```
! pip install pandas matplotlib seaborn

import pandas as pd
import matplotlib.pyplot as plt
import seaborn as sns

df = pd.read_csv('Amazon Sales Data.csv')
df.head(10)
```

```
                               Region                 Country
Item Type  \
0              Australia and Oceania                  Tuvalu
Baby Food
1  Central America and the Caribbean                 Grenada
Cereal
2                              Europe                  Russia  Office
Supplies
3                  Sub-Saharan Africa  Sao Tome and Principe
Fruits
4                  Sub-Saharan Africa                 Rwanda  Office
Supplies
5              Australia and Oceania        Solomon Islands
Baby Food
6                  Sub-Saharan Africa                 Angola
Household
7                  Sub-Saharan Africa           Burkina Faso
Vegetables
8                  Sub-Saharan Africa  Republic of the Congo
Personal Care
9                  Sub-Saharan Africa                Senegal
Cereal

  Sales Channel Order Priority Order Date   Order ID  Ship Date  Units
Sold  \
0       Offline              H  5/28/2010  669165933  6/27/2010
9925
1        Online              C  8/22/2012  963881480  9/15/2012
2804
2       Offline              L   5/2/2014  341417157   5/8/2014
1779
3        Online              C  6/20/2014  514321792   7/5/2014
8102
4       Offline              L   2/1/2013  115456712   2/6/2013
5062
5        Online              C   2/4/2015  547995746  2/21/2015
2974
6       Offline              M  4/23/2011  135425221  4/27/2011
4187
7        Online              H  7/17/2012  871543967  7/27/2012
8082
```

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8       Offline               M  7/14/2015  770463311  8/25/2015
6070
9        Online               H  4/18/2014  616607081  5/30/2014
6593
```

	Unit Price	Unit Cost	Total Revenue	Total Cost	Total Profit
0	255.28	159.42	2533654.00	1582243.50	951410.50
1	205.70	117.11	576782.80	328376.44	248406.36
2	651.21	524.96	1158502.59	933903.84	224598.75
3	9.33	6.92	75591.66	56065.84	19525.82
4	651.21	524.96	3296425.02	2657347.52	639077.50
5	255.28	159.42	759202.72	474115.08	285087.64
6	668.27	502.54	2798046.49	2104134.98	693911.51
7	154.06	90.93	1245112.92	734896.26	510216.66
8	81.73	56.67	496101.10	343986.90	152114.20
9	205.70	117.11	1356180.10	772106.23	584073.87

```
df['Order Date'] = pd.to_datetime(df['Order Date'])

df['Year'] = df['Order Date'].dt.year
df['Month'] = df['Order Date'].dt.month

df['Year-Month'] = df['Order Date'].dt.to_period('M')

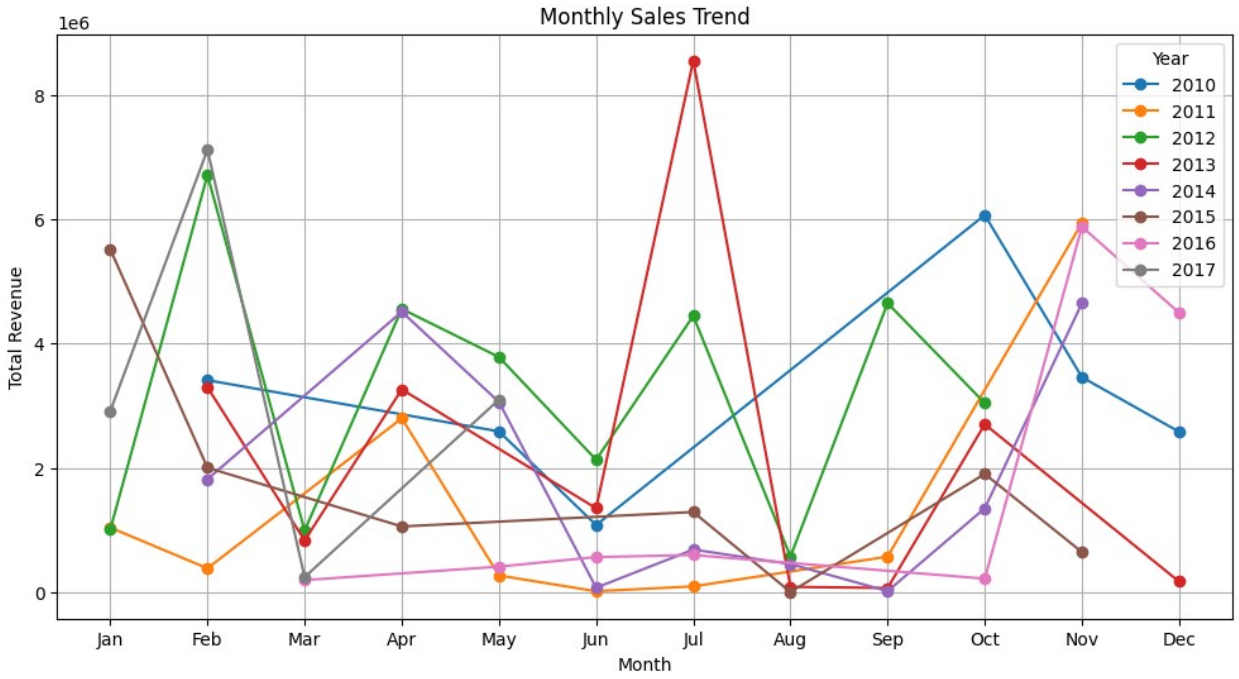
monthly_sales = df.groupby(['Year', 'Month']).agg({
    'Total Revenue': 'sum',
    'Total Cost': 'sum',
    'Total Profit': 'sum'
}).reset_index()
monthly_sales

yearly_sales = df.groupby('Year').agg({
    'Total Revenue': 'sum',
    'Total Cost': 'sum',
    'Total Profit': 'sum'
}).reset_index()
yearly_sales

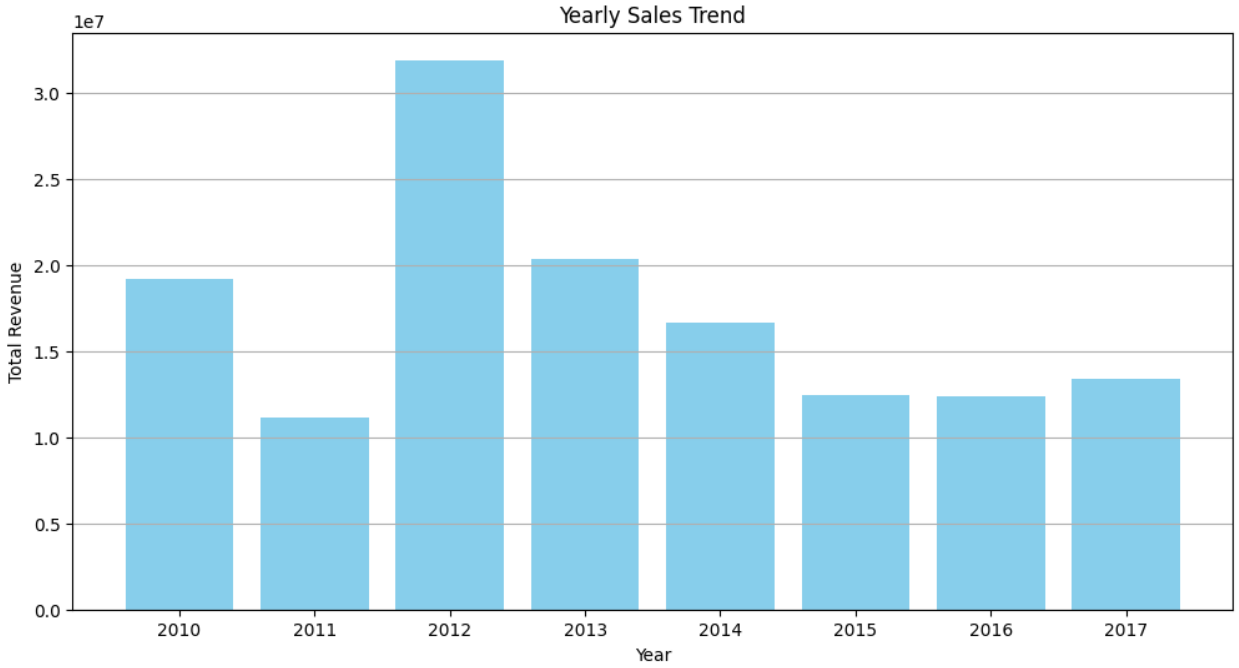
monthly_sales.to_csv('monthly_sales.csv', index=False)
yearly_sales.to_csv('yearly_sales.csv', index=False)

plt.figure(figsize=(12, 6))
for year in monthly_sales['Year'].unique():
 plt.plot(monthly_sales[monthly_sales['Year'] == year]['Month'],
monthly_sales[monthly_sales['Year'] == year]['Total Revenue'],
marker='o', label=year)
 plt.title('Monthly Sales Trend')
plt.xlabel('Month')
plt.ylabel('Total Revenue')
plt.xticks(range(1, 13), ['Jan', 'Feb', 'Mar', 'Apr', 'May', 'Jun',
'Jul', 'Aug', 'Sep', 'Oct', 'Nov', 'Dec'])
```

```
plt.legend(title='Year')
plt.grid()
plt.show()
```




```
# Yearly Sales Trend
plt.figure(figsize=(12, 6))
plt.bar(yearly_sales['Year'], yearly_sales['Total Revenue'],
color='skyblue')
plt.title('Yearly Sales Trend')
plt.xlabel('Year')
plt.ylabel('Total Revenue')
plt.xticks(yearly_sales['Year'])
plt.grid(axis='y')
plt.show()
```


Yearly Sales Trend
1e7
3.0
2.5
2.0
1.5
1.0
0.5
0.0
Total Revenue
2010
2011
2012
2013
2014
2015
2016
2017
Year