**1. Visualizing Sales Trends**

* **Line Charts**:
  + Plot **Gross Sales**, **Net Sales**, and **Returns** over time (daily, monthly, or weekly).
  + Overlay trendlines or moving averages to smooth fluctuations.
* **Year-on-Year Comparison**:
  + If you have multiple years, compare sales trends across years to observe recurring patterns.

**2. Analyzing Seasonal Patterns**

* **Monthly Seasonality**:
  + Aggregate sales by month across all years to identify high and low seasons.
  + Example: January tends to be slow, while November has peaks (e.g., Black Friday).
* **Day-of-Week Analysis**:
  + Summarize sales by weekday to identify the busiest and slowest days.
* **Hour-of-Day Trends**:
  + If your data includes timestamps, analyze hourly sales to spot peak purchasing times.

**3. Returns Analysis**

* Calculate the **return rate** (Returns / Gross Sales) over time.
* Determine whether returns are concentrated in certain periods (e.g., post-holiday season).

**4. Anomaly Detection**

* Identify any unusually high or low sales days.
  + Plot moving averages with confidence intervals to spot deviations.
* Investigate possible reasons (e.g., promotions, stockouts, external events).

**5. Feature Engineering for Seasonality**

Add the following columns to your dataset for deeper insights:

* **Month**: Categorize each sale by month.
* **Week Number**: Group data by week of the year.
* **Day of Week**: Identify sales patterns by day.
* **Season**: Add a categorical variable (e.g., Spring, Summer, Fall, Winter).

**6. Correlation with External Factors**

* Check for correlations with external data (if available), such as:
  + Holidays or major events.
  + Marketing campaigns or discounts.
  + Weather conditions (if location-based data is available).

**7. Statistical Testing**

* Conduct **Seasonal Decomposition**:
  + Break down sales into **trend**, **seasonal**, and **residual** components.
* Perform **t-tests** or **ANOVA**:
  + Test if sales significantly differ by month, weekday, or other time periods.

**8. Forecasting**

* If you identify strong seasonal patterns, you can apply time series models like:
  + ARIMA (Autoregressive Integrated Moving Average).
  + Prophet (for seasonality-aware forecasting).
  + Exponential smoothing (Holt-Winters).

**Example Questions to Answer**

* Are there any months or days consistently outperforming others?
* Is the return rate higher during certain periods?
* How do sales change before, during, or after holidays?
* Can trends predict sales drops or spikes?

Would you like guidance on implementing any of these steps in Python, Tableau, or Excel?