SQL - Computing Net Daily Cashflow

SELECT

due\_date,

SUM(CASE WHEN event\_type = 'income' THEN amount ELSE 0 END) AS total\_income,

SUM(CASE WHEN event\_type = 'expense' THEN amount ELSE 0 END) AS total\_expense,

SUM(CASE WHEN event\_type = 'income' THEN amount ELSE 0 END) -

SUM(CASE WHEN event\_type = 'expense' THEN amount ELSE 0 END) AS net\_cash

FROM user\_forecast\_calendar

WHERE user\_id = 'YOUR\_USER\_ID'

GROUP BY due\_date

ORDER BY due\_date;

Database view:

CREATE VIEW user\_daily\_cash\_summary AS

SELECT

user\_id,

due\_date,

SUM(CASE WHEN event\_type = 'income' THEN amount ELSE 0 END) AS total\_income,

SUM(CASE WHEN event\_type = 'expense' THEN amount ELSE 0 END) AS total\_expense,

SUM(CASE WHEN event\_type = 'income' THEN amount ELSE 0 END) -

SUM(CASE WHEN event\_type = 'expense' THEN amount ELSE 0 END) AS net\_cash

FROM user\_forecast\_calendar

GROUP BY user\_id, due\_date;

Then from Lovalbe you can just:

SELECT \* FROM user\_daily\_cash\_summary WHERE user\_id = '...'

is it best to use a sql query to summarize total net cash forecast each day or to use python

**ChatGPT said:**

Excellent question — both SQL and Python can summarize daily net cash forecasts, but the **best choice depends on where the computation happens** in your architecture and how scalable or interactive you need it to be.

Let’s break it down clearly:

**✅ Summary: When to Use SQL vs Python**

| **Criteria** | **Use SQL** | **Use Python** |
| --- | --- | --- |
| 📊 **Data is already in Supabase** | ✅ Best choice — SQL runs faster at source | ❌ Slower — you’d be pulling and processing |
| 🖥 **You want to compute server-side** | ✅ Lightweight, scalable | ⚠️ Pulls all data client-side, more costly |
| 📅 **Need date-by-date rollups** | ✅ SQL GROUP BY is built for this | ✅ Works fine if data set is small |
| 📱 **App is mobile or web** | ✅ Avoids bloating the app | ❌ Requires frontend to handle heavy logic |
| 🧪 **Need complex modeling (e.g. simulation)** | ❌ SQL struggles | ✅ Python is ideal for logic-heavy tasks |
| ⚙️ **Need to show live charts in dashboard** | ✅ View or materialized query is fast | ⚠️ Must fetch JSON and pre-process |

**✅ Recommended for Your Case: SQL for Daily Net Cash Forecast**

Since your forecasted data is in Supabase (in user\_forecast\_calendar), it’s **much more efficient** to use SQL to compute the total income minus expenses per day.

**🧾 Example SQL Query: Net Cash Per Day**

sql

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SELECT

due\_date,

SUM(CASE WHEN event\_type = 'income' THEN amount ELSE 0 END) AS total\_income,

SUM(CASE WHEN event\_type = 'expense' THEN amount ELSE 0 END) AS total\_expense,

SUM(CASE WHEN event\_type = 'income' THEN amount ELSE 0 END) -

SUM(CASE WHEN event\_type = 'expense' THEN amount ELSE 0 END) AS net\_cash

FROM user\_forecast\_calendar

WHERE user\_id = 'YOUR\_USER\_ID'

GROUP BY due\_date

ORDER BY due\_date;

**🔄 Bonus: Store This as a Supabase View**

You can save this as a **database view** so it’s always accessible without re-querying:

sql

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CREATE VIEW user\_daily\_cash\_summary AS

SELECT

user\_id,

due\_date,

SUM(CASE WHEN event\_type = 'income' THEN amount ELSE 0 END) AS total\_income,

SUM(CASE WHEN event\_type = 'expense' THEN amount ELSE 0 END) AS total\_expense,

SUM(CASE WHEN event\_type = 'income' THEN amount ELSE 0 END) -

SUM(CASE WHEN event\_type = 'expense' THEN amount ELSE 0 END) AS net\_cash

FROM user\_forecast\_calendar

GROUP BY user\_id, due\_date;

Then from Lovable or your app, you can just:

sql

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SELECT \* FROM user\_daily\_cash\_summary WHERE user\_id = '...'