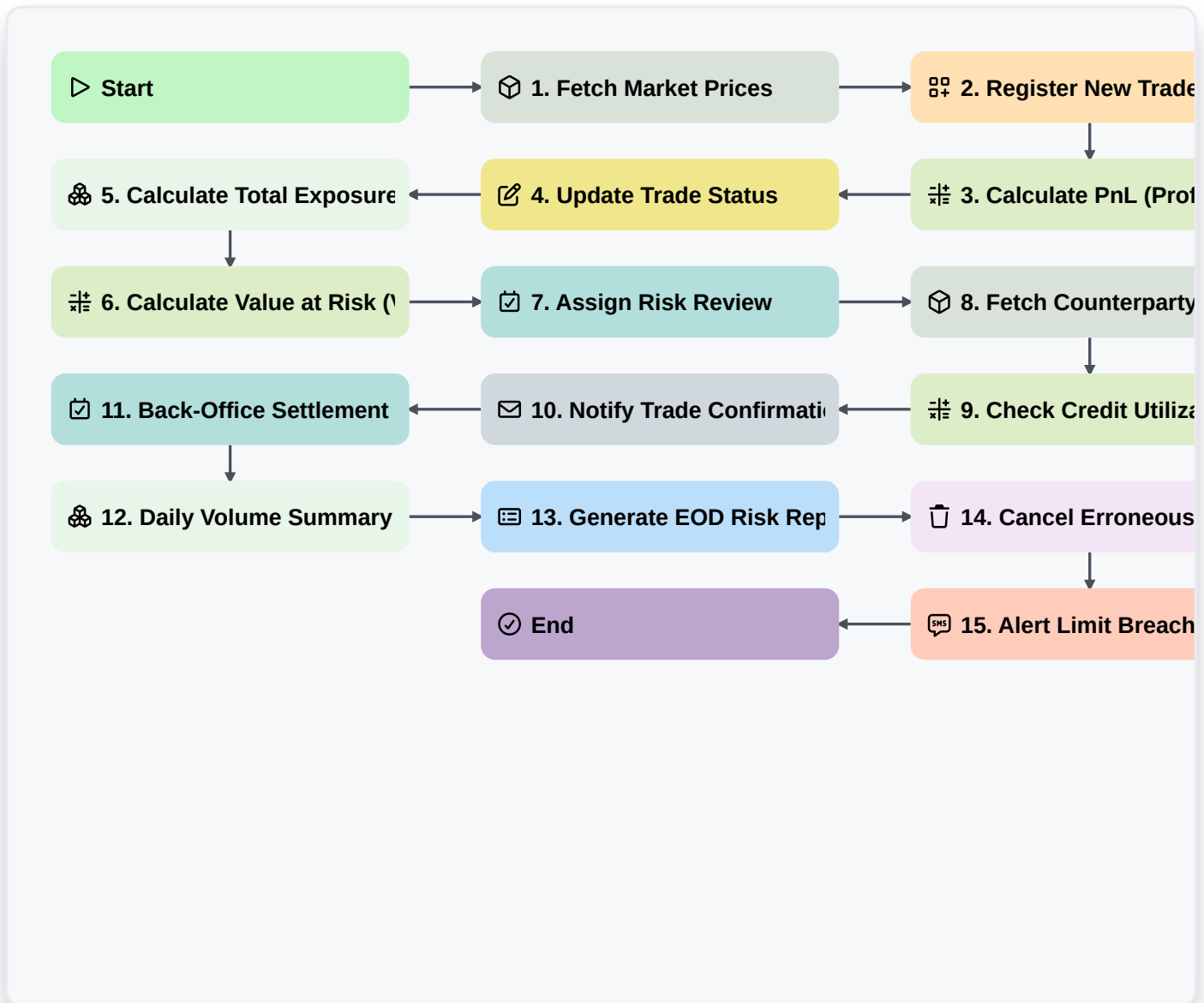


Energy Trading And Risk Management



▷ Start

Start of the Workflow/Process.

📦 1. Fetch Market Prices

Retrieve current market spot prices and forward curves from the Market Data model.

📄 2. Register New Trade

Create a new trade entry in the Trade Ledger model with details like volume, price, and counterparty.

📊 3. Calculate PnL (Profit and Loss)

Calculate the unrealized profit or loss by comparing trade price against current market prices.

✍️ 4. Update Trade Status

Update the status of a trade entry from 'Pending' to 'Confirmed' or 'Settled'.

🔗 5. Calculate Total Exposure

Aggregate all active trade volumes to determine the total net position for a specific commodity.

📈 6. Calculate Value at Risk (VaR)

Execute a complex formula using historical volatility and position size to estimate potential loss.



7. Assign Risk Review

Create a task for the Risk Manager to review trades that exceed predefined VaR limits.

8. Fetch Counterparty Credit Limit

Retrieve the remaining credit capacity for a specific counterparty from the Counterparty model.

9. Check Credit Utilization

Compare current trade value against the retrieved counterparty credit limit.

10. Notify Trade Confirmation

Send an automated email to the counterparty with the trade details for confirmation.

11. Back-Office Settlement Task

Create a task for the settlement team to initiate the movement of funds based on the trade date.

12. Daily Volume Summary

Sum the total energy volume (MWh/Bbl) traded during the current business day.

13. Generate EOD Risk Report

Create a comprehensive End-of-Day report summarizing PnL, Exposure, and Limit Breaches.

14. Cancel Erroneous Trade

Delete a trade entry from the ledger in the event of a manual entry error (requires audit trail).

15. Alert Limit Breach

Send an urgent SMS to the Head of Trading when a real-time risk threshold is breached.

End

End of the Workflow/Process.