OFFICIAL ATHLETIC & TECHNICAL MANUAL

My GYM Plan

(IronTracker Athletic OS)

A 100% offline-first athletic training system with 7-12-15 hypertrophy science, 2-tier room calisthenics, animated biomechanical SVG guides, habit accountability, and live OTA update engine.

Android 8.0+ Native | Offline-First PWA | Zero Bloat Vanilla JS | SHA-256 Vault | Live OTA Updates | 65 Dual-Angle SVG Demos

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01. Core Vision & Architectural Philosophy

My GYM Plan (IronTracker) was engineered with a clear mission: *to deliver an uncompromising, military-grade athletic tracker that respects athlete privacy, eliminates cloud bloat, and operates at maximum speed under any condition.*

🔒 100% Offline-First

No mandatory logins, zero third-party trackers, and no cloud databases. Your training weights, PIN, and habits never leave your physical device.

⚡ Zero-Framework Speed

Built with pure Vanilla ES6+ and modern CSS3. Startup time is under 50ms with a solid 60 FPS scrolling and zero battery-draining overhead.

🔄 Hybrid Live OTA

Receives instant updates, new exercises, and UI upgrades Over-The-Air directly from GitHub without ever needing to reinstall the APK.

> **THE PROBLEM WITH MAINSTREAM FITNESS APPS**
>
> Most commercial gym trackers are cluttered with subscription paywalls, intrusive ads, mandatory email signups, and heavy analytics SDKs that drain battery life and fail when you enter an underground gym with poor reception. My GYM Plan is designed as a standalone athletic operating system: launch it anywhere, anytime, completely offline.

Monochrome Apple Design System

The user interface strictly adheres to a minimalist monochrome aesthetic (pure white, deep black, and frosted glass blurs). All purple tints and distracting gradients have been eradicated. Controls are high-contrast, text is razor sharp, and buttons provide tactile native haptic feedback.

02. The 7-12-15 Scientific Hypertrophy Protocol

Unlike generic 3×10 workout trackers, My GYM Plan organizes resistance training around the scientifically proven **7-12-15 Protocol**. This three-stage periodization targets all muscle fiber types (Type IIx, Type IIa, and Type I) in a single unified workout session.

SET 1: POWER SET

7 Heavy Reps

80–85% 1RM. Recruits high-threshold motor units, triggers mechanical tension, and stimulates raw myofibrillar strength adaptations.

SET 2: GROWTH SET

12 Moderate Reps

65–70% 1RM. Maximizes muscle hypertrophy, sarcoplasmic expansion, and time-under-tension with strict concentric/eccentric tempo control.

SET 3: BURNOUT DROP

15 Fast Reps

50% 1RM drop set. Floods tissue with blood, drives metabolite accumulation (lactate/hydrogen ions), and produces extreme cellular swelling (the pump).

Full 6-Day Elite Split Schedule

Day	Primary Target	Focus Exercises	Key Muscle Activation
Monday	Chest & Front Delts	Flat Barbell Bench, Incline DB Press, Cable Flyes	Pectoralis Major/Minor, Anterior Deltoid
Tuesday	Back & Rear Delts	Deadlift, Lat Pulldowns, Seated Cable Rows	Latissimus Dorsi, Rhomboids, Trapezius
Wednesday	Shoulders & Traps	Overhead Press, Lateral Raises, Face Pulls	Lateral Deltoid, Posterior Deltoid, Rotator Cuff
Thursday	Biceps & Triceps	Barbell Curls, Tricep Rope Pushdowns, Hammer Curls	Biceps Brachii, Brachialis, Triceps Lateral/Long head
Friday	Legs & Calves	Barbell Back Squats, Leg Press, Romanian Deadlift	Quadriceps, Hamstrings, Gluteus, Gastrocnemius
Saturday	Core & Functional Cardio	Hanging Leg Raises, Cable Woodchoppers, Planks	Rectus Abdominis, Internal/External Obliques
Sunday	Full Athletic Rest	Active Walking, Mobility, Hydration, Sleep	Central Nervous System (CNS) Supercompensation

INTELLIGENT SET FLOW & REST TIMERS

The app dynamically records your logged weights and reps. Checking off a completed set automatically fires the integrated athletic rest timer (configured for 60s, 90s, or 120s) with audio chimes and native Android haptic pulses to enforce strict inter-set recovery.

03. 2-Tier Room Fitness & Calisthenics System

For athletes unable to reach a commercial gym or those building foundational functional strength, My GYM Plan features a proprietary **2-Tier Room Fitness & Calisthenics Engine**.

Tier 1: Daily Essentials (Non-Negotiable)

High-frequency, low-fatigue habit anchors executed every single day. Includes 10 Standard Push-ups, 10 Hindu Baithak (Bodyweight Squats), 60s Core Plank, and Doorframe Rows. Designed to stimulate synovial joint fluid and baseline metabolic rate.

Tier 2: Weekly Calisthenics Split (48h Recovery)

Progressive bodyweight strength training split across dedicated focus days (Upper Body Push/Pull, Hollow Body Core, Lower Body Explosiveness) paired with strict 48-hour muscle recovery locks to prevent overtraining.

The 48-Hour Physiological Recovery Lock

Muscle protein synthesis (MPS) remains elevated for approximately 24 to 48 hours post-workout. If an athlete trains their chest on Monday, the app dynamically locks intensive push movements for Tuesday and surfaces active recovery cues, ensuring muscle fibers heal and grow thicker before undergoing subsequent mechanical stress.

> **SUNDAY SACRED REST DAY**
>
> On Sundays, the Room Fitness interface automatically transitions into a dedicated **Active Recovery Mode**. High-impact routines are disabled, replaced by guided mobility drills, hydration tracking, and nervous system restorative breathing.

04. Biomechanical Dual-Angle SVG Vector Engine

Rather than relying on heavy video players or laggy animated GIFs that consume hundreds of megabytes of storage, My GYM Plan contains a custom **Mathematical Vector Biomechanics Engine** with 65 animated exercises across 19 categories.

Front Angle Biomechanics (0° Perspective)

Renders bilateral symmetry, grip width, elbow flare angles, and lateral balance. Highlights primary and secondary muscle recruitment in real-time pulsing color schemes.

Side Angle Biomechanics (90° Profile)

Completely distinct SVG geometry illustrating spinal alignment, pelvic tilt, knee tracking past toes, and bar path trajectory throughout the concentric and eccentric phases.

Integrated Anatomical Guide Specs

Category	Exercises Rendered	Front View Focus	Side Profile Focus
Push-ups & Press	Standard, Diamond, Incline, Decline, Pike	Chest width, Hand placement	Elbow 45° angle, Lumbar neutral
Squats & Baithak	Bodyweight, Sumo, Pistol, Hindu Baithak	Stance width, Knee valgus prevention	Femur parallel to floor, Torso angle
Pulls & Rows	Pull-ups, Chin-ups, Doorframe Rows, Inverted	Scapular depression, Lat engagement	Chest to bar line, Shoulder retraction
Core & Planks	Standard Plank, Hollow Body, Mountain Climbers	Shoulder-wrist alignment	Anti-extension hollow pelvic lock
Dips & Triceps	Chair Dips, Parallel Bar Dips, Extensions	Shoulder pack, Arm spacing	90° elbow flexion, Torso lean

> **INTERACTIVE EXERCISE CUSTOMIZER**
>
> Every exercise card features a *"View Biomechanical Guide"* button that opens an Apple frosted-glass modal with movement cadence, target muscles, form tips, and an **"Edit Details"** button allowing athletes to customize target sets, reps, or personal notes.

05. Habits & Discipline Accountability Tracker

Physical transformation is the direct byproduct of daily micro-habits. The **Habits & Discipline Dashboard** operates as an automated behavioral feedback loop.

11 Core Athletic Habits Tracked

⏰ Wake up at 05:00
Circadian rhythm consistency for peak cortisol and testosterone production.

🏋️ Gym / Training
Completion of assigned 7-12-15 or calisthenics daily volume.

🥗 Clean Athlete Diet
Meeting macronutrient protein and clean caloric thresholds.

💧 3+ Liters Water
Cellular hydration for protein synthesis and joint health.

📖 Reading / Learning
30 minutes of athletic, coding, or personal development study.

💻 Deep Work / Study
Focused cognitive sessions free of phone interruptions.

📵 Social Media Detox
Elimination of dopamine-depleting passive digital consumption.

📋 Day Plan & Budget
Morning priority listing and daily financial awareness.

🚿 Cold Shower
Vagus nerve stimulation, norepinephrine boost, and recovery.

😴 7.5+ Hours Sleep
Deep REM sleep for muscle rebuilding and growth hormone release.

⚡ Custom Habits
User-defined personal routines (Meditation, Walking, Mobility, etc.).

📊 Daily Score %
Automated real-time calculation of daily completion percentage.

The ✎ Manage Mode (Inline Add, Edit, and Delete)

Added in version `v0.05.2`, the Habits card includes an interactive ✎ **Manage** toggle:

- **Manage Mode Activation:** Tapping *"✎ Manage"* reveals direct action buttons alongside every habit item.
- **Delete Functionality (✕):** Tapping the red cross instantly deletes accidental additions (e.g. redundant items) with automatic score recalculation.
- **Edit Functionality (✎):** Tapping the pencil icon opens a pre-filled editor modal allowing changes to the habit name, category icon, and description.
- **Custom Habit Creation (+ Add Habit):** Athletes can add unlimited custom routines that seamlessly participate in weekly streak charts and monthly heatmaps.

06. Athletic Nutrition & Macronutrient Fueling

Training stimulus without proper substrate availability leads to fatigue and muscle catabolism. My GYM Plan incorporates an athletic nutrition engine calibrated for high-protein Indian diets.

Macro Target Breakdown

Macronutrient	Daily Target	Primary Role	Key Indian Food Sources
Protein	1.6 – 2.2g per kg bodyweight	Muscle protein synthesis & repair	Paneer, Soya Chunks, Tofu, Eggs, Whey, Dal/Sprouts
Carbohydrates	3.0 – 4.5g per kg bodyweight	Muscle glycogen replenishment	Brown Rice, Oats, Roti, Sweet Potatoes, Bananas
Fats	0.8 – 1.0g per kg bodyweight	Hormonal production (Testosterone)	Desi Ghee, Almonds, Walnuts, Peanut Butter, Chia seeds
Hydration	3.5 – 4.0 Liters	Cell volumization & waste filtration	Clean Filtered Water, Coconut Water, Electrolytes

Pre-Workout Timing (45–60 min prior)

Complex carbs + moderate protein: Oats with sliced banana or brown bread with peanut butter. Fuels ATP glycolysis without digestive heaviness.

Post-Workout Window (Within 45 min)

Rapid absorbing protein + fast glycogen source: 1 scoop whey protein or 50g boiled soya chunks paired with white rice or fruit to halt cortisol spikes.

07. Security, SHA-256 PIN Vault & Device Privacy

My GYM Plan implements a zero-trust, device-only security architecture. There is no remote authentication server, no cloud credential harvesting, and no third-party tracking pixels.

Goku Ultra Instinct Onboarding & PIN Vault

On initial startup, athletes complete the **Goku Ultra Instinct Onboarding**, setting up their profile, dietary preferences, and a 4-digit master PIN.

> **CLIENT-SIDE CRYPTOGRAPHIC HASHING**
>
> The athlete's PIN is never stored in plain text. It is processed using client-side **SHA-256 cryptographic hashing** via the native browser `crypto.subtle.digest('SHA-256', ...)` API. When an athlete enters their PIN to unlock their profile or authorize a hard reset, the app hashes the input and compares hashes locally.

```
// SHA-256 PIN Encryption Engine (Zero Server Leakage)
async function hashAthletePin(rawPin) {
  const encoder = new TextEncoder();
  const data = encoder.encode(rawPin + "_tushu_salt_2026");
  const hashBuffer = await crypto.subtle.digest('SHA-256', data);
  const hashArray = Array.from(new Uint8Array(hashBuffer));
  return hashArray.map(b => b.toString(16).padStart(2, '0')).join('');
}
```

08. Data Governance & Backup / Restore Engine

Because My GYM Plan runs 100% offline, data governance features are engineered to ensure athletes maintain complete ownership and portability of their workout history.

1. JSON Backup Snapshot & Seamless Restore

Athletes can export their complete training life into a standardized JSON file (`my-gym-plan-backup.json`). This backup contains:

- All 14 internal localStorage keys (`tushu_gym_*`, `tushu_habits_*`, `tushu_room_fitness_v1`).
- Workout logs, personal best weights, and custom routine modifications.
- Habit history logs, active streaks, and completion scores.
- Athlete onboarding profile and encrypted PIN hash.

2. 6-Month Automated Log Retention Policy

To prevent database bloat and ensure instantaneous app performance on older Android devices, the app includes an optional **6-Month Auto-Cleanup Engine**. When activated, log records older than 180 days (ISO `YYYY-MM-DD`) are automatically pruned while preserving all-time PR records and current month metrics.

3. PIN-Protected Hard Reset (Clear Device Data)

Should an athlete wish to hand over their phone or start a brand new training phase, the *"Clear Device Data"* control cleanly purges all 14 local storage partitions only after confirming the athlete's SHA-256 PIN.

09. Hybrid Live Over-The-Air (OTA) Updates

The crowning engineering achievement of My GYM Plan is its **Hybrid Live OTA Engine**. Traditionally, Android WebView apps require distributing a new `.apk` file whenever a web bug is fixed or a new feature is added. My GYM Plan eliminates this friction completely.

> **HOW LIVE OTA WORKS (UNDER THE HOOD)**
>
> 1. **Manifest Verification:** App polls `https://raw.githubusercontent.com/Tushpendra-Kumar/my-gym-plan/main/ota-manifest.json`.
> 2. **Differential Check:** If the remote `buildNumber` is greater than local build, the app surfaces an update alert.
> 3. **Background Asset Download:** Android's native Java layer downloads all modified assets into an isolated staging directory (`ota_staging/`).
> 4. **Atomic Swap:** Once verified, `ota_staging/` is atomically swapped into active `ota_www/`.
> 5. **Instant Reload:** WebView refreshes to the new version in under 2 seconds. Zero APK reinstall required!

OTA State Machine Overview

State ID	UI Status Message	Action Required
`idle`	Version v0.05.3 Active	Tap *"Check for Updates"*
`checking`	Connecting to GitHub CDN...	Automatic
`ota_available`	New Live Update Available!	Tap *"⬇ Install Live Update Now"*
`downloading`	Downloading assets (X of Y)...	Automatic background thread
`applied`	Update installed successfully!	Instant reload (Done)
`apk_required`	Native Android Engine Upgrade	Direct link to download new APK

10. Installation Guide, FAQ & Developer Ecosystem

Step-by-Step Android APK Installation

1. Visit the official CodeByTushu Apps Hub: codebytushu.com/apps/.
2. Locate the **IronTracker — Gym & Workout Logger** card and click **"Download APK"**.
3. When prompted by Android with *"File might be harmful"*, tap **"Download anyway"** (standard prompt for non-Play Store sideloaded APKs).
4. Open the downloaded APK and tap **"Install"** (allow "Install Unknown Apps" permission for your browser if prompted).
5. Launch **My GYM Plan**, complete the Goku Ultra Instinct onboarding, and begin training!

Frequently Asked Questions (FAQ)

Q: Does the app require an internet connection?

A: No! The entire workout logger, calisthenics module, SVG animations, habits tracker, and food planner function 100% offline. Internet is only used when you optionally tap "Check for Updates".

Q: What happens if I accidentally delete a habit?

A: You can tap "+ Add Habit" at any time to recreate custom habits or restore standard habits from a saved JSON backup.

Q: Where can developers find the documentation and architecture?

A: The official developer repository is publicly accessible on GitHub at: github.com/CodeByTushu/my-gym-plan-docs.

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