UAB
Universitat Autònoma de Barcelona

ECIU

ECIU Techfit Challenge

Empowering Healthy & Active Lifestyles Through Technology

Our Challenge

Finding ways of using technology in order to encourage students to be more active

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Empowering Healthy & Active Lifestyles Through Technology

Our Challenge

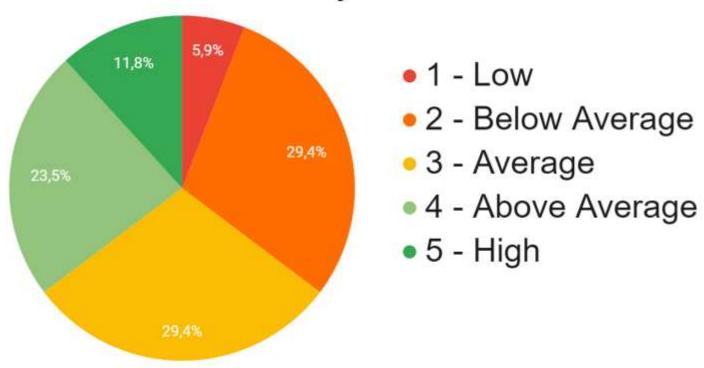Finding ways of using technology in order to encourage students to be more active

The Approach

- participants with different backgrounds
- 5 project groups:
    - marketing
    - social
    - walking breaks
    - smart work-out stations
    - AI
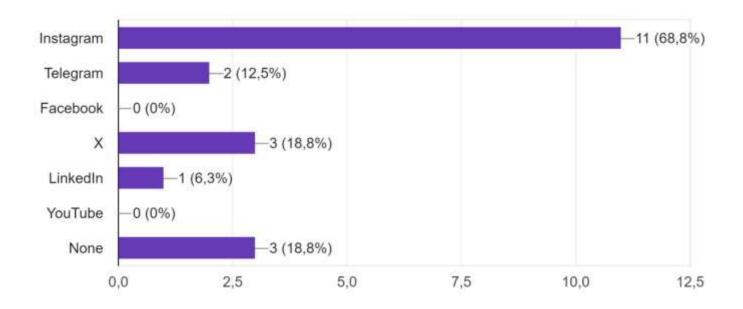- May - July 2024: online and on-site at UAB
- universal solutions

Activity Level

- 1 - Low
- 2 - Below Average
- 3 - Average
- 4 - Above Average
- 5 - High

Main source of information about UAB activities

Friends Website Email UABapp Whatsapp Other Instagram

What social media of UAB do you follow?

Platform	Count	Percentage
Instagram	11	(68,8%)
Telegram	2	(12,5%)
Facebook	0	(0%)
X	3	(18,8%)
LinkedIn	1	(6,3%)
YouTube	0	(0%)
None	3	(18,8%)

FitLife Tech Campaign

Promoting Healthy Lifestyles with Technology

Muhammad Irfan Zia

Campaign Goals

Promote	Promote mental and physical health among university students.
Utilize	Utilize technology to engage and educate students.
Create	Create sustainable healthy habits through interactive and informative content.
Incorporate	Incorporate face-to-face interactions to enhance engagement and motivation.
Include	Include student suggestions to tailor activities to their preferences.

Campaign Components

Channels:

- Instagram
- Facebook
- Website Blog
- E-Flyer

Content Types:

- Mental Health Tips
- Quick Workout Tips
- Fitness Challenges
- Healthy Recipes

UAB
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5 Workout Tips to Make Your Exercises More Effective

- ✓ Have a clear plan
- ✓ Keep things simple
- ✓ Eliminate distractions
- ✓ Take a moment to just breathe
- ✓ Have a playlist of your favorite music

QUICK WORKOUT ROUTINE FOR BUSY STUDENTS

- ✓ Jumping Jacks: 20 x 3 Sets
- ✓ Push-Ups: 10 x 3 Sets
- ✓ Squats: 10 x 3 Sets
- ✓ Plank: 30 Seconds x 3 Sets
- ✓ High Knees: 20 x 3 Sets
- ✓ Stretching (4-5 Minutes)

UAB
Universitat Autònoma
de Barcelona

Blog Posts

Blog Post 1: "10 Easy Tips for Maintaining Mental Wellness During Exams"

Blog Post 2: "How to Start a Fitness Journey: A Beginner's Guide"

Blog Post 3: "Healthy Eating on a Budget: Quick and Nutritious Recipes for Students"

E-Flyer

FitLink

Many university students struggle with **motivation** to stay active

Busy schedules and the excessive **use of technology** leaves people with less time to focus on health and socialising with others, particularly if someone is not already sportsy

Our solution:

An app to help people find others to workout with, try out new sports and organize fitness activities with others

FitLink

Most people are **socializers**, meaning that while participating, they care the most about the social aspect of the activity

Creating a **community** around fitness can increase motivation and make people more consistent

Our app is useful for a wide audience:
- competitive/non-competitive people
- beginners/intermediate/advanced athletes
- people with different fitness goals

Achiever

~10%

Explorer

~10%

Socializer

~80%

Killer

<1%

FitLink

Let's get into the prototype

The Goal

Research

Standing Breaks in Lectures Improve University Students' Self-Perceived Physical, Mental, and Cognitive Condition

Maike Paulus,[1] Jule Kunkel,[1,*] Steffen C. E. Schmidt,[1] Philip Bachert,[1] Hagen Wäsche,[1] Rainer Neumann,[2] and Alexander Wolf[1]

Cheng-Fang Yen, Academic Editor

+ Author information • Article notes • Copyright and License information   PMC Disclaimer

Associated Data

- Data Availability Statement

Abstract   Go to: ▾

While adolescents and adults should limit high levels of sedentary behavior, university students spend large amounts of time on sedentary activities. The aim of this study was to investigate the effect of this prolonged sitting on students' self-perceived physical, mental, and cognitive condition and to answer the question of whether simple standing breaks in lectures can help students improve these conditions and for example feel more concentrated, motivated, or less tense in class. A five-minute standing break was introduced using a designed presentation slide for one semester in five different 90-min lectures. In addition, an active break as well as an open break with no trigger were implemented in two further lectures to explicitly investigate the effects of a standing break. Before, during, and after the semester, the students were surveyed about their physical, mental, and cognitive condition (836 respondents at start, 634 during semester, and 528 at the end). To evaluate

Standing breaks during lectures

- Easy to implement
- Was highly accepted by students
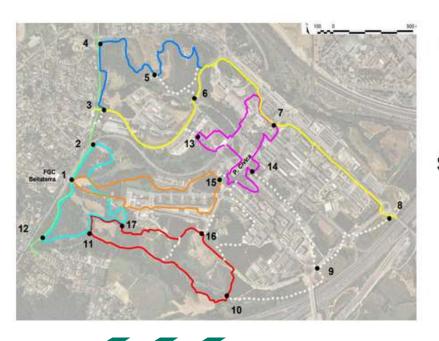- Improved overall concentration

Head-fake

Collecting points

Rewards

Where to start?

Create walking routes (in and outdoors)
- Possibly interactive: music, podcasts
- collaboration with DesignLab

Suggestion: Start with campus tour route.
- Introduce campus to new students
- Familiarize students with walking routes concept and reward system
- Goodiebag reward (with sponsors)

How to continue?

- Create the app
- Test (a lot)
- Establish a (student) team for continuous updates and improvements of the platform

StepQuest

TRAIN OUT

Tommaso Ceccherini
Pietro Cau
Chiara Melega

Engrid Xhepaliu
Lucrezia Di Bari
Oumayma El Ghamrasni

Michele Lovato Benin
Pietro Peroni
Aria Kalforian

Introduction

Our (sub)group

Mainly HCI/UX design students.

Some sport enthusiast, some not, but all aware of the problem posed by the TechFit Challenge and interested in proposing a solution.

Our idea

The campus can be a playground.

Encourage students to practice physical activities on already placed locations in UAB.

Our Solution

Associate **QR codes** to workout stations and campus locations.

Interact with the QR code through an app.

1. **Feasible** and **easy** to implement.
2. **Not** limited to UAB.
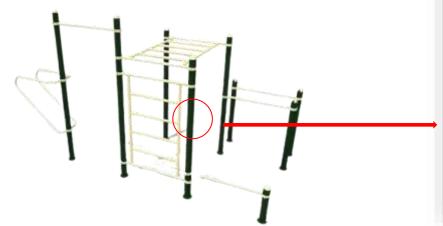3. Easy to **expand** with more functionalities.

App Prototype

Welcome to Train Out
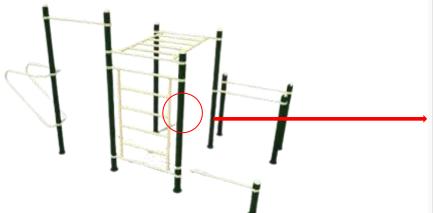
At the workout station

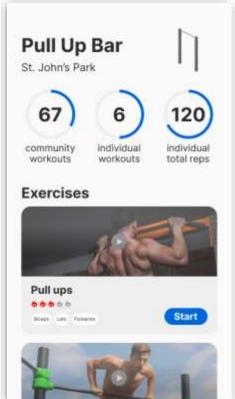# Connect to the Station

Connect to the Station

Map Section

- Visualization of stations nearby

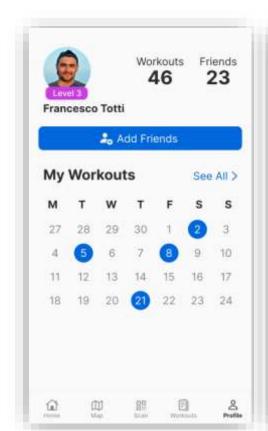- Friends location when connected to the stations

Profile Section

- Friends to add and connect with
- Levels to achieve
- Workouts completed

What's Next?

- Community
- Personalization
- Gamification and challenges
- It's already smart…let's make it smarter

Don't just stick to the gym - explore the campus for fitness through our Smart Workout Stations!

🌟 Introducing our new smart workout stations! Enhance your workouts with QR codes on calisthenics stations and other campus spots. Work out with friends and achieve your fitness goals faster with real-time feedback

Using AI to promote Fitness:

Fitness Plans & Diet Plans

User needs?

Who are the users?

STUDENTS.

What do the users want?

Be fit, eat healthy, and stay in the budget.

Why do the users want that?

Stay refreshed and energized to study effectively in the busy schedule.

Our solution?

AI - powered

Diet Plans

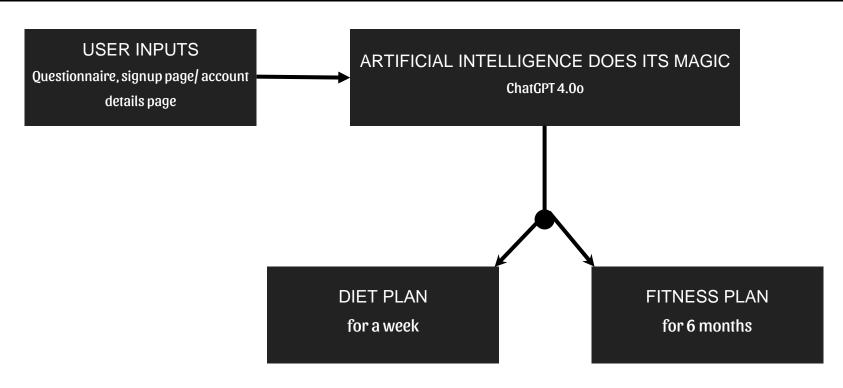AI - powered

Fitness Plans

The user journey

```
USER INPUTS

Questionnaire, signup page/ account
details page
```

→

```
ARTIFICIAL INTELLIGENCE DOES ITS MAGIC

ChatGPT 4.0o
```

```
DIET PLAN

for a week
```

```
FITNESS PLAN

for 6 months
```

User Inputs

Personal Information

Age , Gender, Height, Weight

Health and Medical History

Medical Conditions. Medications, Allergies

Current Fitness Level and Routine

Exercise History, Fitness Level (Beginner, Intermediate, Advanced) . Past Programs

Preferences and Constraints

Exercise Preferences (eg. yoga, zumba) , Availability, Location (Gym, home, outdoors), Direct Equipment Access, Fitness Goals (e.g., weight loss, muscle gain)

Lifestyle and Habits

Dietary Habits, Sleep Patterns, Stress Levels (Low, Medium, High) , Daily Activity (Sedentary, Lightly active, Active, Very active)

Motivation and Support

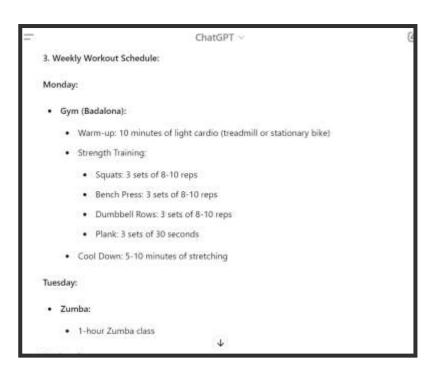Motivation Level (1-10) , Support System (Alone or with workout buddy?)

Specific Questions for Customization

Target Areas, Previous Injuries, Diet preferences (cuisines, location- at home or mensa, etc.) , Weekly budget , Home Location

AI Cons: Hallucinations

ChatGPT ∨

Fitness Plan

Weekly Workout Routine

Frequency: 4-5 days per week

1. Day 1: Upper Body Strength (Gym)

   - Warm-up: 5-10 minutes on the treadmill or stationary bike
   - Bench Press: 3 sets of 8-10 reps
   - Dumbbell Rows: 3 sets of 8-10 reps
   - Shoulder Press: 3 sets of 8-10 reps
   - Bicep Curls: 3 sets of 10-12 reps
   - Tricep Dips: 3 sets of 10-12 reps
   - Cool-down: Stretching for 5-10 minutes

2. Day 2: Lower Body Strength (Gym)

   - Warm-up: 5-10 minutes on the elliptical
   - Squats: 3 sets of 8-10 reps

ChatGPT ∨

3. Weekly Workout Schedule:

Monday:

- Gym (Badalona):

  - Warm-up: 10 minutes of light cardio (treadmill or stationary bike)
  - Strength Training:

    - Squats: 3 sets of 8-10 reps
    - Bench Press: 3 sets of 8-10 reps
    - Dumbbell Rows: 3 sets of 8-10 reps
    - Plank: 3 sets of 30 seconds

  - Cool Down: 5-10 minutes of stretching

Tuesday:

- Zumba:

  - 1-hour Zumba class

External Data

Access to databases

To follow correct nutritional guidelines, exercise guidelines, fitness research, injury prevention

Calorie Needs Calculation

Basal metabolic rate (BMR) formulas , total daily energy expenditure (TDEE)

Food Composition Databases

Online verified database (USDA Food database) ,

Canteen Weekly Menu

Name of dishes, Nutritional content, price, allergy information

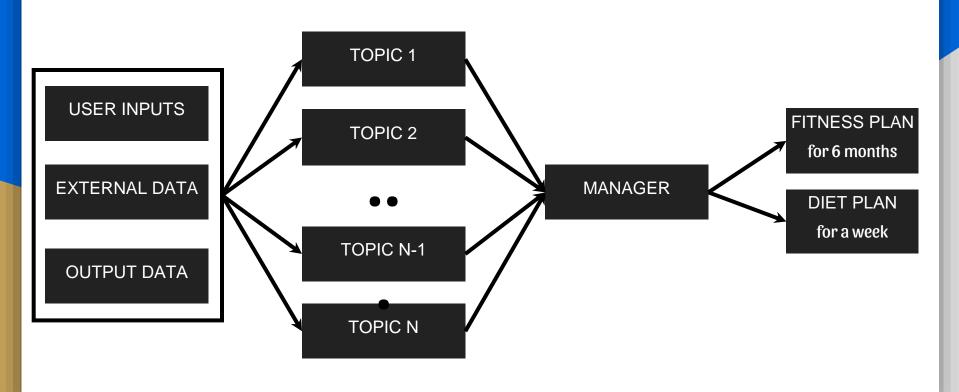**Supermarket weekly prices (offer-list)**

Lidl, Mercadona, Carrefour

University Schedule

Classes (on- campus, virtual), Exam schedule, Travel time (from home to uni)

Allergy and Intolerance Information

Scorecard to assign importance distribution to each variable of the data input

Output Data

Fitness Plan

Exercises to do, when to do, how much to do, where to do

Diet Plan

Dishes to have, where to have them (canteen or cook at home, or cafe), time required, Macronutrient Distribution (proteins, carbohydrates, fats) ,

Calorie Needs Calculation, Micronutrient Needs (Vitamins, minerals), Meal Structure (frequency, time), Hydration

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Dishes

Recipes, Price , nutritional value, allergy information, price, flavor scorecard, where to get it from?
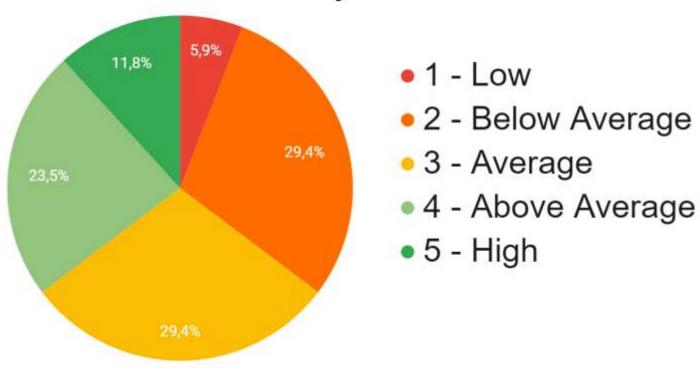
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To talk about anything related to fitness, dishes, plans; to understand better or change anything

Conclusions

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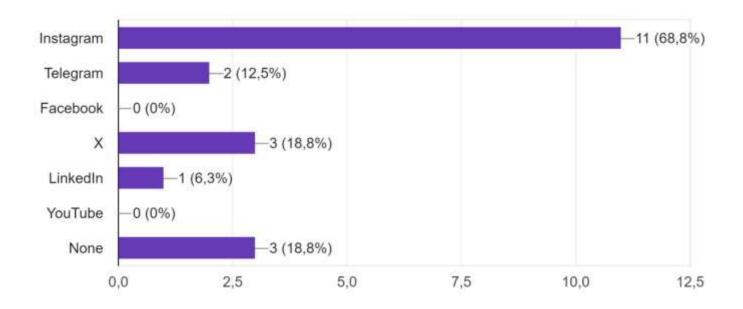
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5,9%
29,4%
11,8%
23,5%
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Main source of information about UAB activities

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FitLife Tech Campaign

Promoting Healthy Lifestyles with Technology

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~10%

Explorer

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FitLink

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FitLink

🏃‍♀️Socialize While Staying Active with Our New Mobile App! 📱 💪

🎮 Earn badges, track your progress, and join university-wide challenges. Download now and make fitness social!

The Goal

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Standing Breaks in Lectures Improve University Students' Self-Perceived Physical, Mental, and Cognitive Condition

Maike Paulus,[1] Jule Kunkel,[1,*] Steffen C. E. Schmidt,[1] Philip Bachert,[1] Hagen Wäsche,[1] Rainer Neumann,[2] and Alexander Wolf[1]

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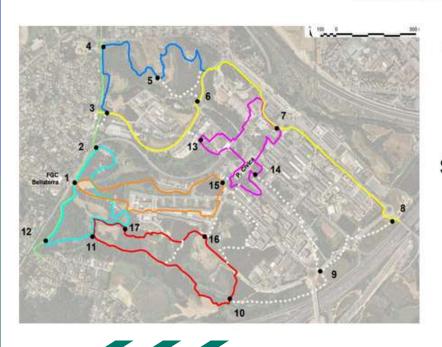- Improved overall concentration

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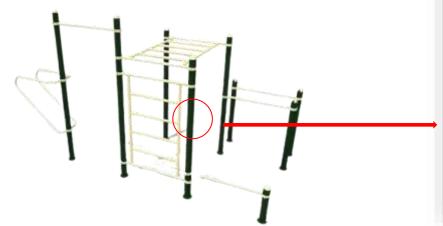3. Easy to **expand** with more functionalities.

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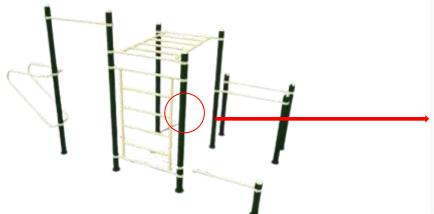Welcome to Train Out

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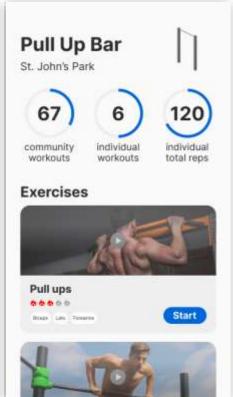
Connect to the Station

Connect to the Station

Pull Up Bar
St. John's Park

67 community workouts

6 individual workouts

120 individual total reps

Exercises

Pull ups

Biceps | Lats | Forearms

Start

TRAIN OUT

Map Section

- Visualization of stations nearby

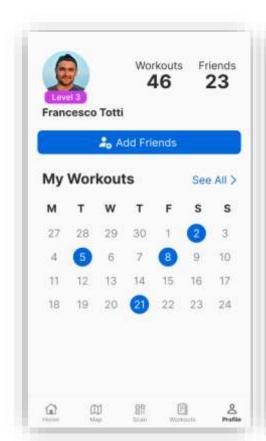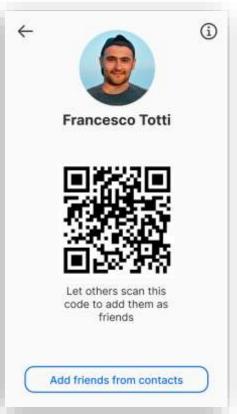- Friends location when connected to the stations

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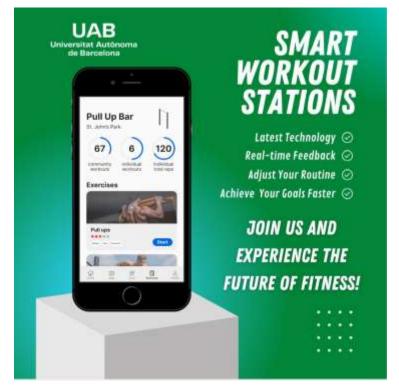# What's Next?

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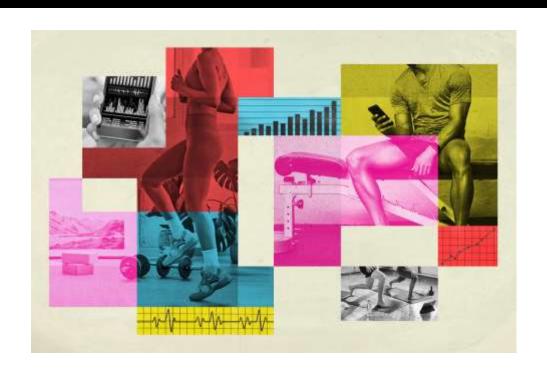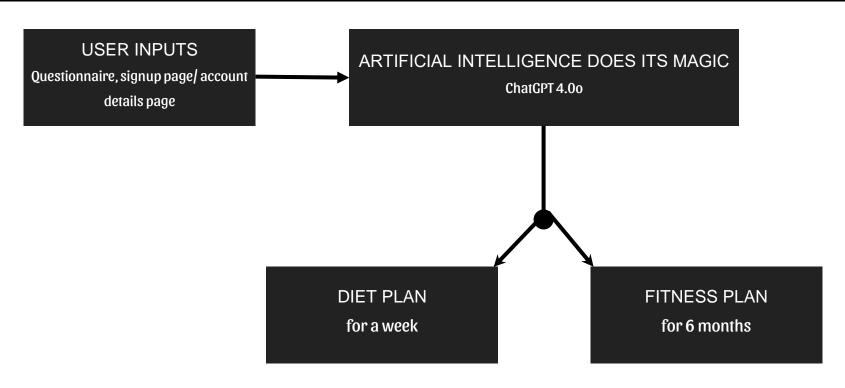AI - powered

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Questionnaire, signup page/ account details page

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for a week

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for 6 months

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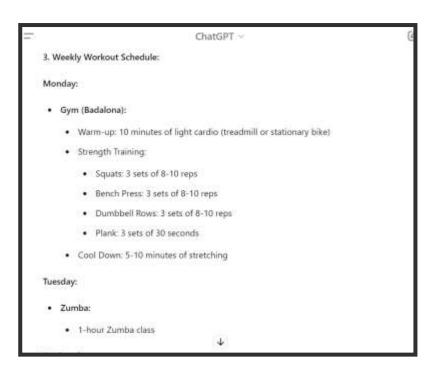Motivation Level (1-10) , Support System (Alone or with workout buddy?

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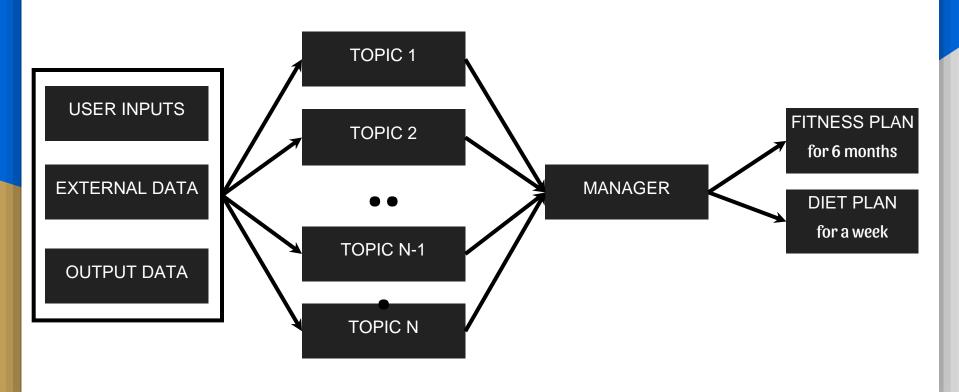**Supermarket weekly prices (offer-list)**

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Conclusions