

Technical overview of the project — Development of a comprehensive digital ecosystem

1. Business context:

We are a rapidly growing group operating several brands in the fields of fitness, wellness, high-end equipment, and technology services.

We are developing a comprehensive digital ecosystem consisting of several interconnected platforms to manage operations, customer experience, and business growth.

We are looking for a team capable of developing scalable, secure, and high-performance systems with a long-term vision.

2. Scope of the project

The ecosystem comprises three main platforms:

- Gym management platform (web + mobile + internal tools)
- E-commerce platform (cosmetics and subscriptions)
- Technology equipment sales platform

All systems must be interconnected where necessary.

2.1. Platform 1 — Gym management system

2.1.a. Main features:

- Customer account management
- Online and in-person registration
- Appointment booking

- Membership management
- Professional dashboard
- Administrator dashboard
- Payments
- Access control integration
- Video conferencing
- Content management
- Notifications
- Reports and statistics
- Body analyzer integration

2.1.b. Types of users

☐ Client:

- Book appointments
- View training and nutrition plans
- Make payments
- Receive notifications
- Access educational content
- Track progress
- View body composition reports
- Professional application

☐ Coaches, Nutritionists, Therapists

- Confirm client attendance
- Track service hours
- Manage appointments
- Video conferencing

- Session tracking
- Administrator dashboard
- Complete system control
- Client and employee management
- Billing management
- Reports
- Video session monitoring

2.1.c. System configuration

- Self-service kiosk integration
- Registration in less than 5 minutes
- Identity verification
- Package selection
- Document signing
- Payments and billing
- Stripe integration
- Recurring payments
- Invoice generation
- Automatic reminders
- Contract and waiver signing
- Access control
- Access via barcode or NFC
- Payment status validation
- Automatic blocking in case of non-payment
- Notification system
- Automatic reminders
- Motivational notifications
- Personalized messages
- Body analysis integration

- Device API connection
- Data history
- Health chart

2.1.d. Paid features

- Video conferencing
- Integrated sessions
- Recording
- Secure storage
- Admin supervision

2.2. Platform 2 — E-commerce site

2.2.a. Objective

Create a high-end platform focused on customer conversion.

2.2.b. Features

- Recurring subscriptions
- Automatic orders
- Influencer affiliate system
- Promotional codes
- International delivery
- Multilingual
- Multi-currency

2.2.c. Customer accounts

- Abandoned cart recovery
- Integrations
- Payment gateway
- Email automation
- CRM
- Subscription management

2.3. Platform 3 — Sale of fitness equipment and technology

2.3.a. Positioning

Technology platform presenting advanced fitness equipment and body analysis technologies.

2.3.b. Features

- Product catalog
- 3D visualization
- Interactive pages
- Financing integration
- Quotation system
- Sales representative tools
- Customer management
- Invoicing

2.3.c. Content

- 3D scan integration
- Interactive media
- Technical documentation

3. Technical requirements

3.1. Architecture

- Scalable cloud architecture
- Modular design
- API-first approach
- Recommended microservices

3.2. Suggested technology stack

3.2.a. Backend

- Node.js (NestJS)

3.2.b. Web frontend

- Next.js

3.2.c. Mobile application

- React Native

3.2.d. Database

- PostgreSQL

3.2.e. Real time

- WebSockets

3.2.f. Cloud infrastructure

- AWS

3.2.g. Storage

- AWS S3

3.2.h. Authentication

- OAuth2 / JWT / biometrics

3.2.i. Video

- WebRTC

3.2.j. Payments

- Stripe API

3.2.k. Notifications

- AWS Amplify

3.2.l. Security

- Data encryption
- Secure authentication
- Role management
- API protection
- Data protection compliance

3.2.m. Performance

- High availability
- Low latency
- Scalability
- Query optimization
- CDN

3.2.n. Long-term requirements

- Continuous deployment
- Modular updates
- Feature evolution
- Monitoring tools
- Analytics integration

4. Development approach

- Phase 1 — Functional MVP
- Phase 2 — Advanced features
- Phase 3 — Optimization and scaling

4.1. Expected deliverables

- Complete system architecture
- Backend development
- Frontend interfaces
- Mobile applications
- Dashboards
- API documentation
- Deployment pipeline
- Maintenance plan

4.2. Ultimate goal

Create a comprehensive, scalable, and high-performance digital ecosystem to support the growth of a high-end technology and fitness company.