using the persona of the SaaS developer, recommend the steps and them prompts that I should use in. lovable in order to create the ability to simulate the impact of up to 3 purchases or expenditures on the cash balance projection that a user presently has. this should be a seperate cash forecast that does not change the existing one unless a purchase is confirmed. only confirmed purchases should change the saved one. this simulation would be done separately and erased when the user is asked. the out put on this screen should show the new balances over the selected horizon and show how it impacts the user's ability to have cash on the key dates saved in the user's profile.

**ChatGPT said:**

Absolutely — here’s how I’d walk you through this as a **SaaS developer guiding a teammate** to build a **purchase simulation tool** in Lovable. This will be a **temporary cash forecast overlay** that shows how up to 3 possible purchases could impact future cash, especially on key spending dates — without saving the data unless confirmed.

**🎯 Goal:**

Let the user simulate how up to 3 planned purchases would affect their **cash balance projection** and **ability to meet key spending dates** — without updating their real forecast unless they confirm.

**🧭 OVERVIEW OF THE FEATURE**

* **Separate simulation module** with its own screen
* Input: up to 3 hypothetical purchases
* Logic: overlay those on the user’s saved daily cash forecast
* Output:
  + Updated cash balances over the next 30 days
  + Warnings for key dates that fall into a **shortfall**
* Behavior:
  + If **confirmed**, purchases are saved
  + If **discarded**, simulation is erased

**🛠️ STEP-BY-STEP IMPLEMENTATION IN LOVABLE**

**✅ STEP 1: Create Temporary Table for Simulated Purchases**

**💬 Prompt:**

plaintext

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Create a table called `user\_simulated\_purchases` with these fields:

- user\_id (string)

- purchase\_name (string)

- purchase\_cost (number)

- purchase\_date (date)

- created\_at (timestamp)

This table is for **temporary input only**. It is NOT used in the main cash forecast logic unless confirmed.

**✅ STEP 2: Build the Simulation Screen**

**💬 Prompt:**

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Create a screen titled “Simulate Purchases”

Add a subtitle: “See how upcoming spending could affect your cash balance.”

Let the user input up to 3 purchases. Each row includes:

- What do you plan to buy? → purchase\_name

- How much will it cost? → purchase\_cost

- When do you plan to buy it? → purchase\_date

Save these to the table `user\_simulated\_purchases` (limit 3 entries per user)

**✅ STEP 3: Run the Forecast Overlay (in real-time)**

**💬 Prompt:**

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Create a logic block that:

1. Fetches the user’s daily\_cashflow forecast (next 30 days)

2. Fetches all `user\_simulated\_purchases` by user\_id

3. Deducts each purchase from the matching `purchase\_date` balance

4. Recalculates each day's balance forward from today

5. Overlay this result (do NOT update the `daily\_cashflow` table yet)

**✅ STEP 4: Compare Against Key Dates**

**💬 Prompt:**

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Fetch `user\_key\_dates` for the current user.

For each key date within the next 30 days:

- Compare forecasted cash balance after simulated purchases

- If balance < expected\_amount → flag the date as “at risk”

**✅ STEP 5: Display the Simulation Output**

**💬 Prompt:**

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On the same “Simulate Purchases” screen, display:

1. A 30-day chart showing updated cash balance with/without simulation

2. A table listing key dates at risk:

- Date

- Event Name

- Shortfall Amount

Use green/yellow/red coloring as appropriate.

**✅ STEP 6: Offer “Confirm” or “Discard” Options**

**💬 Prompt:**

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Add two buttons to the bottom of the screen:

1. Confirm Purchases

- Move records from `user\_simulated\_purchases` to `user\_purchase\_forecast`

- Update daily\_cashflow permanently

2. Discard Simulation

- Delete `user\_simulated\_purchases` entries for current user

- Clear overlay from view

Prompt user with: “Are you sure you want to keep these purchases?”

**🧱 DATABASE TABLES USED**

| **Table** | **Purpose** |
| --- | --- |
| user\_simulated\_purchases | Temporary overlay inputs |
| daily\_cashflow | Permanent daily forecast |
| user\_key\_dates | Events requiring funding |
| user\_purchase\_forecast | Where confirmed purchases go |

**🧠 Developer Insight**

“This allows your user to experiment safely — no side effects unless confirmed. Think of it as a sandbox. You let them run ‘what if’ analysis, but the core data stays clean.”

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