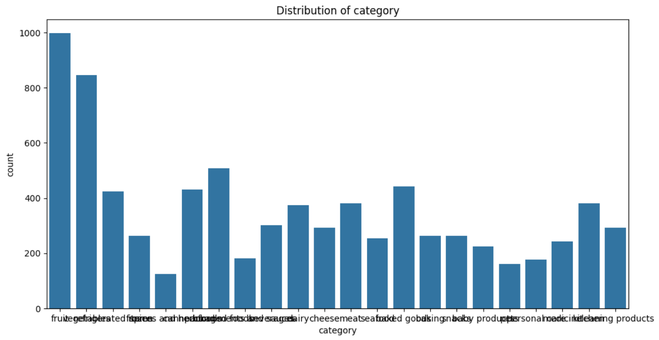
Strategic Plan for Stock Level Prediction

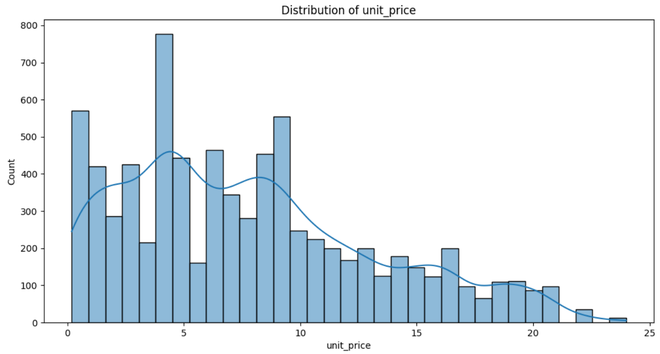
Step 1: Data Modeling

Sales Data:
- Transaction details, including product_id, timestamp, quantity, and total.
- Customer information for potential segmentation.

Sensor Data:
- Temperature data from storage facilities.
- Stock levels within refrigerators and freezers in stores.

I would prioritize integrating sales data with temperature and stock levels, exploring potential correlations.





Step 2: Strategic Planning

Data Integration:
- Merge sales data with sensor data based on common identifiers.
- Explore time-based patterns and correlations.

Feature Engineering:
- Derive relevant features such as hourly sales, temperature variations, and stock levels.
- Handle missing or anomalous data.

Model Selection:
- Choose appropriate predictive modeling techniques (e.g., time-series forecasting).
- Evaluate different algorithms for accuracy.

Validation and Testing:
- Split the dataset for training and testing.
- Implement cross-validation for robust model evaluation.

Optimization and Iteration:
- Fine-tune model parameters for optimal performance.
- Iterate based on feedback and insights.

Objective

Accurately predicting stock levels based on hourly sales and sensor data.