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| **Instructions: The following questions are broad questions to gauge your analytical skills.  Please include any assumptions in your response so we understand your thought process.  For each question, we are looking for practical responses that demonstrate your ability to analyze the provided data using analytics tools. Please explain your approach, techniques, and tools you would use, and provide specific examples or steps to showcase your analytical and technical skills.** |
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| **The provided dataset includes daily sales data for a 4 year period (1395-1398) for 2 categories, “book” and “stationary”.** |
| 1) Evaluate the performance and trends of each category by exploring the dataset. Do you find any specific pattern or anomaly? Are there any notable changes or improvements over the 4-year period? |
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| 2) Apply statistical techniques or models to identify and analyze seasonality patterns in the data. Explain if there are any significant seasonal effects for each category. |
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| 3) Use Visualization techniques to describe sales trends for these 2 categories over the 4-year period. Clearly indicate the insights derived from each chart or graph. |
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| 4) Based on the provided historical data, utilize forecasting techniques to predict monthly sales for "stationary" in the year 1399. In your response, clearly state your assumptions, outline the specific factors you considered, and elaborate on the forecasting methods or models you employed. |
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| 5) Continuing from question 4, considering the "stationary" category, break down your predicted sales for the first 3 months of the year into daily sales figures for each day of the month. Explain factors or methods you consider in making this breakdown. |