barchart

May 8, 2025

```python
[2]: import pandas as pd
     import matplotlib.pyplot as plt
     import numpy as np
```

```python
[4]: df = pd.read_csv("sales_data_sample.csv",encoding="latin1")
```

```python
[6]: df.head ()
```

```
[6]:    ORDERNUMBER  QUANTITYORDERED  PRICEEACH  ORDERLINENUMBER    SALES  \
     0        10107               30      95.70                2  2871.00
     1        10121               34      81.35                5  2765.90
     2        10134               41      94.74                2  3884.34
     3        10145               45      83.26                6  3746.70
     4        10159               49     100.00               14  5205.27

            ORDERDATE   STATUS  QTR_ID  MONTH_ID  YEAR_ID  …  \
     0   2/24/2003 0:00  Shipped       1         2     2003  …
     1    5/7/2003 0:00  Shipped       2         5     2003  …
     2    7/1/2003 0:00  Shipped       3         7     2003  …
     3   8/25/2003 0:00  Shipped       3         8     2003  …
     4  10/10/2003 0:00  Shipped       4        10     2003  …

                      ADDRESSLINE1  ADDRESSLINE2           CITY STATE  \
     0         897 Long Airport Avenue          NaN            NYC    NY
     1              59 rue de l'Abbaye          NaN          Reims   NaN
     2   27 rue du Colonel Pierre Avia          NaN          Paris   NaN
     3             78934 Hillside Dr.          NaN       Pasadena    CA
     4               7734 Strong St.          NaN  San Francisco    CA

       POSTALCODE COUNTRY TERRITORY CONTACTLASTNAME CONTACTFIRSTNAME DEALSIZE
     0      10022     USA       NaN              Yu            Kwai    Small
     1      51100  France      EMEA         Henriot            Paul    Small
     2      75508  France      EMEA        Da Cunha          Daniel   Medium
     3      90003     USA       NaN           Young           Julie   Medium
     4        NaN     USA       NaN           Brown           Julie   Medium

     [5 rows x 25 columns]
```

```
[7]: df.columns
```

```
[7]: Index(['ORDERNUMBER', 'QUANTITYORDERED', 'PRICEEACH', 'ORDERLINENUMBER',
            'SALES', 'ORDERDATE', 'STATUS', 'QTR_ID', 'MONTH_ID', 'YEAR_ID',
            'PRODUCTLINE', 'MSRP', 'PRODUCTCODE', 'CUSTOMERNAME', 'PHONE',
            'ADDRESSLINE1', 'ADDRESSLINE2', 'CITY', 'STATE', 'POSTALCODE',
            'COUNTRY', 'TERRITORY', 'CONTACTLASTNAME', 'CONTACTFIRSTNAME',
            'DEALSIZE'],
           dtype='object')
```
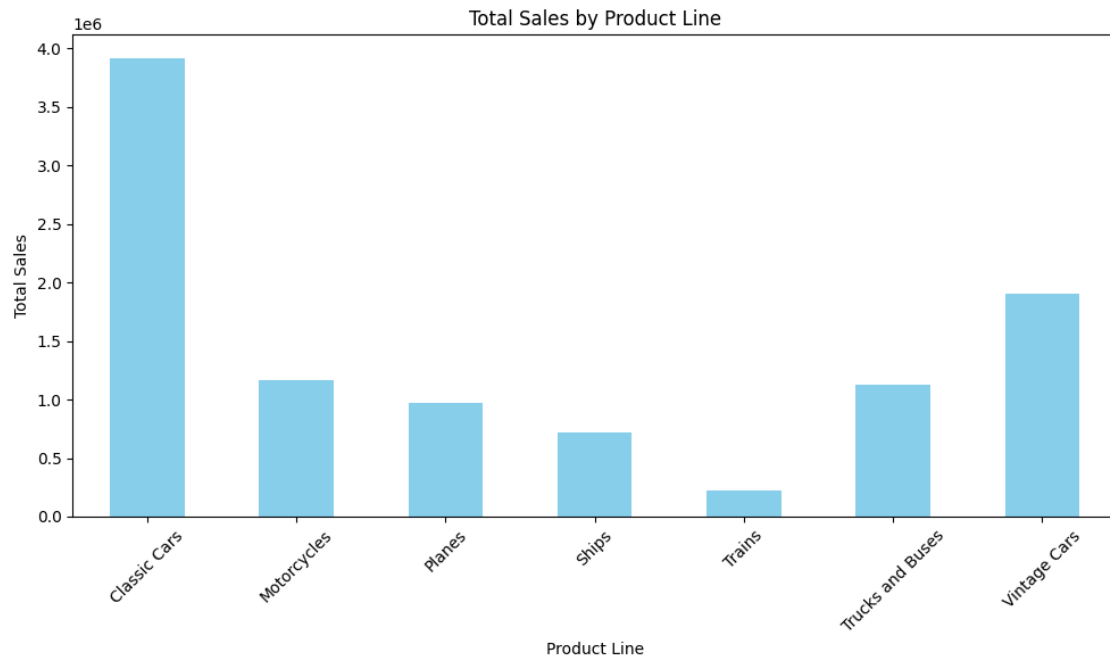
```
[ ]:
```

```
[ ]:
```

```
[8]: sales_by_prouct=df.groupby("PRODUCTLINE")["SALES"].sum()
```

```
[9]: sales_by_prouct
```

```
[9]: PRODUCTLINE
     Classic Cars       3919615.66
     Motorcycles        1166388.34
     Planes              975003.57
     Ships               714437.13
     Trains              226243.47
     Trucks and Buses   1127789.84
     Vintage Cars       1903150.84
     Name: SALES, dtype: float64
```

```
[11]: sales_by_prouct.plot(kind='bar', figsize=(10, 6), color='skyblue')

      plt.title('Total Sales by Product Line')
      plt.xlabel('Product Line')
      plt.ylabel('Total Sales')
      plt.xticks(rotation=45)
      plt.tight_layout()
      plt.show()
```

Total Sales by Product Line

[ ]: