Simple data value sales visualisation

Overview: This report provides an analysis of sales data from January 1st to January 20th, 2024. The data includes product-wise revenue and units sold, offering insights into daily revenue trends and overall product performance.

Introduction:

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Methodology:-

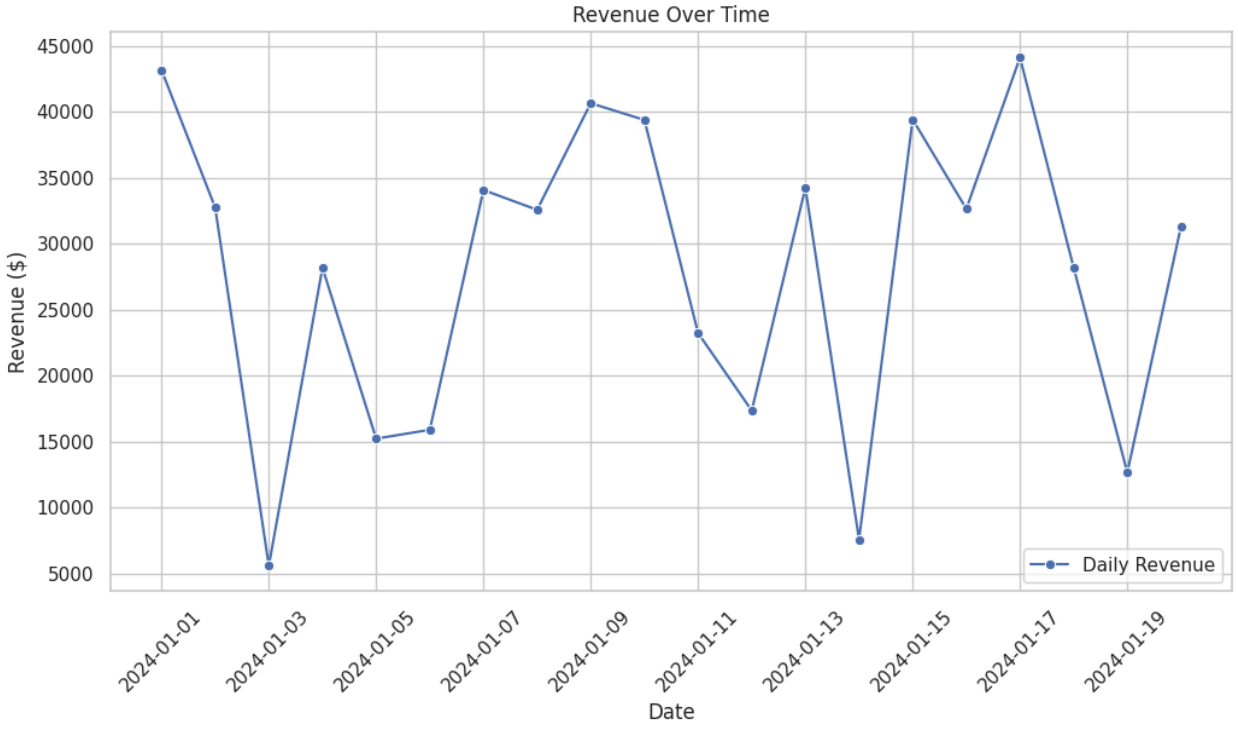
- **Data Collection**: Sales data was compiled for the first 20 days of January 2024, including Date, Product, Units Sold, and Revenue.
- **Data Processing**: The dataset was converted into a structured format using Pandas and date values were formatted appropriately.
- **Visualization Tools**: Seaborn and Matplotlib were used to generate insights through line plots and bar charts.
- **Analysis Approach**: Revenue trends over time and product-wise revenue distribution were analyzed to identify key sales patterns.

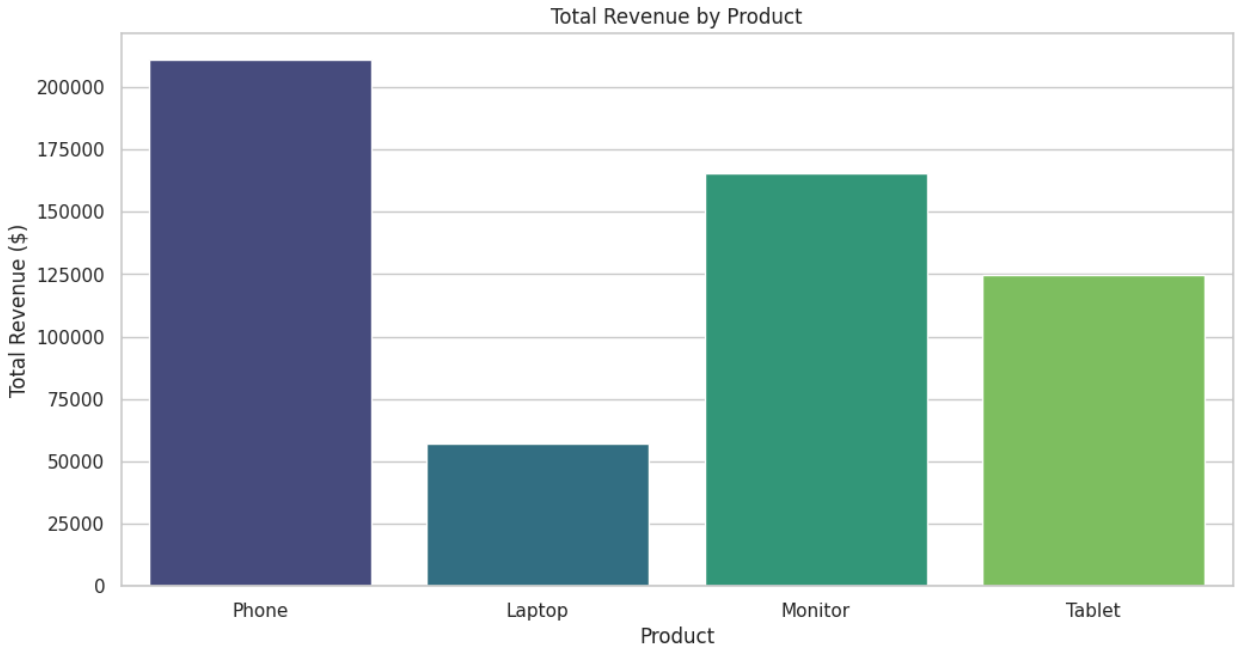
Code:-

```
import pandas as pd
import matplotlib.pyplot as plt
import seaborn as sns
from datetime import datetime

# Data
data = {
    "Date": ["01-01-2024", "02-01-2024", "03-01-2024", "04-01-2024",
"05-01-2024", "06-01-2024", "07-01-2024", "08-01-2024", "09-01-2024",
"10-01-2024", "11-01-2024", "12-01-2024", "13-01-2024", "14-01-2024",
"15-01-2024", "16-01-2024", "17-01-2024", "18-01-2024", "19-01-2024",
"20-01-2024"],
    "Product": ["Phone", "Phone", "Laptop", "Monitor", "Monitor",
"Laptop", "Phone", "Tablet", "Monitor", "Phone", "Laptop", "Phone",
"Monitor", "Monitor", "Monitor", "Tablet", "Phone", "Tablet", "Laptop",
"Tablet"],
    "UnitsSold": [26, 85, 11, 61, 64, 18, 92, 84, 57, 74, 79, 12, 51, 73,
72, 69, 38, 44, 86, 69],
    "Revenue": [43188, 32755, 5579, 28188, 15223, 15893, 34084, 32583,
40668, 39400, 23234, 17356, 34242, 7582, 39434, 32656, 44135, 28193,
12652, 31307]
}

# Convert to DataFrame
df = pd.DataFrame(data)
df["Date"] = pd.to_datetime(df["Date"], format="%d-%m-%Y")

# Set seaborn style
sns.set(style="whitegrid")

# Plot revenue over time
plt.figure(figsize=(12, 6))
sns.lineplot(x="Date", y="Revenue", data=df, marker="o", label="Daily
Revenue", color='b')
plt.xticks(rotation=45)
plt.xlabel("Date")
plt.ylabel("Revenue ($)")
```

```
plt.title("Revenue Over Time")
plt.legend()
plt.show()

# Plot revenue by product
plt.figure(figsize=(12, 6))
bp = sns.barplot(x="Product", y="Revenue", data=df, estimator=sum,
errorbar=None, hue="Product", dodge=False, palette="viridis")
plt.xlabel("Product")
plt.ylabel("Total Revenue ($)")
plt.title("Total Revenue by Product")
if bp.get_legend() is not None:
    plt.legend().remove()
plt.show()
```

Outputs:-


Revenue Over Time
Revenue ($)
45000
40000
35000
30000
25000
20000
15000
10000
5000
Daily Revenue
2024-01-01
2024-01-03
2024-01-05
2024-01-07
2024-01-09
2024-01-11
2024-01-13
2024-01-15
2024-01-17
2024-01-19
Date


Total Revenue by Product
Total Revenue ($)
200000
175000
150000
125000
100000
75000
50000
25000
0
Phone
Laptop
Monitor
Tablet
Product