**Weight Tracking App — Project Three Launch Plan**

Joseph • CS 360 • 8/17/25

**1) App Overview**

The Weight Tracking App is a lightweight, human-centric Android app designed to help users form the daily habit of logging their weight and tracking progress toward a single goal. The app focuses on minimizing friction (large numeric inputs and clear call-to-action buttons) and celebrating success when the goal is reached. Key features include support for local accounts stored in SQLite (self-registration), a history grid of daily entries, a one-time goal, and optional SMS notifications when the user reaches that goal.

Core features implemented:

* Login/Create Account: single screen for first-time account creation and returning logins (SQLite `users` table).
* Data Grid (History): RecyclerView shows daily weights with date, with edit/delete per row (SQLite `daily\_weights` table).
* Goal: one goal per user (SQLite `goal\_weight` table) displayed as a banner with progress.
* Notifications: optional SMS (runtime permission). When the newest entry meets the user’s goal (loss ≤ goal; gain ≥ goal), the app can send a congratulatory text to a saved phone number.
* Settings: goal entry, SMS permission/phone number, and unit choice guidance (kg by default).

**2) Store Listing Strategy**

Title: Weight Tracking App — Daily Goal Tracker

**Short description (80 chars):** Quick daily weigh-ins, simple goal, motivating alerts.

**Full description:**

Weight Tracking App makes daily weigh-ins effortless. Log today’s weight in seconds, see a clean history, set a single goal, and get a celebratory alert when you reach it. Designed to reduce friction and encourage consistent habits with clear inputs and readable lists. Works offline; your data stays on your device.

**Media:** Provide 6–8 screenshots (Login/Create, Add Weight, Goal banner, History grid with delete, SMS permission, Settings) and a 15–30 second promo video showing: create account → set goal → add weight → goal reached.

**Icon:** Adaptive icon with a bold scale or upward-trend glyph on a calm green/teal background; high contrast, minimal, centered glyph.

**3) Device & Android Version Support**

**minSdk:** 24 (Android 7.0) • **targetSdk:** 34 (Android 14).

Primary form factor: phones (portrait). Tablets render responsively, but phones are the supported baseline for v1. Orientation is portrait-locked on data entry screens to reduce input errors.

**4) Permissions (Least Privilege)**

**SEND\_SMS** (dangerous) — requested at runtime, used only to send a one-time congratulatory text when the user reaches their goal. If the user denies the permission or the device lacks telephony, the app continues to function fully and simply does not send SMS notifications. No other dangerous permissions are requested.

**5) Privacy, Security, and Data Handling**

All data is stored locally in SQLite; there is no remote sync in v1. Usernames and passwords should be stored as salted hashes (e.g. PBKDF2/BCrypt). Only a username and optional phone number are collected. A clear privacy policy will be linked in the Play listing and inside the app (Settings → Privacy). Users can disable SMS at any time and delete historical rows. Backup options should exclude sensitive data unless the user opts in. If `allowBackup` is used, ensure `fullBackupContent` rules exclude credential material or provide an explicit user-controlled export.

**6) Monetization**

**Initial release:** free with no ads to prioritize trust and habit formation. **Phase 2 (optional):** one-time **Pro** upgrade via Google Play Billing to unlock CSV export, backup/restore, extra themes/widgets, and streaks/trends. This model avoids recurring fees while keeping the base experience frictionless.

**7) Quality, Testing, and Accessibility**

**Unit tests:** database CRUD, goal detection, and credential hashing.

**UI tests** (Espresso): login/create, add weight, edit/delete, permission request/denial, SMS flow.

**Manual testing:** API 24, 26, 29, 33 and 34 on emulators and at least one physical device.

**Edge cases:** empty inputs, duplicate usernames, extreme weight values, day rollover/time zone, device without telephony, SMS denied.

**Performance:** smooth list scroll at 60 fps for large histories; DB indices on ` (user\_id, entry\_date)`.

**Accessibility:** minimum 48dp touch targets; TalkBack order follows task flow (inputs → primary action → secondary actions); sufficient color contrast (4.5:1+); text size respects system scaling; errors conveyed with text (not color alone).

**8) Rollout and Release Management**

**Tracks**: Internal testing → Closed testing (20–50 users, 1–2 weeks) → Optional Open testing → Production staged rollout (10% → 50% → 100%).

**Pre-Launch:** run Play Console Pre-Launch Report on Firebase device farm.

**Observability:** Crashlytics for crash reports; minimal, privacy-respecting analytics (aggregate funnels only) to track open → add weight → set goal → goal reached.

**9) Risks and Mitigations**

| **Risk** | **Impact** | **Mitigation** |
| --- | --- | --- |
| SMS blocked or unavailable | Users miss alerts | Clear permission rationale; visible toggle; consider push/email in future |
| Data loss on update | Severe | Versioned DB schema with tested migrations; backup/export guidance |
| Feature expectations | Medium | Public roadmap; Pro upgrade path; prioritize CSV export |
| Accessibility gaps | Medium | Talkback audit; fix touch targets and contrast issues |

**10) Timeline**

**Week 1:** finalize password hashing, polish UI strings/icons, accessibility pass, write tests.

**Week 2:** Closed testing, triage bugs, capture screenshots, finalize store copy, publish privacy policy.

**Week 3:** Optional open test, stabilize, prepare staged rollout artifacts.

**Week 4:** Production release staged 10% → 50% → 100% over 5–7 days; monitor crashes and reviews.

**11) Launch Checklist**

**Code:** targetSdk 34, minSdk 24; release signed; DB migrations verified; runtime permissions tested; Lint clean.

**Content:** adaptive icon; 6–8 screenshots; short promo video; store descriptions proofread; privacy policy link live.

**QA**: closed test feedback resolved; crash-free sessions > 99.5%; accessibility checklist passed.

**Release:** staged rollout plan configured; Crashlytics and analytics dashboards ready; support email and FAQ prepared.

**12) Conclusion**

The Weight Tracking App is intentionally simple: a quick daily log, a clear goal, and an encouraging alert at the right moment. This plan brings the app to market responsibly—minimal permissions, local data, strong accessibility, and a clean Play listing—while leaving room for a thoughtful Pro upgrade. Following the checklist and timeline ensures a smooth rollout and a maintainable foundation for future features.