Project: Premier League Club-Shares MVP

1) Purpose & Goals

Build a slimline MVP web app that lets users buy pseudo-shares of Premier League clubs at Net Asset Value (NAV), view their portfolio, and track fixtures/results that trigger post-match market-cap transfers between clubs.

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2) Success Criteria (What "Done" Looks Like)

- Users can register for an account, log in, and access the platform securely.
- Users can reset their password if they forget it.
- Users can deposit funds using Stripe and have their balance available for buying shares.
- Users can buy shares of clubs at NAV and see their holdings update immediately in their portfolio.
- Portfolio view shows invested amount, holdings, cost basis, current value, and percentage change.
- Buy windows automatically close at a specified time before kickoff and reopen after results are finalized.
- Market structure logic (caps, shares, transfers) works reliably and updates in real time.
- Fixtures & Scores page shows live/updated data from the football API with correct kickoff times, statuses, and results.

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3) Market Structure & Mechanics

Market Cap

- Each of the 20 Premier League clubs starts with an **initial market cap** set at launch.
- Market cap increases when users buy shares. The fiat amount of the purchase is added directly to the club's market cap.
- Market cap decreases when a club loses a fixture (see Share Transfer below).
- Market cap increases when a club wins a fixture (see Share Transfer below).
- Market cap therefore fluctuates based on two forces: **user investment** and **on-field performance**.

Shares & Price (NAV)

- Each club has a running total of **shares outstanding**.
- **Price per share (NAV)** is calculated as:

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NAV = market_cap / shares_outstanding
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- When a user buys, new shares are issued at the current NAV. The amount spent increases the market cap, and the corresponding number of new shares are minted.
- Shares outstanding only ever increase; they do not decrease when transfers occur.

Buy Windows

- A buy window is the time when users can purchase shares.
- The buy window closes at a **specified time before kickoff** (not fixed to 24h) and remains closed until the match result is finalized.
- When closed, users cannot buy shares of either participating club.

Share Transfer After Matches

- When a fixture result is confirmed:
- **If a team loses**: it loses **10% of its total market cap** (calculated from the pre-match snapshot).
- **If a team wins**: it gains the exact same amount (10% of the loser's pre-match cap).
- **If a match is a draw**: no transfer occurs.
- This mechanism ensures total market cap across all clubs remains constant — value is redistributed, not created or destroyed.

Snapshots

- At buy-close, a snapshot records the exact market cap of both teams. This snapshot is the reference point for calculating the 10% transfer.

Portfolio Impact

- Users' portfolios are immediately revalued based on updated market caps and NAVs.
- Even though shares outstanding remain unchanged, the price per share adjusts when a market cap changes.

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4) In-Scope Functionality

User-facing - Marketplace: rank clubs by market cap, show price/NAV, and enable Buy when window is open. - Portfolio: summary (invested, current value, % change), positions table. - Fixtures & Scores: upcoming/completed fixtures with kickoff time, buy-close countdowns, result status, and applied transfer amounts.

Core Engine - Pricing logic based on NAV formula. - Buy engine that issues shares, updates market cap, and maintains positions. - Buy-window enforcement based on fixture schedule. - Snapshot capture and transfer logic applied after results.

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5) Out-of-Scope (MVP)

- Cash-out/withdrawals and secondary market trading.
- Multi-currency wallets, tax reports, complex KYC/AML.
- Mobile apps (native iOS/Android).
- Sponsorships, referrals, or loyalty features.
- Real-money gambling mechanics.

6) Deliverables

- **Live Production Web App** deployed on Netlify.
- Integrated with free Supabase database.
- Payments via Stripe.
- Football API data from RapidAPI provider.
- Basic Google Analytics integration.

7) Technical Stack

- **Frontend**: Next.js/React, TypeScript.
- **Backend**: Supabase (Postgres + API functions).
- **Deployment**: Netlify.
- **Database**: Supabase free tier.
- **Payments**: Stripe.
- **Football API**: RapidAPI provider.
- **Analytics**: Google Analytics.

8) Workflows

Buy - Validate window open; compute NAV; mint shares; update positions; record order.

Snapshot - Capture caps at buy-close and store as baseline for transfers.

Match Result & Transfer - On result, calculate transfer based on snapshot; update winner and loser market caps; NAVs adjust accordingly.

9) Data Structures

- Teams, Fixtures, Orders, Positions, Transfers Ledger, Audit Log.

10) Acceptance Tests (minimal)

1. Buy Open: User buys; market cap and shares update correctly.
2. Buy Closed: Attempt after buy-close → blocked.
3. Snapshot: Caps stored at buy-close.
4. Transfer: 10% loser snapshot cap moves to winner; total invariant.
5. Portfolio: Values update after transfer.
6. Fixtures: API shows kickoff/result with correct status.

11) Deployment

- Single **Production environment** on Netlify with Supabase backend and Stripe integration.

Approval By approving this document, you confirm the slimline MVP scope and deliverables for the live product described above.