**The story of your portfolio**

You walk in and say: **“Long term, $2,500.”**  
That’s it. No forms. No jargon.

**1) The Listener**

The app understands two things from your sentence:

* your **time horizon** (short or long), and
* your **budget** (how much you want to invest).

**2) The Librarian**

Next, it heads to a single data “library” — **Yahoo Finance** — and pulls **fresh prices** for small, serious shortlists (about 20 each) across:

* **Shares** (ASX large caps),
* **Bonds/Cash** (AU government & aggregate ETFs),
* **Commodities** (gold, oil, broad baskets or AU producers),
* **Crypto** (BTC/ETH and a few big names, tiny weight),
* **Currencies (FX)** (AUD vs top trade partners, only for a hint).

If the internet sneezes, the Librarian uses **yesterday’s cached copy** so nothing breaks in class.

**3) The Research Crew (fast, simple, explainable)**

For every ticker in each group, the crew does four **tiny checks** you can explain to anyone:

* **Momentum (6 months):** Has it been trending up?
* **Volatility (last 20 days):** How bumpy has it been? (smoother is safer)
* **Max Drawdown (1 year):** How bad was the worst drop?
* **Headline tone:** Scan the **recent titles** Yahoo provides (words like “beat/upgrade” vs “miss/downgrade”).

They **scale these inside each group** (shares vs shares, bonds vs bonds) and combine them into a **simple score from 0–1**.  
Higher score = more attractive **right now**, inside that sleeve.

**4) The Planner**

Because you said **long term**, the Planner starts from a sensible **base recipe**:

* more **Shares** for growth,
* some **Bonds** for stability,
* a little **Cash**,
* a small **Commodities** sleeve,
* maybe a **tiny Crypto** sleeve (optional).

If you said **short term**, the recipe flips: mostly **Cash & Bonds**, and just a sip of Shares.

**5) The Selector**

Within each sleeve, the Selector picks the **winners** from those ~20 names:

* **Shares:** top **two** by score (split 60/40).
* **Bonds:** top **one** (the steadier one).
* **Commodities:** top **one** (gold/oil/basket/producer).
* **Crypto (long only):** top **one** (tiny).

It’s transparent: you can see the whole leaderboard and **why** the winners won.

**6) The Safety Officer (your chosen guardrails)**

Before anything becomes a trade, the Safety Officer checks four simple rules:

* **Sleep-Better dial:** if you nudge it, a slice (0–10%) **moves from Shares → Bonds** to match your comfort.
* **News Spike filter:** if a pick just had clearly **negative headlines** and a **sharp drop**, its weight is **capped today**, and the spare goes to the next best name.
* **FX auto-hedge hint:** if **AUD** has been **falling**, the app **suggests unhedged** global exposure (benefits when AUD is weak). If **rising**, it **suggests hedged**. *(It’s advice, not a forced trade.)*
* **Drawdown seatbelt:** if the **worst drop** of this proposed mix (over the last 3 years) exceeds your limit (say **−25%**), it **trims Shares 5–10%** and adds to Bonds.

**7) The Risk Manager (your Risk Budget)**

You set a **Risk Budget** — a target level of portfolio volatility (e.g., **8–12%** per year).  
The Risk Manager gently **nudges Shares ↔ Bonds** until the recent volatility sits near your target.  
If risk is still high because of commodities/crypto, it **tiny-trims those first**.

**8) The Shopkeeper**

Now it’s time to buy. The Shopkeeper turns your final percentages into:

* **dollars per sleeve → dollars per ticker → whole shares** at today’s prices.  
  No decimals, no confusion.  
  It shows **how much you spend** and the **leftover cash**. If the leftover can buy **one more share** and bring you closer to target, it suggests a **smart round-up**.

**9) The Caretaker (Threshold Rebalancing)**

As days pass and prices move, the mix drifts. The Caretaker **only acts when drift matters**:

* You set a **drift band** (e.g., **±5%**).
* If any sleeve wanders outside that band, you get a **small buy/sell list** to nudge back toward your targets.
* Tiny, pointless trades are ignored (minimum trade & turnover guard).

**What you get on screen**

* **Buy List** you can place: *Ticker | Price | Shares | Cost | %*, plus **Leftover cash**.
* A **Weights Donut** (Cash, Bonds, Shares, Commodities, tiny Crypto if used).
* A **Risk Panel** with:
  + **Volatility (EWMA)** vs your **Risk Budget**,
  + **Max Drawdown**,
  + **VaR/CVaR (95%)** (how bad a bad day can be).
* A **Winners & Why** page:
  + Top-20 **leaderboard bars** by score,
  + a small **waterfall** showing how **momentum/vol/drawdown/headlines** built the winner’s score,
  + a **momentum-vs-vol scatter** that makes winners stand out.
* A **Rebalance Card** when drift > band (otherwise it simply says “No action needed”).
* **Badges** that explain decisions:
  + “Sleep-Better: moved 8% from Shares → Bonds”,
  + “Seatbelt engaged to keep worst-case drawdown near −24%”,
  + “FX hint: AUD weaker → consider **unhedged** global exposure”,
  + “Spike filter capped XYZ today”.

Finally, a short **plain-English paragraph** summarizes what happened:

“We chose **MSFT & BHP** in Shares for stronger 6-month momentum and calmer volatility; **VGB** in Bonds for stability; **gold** in Commodities for defence. Your Sleep-Better dial shifted 6% from Shares to Bonds. The Seatbelt trimmed Shares to keep the worst-case drawdown near −25%. With today’s prices, here’s your whole-share **Buy List** and a simple **rebalance** suggestion only if drift exceeds your 5% band.”

**Why this research is enough (and honest)**

* It’s **live** (from Yahoo Finance),
* **focused** (top names per sleeve, not the whole market),
* and **explainable** (four simple checks: momentum, volatility, drawdown, headlines).  
  No black boxes. No hidden tricks. Just clean, defensible steps that a beginner can follow and an examiner can assess.

That’s the whole story: you speak simply, the team does small, smart checks, keeps you safe with guardrails, and hands you a buy list you can place — plus clear reasons you can repeat with confidence.

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Thinking

Bottom of Form