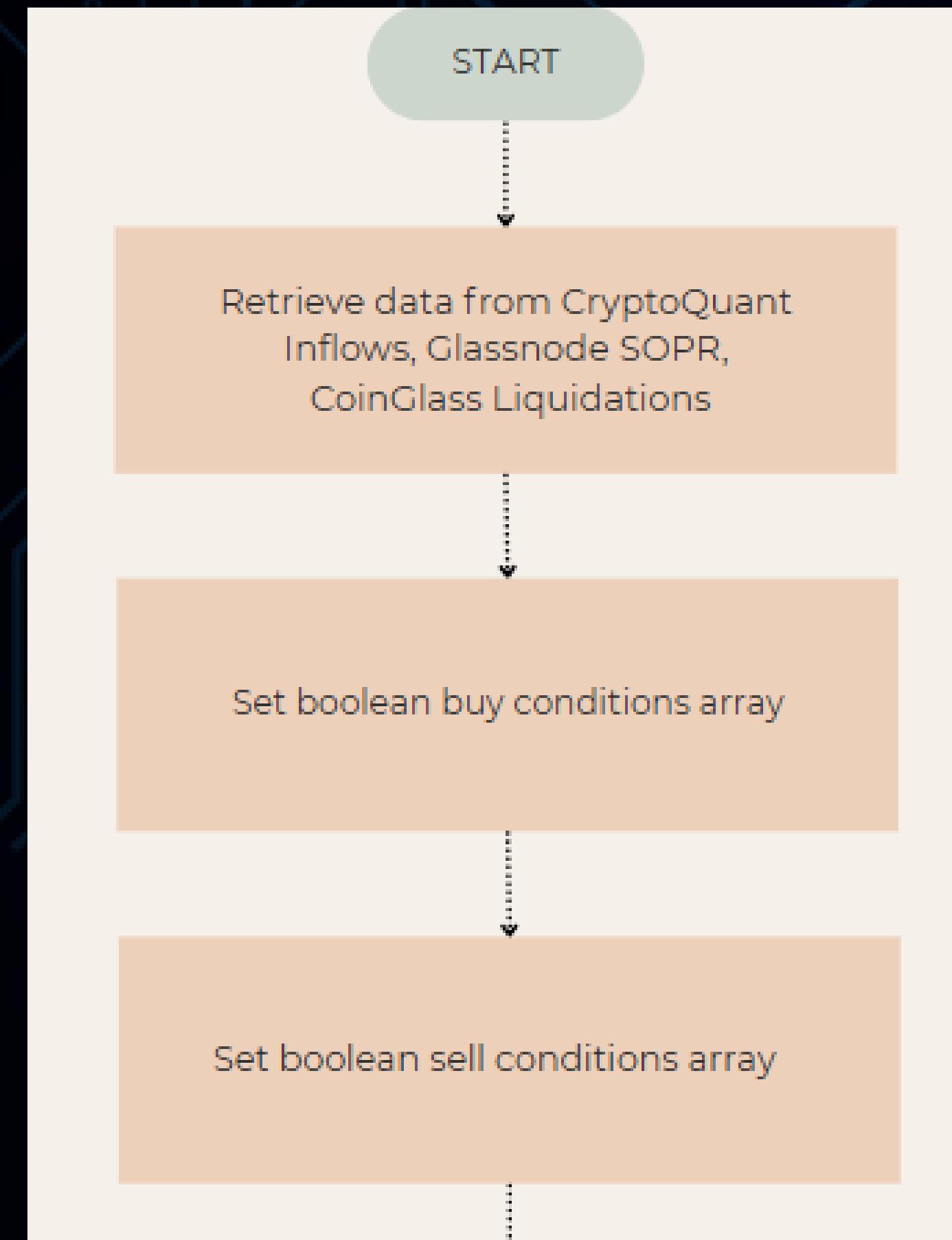


Quantitative Trading (Skibidi Sigmas)

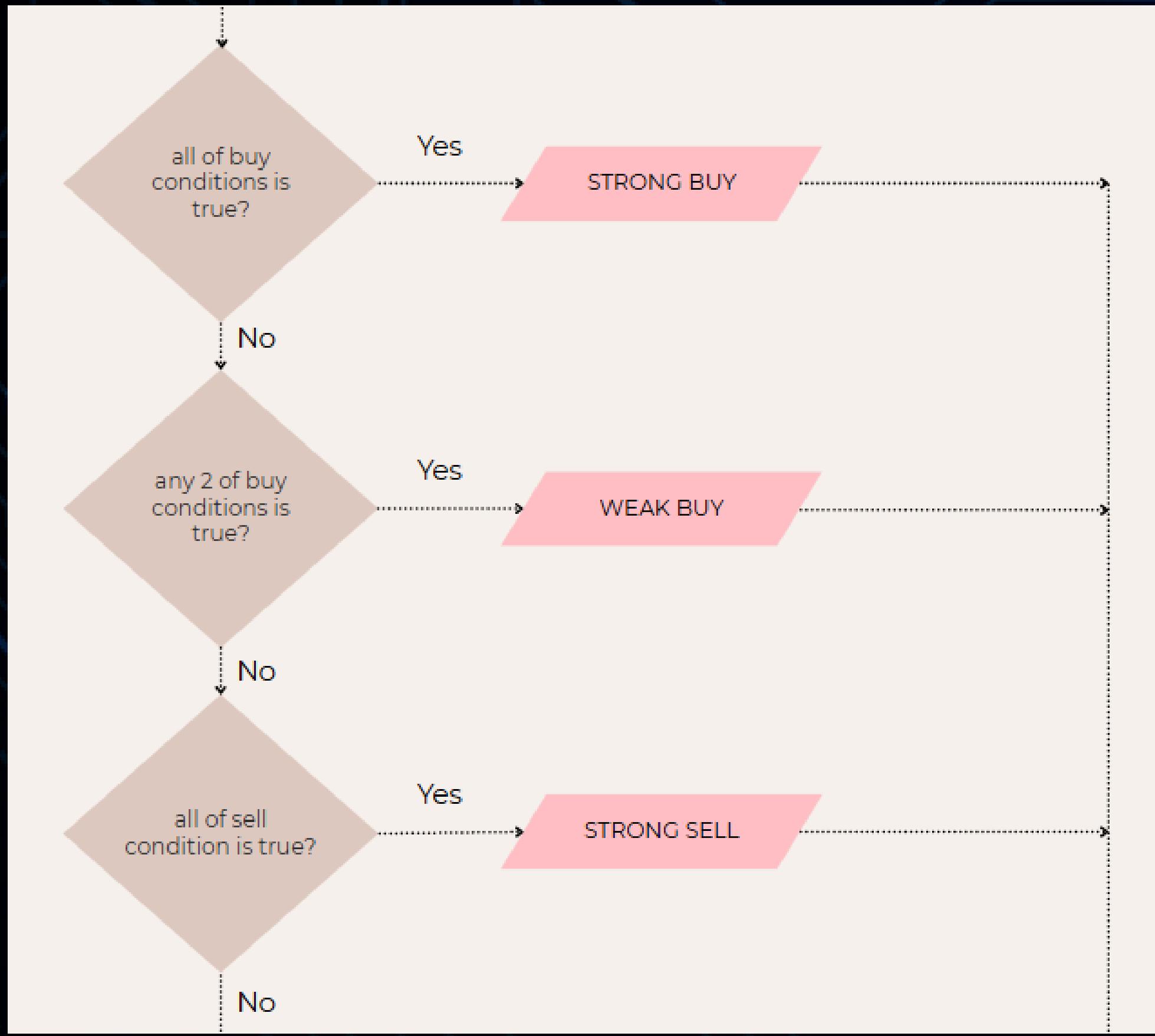
Objective

Developing a Machine Learning (ML) model that analyzes on-chain data from various sources (e.g., CryptoQuant, Glassnode, Coinglass) to generate an alpha trading strategy that maximizes profit.

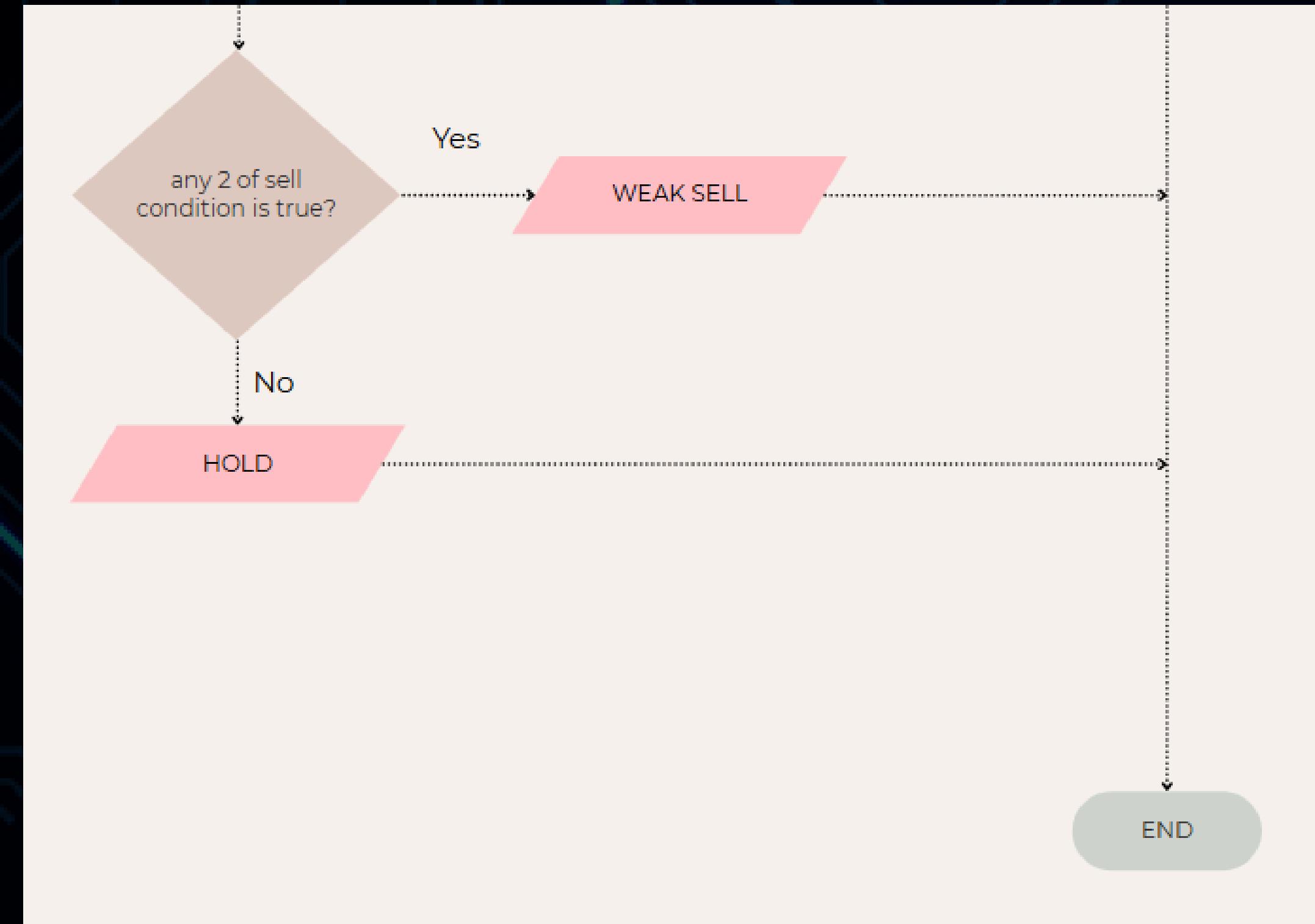
Conceptual Diagram



Conceptual Diagram



Conceptual Diagram



Buy and Sell Conditions (Code)

```
# CryptoQuant - Check if recent inflow is below average
inflow_trend = df_quant['inflow_total'].iloc[-1] < df_quant['inflow_total'].mean()

# Glassnode - Current SOPR value
current_sopr = df_glass['v'].iloc[-1]

# CoinGlass - Recent liquidations (normalized to max)
recent_short = df_coinglass['shortLiquidationUsd'].iloc[-1]
recent_long = df_coinglass['longLiquidationUsd'].iloc[-1]
short_spike = recent_short > df_coinglass['shortLiquidationUsd'].quantile(0.9) # Top 10% = spike
long_spike = recent_long > df_coinglass['longLiquidationUsd'].quantile(0.9)
```

Buy and Sell Conditions (Code)

```
# --- Conditions ---
buy_conditions = [
    current_sopr < 1.0,          # Undervalued
    inflow_trend,               # Inflows decreasing
    short_spike                 # Short squeeze
]

sell_conditions = [
    current_sopr > 1.2,         # Overvalued
    not inflow_trend,           # Inflows increasing
    long_spike                  # Long squeeze
]
```

What CryptoQuant conditions is for

Check if the latest inflow is below average, it means selling pressure is decreasing (good for buying)

What Glassnode conditions is for

Check the latest SOPR value

What Coinglass conditions is for

`recent_short`: USD value of short positions liquidated in the last hour.
`.quantile(0.9)`: The top 10% threshold of all liquidation values in the dataset.

Condition Met (True):

If recent short liquidations are in the top 10%, it means a short squeeze is happening (bullish signal).

What Coinglass conditions is for

`recent_long` → USD value of long positions liquidated in the last hour.
`.quantile(0.9)` → The top 10% threshold of all liquidation values in the dataset.

Condition Met (True):

If recent long liquidations are in the top 10%, it means a long squeeze is happening (bearish signal).