

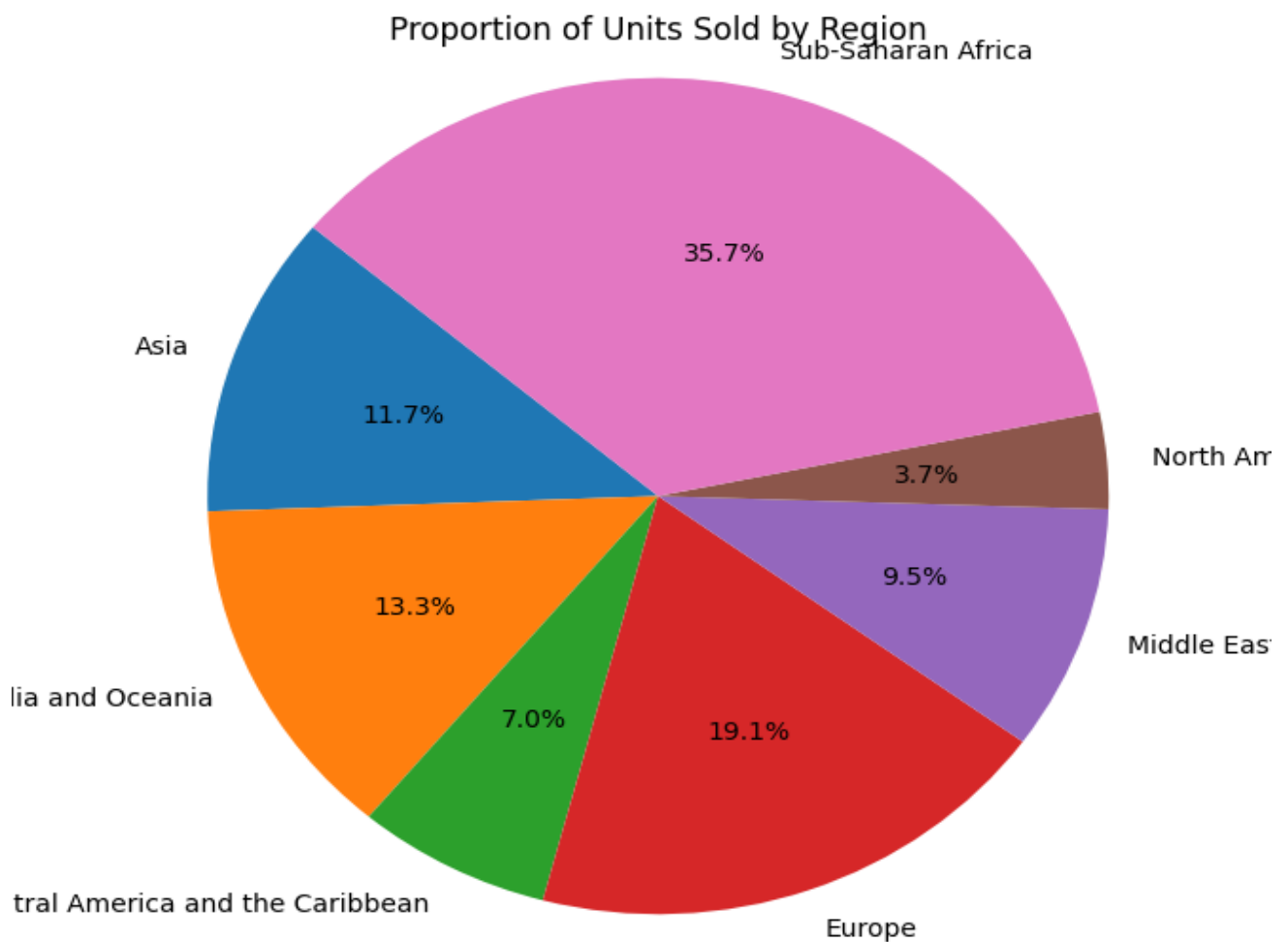
Python program to find sum of units sold by region

```
import pandas as pd
import matplotlib.pyplot as plt

# Read the sales data from CSV file
df = pd.read_csv('Amazon Sales data.csv')

# Group by region and sum the units sold
region_sales = df.groupby('Region')['Units Sold'].sum()

# Plotting the pie chart
plt.figure(figsize=(8, 8))
plt.pie(region_sales, labels=region_sales.index, autopct='%1.1f%%',
        startangle=140)
plt.title('Proportion of Units Sold by Region')
plt.axis('equal') # Equal aspect ratio ensures that pie is drawn as a circle.
plt.show()
```



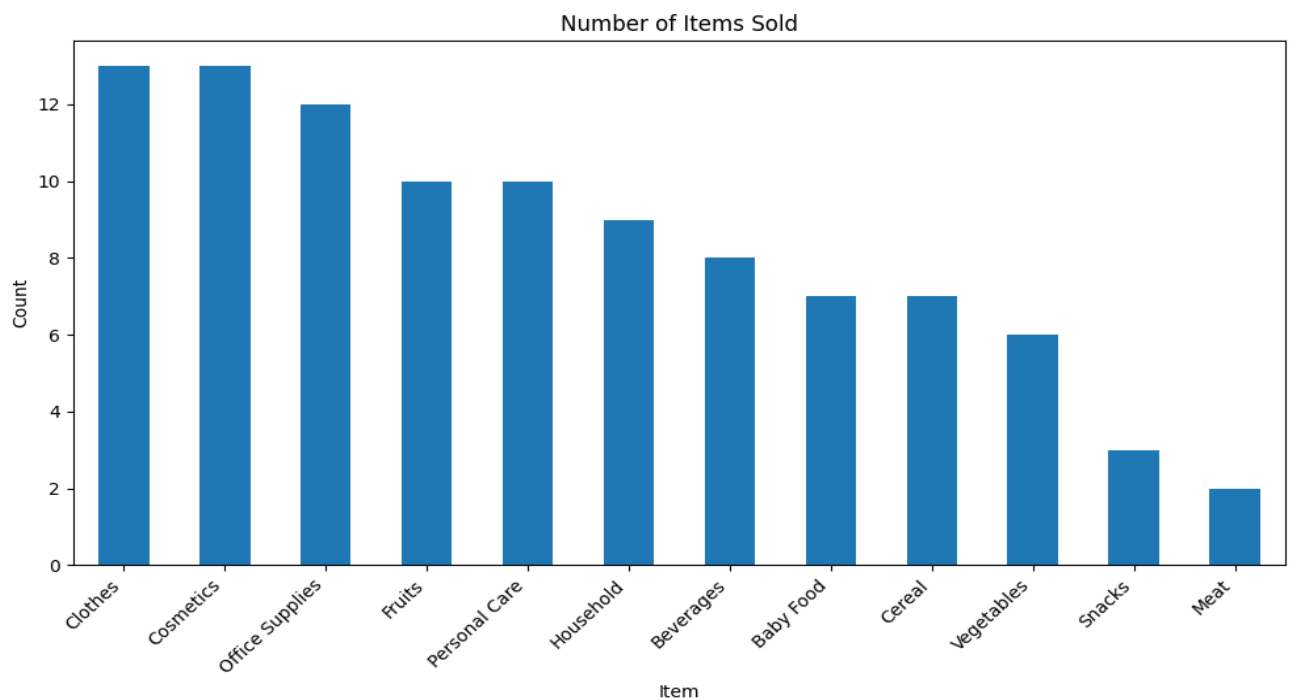
Python program to get number of items and its count

```
import pandas as pd
import matplotlib.pyplot as plt

# Read the sales data from CSV file
df = pd.read_csv('Amazon Sales data.csv')

# Get the count of each item
item_counts = df['Item Type'].value_counts()

# Plotting the bar graph
plt.figure(figsize=(10, 6))
item_counts.plot(kind='bar')
plt.title('Number of Items Sold')
plt.xlabel('Item')
plt.ylabel('Count')
plt.xticks(rotation=45, ha='right')
plt.tight_layout()
plt.show()
```



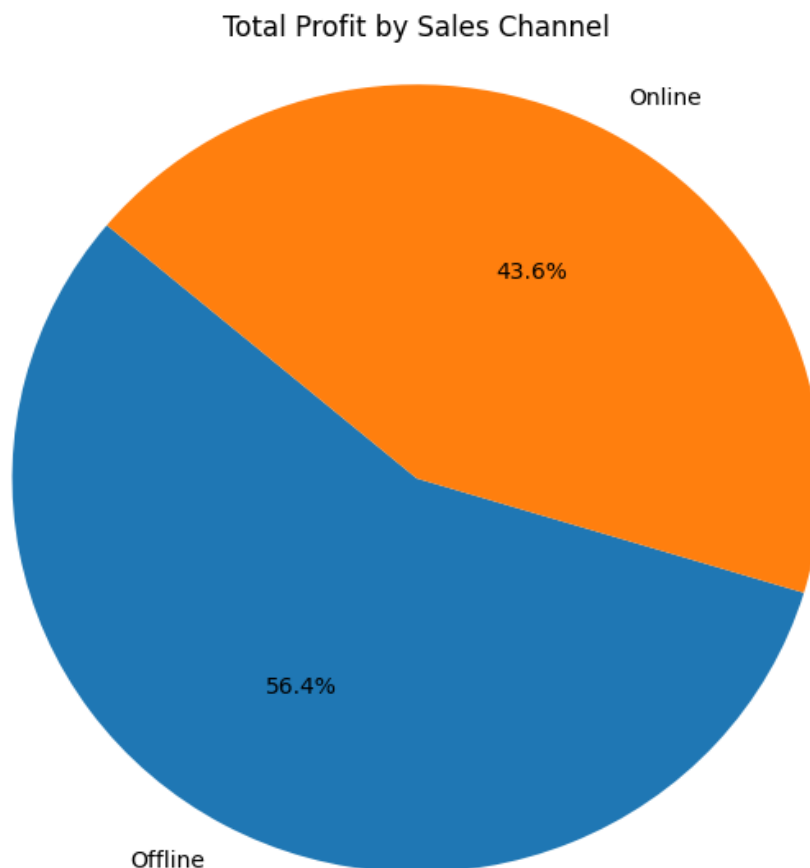
Python program to find sum of total profit by sales channel

```
import pandas as pd
import matplotlib.pyplot as plt

# Read the sales data from CSV file
df = pd.read_csv('Amazon Sales data.csv')

# Group by sales channel and calculate the sum of total profit
profit_by_channel = df.groupby('Sales Channel')['Total Profit'].sum()

# Plotting the pie chart
plt.figure(figsize=(8, 8))
plt.pie(profit_by_channel, labels=profit_by_channel.index,
        autopct='%1.1f%%', startangle=140)
plt.title('Total Profit by Sales Channel')
plt.axis('equal') # Equal aspect ratio ensures that pie is drawn as a circle.
plt.show()
```



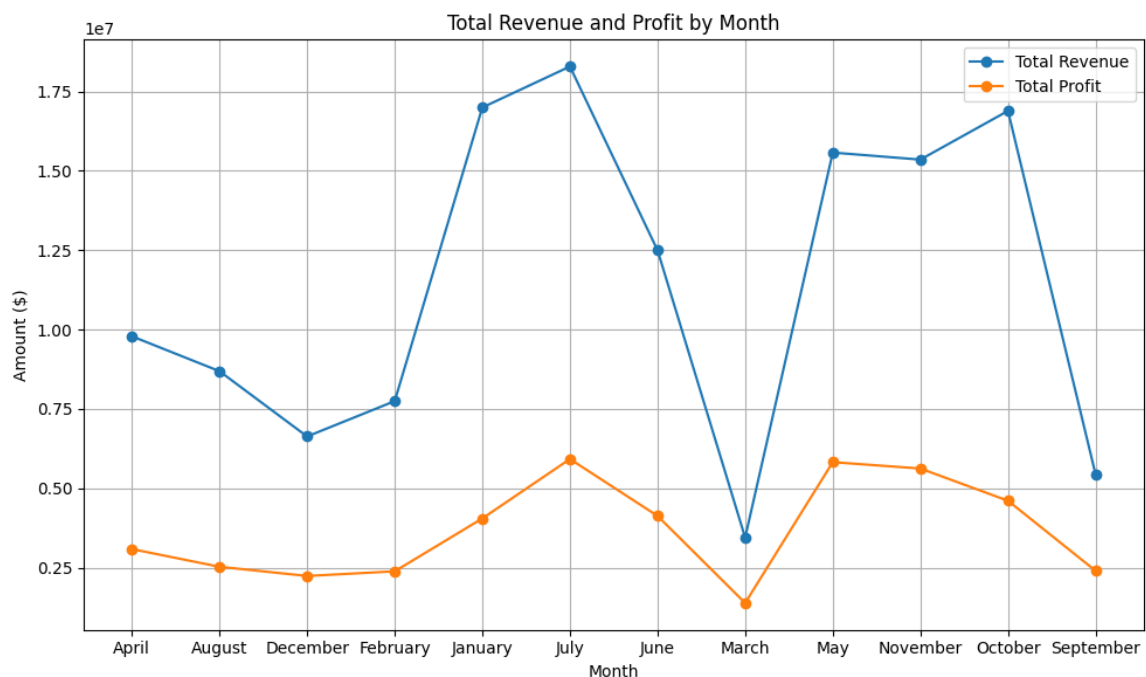
Python program to find sum of total revenue and sum of total profit by month

```
import pandas as pd
import matplotlib.pyplot as plt

# Read the sales data from CSV file
df = pd.read_csv('Amazon Sales data.csv')

# Group by month and calculate the sum of total revenue and total profit
monthly_data = df.groupby('Month').agg({'Total Revenue': 'sum', 'Total Profit': 'sum'}).reset_index()

# Plotting the line graph
plt.figure(figsize=(10, 6))
plt.plot(monthly_data['Month'], monthly_data['Total Revenue'], marker='o', label='Total Revenue')
plt.plot(monthly_data['Month'], monthly_data['Total Profit'], marker='o', label='Total Profit')
plt.title('Total Revenue and Profit by Month')
plt.xlabel('Month')
plt.ylabel('Amount ($)')
plt.xticks(monthly_data['Month'])
plt.legend()
plt.grid(True)
plt.tight_layout()
plt.show()
```



Python program to find sum of total revenue and sum of total profit by year

```
import pandas as pd
import matplotlib.pyplot as plt

# Read the sales data from CSV file
df = pd.read_csv('Amazon Sales data.csv')

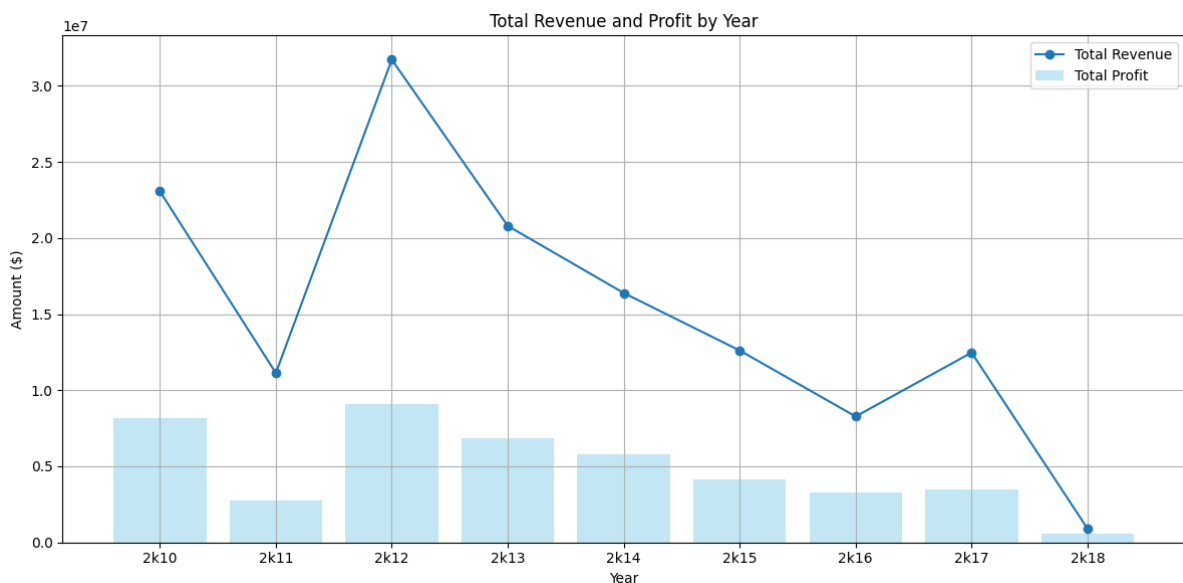
# Group by year and calculate the sum of total revenue and total profit
yearly_data = df.groupby('Year').agg({'Total Revenue': 'sum', 'Total Profit': 'sum'}).reset_index()

# Plotting the line graph
plt.figure(figsize=(12, 6))

# Line graph for total revenue
plt.plot(yearly_data['Year'], yearly_data['Total Revenue'], marker='o', label='Total Revenue')

# Bar graph for total profit
plt.bar(yearly_data['Year'], yearly_data['Total Profit'], color='skyblue', alpha=0.5, label='Total Profit')

plt.title('Total Revenue and Profit by Year')
plt.xlabel('Year')
plt.ylabel('Amount ($)')
plt.xticks(yearly_data['Year'])
plt.legend()
plt.grid(True)
plt.tight_layout()
plt.show()
```



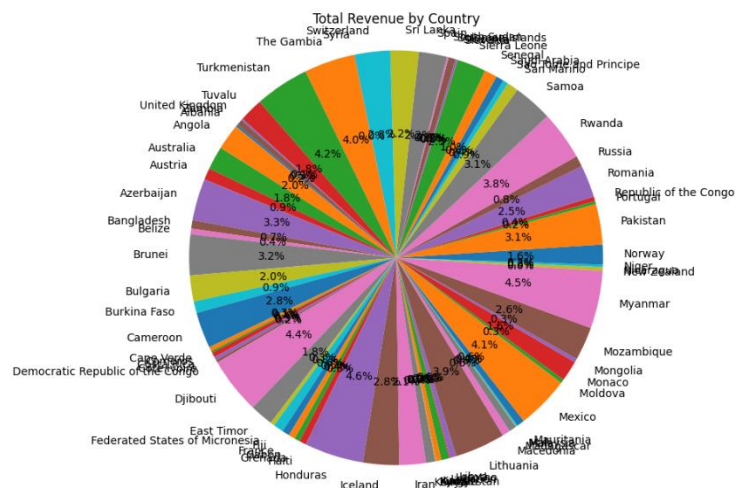
Python program to find total revenue by country

```
import pandas as pd
import matplotlib.pyplot as plt

# Read the sales data from CSV file
df = pd.read_csv('Amazon Sales data.csv')

# Group by country and calculate the sum of total revenue
revenue_by_country = df.groupby('Country')['Total Revenue'].sum()

# Plotting the pie chart
plt.figure(figsize=(10, 8))
plt.pie(revenue_by_country, labels=revenue_by_country.index,
        autopct='%1.1f%%', startangle=140)
plt.title('Total Revenue by Country')
plt.axis('equal') # Equal aspect ratio ensures that pie is drawn as a circle.
plt.show()
```



Python program to find sum of units sold by region

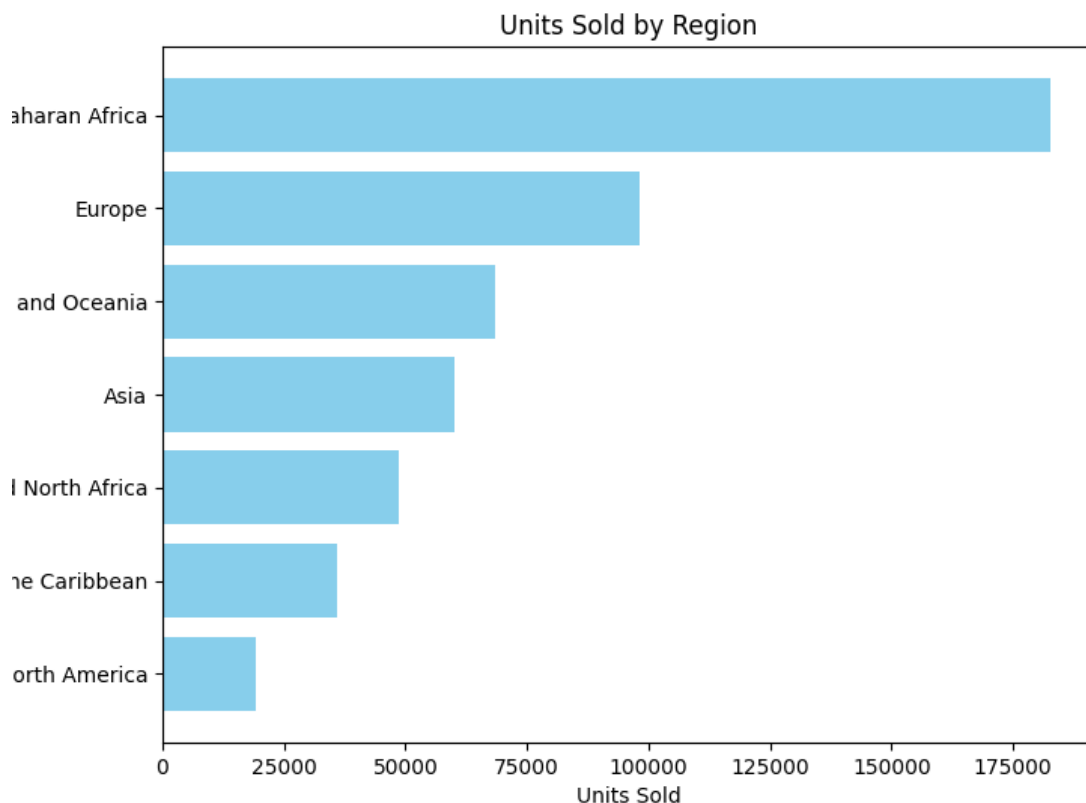
```
import pandas as pd
import matplotlib.pyplot as plt

# Read the sales data from CSV file
df = pd.read_csv('Amazon Sales data.csv')

# Group by region and calculate the sum of units sold
units_sold_by_region = df.groupby('Region')['Units Sold'].sum().reset_index()

# Sort the data by units sold (descending order) for better visualization
units_sold_by_region = units_sold_by_region.sort_values(by='Units Sold', ascending=False)

# Plotting the funnel graph
plt.figure(figsize=(8, 6))
plt.barh(units_sold_by_region['Region'], units_sold_by_region['Units Sold'], color='skyblue')
plt.title('Units Sold by Region')
plt.xlabel('Units Sold')
plt.ylabel('Region')
plt.gca().invert_yaxis() # Invert y-axis to have the highest value at the top
plt.show()
```



Python program to find sum of unit sold by order priority

```
import pandas as pd
import matplotlib.pyplot as plt

# Read the sales data from CSV file
df = pd.read_csv('Amazon Sales data.csv')

# Group by order priority and calculate the sum of units sold
units_sold_by_priority = df.groupby('Order Priority')['Units Sold'].sum().reset_index()

# Plotting the bar graph
plt.figure(figsize=(12, 6))
plt.subplot(1, 2, 1)
plt.bar(units_sold_by_priority['Order Priority'],
units_sold_by_priority['Units Sold'], color='skyblue')
plt.title('Units Sold by Order Priority (Bar Graph)')
plt.xlabel('Order Priority')
plt.ylabel('Units Sold')

# Plotting the line graph
plt.subplot(1, 2, 2)
plt.plot(units_sold_by_priority['Order Priority'],
units_sold_by_priority['Units Sold'], marker='o', color='green')
plt.title('Units Sold by Order Priority (Line Graph)')
plt.xlabel('Order Priority')
plt.ylabel('Units Sold')
plt.grid(True)

plt.tight_layout()
plt.show()
```

