DMR Project – Phase 4+ Execution Roadmap

This document captures all confirmed next steps post Phase■4.4. It acts as a single execution tracker with checkbox-style tasks for future validation and audits.

Current Status

- ✔ Phase■1: Core architecture & base logic
- ✔ Phase■2: JSON■based authentication & sessions
- ✔ Phase■3: Persistent sessions & stability fixes
- ✔ Phase■4.1–4.4: Payments design, Fly.io readiness & infra confirmation

Phase■4.5: Payments Foundation (JSON■First)

- ■ Create data/payments.json with schema_version and empty payments object
- ■ Ensure no sample payment data is committed
- ■ Implement atomic read/write helpers for payments.json

Phase■4.6: Subscriber Upgrade Entry Point

- ■ Add Upgrade to Premium button in subscriber view (main.py)
- ■ Generate unique order_id per click
- ■ Redirect user to Cashfree checkout URL

Phase■4.7: Payment Callback Handling

- ■ Create payments/payment_callback.py
- ■ Verify Cashfree response signature
- ■ Persist SUCCESS payments into payments.json
- ■ Reject duplicates and invalid order IDs

Phase■4.8: Subscription Activation

- ■ On payment success, activate subscription in users.json
- ■ Sync Streamlit session state immediately
- ■ Unlock premium views without logout

Phase■4.9: Audit & Logging

- ■ Add payment_audit.log
- ■ Log order creation, success & failure

Phase■5+: Hardening & Production Readiness

- ■ Prevent multiple concurrent orders per user
- ■ Add order expiry window
- ■ Ensure Fly.io volume mount for JSON data
- ■ Secrets only via Fly secrets (no .env in repo)