

1) Global Product Assumptions

- **Tenants/Branding:** Single tenant (CSF) with three operating areas (“Charlotte”, “Triangle”, “Greensboro”). (Multi-tenant not required.)
 - **Auth:** Email/password + Google OAuth. Passwordless optional later.
 - **Payment processor:** Stripe.
 - **Email & automation:** Mailchimp (or equivalent) via API; tags drive automations.
 - **Time zone & currency:** US Eastern; USD.
 - **Existing assets:** Homepage with map/dropdown already built. Figma references exist for login, account dashboard, and various front end screens.
 - **Mobile:** Responsive web required (no native apps in this scope).
 - **Roles:** Owner, Admin, Coach, Client (Parent). (Details in §8.)
 - **PII/Compliance:** Collecting child data → follow best practices for minors’ data (parental consent, privacy, encryption at rest, limited access).
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2) Public Registration Flow (Client/Parent)

2.1 Programs & Areas Page (New)

Goal: Show “Program overview” + expandable Areas → Classes → Class Details → Register.

Requirements

- Static hero section (“Program overview”, [image](#)).
- **Areas** (Charlotte, Triangle, Greensboro) as expanders or tabs ([image](#)):
 - Expanding an area lists **all classes in that area, alphabetically** by Class Name.
 - Each class card shows: photo/logo, school name, program name, class title, session dates, day/time, age/grade range, capacity (current/limit) and badges (e.g., “Membership” vs “Short-term”). ([image](#))
 - **Search/filter** within the area: by school, weekday, time window, age/grade, membership vs short-term, capacity (open/waitlist).
- **Class Details** view: ([image](#))
 - Full description, schedule recap, price model and price (membership vs fixed), remaining spots, waitlist state, cancellation policy summary, “Direct registration link”.

Acceptance

- Alphabetical sort is exact, stable (case-insensitive, locale aware).
- Area expand/collapse preserves scroll state.
- Class detail page shareable via URL.

2.2 Account Creation / Sign-In

Requirements

- **Sign in options:** Email/password and **Sign in with Google** (Google OAuth) [\(image\)](#).
- **1 client ↔ many children** model.
- **Existing flow** styling matches Figma (client/coach login).
- **Password rules:** min length 8, breach detection (optional), lockout after N attempts.
- **Waivers gating:** Cannot proceed to checkout without required waivers accepted.

Acceptance

- Returning users see their saved children, cards on file, memberships, outstanding balances.
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2.3 Add Child/Player & Waivers

Child fields (per child) [\(image\)](#)

- Name (first, last)
- D.O.B (derive age on date of class start)
- Jersey size (enum)
- Grade (enum; store school year or term?)
- Medical conditions (free text + “None” checkbox)
- After-school attendance? (Yes/No; text field optional for program or pickup location)
- Emergency contact (name, relation, phone, email)
- Health insurance no. (optional; masked at rest)
- “How did you hear about us?” (enum + “Other”)

Waivers (per account, apply to all enrolled children) [\(image\)](#)

- Medical release
- Liability
- Photo release
- Cancellation policy

Requirements

- Display each waiver as scrollable text with “I agree” checkbox and timestamp capture (signer full name + IP + user agent).
- Track versioned waiver templates (admin-editable in future); store version agreed per acceptance.

Acceptance

- If new waiver versions are published later, re-consent required before next checkout.
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2.4 Checkout & Payments [\(image\)](#)

Payment models

1. **Ongoing membership (subscription)**
 - Credit card **required on file**.
 - **Autopay required** monthly on 1st (unless class/program specifies another anchor).
 - **Proration** in first month based on practices elapsed (see §5.4).
 - 15-day **cancellation policy** before next billing period (see §6.2).
2. **Short-term sessions (fixed price)**
 - Single payment (or **two-installments** option if enabled on class).
 - **Proration** after start based on sessions elapsed (see §5.3).

Requirements

- Stripe integration (Payment Element + SetupIntent for future off-session charges on memberships).
- Order summary: line items by child & class, any discounts/scholarships/sibling auto-discounts, tax (if applicable—assumption: no sales tax; confirm), fees (if any).
- Apply **discount codes** & **scholarship codes** at cart level; sibling discount auto-applies (see §7).
- **Waitlist behavior:** If class at capacity, “Join waitlist” replaces pay flow; store position.
- On success:
 - Create Enrollment(s) + Stripe objects (Customer, PaymentMethod, Subscription/Invoice/PaymentIntent).
 - Add Mailchimp tags for program & class (see §4).
 - Send confirmation email(s) with **class-specific details**.

Acceptance

- Fails gracefully on payment error, retains cart state.
 - Stores masked PAN last4, brand in app; never store raw card.
 - Enrollment created only after successful payment or successful Subscription creation.
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3) Post-Purchase Emails & Automation

Mailchimp integration

- On enrollment, push/update **Audience profile** with:
 - Parent: name, email, phone, address (if collected), child count.
 - Custom fields: Program, Area, Class ID, Class Name, Session dates, Tags.
 - **Tags:** `Program:<name>`, `Area:<name>`, `Class:<id>`, `ClassName:<name>`, `Membership|ShortTerm`, `NewEnrollment`, `Waitlist` etc.
- Trigger **Welcome/Confirmation** email (can be system email or Mailchimp journey).
- Subsequent **class-specific sequence** starts automatically via tags.

Acceptance

- If enrollment transfers to a new class, tags update and legacy tags are retired.
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4) Admin App (Owner/Admin/Coach)

4.1 Auth & Navigation

- Same login design as Figma. Left menu:
 - Home (Dashboard)
 - Account (Company settings)
 - Clients
 - Classes
 - Calendar
 - Finance
 - Communication

Role access matrix in §8.

4.2 Dashboard (Home) [\(image\)](#)

Widgets

- **Active members count** (children with current active enrollment today).
- Split by **Short-term vs Membership**.
- Graphs: **Month-over-month** registrations; cumulative active members; cancellations.
 - Download PNG/CSV.
- **Registrations/Cancellations** in last 24h, 7d, 30d (counts + clickable lists).

- **Today's Practices** in chronological order (class name, school, coach assigned, headcount, location, start/end, notes).

Acceptance

- "Active" defined as: today is within class schedule AND enrollment status active AND not canceled as-of today.
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4.3 Finance (Owner only) [\(image\)](#)

Metrics

- Revenue range toggles: last 24h, 7d, 30d, quarter, year, MoM/YoY comparisons.
- Revenue breakdowns:
 - per **Program**
 - per **Area**
 - per **Class**
- **Avg revenue per client** (by program).
- **Stripe KPIs**: successful payments, failed, retry queue, refunds.
- **Total outstanding past-due** balance (memberships only).
- Export CSV.

Acceptance

- Reports reconcile with Stripe (consider UTC vs local time handling).
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4.4 Clients (Accounts) & Members

Two tabs:

- **Accounts** (Parents) [\(image\)](#)
- **Members** (Children) [\(image\)](#)

Shared features

- Alphabetical listing with search (name, email, phone, class).
- Filters: Program, Class, Area, **Scholarship applied**, **Balance status** (due/ok), **Active/Inactive**.
- **Bulk actions**: Email and/or SMS (via Communication tab modal) [\(image\)](#), Export filtered list CSV, EXCEL.
- **Create new user** (student/coach/admin) → opens **User Create/Edit** screen (see 4.5 & 8).

Acceptance

- Bulk send logs visible in Communication center.
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4.5 Account/Client Profile [\(image\)](#)

- View/edit parent info, children, payment methods (via Stripe), waivers accepted & versions.
- **Manage enrollments:**
 - Add/transfer classes or memberships (use card on file).
 - **Set future cancellation date** or **cancel at next billing period** respecting **15-day policy**:
 - If request date > 15 days before 1st: cancel next month.
 - Else: cancel month after next.
 - **Reactivate** inactive accounts: choose membership, choose **billing start date** (pro-rate if mid-month).
- Outstanding invoices & statements; send reminders.

Acceptance

- Cancellation policy logic is enforced and explained in UI before confirmation.
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4.6 Classes (Overview & Creation)

Classes overview [\(image\)](#)

- Filters: Program, Area, School, Weekday, Capacity state, Membership vs Short-term, Active/Archived.
- Show registration counts. Clicking number opens **Roster** (child list + parent/ emergency contacts - NO medical info).
 - **Share roster link** (view-only); optional link expiry & access control (tokenized URL).
- Click class name to open **Edit**.
- **Mass edit/clone:**
 - Select multiple → change end date; cancel/delete (with dependency checks); clone with schedule shift.

Class creation/edit fields [\(image\)](#)

- Program (dropdown), Area (dropdown), School (entity), **Class Name**
- **Ledger code** (string for accounting export)
- Description (rich text)

- Image/logo upload
- **Schedule builder:**
 - Day(s) of week + time; recurrence pattern.
 - Start date & end date → auto-generate all calendar instances.
 - UI calendar highlights dates; admin can **de-select “no-class” days** by clicking.
- Pricing:
 - **Short-term (fixed):** set price; **installments** (1 or 2); **proration rule** (per session elapsed).
 - **Membership (subscription):** monthly price (can **vary month-to-month**); set monthly overrides (e.g., Nov=\$X, Dec=\$Y); **proration** (per practice elapsed).
- Capacity:
 - Max seats; **Waitlist** enabled/disabled; cap waitlist length (optional).
- **Direct registration link** (auto-generated + copy button).
- **Roster export:** new shareable page (tokenized) with child info + parent contacts.

Acceptance

- De-selecting a date removes that instance from billing/proration calculations.
 - Cloning preserves pricing rules but resets dates by offset.
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4.7 Calendar

- Month/Week/Day views of all class sessions.
 - Filters by Area, Program, Class, Coach.
 - Clicking session opens quick view (roster count, coach, location), with link to Class Edit.
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4.8 Staff

Staff list

- Alphabetical; search; filters by role (Coach/Admin/Owner).
- Bulk Email/SMS; Export CSV.
- Create new user (Coach/Admin/Owner). See profile.

Staff profile

- Basic info, role(s), access level changes.
 - (Future) Coach assignments to classes.
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4.9 Communication Center

- Log of all **emails and texts** sent (manual + automated).
 - Filters by campaign/source (Manual, Mailchimp journey, System confirmation).
 - Show subject, audience, send time, status, and link to Mailchimp campaign (if applicable).
 - Confirmation email send by integration and triggers flow
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5) Billing Rules & Proration (Detailed)

5.1 Definitions

- **Practice/Session** = a single scheduled class occurrence.
- **Short-term** classes have a finite set of sessions.
- **Membership** classes recur monthly until set end date → class ends with that and no more charges.

5.2 Billing Anchors

- **Memberships** bill monthly on the **1st** (unless class specifies alternate anchor; confirm).
- **Short-term** billed at checkout (or option to split into **two installments** when option selected by admin during class creation).

5.3 Short-term Proration

- If a student joins **after class start**, price = full fixed price × (remaining sessions ÷ total sessions).
- Remaining sessions exclude admin-deselected “no-class” dates.

5.4 Membership Proration

- If a student joins mid-month, first invoice = monthly price × (remaining practices this month ÷ total practices this month).
- Monthly price can vary by month (override table). Use override for the month of service.
- On months with 0 remaining practices on join date → allow free remainder and only charge fixed registration fee and membership fee starting on the 1st of next month

5.5 Cancellations (Membership)

- **15-day rule** prior to the **1st**:
 - If cancellation requested **> 15 days before next 1st** → ends current cycle; no further charge.
 - If **≤ 15 days** → charges next month; ends the cycle after that.
- UI must clearly show **effective end date** before confirmation.

5.6 Past-Due Handling

- Stripe automatic retries; dunning emails;
 - Past-due balance visible in Finance and Client profile.
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6) Discounts & Scholarships

6.1 Discount Codes

- Value: **amount** or **percent**.
- Scope: global, program-specific, class-specific.
- Limits: **single use per account**, or **multi-use** capped by total redemptions (e.g., 50/100).
- Constraint: **one per order** (enforce even if multiple kids in cart).
- Expiration date/time.
- Stacking: by default **non-stackable** with other codes (except sibling discount—see below).

6.2 Scholarships

- **Scholarship codes** for **ongoing memberships**.
 - Applied per child per class; persists across months until removed.
- Scholarship value may be amount or percentage; logs required.

6.3 Sibling Auto-Discount (global)

- Automatically apply on **same order/account**:
 - 1 sibling: **25%** off that sibling
 - 2 siblings: **35%** off 2nd sibling
 - 3 siblings: **45%** off 3rd sibling
 - Interaction with other discounts/scholarships: additional discounts still apply
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8) Roles & Permissions

| Action | Owner | Admin | Coach | Client |
|------------------------------|-------|-------|--------------------------------------|------------------------|
| View Dashboard (all widgets) | ✓ | ✓ | Limited (today's practices assigned) | – |
| Finance module | ✓ | – | – | – |
| Create/Edit Classes | ✓ | ✓ | View assigned only | – |
| Roster view (contacts) | ✓ | ✓ | ✓ (assigned classes) | – (except shared link) |
| Manage Clients/Enrollments | ✓ | ✓ | – | Self only |
| Discounts/Scholarships | ✓ | ✓ | – | Apply code at checkout |
| Communications (bulk) | ✓ | ✓ | – | – |
| Staff management | ✓ | ✓ | – | – |
| Company settings | ✓ | – | – | – |

9) Integrations

9.1 Stripe

- Use Customer + PaymentMethod + SetupIntent for memberships.
- Webhooks: `invoice.payment_succeeded`, `invoice.payment_failed`, `customer.subscription.updated`, `payment_intent.succeeded/failed`, `charge.refunded`.
- Map to app events (enrollment activate/suspend, dunning, past-due flags).

9.2 Mailchimp or similar

- API: upsert Audience members, attach **tags** and **merge fields**.
 - On enrollment/transfer/cancel: update tags accordingly.
 - Store campaign/journey IDs when relevant for troubleshooting.
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10) Security, Privacy, Reliability

- **PII & Children's data:** encrypt sensitive fields at rest; restrict access by role; audit access to medical info.
 - **Waiver evidence:** retain signed versions, IP, UA, timestamp, template version.
 - **Backups:** daily DB backups; 30-day retention.
 - **Audit logs:** for admin actions (creates/edits/deletes, enrollment changes, refunds).
 - **Availability targets:** 99.9% monthly (non-contractual).
 - **Rate limiting** on auth/forms.
 - **Error monitoring** (Sentry/Equiv).
 - **Accessibility:** WCAG 2.1 AA targets.
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11) Performance & UX Details

- Class and roster lists are **server-paginated** (default 25).
 - Search is debounced; case-insensitive; accent-insensitive.
 - Long pages preserve filters and scroll on back/forward.
 - Calendar lazy-loads by month.
 - Share links are tokenized and can be revoked.
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12) Acceptance Criteria (Spot Checks)

- **Registration:** A new parent can (a) create account (Google or email), (b) add child, (c) accept all waivers, (d) enroll in a membership class with card on file, (e) get confirmation email, (f) appear as Active in dashboard.
 - **Proration:** Joining a short-term class halfway adjusts price exactly by sessions remaining.
 - **Cancellation:** If cancellation requested on the 20th (≤ 15 days to next 1st), end date is end of the **following** month and one more charge is scheduled; UI shows this before submit.
 - **Sibling discounts:** Adding a second child in same order applies 25% to that sibling automatically (per final agreed rules).
 - **Finance totals:** Revenue last 7 days in app matches Stripe (within selected timezone boundaries).
 - **Mailchimp:** Enrollment adds Program/Area/Class tags; switching classes updates tags.
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13) Testing Plan (High Level)

- Unit tests for: proration math, cancellation effective dates, sibling discount logic, discount stacking rules.
 - Integration tests: checkout success/fail, subscription lifecycle via webhook mocks.
 - E2E: New parent flow to Active enrollment; cancel under/over 15 days; transfer class; apply scholarship.
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14) Deliverables & Milestones (Suggested)

1. **MVP Registration** (Areas → Class → Checkout for short-term; confirmation; Mailchimp tags).
2. **Memberships** (Stripe subscriptions, proration, 15-day cancellation).
3. **Admin: Classes & Calendar** (create/edit/mass edit/clone + schedule UI).
4. **Clients & Members** (search, filters, exports; roster share).
5. **Finance** (owner dashboard, Stripe metrics).
6. **Discounts/Scholarships & Sibling logic.**
7. **Comms Center** (logs; Mailchimp sync hardening).