Demand Planner Task

Objective: Use historical sales data to create a demand forecast and replenishment plan for September.

Instructions:

1. **Data Provided**:
   - A sheet named "Historical Sales Data" will be provided with weekly sales data for 150 products over the past 8 months. The columns include:
     - Product ID
     - Product Name
     - Number of Orders
     - Quantity Ordered
     - Untaxed Total
     - **Quantity On Hand** (current stock level)
   - **Lead Time**: Each product has a lead time of 5 days.

2. **Task**:
   1. **Demand Forecast**:
      - Use the historical sales data to forecast demand for each product for the next month.
      - Choose and apply the best forecasting methods from your point of view, providing a brief justification for your chosen approach.
      - Create a new sheet called "Demand Forecast" that shows the forecasted demand for each product.

   2. **Replenishment Plan**:
      - Based on your forecast, determine the safety stock and Re-order Points (ROP) for each product.
      - Classify products based on their replenishment type:
        - **MTS (Make-to-Stock)**
        - **MTO (Make-to-Order)**
      - Develop a replenishment plan for September, considering the current **Quantity On Hand**.
      - Use a new sheet called "Replenishment Plan" to display:
        - Product ID
        - Product Name
        - Forecasted Weekly Demand
        - Quantity On Hand
        - Re-order Point
        - Safety Stock Level
        - Recommended Replenishment Quantity (if stock is projected to fall below the re-order point)
        - Replenishment Order Date