

System Modules Outline

* Additional Features are highlighted in green

<u>1. Authentication & User Management</u> PIC: Rowan <ul style="list-style-type: none">• Roles: Admin, Trainer & Client• Login & Logout• Password Hashing• Password Recovery (Email)• Account Registration (Client)• Profile Management• Admin User Control• CRUD Operations (Admin)• Account Blocking• Role-Specific Fields (Trainer)• Folder Organization <u>2. Admin Interface</u> PIC: Rowan <ul style="list-style-type: none">• Dashboard & Analytics• User Management (CRUD):<ul style="list-style-type: none">◦ Manage Admins, Trainers, and Clients.◦ Reset passwords and update profiles.• Activity Management:<ul style="list-style-type: none">◦ Create, update, and delete class types◦ Set difficulty levels, duration, and capacity• Session Scheduling:<ul style="list-style-type: none">◦ Schedule specific class sessions◦ Calendar view of all gym activities• Reporting Module:<ul style="list-style-type: none">◦ Generate Attendance Report (CSV/PDF)◦ View Class Popularity and Revenue Reports• Real-Time Dashboard• System Configuration:<ul style="list-style-type: none">◦ Manage global settings PIC: Yong <ul style="list-style-type: none">• Admin Notification	<u>6. Membership & Billing</u> PIC: Yong <ul style="list-style-type: none">• Purchase Membership• Payment Processing• Auto-Renewal (Subscriptions)• Smart Upgrades (Upgrade benefits)• Scheduled Downgrades• Cancellation Logic (No immediate cutoff) <u>7. Class & Session Management</u> PIC: Ian <ul style="list-style-type: none">• Schedule Sessions• Calendar View• Session CRUD• Smart Trainer Selection• Auto-Status Automation• Time & Room Conflict Detection <u>8. Reservation (Booking)</u> PIC: Yong <ul style="list-style-type: none">• Book Class• Cancel Booking• Capacity Management• Recurring Bookings• Refund Policy Engine• 8-Class Limit (Membership)• Rating System (Rate & review 1-5 stars) <u>9. Attendance</u> PIC: Ian <ul style="list-style-type: none">• Trainer Dashboard• Mark Attendance• View History• Live Session Code• Check-In Status <u>10. AI Workout Planner</u> PIC: Yong <ul style="list-style-type: none">• Generate Plan
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3. Trainer Interface

PIC: Ian

- Trainer Dashboard:
 - o Quick view of “Today’s Classes” & “Upcoming Sessions”
 - o Summary stats
- My Schedule:
 - o Personalized calendar view of assigned classes
 - o Filter by date/month
- Attendance Management:
 - o View list of registered clients for a specific session
 - o Mark clients as Present/Absent
- My Profile:
 - o Update bio & contact details
 - o Change password

PIC: Yong

- Notifications:
 - o Receive alerts for new class assignments
- Trainer AI Assistant (Private)

4. Client Interface

PIC: Yong

- Client Dashboard:
 - o Welcome summary with “Next Upcoming Class”
 - o Quick stats
- Class Booking System:
 - o Browse available classes by category
 - o Book/Reserve a slot in real-time
 - o Cancel existing reservations
- Membership Management:
 - o View current plan details & expiry
 - o Purchase new membership/subscription
 - o View payment history
- AI Workout Planner:
 - o Generate personalized workout plans based on goals/BMI

- Save/Delete Plans (CRUD)
- Algorithmic Engine
- Tiered Access
- Progressive Overload Tips

11. Notification

PIC: Yong

- System Alerts
- Mark Read
- Contextual Triggers, For:
 - o Booking
 - o Confirmations/Cancellations
 - o Membership
 - o Upgrades/Expirations
 - o New Ratings (for Trainers)
 - o Refund Processing

12. System Monitoring & Logs

PIC: Rowan

- Activity Feed
- Real-Time Dashboard
- Live Updates
- Graph Visuals

13. Chatbot / AI Assistant

PIC: Yong

- Floating Chat Widget
- Q&A
- Keyword Recognition
- Responsive Triggers
- Role-Aware (Client vs Trainer)
- Homepage Chatbot (Public):
 - o Rule-Based Logic
 - o Smart Navigation
 - o Schedule Awareness
- Client AI Assistant (Private):
 - o AI-Powered (Llama 3.1)
 - o Personalized Context
 - o Actionable Responses
- Trainer AI Assistant (Private):
 - o Schedule Intelligence
 - o Attendee Insights
 - o Class Planning
 - o Gym Context

<ul style="list-style-type: none"> o Save and view generated plans <ul style="list-style-type: none"> ● Notification: <ul style="list-style-type: none"> o Alerts for successful bookings or cancellations ● Profile Settings: <ul style="list-style-type: none"> o Update personal health metrics ● Client AI Assistant (Private) <p>5. Reporting & Analytics</p> <p>PIC: Rowan</p> <ul style="list-style-type: none"> ● Financial Reports ● Membership Distribution ● Export (Download reports as PDF or CSV) ● Interactive Heatmap ● KPI Tracking ● Period Filtering 	<p>14. Index (Homepage)</p> <p>PIC: Ian</p> <ul style="list-style-type: none"> ● Hero Landing Section: <ul style="list-style-type: none"> o Dynamic brand messaging o Call-to-Action (CTA) buttons ● Service Showcases: <ul style="list-style-type: none"> o Visual grid displaying core fitness categories ● Membership Presentation: <ul style="list-style-type: none"> o Tiered pricing cards o Highlighting “Most Popular” & “Huge Savings” plans o Feature comparison lists for each plans ● About & Community: <ul style="list-style-type: none"> o “Our Story” section outlining gym mission & vision o “Expert Team” grid featuring trainers & their specializations ● Interactive Partner Marquee: <ul style="list-style-type: none"> o Animated scrolling display of corporate partners/equipment brands ● Responsive Footer: <ul style="list-style-type: none"> o Quick Links, contact information, & social media integrations <p>PIC: Yong</p> <ul style="list-style-type: none"> ● Public Chatbot Access: <ul style="list-style-type: none"> o Floating chat widget for instant visitor inquiries.
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Each proposed system must include the following **core functional requirements**:

- **User login and authentication module**
- **Data entry and retrieval module**
- **Data storage using a database**
- **Report generation or data summary feature**
- **Basic input validation and user interface**

*****Each student is compulsory to handle at least one (1) module.**

Sample Output Expectations

- Login screen for admin/user
- Data entry forms (e.g., add, edit, delete records)
- Database tables created and linked properly
- Functional reports or data summaries
- Test cases with screenshots and results