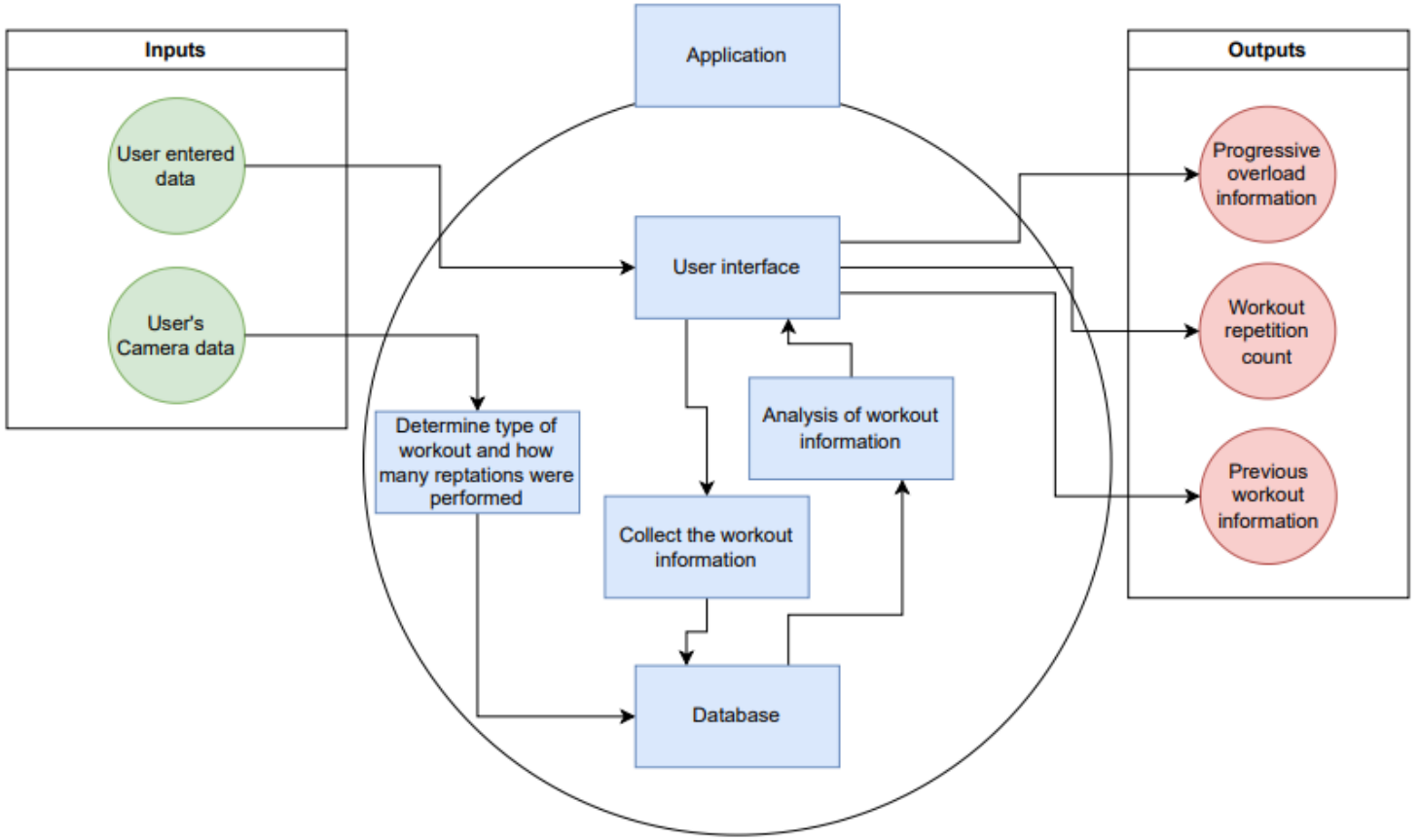
Our mobile application is a technologically advanced replacement for the common gym notebook. Many casual lifters and almost all serious lifters measure their progress in the gym over time. The most common metric to do this is progressive overload, otherwise known as a continuous increase in weight moved or repetitions performed. The goal of our tracker is not just to digitize the process of tracking progressive overload, but to make it effortless for the user. The app features an intuitive data entry system, visualization of the data, and an optional hands-free data tracking feature that uses motion capture technology to automatically count the user's reps and motivate the user to overload.

User Stories

- As a competitive bodybuilder, I want a way to predict progressive overload so that my lift is optimal or near-optimal.
- As a busy, but health-conscious person, I want an app that automatically or easily tracks my workouts so I can save time in the gym and focus on my lifts.
- As someone new to lifting, I want an app to track my workouts and suggest improvements for progressive overload, so that I can ensure I am exercising effectively and reduce the risk of injury.
- As a person striving for a healthier lifestyle, I want an app to provide personalized workout plans based on my fitness level and goals, so that I can achieve better results and maintain my motivation.



Design Diagram



Major Project Constraints

Ethical

Injuring users

Causing users to have suboptimal workouts

Discouraging users with unrealistic expectations

Legal

Peloton Guide is a similar product, but has no patents associated

Security

Collecting data from users

Review of Project Progress

Kinetic Vision partnership

Current state of the project

Programming Research

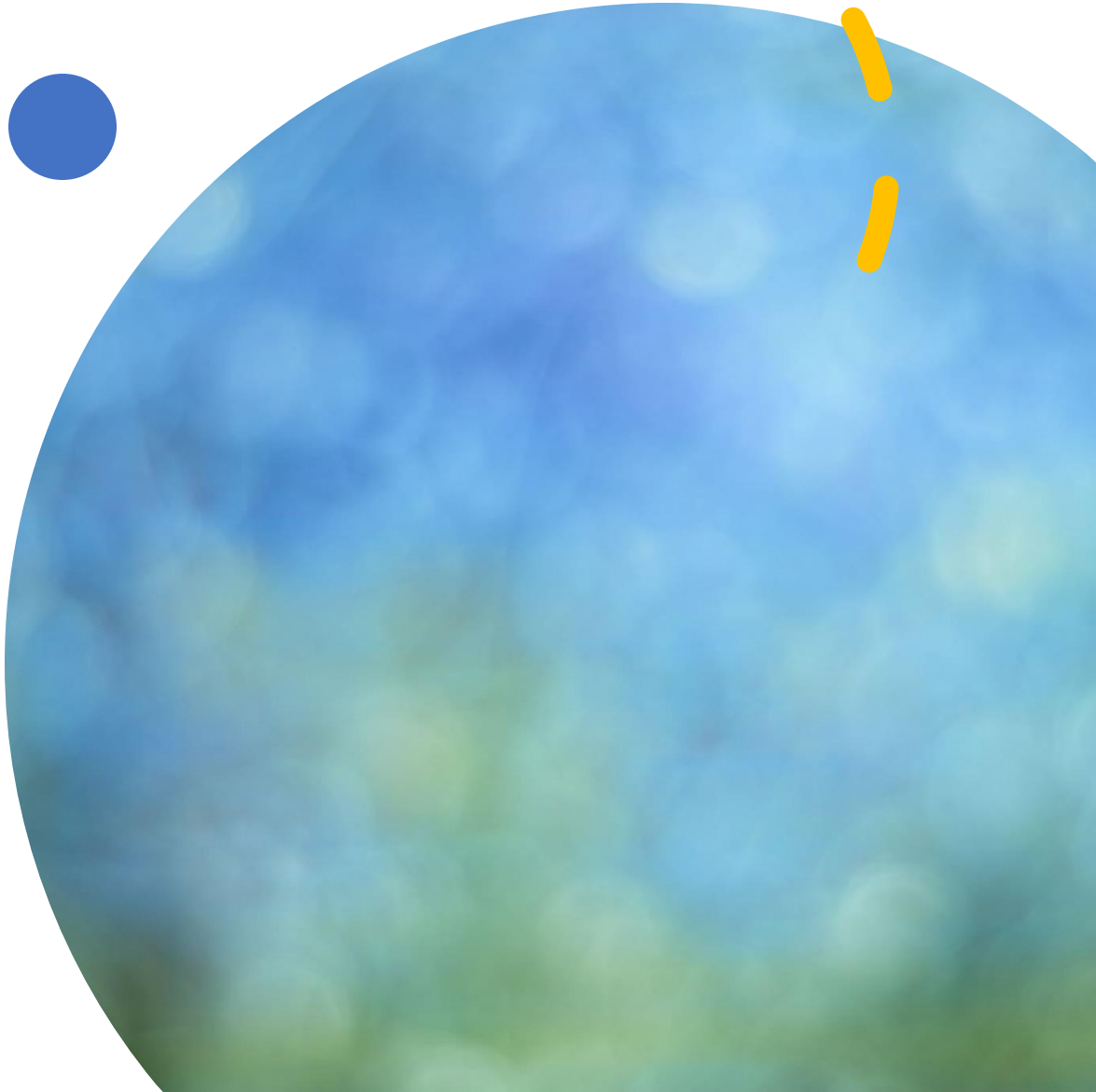
- Flutter, ObjectBox, and OpenCV

Market Research

- Peloton Guide, HeavySet, and FitNotes

Application design

- Minimal, clear, and fast



Expected Accomplishments

Structure timeline

Determine pace

Effective time management

Hit milestones

Understanding of each role

Clear expectations

Increase colaboration

Fair distribution

Clearly defined goals

Effective user interface

Real time workout anaylsis

Secure data

Division of Work

Group will divide work for each core component

Each member will do work for each component

Roles

Forrest Brown - Head of Artificial Intelligence development

Evan DiFilippo - Head of Database development

JP Burger - Head of User Interface development

Expected Demo at Expo

- Displays of the application in action
- A usable sample of the application
- Display with critical design information