

John Anderson

I chose a VR fitness training system for this project because it combines training and health services with current technology and would provide a realistic portfolio example for an online business system. I conducted some light research to determine requirements by looking at how common fitness training platforms function and by casually asking colleagues who use workout or fitness apps what features they value most. They liked showing performance history, tracking completed workouts, and getting guided sessions. Based on this data, I concluded that the system needs to deal with trainers or programs, VR workout sessions, user accounts, and performance comparison.

My design process started by identifying the main examples involved in a VR fitness environment such as users, workouts, training sessions, and progress records. I then converted these real business concepts into system requirements by deciding what data must be stored for each one, such as user name and email, workout type and duration, session date, and calories burned. Next, I determined how the data connects by asking simple questions such as “Which user completes a session?” and “Which workout is used in that session?”, which led to defining relationships between users and sessions, and between workouts and sessions. After defining the relationships, I selected a primary key for each table and added constraints such as NOT NULL and UNIQUE to ensure required information is always stored and to prevent duplicate user accounts.

A real-world example of a VR Fitness Training system is FitXR. FitXR allows users to put on a VR headset and participate in guided workout sessions such as boxing, dance, and HIIT while the system tracks session time, calories burned, and performance scores. In this real

system, users must have an account, select a workout program, and complete scheduled training sessions.