Prompt : **Suppose that you're a Data expert and you have at least 10 years' experience as Data Analyst and Data Scientist. I am gonna send you a Excel file. Review the dataset in it and tell me the analysis and ML algorithms that I can perform. Give me the results as lists.**

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Results : **Analyses You Can Perform:**

1. **Descriptive Statistics**:
   * Summary statistics (mean, median, variance) for prices and volume.
   * Identify trends in prices over time.
2. **Time Series Analysis**:
   * Analyze trends in stock prices over time.
   * Decompose time series into components (trend, seasonality, residuals).
3. **Correlation Analysis**:
   * Examine relationships between prices (Close, High, Low, Open) and Volume.
4. **Moving Averages and Technical Indicators**:
   * Calculate moving averages (e.g., 10-day, 50-day, 200-day).
   * Compute RSI, MACD, Bollinger Bands, etc.
5. **Volatility Analysis**:
   * Calculate daily price changes and measure volatility.

**Machine Learning Algorithms:**

1. **Predictive Modeling**:
   * Regression models (Linear Regression, Decision Trees, Random Forest, Gradient Boosting) to predict future prices.
   * Time-series forecasting models (ARIMA, SARIMA, Prophet, LSTM).
2. **Clustering**:
   * Group days with similar price movements using K-Means or Hierarchical Clustering.
3. **Classification**:
   * Predict whether a stock will close higher or lower (binary classification using Logistic Regression, SVM, or Neural Networks).
4. **Anomaly Detection**:
   * Identify unusual price or volume changes using Isolation Forest or Autoencoders.
5. **Dimensionality Reduction**:
   * Apply PCA to visualize patterns in high-dimensional technical indicators.