

Team number: 18

Design Project Title: EZ Training Database

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Team members and Responsibilities:

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EZ Training Database

A balanced diet is as important as regular exercise for health and fitness. For optimal results, fitness routines should always be complemented by proper nutrition. Our team combined two innovative ideas: EZ-Gym (a gym which integrates VR technology) and Enhanced Natty Training (a gym which integrates personalized diet management), creating the fictional client “EZ Training”.

This client offers a revolutionary approach to fitness by combining a VR-induced gym experience with nutrition tracking. This integration of virtual reality, personalized training, and diet management sets EZ Trainer apart from conventional gyms. The concept taps into the growing trend of tech-driven health solutions, delivering a fully immersive and interactive way to achieve fitness goals. Not only does this enhance user engagement, but it also provides a holistic approach to health, offering a significant competitive advantage over other suggestions from our team.

The EZ Trainer database will simplify access to user information, enabling the client to deliver personalized training and nutritional recommendations to their users based on their habits and progress. By centralizing key information, the database will store everything from membership details to training sessions in one place, simplifying both user and administrative management. Furthermore, the system will streamline inventory and employee management, helping the client track staffing levels and equipment needs more efficiently.

The data the client aims to collect can be categorized into the following key areas:

1. Individuals:

- Members (ID, full name, age, sex, weight)
- Employees (ID, full name, specialization, availability)
- Trainers (ID, full name, VR details)

2. Exercise and Nutrition:

- Equipment (type, name, status, maintenance schedule, usage data)
- Workout programs/sessions (schedule, environment)
- Dietary plans (Grams of protein, fat and carbs, calories, desired target)
- Personal records (workout metrics, heart rate, oxygen level)
- Workouts (Type of program, schedule, environment)

3. Payments and Costs:

- Memberships (membership type, membership length)
- Payment (membership cost, one-time entry fee)
- Records and preferences (Training session date, training session type, preferred training session(s), preferred trainer(s))
- Utilities (electricity, water, internet)

Tracking data such as workout routines, nutrition intake, VR session durations, and user performance will allow EZ Trainer to refine its services in real-time. This will enhance the overall fitness experience, offering personalized feedback and recommendations that keep users engaged. By leveraging data, the client can not only improve service quality but also stay competitive in the rapidly evolving, tech-driven fitness industry.

The database will allow EZ Trainer to analyze user behavior, identify trends, and optimize both the virtual training programs and nutritional advice. Additionally, tracking user preferences and performance data will help the client adjust workout intensity and meal plans in real-time, enhancing the overall fitness experience.

Advanced VR technology simulates realistic experiences like rowing on water or running on a virtual beach, while trainers track detailed workout metrics. After every workout session/dietary consultation, users receive tailored nutrition recommendations based on their exercise data, providing a comprehensive and immersive fitness experience that integrates both workout and dietary insights.