

# WorkoutEvaluator

iOS app that provides personalized exercise feedback  
through user-inputted information



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# Why me? Why this app? Why it's awesome?

## Why Me?

- Fitness passion
- Already constructed app outline
- User / Developer

## Why This App?

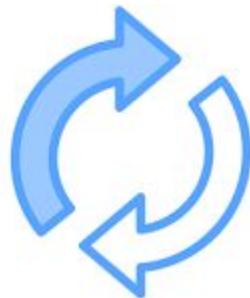
- Existing apps overwhelming
- Feedback

## Why It's Awesome

- Clean design / simplicity
- PR recognition

# Why Does This Matter

- Doing anything without progress
- Motivation → Seeing real progress over time makes people want to keep training.
- Everyone tracks something → money, steps, sleep, grades, work goals.



# Problem

- Thousands of fitness apps exist, each providing different pros and cons
  - Whoop
  - Garmin
  - Apple Fitness
- Gray area of analytic feedback
- Opportunity to help users progress
- Collected data statistically shown isn't always accurate
  - Is user-inputted data more beneficial?



Data → Yes  
Personalized Feedback → No

# Opportunity

- Gym is a growing lifestyle choice
  - 32.8 million 2000
  - 64.2 million 2019
  - 77 million 2024
- Millions of people seek reliable and guidance
  - Approximately 29% of gym-goers actively work with personal trainers
    - In 2024, fitness apps were downloaded 850 million times



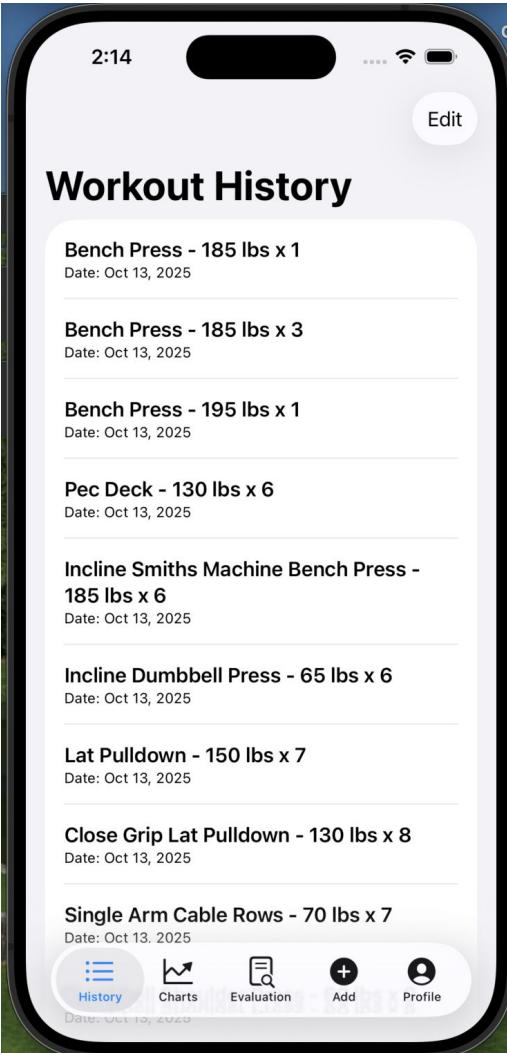
Early adopters can benefit greatly from data based feedback

# Solution

- App that evaluates and compares workouts for you
  - Trends
  - Exercise progress
- Personalized recommendations based on goals or results
- Provides feedback to aid the user
- Utilizing user-inputted data
  - Automatic data collection vs Manual

# App Page by Page

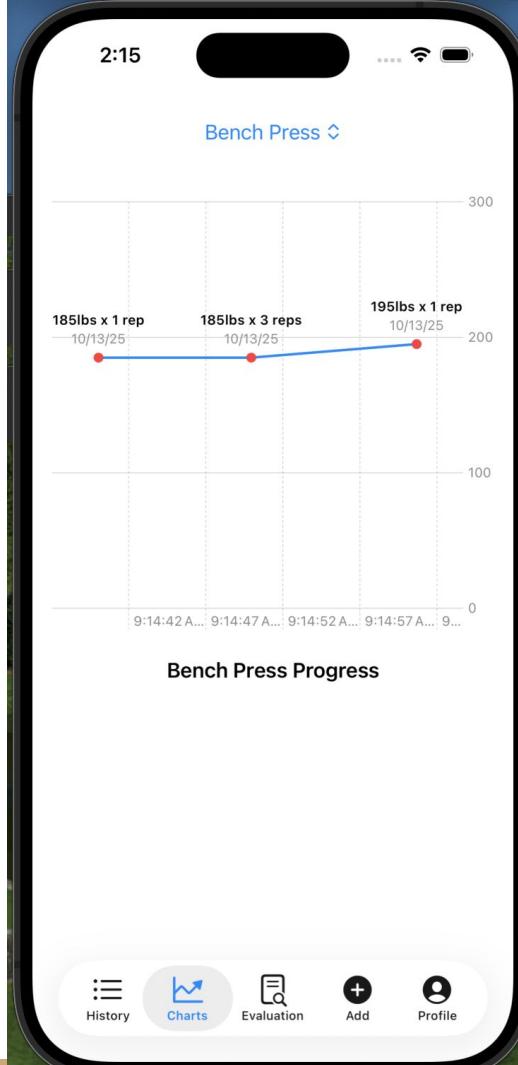
## History



<https://formative.jmir.org/2023/1/e45298>

- Good insight into “logging frequency” being meaningful
  - Kittiya Sae-lee, Decho Surangsrirat, Chanatip Parlawong, T-touch Anawilkul, Narinuch Assawachamrun, Pawanya Boonbandan, Paweerata Ladapongpuwat, Bhawat Chupetch, Supatcha Thongchai, Nannapat Pruphetkaew, Therdpong Thongseiratch, Polathep Vichitkunakorn, Pitchayananont Ngamchaliw
  - 30 June 2023
  - JMIR Formative Research

# Charts



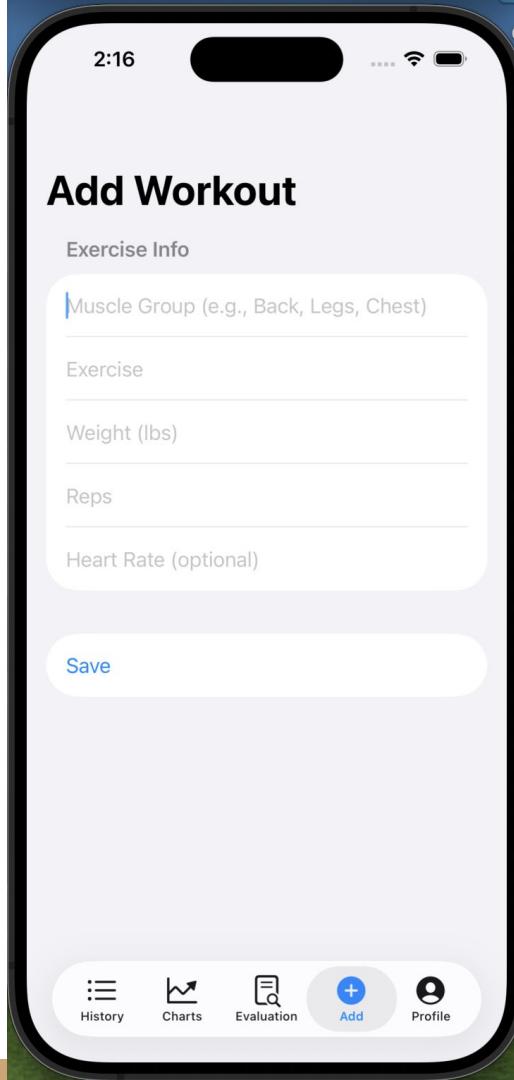
<https://PMC.ncbi.nlm.nih.gov/articles/PMC11070543/>

- Users valued visual “performance tracking” and quick data inputting
  - Yu-Peng Chen , Julia Woodward , Meena N Shankar , Dinank Bista , Umelo Ugwoaba , Andrea Brockmann , Kathryn M Ross , Jaime Ruiz , Lisa Anthony
- 22 Apr 2024
- Frontiers In Digital Health

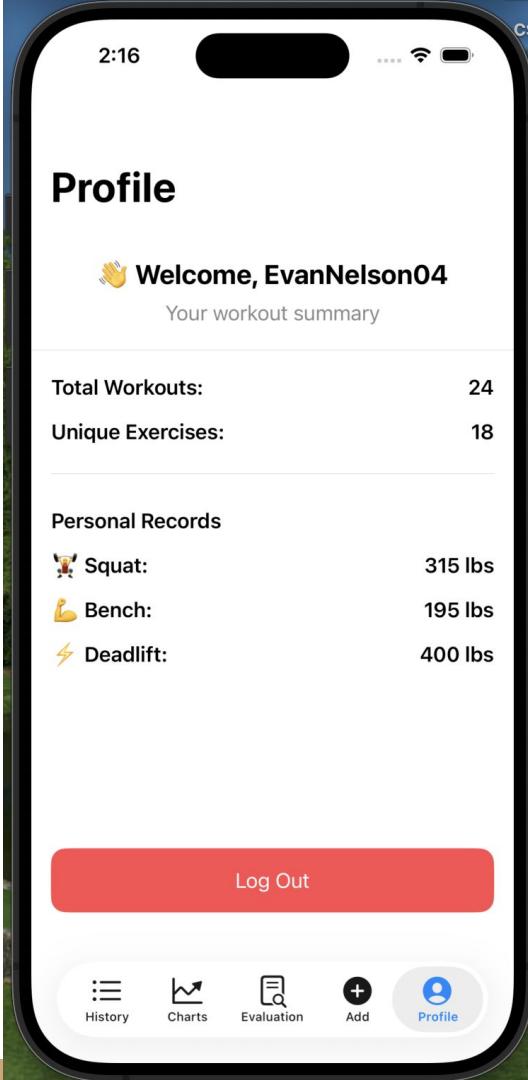
# Evaluation

The image shows a smartphone displaying a fitness application's evaluation screen. The top status bar indicates the time is 2:15 and there is a signal and battery icon. The main title "Evaluation" is at the top, followed by a section header "Chest".  
**Bench Press Analysis:**  
Fewer reps than last time (1 vs 3). Focus on technique or rest.  
Increased weight: 195 lbs vs 185 lbs.  
⚠️ You've done Bench Press 3 times this week. Recommending to stick to 2 times a week max.  
**Incline Dumbbell Press Analysis:**  
This is your first Incline Dumbbell Press entry. Keep going!  
**Incline Smiths Machine Bench Press Analysis:**  
This is your first Incline Smiths Machine Bench Press entry. Keep going!  
**Pec Deck Analysis:**  
This is your first Pec Deck entry. Keep going!  
  
**Legs**  
**Back Squat Analysis:**  
This is your first Back Squat entry. Keep going!  
**Heel Elevated Squat Analysis:**  
Same reps as last time (5). Keep pushing!  
Increased weight: 200 lbs vs 185 lbs.  
  
At the bottom, there is a navigation bar with icons for History, Charts, Evaluation (which is highlighted in blue), Add, and Profile. The word "Shoulders" is visible at the very bottom of the screen.

# Add Workout



# Profile



[https://link.springer.com/article/10.1007/s11301-025-00537-1?](https://link.springer.com/article/10.1007/s11301-025-00537-1)

- What makes people keep using fitness apps over time? (factors for long-term engagement)
  - 02 July 2025
  - Moyun Chen, K. Valerie Carl & Oliver Hinz
  - Management Quarterly Review

# Experiment

## Synthetic data experiment

- Data Volume & Performance:
  - Speed and responsiveness
- Visual Adaptability:
  - Screen sizes
- Data Structure & Query Efficiency:
  - Load time etc..
- Graph & UI Behavior:
  - Graph Compression



# Next Steps

1. App Development
  - a. Create a more exciting ui
  - b. Better feedback for user
2. Gamification
  - a. Award for 100 workouts, 100 etc
3. Goal Tracking
  - a. User set goals



# Demonstration

What to expect

1. User login system / account creation
2. Adding a workout
3. Visual before / after data entry
4. Evaluation

# Q/A

- Much easier to use IOS app that allows users to quickly log their workouts and receive feedback
  - Using swift I have been able to over the course of months develop..
    - Workout Log
    - Visualization for progress
    - PR Tracking
- I have been actively learning app development and swift since last spring trying to understand the language and important things during app development
- My project is on track to complete something that has not been accurately completed, which will be able to actively aid users throughout their journey in the gym
- I have never been more excited about a project, which will help me by wanting to work on it much more often to implement and test different ideas

# Citations

<https://www.mmcginvest.com/post/the-u-s-fitness-industry-membership-revenue-and-trends-in-the-post-pandemic-era?>

<https://www.aim7.com/blog/smartwatch-wearable-technology-accuracy>

[https://link.springer.com/article/10.1007/s11301-025-00537-1?utm\\_source=chatgpt.com](https://link.springer.com/article/10.1007/s11301-025-00537-1?utm_source=chatgpt.com)

[https://pmc.ncbi.nlm.nih.gov/articles/PMC11070543/?utm\\_source=chatgpt.com](https://pmc.ncbi.nlm.nih.gov/articles/PMC11070543/?utm_source=chatgpt.com)

<https://formative.jmir.org/2023/1/e45298>