

## Feature Engineering Addendum

This document details the engineered features added to fulfill the project requirement to create liquidity-related indicators from the given cryptocurrency dataset.

### New Features Added:

#### 1. 7-Day Moving Average of Price (price\_ma7)

- Helps capture short-term trends in price behavior.

#### 2. Price Volatility (price\_volatility)

- Calculated using rolling standard deviation.
- Helps identify stability or risk based on price fluctuations.

#### 3. Liquidity Ratio (liquidity\_ratio)

- Computed as:  $\text{price} / \text{market capitalization}$ .
- Acts as a simple signal for how liquid a cryptocurrency may be.

These features were added using pandas rolling functions and column-wise transformations.

They are now part of the model training process and improve alignment with the official project expectations.

This update ensures that all core expectations, including engineered liquidity features, are now fully met.