

Grove

The core mechanic that makes Grove Grove

Everything else in the app is well-understood CRUD, but this is the piece worth getting right before building UI around it. Intended as a build-ready reference and a standing spec for anyone joining the project later.

1. Item Types and Capacity

Grove's Type field is intentionally kept to just two options — Task and Reminder — since Type's job is purely behavioral (does this consume capacity or not), not organizational. Organization is handled entirely by Category, which is user-created and freeform.

Type	Consumes story points?	Behavior
Task	Yes	Enters the ranked list, subject to §3 and §4
Reminder (one-off or recurring)	No	Time/date-triggered notification only — surfaced via Welcome and Today's bell icon, never competes for budget

Tags were considered and removed — with Category already providing organization, a second overlapping label added complexity without enough distinct value at this stage.

2. Inputs Per Task / Reminder

Field	Set by	Notes
Importance	User	1–5 scale
Effort	User	Plain-language bucket at creation: Quick / Medium / Big — never shown as a raw number
Due date	User	Optional
Category	User	Freeform, user-created. Persists through any reshuffle/rollover/day-move
Note	User	Free-text note, separate from title/description
Attachments	User	e.g. a PDF or image
Status	System	Active / Completed / Rolled over / Deleted (recoverable)
Days carried over	System	Increments each day the item rolls to the next day incomplete

Effort bucket → story points mapping

Fibonacci-style spacing, mirroring sprint estimation — uncertainty grows faster than task size feels.

Bucket	Points
Quick	1–2
Medium	3–5
Big	8

3. Priority Score — Ranking

```
priority_score = (importance × W1)
                + (due_date_urgency × W2)
                + (carryover_boost × W3)
```

- **Importance** — user's raw 1–5 input.
- **Due date urgency** — derived, not user-set. Climbs as the due date approaches; capped at a ceiling once overdue, so a badly-missed deadline can't permanently dominate every future list.
- **Carryover boost** — small increment added each day an item rolls over incomplete. Also capped, same principle as due-date urgency: strong enough to guarantee a neglected item surfaces, capped so it can't permanently outrank higher-importance items.

Effort deliberately does not factor into this score — ranking answers “what matters,” not “what's easy.” Effort only enters at the capacity-fitting stage. Starting weights: importance and due-date urgency roughly equal; carryover boost smaller than both — a nudge, not a takeover.

4. Daily Capacity Budget — What Fits Today

Grove uses a story-point-style daily budget, borrowed from sprint methodology — but rather than asking the user to manage a number, Grove starts conservative and lets the user adjust in plain language.

4a. The Suggested-List Model

- Grove calculates a baseline daily point capacity from the weekly availability template (§4b) and any same-day blocking (§4c).
- The default suggested list fills a default fill percentage of that baseline (starting default: ~50%) — Grove plays it safe rather than maxing out the day.
- The fill percentage is a user preference set once during onboarding, adjustable anytime in Settings.

Adjustment is surfaced as a single, repeatable check-in — “How does your list feel for today?” — anchored at the bottom of the screen next to the capture button. Tapping it opens a sheet with a group-selection step, followed by first-person action choices:

- **“I’m ready to take on more”** — expands the list toward full baseline capacity.
- **“I’d like to lighten my load”** — shrinks the list.
- **“Clear my day”** — empties today’s list entirely, rolling everything to the next day.

(“This is plenty” was removed — it was a no-op with no functional purpose.) This is a repeatable check-in, not a one-time choice, and no point values are ever shown to the user.

Group-scoped actions

Since Today is organized into Category groups, an action can be scoped to one or more specific groups rather than the whole day:

- **“Lighten my load” on a group** reduces capacity for that group only; dropped items carry over normally.
- **“Take on more” on a group** pulls next-ranked items from that group into today, bounded by remaining overall capacity.
- **Freed capacity does not auto-reallocate** between groups — lightening one group’s load simply reduces the day’s total commitment.

Capacity override pattern

Rather than silently refusing once a ceiling is hit, Grove surfaces a confirmation letting the user deliberately override it for that instance only — this never permanently changes the underlying baseline template:

- **Via “I’m ready to take on more”:** “You’re at full capacity for today — want to raise it just for today, or leave it as-is?”
- **Via manual day-assignment:** “[Date] is already at capacity — add this anyway, or move a lower-priority item to the next available day?”

Safety check

Before removing an item via “Lighten the load” or “Clear the day,” Grove checks whether that item is due today, tomorrow, or already overdue — flagging it explicitly rather than silently deferring a time-sensitive item.

4a-i. Manual Focus Selection (Deep-Work Override)

A user can pick a specific existing item to focus on today, regardless of its priority score. That item locks into today's list; Grove fills remaining capacity with the normal ranked-list logic, reshuffling anything that no longer fits. The same due-date safety check applies before confirming.

4b. Weekly Availability Template

Set once during onboarding, adjustable anytime in Settings. The user sets a rough working window plus recurring blocks (lunch, standing meetings), which proportionally reduces the daily point budget every week automatically. Fully optional — a user who sets nothing gets a flat default capacity.

4c. Same-Day / Ad-Hoc Blocking

A user can block the whole day or a time range. The app converts blocked time into a proportion of the working window and reduces that day's capacity accordingly — no manual point entry, ever. This is also the trigger for the reshuffle flow (§5).

4d. Per-Category Active Days

Each Category can have its own set of active days — a fully custom multi-select of all 7 days, defaulting to all-days-active. This affects placement, not just capacity: an item belonging to a restricted Category (e.g. Work = Mon–Fri) that doesn't fit today skips inactive days entirely and lands on the next eligible active day. Manual override remains allowed.

4e. Cleared Days

Triggered by “Clear my day.” A cleared day is functionally zero-capacity, with additional handling: a reason-capture prompt, distinct visual treatment (greyed out, showing the reason), full exclusion from the placement walk, and an unblock option that restores capacity and re-runs prioritization forward.

5. Reshuffle Flow

Triggered when a user blocks time (§4c):

- Reduce that day's baseline capacity (partially, or to zero for a full-day block).
- Rerun the suggested-list logic against the reduced baseline.
- Whatever no longer fits rolls to the next day(s), with carryover boost applied.
- Generate a short plain-language summary of the diff — this is the *only* place an LLM call is used in the whole engine (e.g. “Moved X and Y to Thursday.”)
- Surface quick wins — items just below the new cutoff with a low effort bucket, kept visible as optional stretch items.

5a. Daily Opening Flow and Reminder Handling

- **First app open each calendar day:** a light Welcome screen — date, greeting, today's reminders or a calm empty-state line, single Continue action.
- **Exception — the very first session after onboarding:** skip Welcome entirely, route straight to Today with a prompt to add the first item.
- **Every subsequent open that day:** goes straight to Today; a bell icon reopens reminders on demand.
- **Tapping a reminder** opens a sheet with four actions: Mark complete, Dismiss, Edit, Turn into a task.
- **Yesterday confirmation** (the real implementation of §6): before showing today's list, present yesterday's list and confirm what was actually completed, using that to build an accurate today.

New entries and capacity carryover

Any newly added entry is always assigned to a day, never simply dropped. If today's capacity isn't full, it's added directly. If full, the engine checks tomorrow using the same logic, continuing day-by-day until it finds room — the same mechanism as any reshuffle, not a special case.

5b. Manual Reorder, Cross-Group Drag, and Grouped Display

Users can manually reorder items within a category via drag, and expand/collapse categories accordion-style. In-group reordering and accordion state are display-layer only — none of it changes the underlying priority score. Cross-group drag is the one exception: dragging an entry into a different group updates that entry's actual Category, a real data change, not just display.

5c. Focus Mode (Near-Term — Not in First Build Pass)

A view filter letting a user temporarily hide all categories except one. Scoped as a pure display filter — does not affect the priority score, capacity budget, or reshuffle logic in any way.

5d. Motion as a Visibility Principle

Grove's differentiator is that engine decisions are felt, not just executed silently. Plain-language summaries handle larger, multi-item reshuffles; subtle motion (fade/slide as items are added or removed) handles smaller, single-item changes where a full sentence would be overkill but silence would make the engine invisible.

6. End-of-Day Rollover

The user marks each item complete or incomplete. Incomplete items are re-scored and re-enter tomorrow's ranked list with carryover boost applied. A rough week/month view is drafted from current inputs so the user can see what's ahead.

7. What's Deliberately Not AI-Driven

To keep this fast, predictable, and cheap to run at scale, the entire ranking, budgeting, and reshuffle logic is deterministic arithmetic — no LLM calls. The only AI touchpoint in the whole engine is turning a reshuffle diff into a warm, readable sentence. This keeps the core mechanic reliable even if an AI call is slow, fails, or is rate-limited.

Open parameters to tune once real usage exists: the W1/W2/W3 weights, the due-date urgency ceiling and carryover cap, default baseline daily capacity, the suggested-list fill percentage default, the carryover boost increment, and default working-window hours.