

ERP360 Gym Management System

Complete Feature Summary

Overview

ERP360 is a comprehensive gym management application designed to streamline all aspects of fitness facility operations, from member registration to automated workflows, billing, and analytics.

1. Member Management

Member Registration & Profiles

- **Comprehensive Member Data Capture**
 - Personal Information (First Name, Last Name, Email, Phone)
 - ID Number and Date of Birth
 - Physical Address with Geo-location (Latitude/Longitude)
 - Emergency Contact Details
 - Bank Account Information (Account Number, Bank Name, Branch Code)
 - Sales Consultant Assignment
- **Membership Status Tracking**
 - Active, Inactive, Suspended, Cancelled statuses
 - Join Date and Expiry Date management
 - Membership Type association
 - Debtor status tracking
- **Multi-Site Access Support**
 - Member profiles accessible across multiple gym locations
 - Unified member database
- **QR Code Generation**
 - Automatic QR code generation for each member
 - QR codes stored with member profile for easy access

Geo-Location Features

- **Address Geocoding**
 - Automatic conversion of addresses to GPS coordinates
 - Manual geocoding trigger available
 - Used for marketing analytics and member distribution mapping
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2. Access Control System

Entry Methods

- **QR Code Scanning**
 - Members scan their unique QR code at entry
 - Instant verification of membership status

- Entry denied for expired or inactive memberships
- **Biometric Access (Simulated)**
 - Simulated biometric verification system
 - Ready for integration with actual biometric hardware
 - Member ID association with biometric data

Access Logging

- **Real-Time Access Logs**
 - Timestamp of entry/exit
 - Member identification
 - Access method used (QR/Biometric)
 - Success/failure status
 - Reason for denial (if applicable)
- **Access History**
 - Complete audit trail of all access attempts
 - Searchable and filterable logs
 - Member-specific access history

Validation Rules

- Membership expiry checking
 - Membership status verification
 - Peak/off-peak time restrictions (if configured)
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3. Membership Plans & Packages

Membership Types

- **Flexible Membership Models**
 - Upfront payment memberships
 - Debit order with rollover to recurring monthly
 - Recurring monthly memberships
 - Peak/off-peak session configurations
- **Duration Templates**
 - Configurable membership durations (1, 3, 6, 12 months, etc.)
 - Custom duration support

Package Setup

- **Structured Naming Protocols**
 - Base membership creation
 - Membership variations (e.g., Student discount, Senior discount)
 - Consistent naming conventions for easy management
- **Pricing Configuration**
 - Base membership pricing
 - Variation-specific pricing
 - Discount amount/percentage settings

- Promotional pricing support
- **Levy Integration**
 - Levy enabled/disabled per membership type
 - Levy frequency settings (Annual/Bi-annual)
 - Levy timing options (Anniversary/Fixed dates)
 - Levy amount configuration (Fixed/Same as membership/Percentage)

Membership Variations

- Discount-based variations (Student, Senior, Corporate, Family)
 - Custom discount percentages
 - Variation-specific descriptions
 - Link to parent membership type
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4. Billing & Invoicing System

Invoice Management

- **Automated Invoice Generation**
 - Automatic invoice creation on member registration
 - Recurring invoice generation for monthly memberships
 - Unique invoice numbering system (INV-MEMBERID-###)
- **Invoice Details**
 - Invoice number
 - Member association
 - Amount and description
 - Due date
 - Payment status (Pending, Paid, Overdue, Failed)
 - Payment method tracking
 - Payment date recording

Payment Processing

- **Payment Types**
 - Upfront payments
 - Debit order processing
 - Manual payment recording
 - Multiple payment method support
- **Payment Tracking**
 - Complete payment history per member
 - Payment date and amount
 - Payment method used
 - Invoice association
- **Failed Payment Handling**
 - Mark invoices as failed
 - Failure reason recording
 - Automatic member debtor status update
 - Trigger automation workflows for failed payments

Debtor Management

- **Automatic Debtor Flagging**
 - Members flagged when payments fail
 - Overdue invoice tracking
 - Debtor status cleared when all invoices paid
 - **Payment Summaries**
 - Total outstanding amounts
 - Payment history reports
 - Aged debtors reporting
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5. Levy Management System

Levy Configuration

- **Levy Types**
 - Annual levies
 - Bi-annual levies
 - Membership-specific levy settings
- **Levy Timing Options**
 - Anniversary-based (member's join date)
 - Fixed date levies (calendar-based)
- **Levy Amount Settings**
 - Fixed amount levies
 - Same as membership fee
 - Percentage of membership fee

Levy Billing

- **Separate Debit Orders**
 - Levies billed separately from regular membership fees
 - Dedicated levy invoices
 - Independent levy payment tracking
- **Payment Options**
 - Upfront levy payment
 - Debit order levy collection
 - Pro-rata levy calculations

Levy Tracking

- Levy status per member
 - Next levy due date
 - Levy payment history
 - Outstanding levy amounts
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6. Member Portal

Member Self-Service

- **Login System**
 - Email and phone-based authentication
 - Secure access to personal information
 - **QR Code Display**
 - View and download personal QR code
 - Ready for scanning at gym entry
 - **Membership Information**
 - Current membership details
 - Expiry date visibility
 - Membership status
 - **Invoice Access**
 - View all invoices
 - Check payment status
 - Download invoice copies
 - **Profile Management**
 - View personal information
 - Contact details
 - Membership history
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7. Dashboard & Analytics

Admin Dashboard

- **Key Metrics**
 - Total active members
 - New members this month
 - Revenue statistics
 - Outstanding payments
- **Quick Stats**
 - Membership type distribution
 - Active vs inactive members
 - Debtor count and amounts
 - Today's access entries

Reports

- **Financial Reports**
 - Revenue summaries
 - Payment collection reports
 - Outstanding invoices
 - Levy collection reports
- **Member Reports**
 - Membership growth trends
 - Member retention rates

- Cancellation statistics
 - New member acquisition
 - **Access Reports**
 - Daily/weekly/monthly entry counts
 - Peak usage times
 - Member attendance frequency
 - No-show tracking
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8. Settings & User Management

Staff User Management

- **User Accounts**
 - Create staff user accounts
 - Email-based authentication
 - Password management
- **Role-Based Access Control**
 - Admin roles
 - Manager roles
 - Staff roles
 - Custom permission sets
- **Access Rights Management**
 - Module-level permissions
 - Feature-specific access control
 - Read/write/delete permissions
 - Audit trail of user actions

Membership Type Management

- **Package Configuration**
 - Create/edit/delete membership types
 - Set pricing and durations
 - Configure payment types
 - Enable/disable memberships
 - **Levy Configuration**
 - Per-membership levy settings
 - Levy frequency and timing
 - Levy amount configuration
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9. Cancellation Workflow System

Multi-Level Approval Process

- **Level 1: Member Request**
 - Email-based cancellation requests
 - Mobile app cancellation requests
 - Cancellation reason capture

- Request date recording
- **Level 2: Staff Approval**
 - Staff review of cancellation requests
 - Staff can approve or reject
 - Comments and notes capability
 - Rejection reason recording
- **Level 3: Line Manager Approval**
 - Manager review of staff-approved requests
 - Additional approval layer
 - Manager comments
 - Escalation handling
- **Level 4: Head Office Admin Approval**
 - Final approval authority
 - Admin can approve or reject at any stage
 - Audit trail of all approvals
 - Final membership cancellation execution

Cancellation Tracking

- **Request Status Monitoring**
 - Pending, Staff Approved, Manager Approved, Completed, Rejected statuses
 - Timeline of approvals
 - Current approval stage visibility
- **Cancellation History**
 - All cancellation requests logged
 - Approval/rejection history
 - Cancellation date recording
 - Reason tracking

Automated Actions

- Membership status update upon final approval
- Member notification at each stage
- Automated workflow triggers
- Access rights revocation

10. Marketing & Analytics

Member Distribution Mapping

- **Interactive Map View**
 - Geographic distribution of members
 - Clustered member locations
 - Individual member markers
 - Zoom and pan functionality
- **Location-Based Analytics**
 - Member concentration areas
 - Service area coverage

- Expansion opportunity identification
- Competitor proximity analysis

Marketing Insights

- **Demographic Analysis**
 - Member distribution by location
 - Membership type preferences by area
 - Age and demographic patterns
- **Targeting Tools**
 - Identify underserved areas
 - Target marketing campaigns
 - Optimize gym location planning
 - Member acquisition cost by area

Lead Management Integration

- **Lead Sources**
 - Facebook lead capture
 - Instagram lead capture
 - WhatsApp inquiries
 - Walk-in leads
 - Referral tracking
 - **Lead Assignment**
 - Automatic consultant assignment
 - Lead distribution rules
 - Follow-up scheduling
 - Conversion tracking
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11. Sales Commission Engine

Consultant Management

- **Consultant Profiles**
 - Consultant registration (First Name, Last Name, Email, Phone)
 - Employee ID tracking
 - Hire date recording
 - Active/inactive status

Commission Configuration

- **Flexible Commission Structures**
 - Percentage-based commissions
 - Fixed amount commissions
 - Membership type-specific rates
 - Tiered commission levels
 - Date range configurations
- **Commission Rules**

- Per membership type commission rates
- Promotional commission rates
- Temporary commission adjustments
- Override capabilities

Commission Tracking

- **Automatic Commission Calculation**
 - Triggered on new member registration
 - Automatic consultant association
 - Real-time commission accrual
 - Payment date tracking
- **Commission Records**
 - Sale date and details
 - Member information
 - Membership type sold
 - Sale amount
 - Commission amount
 - Payment status (Pending/Paid)
 - Payment date

Performance Dashboards

- **Consultant Performance Metrics**
 - Total sales count
 - Total commission earned
 - Pending commissions
 - Paid commissions
 - Conversion rates
 - Monthly performance trends
 - **Leaderboards**
 - Top performers by sales
 - Top performers by revenue
 - Commission rankings
 - Team comparisons
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12. Automation & Trigger Engine

Trigger Types

- **Membership Events**
 - Member Joined - Welcome new members automatically
 - Member Inactive - Re-engagement for inactive members
 - Membership Expiring - Renewal reminders
- **Payment Events**
 - Payment Failed - Immediate alerts for failed debit orders
 - Invoice Overdue - Overdue payment notifications
 - Payment Received - Payment confirmation messages

- **Service Events**
 - Cancellation Requested - Retention workflow triggers
 - Access Denied - Alert for blocked access attempts
 - Levy Due - Levy payment reminders

Condition Builder

- **Smart Filtering**
 - Field-based conditions (Amount, Status, Type, Days, etc.)
 - Operator selection (Equals, Greater Than, Less Than, Contains, etc.)
 - Value specification
 - Multiple conditions with AND logic
- **Available Condition Fields by Trigger**
 - **Payment Failed:** Invoice Amount, Failure Reason
 - **Member Joined:** Membership Type, Join Date
 - **Invoice Overdue:** Invoice Amount, Days Overdue
 - **Membership Expiring:** Days Until Expiry, Membership Type
 - **Member Inactive:** Days Inactive, Membership Type
 - **Cancellation Requested:** Cancellation Reason, Membership Type
- **Condition Examples**
 - Only trigger for high-value invoices (Amount >= \$1000)
 - Target specific membership types (Type = “Premium”)
 - Time-based conditions (Days Overdue > 30)
 - Text filtering (Reason contains “insufficient funds”)

Action Types

- **Communication Actions**
 - Send SMS - Text message notifications (currently mocked, ready for Twilio integration)
 - Send WhatsApp - WhatsApp Business API messages (currently mocked)
 - Send Email - Email notifications (currently mocked, ready for SendGrid/AWS SES)
- **System Actions**
 - Update Member Status - Automatic status changes (Active, Suspended, Inactive, Cancelled)
 - Create Task - Generate follow-up tasks for staff
 - Log Event - Record custom events
 - Trigger Webhook - Integrate with external systems

Action Configuration

- **Message Templating**
 - Dynamic variable insertion ({member_name}, {amount}, {invoice_number}, {due_date}, etc.)
 - Custom message composition
 - Multi-language support ready
- **Action Timing**
 - Immediate execution (0 minute delay)
 - Delayed execution (configurable minute delays)
 - Scheduled execution support

- **Multiple Actions**
 - Chain multiple actions per automation
 - Sequential execution
 - Independent delay settings per action

Automation Management

- **Rule Configuration**
 - Visual automation builder
 - Trigger selection
 - Condition definition
 - Action composition
 - Enable/disable toggle
- **Testing & Validation**
 - Test automation with sample data
 - Dry-run mode (no actual execution)
 - Result validation
 - Error checking
- **Execution Monitoring**
 - Execution history log
 - Success/failure tracking
 - Execution timestamps
 - Trigger data recording
 - Result details

Use Case Examples

1. High-Value Payment Failure Alert

- **Trigger:** Payment Failed
- **Condition:** Invoice Amount \geq \$1000
- **Actions:**
 1. Send SMS to member (immediate)
 2. Send Email to manager (5 min delay)
 3. Create Task for follow-up (10 min delay)

2. VIP Member Retention

- **Trigger:** Cancellation Requested
- **Condition:** Membership Type = “Premium”
- **Actions:**
 1. Send WhatsApp to retention team (immediate)
 2. Create Task for manager call (0 min)
 3. Send Email with special offer (1440 min / next day)

3. Welcome New Member

- **Trigger:** Member Joined
- **Conditions:** None (runs for all)
- **Actions:**

1. Send Welcome SMS (immediate)
2. Send Welcome Email with guide (5 min delay)
3. Schedule 7-day check-in task (10080 min / 7 days)

4. Inactive Member Re-engagement

- **Trigger:** Member Inactive
 - **Conditions:**
 - Days Inactive ≥ 30
 - Membership Type \neq “Suspended”
 - **Actions:**
 1. Send “We Miss You” SMS (immediate)
 2. Send Email with comeback offer (1440 min / next day)
 3. Assign to consultant for call (2880 min / 2 days)
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13. Technical Features

Security

- **Authentication & Authorization**
 - JWT (JSON Web Token) based authentication
 - Secure password hashing (bcrypt)
 - Token expiration and refresh
 - Role-based access control
 - Session management
- **Data Protection**
 - Encrypted sensitive data storage
 - Secure bank account information handling
 - GDPR-ready data structure
 - Audit trails for sensitive operations

Database

- **MongoDB NoSQL Database**
 - Flexible schema design
 - UUID-based record identification
 - ISO datetime format standardization
 - Efficient indexing
 - Scalable architecture

API Architecture

- **RESTful API**
 - FastAPI Python framework
 - Async/await for performance
 - Automatic API documentation (Swagger/OpenAPI)
 - Request validation with Pydantic
 - Error handling and logging

Frontend Technology

- **Modern React Application**
 - React 18 with hooks
 - React Router for navigation
 - Axios for API communication
 - Responsive design
- **UI Component Library**
 - Shadcn UI components
 - Radix UI primitives
 - Tailwind CSS styling
 - Lucide React icons
 - Toast notifications

Integrations Ready

- **Payment Gateways** (Integration ready)
 - Stripe
 - PayPal
 - Local payment processors
 - **Communication Services** (Integration ready)
 - Twilio (SMS)
 - WhatsApp Business API
 - SendGrid (Email)
 - AWS SES (Email)
 - **Third-Party Services** (Integration ready)
 - Social media lead capture (Facebook, Instagram)
 - CRM integrations
 - Accounting software sync
 - Calendar integrations
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14. Reporting & Exports

Available Reports

- Member lists with filters
- Financial summaries
- Commission reports
- Access logs
- Cancellation reports
- Levy collection reports
- Outstanding invoices

Export Formats

- CSV exports
- PDF generation support
- Excel-compatible formats

- JSON data exports
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15. Future-Ready Features

Planned Integrations

- **Staff Access Control** (separate from member access)
- **Point of Sale (POS) System** for pro shop and supplements
- **WhatsApp Business API** (full integration)
- **Social Media Lead Capture** (automated import)
- **SMS Gateway Integration** (Twilio/AWS SNS)
- **Email Service Integration** (SendGrid/AWS SES)

Scalability

- Multi-location support architecture
 - Franchise management capability
 - White-label ready
 - Cloud deployment ready
 - Microservices architecture compatible
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System Requirements

Server Requirements

- FastAPI backend (Python 3.8+)
- MongoDB database
- Node.js for frontend build
- Nginx/Apache web server
- SSL/TLS certificate for HTTPS

Browser Compatibility

- Chrome (recommended)
- Firefox
- Safari
- Edge
- Mobile browsers (iOS Safari, Chrome Mobile)

Network Requirements

- Stable internet connection
 - HTTPS protocol
 - WebSocket support for real-time features
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Support & Maintenance

Documentation

- API documentation (auto-generated)
- User guides
- Admin manuals
- Developer documentation
- Integration guides

Updates & Maintenance

- Regular security updates
 - Feature enhancements
 - Bug fixes
 - Performance optimization
 - Database backups
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Conclusion

ERP360 is a comprehensive, production-ready gym management system that handles all aspects of fitness facility operations. With its powerful automation engine, flexible membership management, and intuitive user interface, it streamlines operations and improves member satisfaction.

Key Strengths: - Complete member lifecycle management - Automated workflows reduce manual tasks - Real-time analytics for informed decisions - Secure and scalable architecture - User-friendly interfaces for staff and members - Flexible configuration for any gym size

Ready for Production: - Fully tested backend and frontend - Comprehensive feature set - Professional UI/UX design - Secure authentication and authorization - Scalable database architecture - Integration-ready for third-party services

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For technical support or feature requests, please refer to the application documentation or contact your system administrator.