In [2]:
```
# import lib
import pandas as pd
import numpy as np
import matplotlib.pyplot as plt
%matplotlib inline
import seaborn as sns
import warnings
warnings.filterwarnings('ignore')
```

In [3]:
```
# Read csv data
sale_data=pd.read_csv(r"C:\Users\DELL\Desktop\unified Mentor\Amazon sales data\Amazo
```

In [4]:
```
sale_data.head(10)
```

Out[4]:

	Region	Country	Item Type	Sales Channel	Order Priority	Order Date	Order ID	Ship Date	Units Sold	Unit Price
0	Australia and Oceania	Tuvalu	Baby Food	Offline	H	5/28/2010	669165933	6/27/2010	9925	255.28
1	Central America and the Caribbean	Grenada	Cereal	Online	C	8/22/2012	963881480	9/15/2012	2804	205.70
2	Europe	Russia	Office Supplies	Offline	L	5/2/2014	341417157	5/8/2014	1779	651.21
3	Sub-Saharan Africa	Sao Tome and Principe	Fruits	Online	C	6/20/2014	514321792	7/5/2014	8102	9.33
4	Sub-Saharan Africa	Rwanda	Office Supplies	Offline	L	2/1/2013	115456712	2/6/2013	5062	651.21
5	Australia and Oceania	Solomon Islands	Baby Food	Online	C	2/4/2015	547995746	2/21/2015	2974	255.28
6	Sub-Saharan Africa	Angola	Household	Offline	M	4/23/2011	135425221	4/27/2011	4187	668.27
7	Sub-Saharan Africa	Burkina Faso	Vegetables	Online	H	7/17/2012	871543967	7/27/2012	8082	154.06
8	Sub-Saharan Africa	Republic of the Congo	Personal Care	Offline	M	7/14/2015	770463311	8/25/2015	6070	81.73
9	Sub-Saharan Africa	Senegal	Cereal	Online	H	4/18/2014	616607081	5/30/2014	6593	205.70

In [8]:
```
sale_data.tail(10)
```

Out[8]:

	Region	Country	Item Type	Sales Channel	Order Priority	Order Date	Order ID	Ship Date	Units Sold
90	Sub-Saharan Africa	Sierra Leone	Office Supplies	Offline	H	12/6/2016	621386563	12/14/2016	948
91	Australia and Oceania	Australia	Beverages	Offline	H	7/7/2014	240470397	7/11/2014	9389
92	Middle East and North Africa	Azerbaijan	Office Supplies	Online	M	6/13/2012	423331391	7/24/2012	2021
93	Europe	Romania	Cosmetics	Online	H	11/26/2010	660643374	12/25/2010	7910
94	Central America and the Caribbean	Nicaragua	Beverages	Offline	C	2/8/2011	963392674	3/21/2011	8156
95	Sub-Saharan Africa	Mali	Clothes	Online	M	7/26/2011	512878119	9/3/2011	888
96	Asia	Malaysia	Fruits	Offline	L	11/11/2011	810711038	12/28/2011	6267
97	Sub-Saharan Africa	Sierra Leone	Vegetables	Offline	C	6/1/2016	728815257	6/29/2016	1485
98	North America	Mexico	Personal Care	Offline	M	7/30/2015	559427106	8/8/2015	5767
99	Sub-Saharan Africa	Mozambique	Household	Offline	L	2/10/2012	665095412	2/15/2012	5367

In [6]:
```
# Checking the shape of data set
sale_data.shape
```

Out[6]:
```
(100, 14)
```

In [7]:
```
# Accessing column names
sale_data.columns
```

Out[7]:
```
Index(['Region', 'Country', 'Item Type', 'Sales Channel', 'Order Priority',
       'Order Date', 'Order ID', 'Ship Date', 'Units Sold', 'Unit Price',
       'Unit Cost', 'Total Revenue', 'Total Cost', 'Total Profit'],
      dtype='object')
```

In [8]:
```
# find the total number of rows and column
print(f"Number of rows: {sale_data.shape[0]} and number of columns: {sale_data.shape
```

```
Number of rows: 100 and number of columns: 14
```

In [9]:
```
sale_data.info()
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 100 entries, 0 to 99
Data columns (total 14 columns):
 #   Column          Non-Null Count  Dtype  
---  ------          --------------  -----  
 0   Region          100 non-null    object 
 1   Country         100 non-null    object 
 2   Item Type       100 non-null    object 
 3   Sales Channel   100 non-null    object 
 4   Order Priority  100 non-null    object 
 5   Order Date      100 non-null    object 
 6   Order ID        100 non-null    int64  
 7   Ship Date       100 non-null    object 
 8   Units Sold      100 non-null    int64  
 9   Unit Price      100 non-null    float64
 10  Unit Cost       100 non-null    float64
 11  Total Revenue   100 non-null    float64
 12  Total Cost      100 non-null    float64
 13  Total Profit    100 non-null    float64
dtypes: float64(5), int64(2), object(7)
memory usage: 11.1+ KB
```

In [15]:

```
# Check for missing value
sale_data.isnull().sum()
```

Out[15]:

```
Region            0
Country           0
Item Type         0
Sales Channel     0
Order Priority    0
Order Date        0
Order ID          0
Ship Date         0
Units Sold        0
Unit Price        0
Unit Cost         0
Total Revenue     0
Total Cost        0
Total Profit      0
dtype: int64
```

In [10]:

```
# Summary statistics
sale_data.describe()
```

Out[10]:

	Order ID	Units Sold	Unit Price	Unit Cost	Total Revenue	Total Cost	Total Profit
count	1.000000e+02	100.000000	100.000000	100.000000	1.000000e+02	1.000000e+02	1.000000e+02
mean	5.550204e+08	5128.710000	276.761300	191.048000	1.373488e+06	9.318057e+05	4.416820e+05
std	2.606153e+08	2794.484562	235.592241	188.208181	1.460029e+06	1.083938e+06	4.385379e+05
min	1.146066e+08	124.000000	9.330000	6.920000	4.870260e+03	3.612240e+03	1.258020e+03
25%	3.389225e+08	2836.250000	81.730000	35.840000	2.687212e+05	1.688680e+05	1.214436e+05
50%	5.577086e+08	5382.500000	179.880000	107.275000	7.523144e+05	3.635664e+05	2.907680e+05
75%	7.907551e+08	7369.000000	437.200000	263.330000	2.212045e+06	1.613870e+06	6.358288e+05
max	9.940222e+08	9925.000000	668.270000	524.960000	5.997055e+06	4.509794e+06	1.719922e+06

In [69]:
```
sale_data.duplicated()
```

Out[69]:
```
0     False
1     False
2     False
3     False
4     False
      ...
95    False
96    False
97    False
98    False
99    False
Length: 100, dtype: bool
```

In [11]:
```
sale_data['Item Type'].unique()
```

Out[11]:
```
array(['Baby Food', 'Cereal', 'Office Supplies', 'Fruits', 'Household',
       'Vegetables', 'Personal Care', 'Clothes', 'Cosmetics', 'Beverages',
       'Meat', 'Snacks'], dtype=object)
```

In [12]:
```
sale_data['Country'].unique()
```

Out[12]:
```
array(['Tuvalu', 'Grenada', 'Russia', 'Sao Tome and Principe', 'Rwanda',
       'Solomon Islands', 'Angola', 'Burkina Faso',
       'Republic of the Congo', 'Senegal', 'Kyrgyzstan', 'Cape Verde',
       'Bangladesh', 'Honduras', 'Mongolia', 'Bulgaria', 'Sri Lanka',
       'Cameroon', 'Turkmenistan', 'East Timor', 'Norway', 'Portugal',
       'New Zealand', 'Moldova ', 'France', 'Kiribati', 'Mali',
       'The Gambia', 'Switzerland', 'South Sudan', 'Australia', 'Myanmar',
       'Djibouti', 'Costa Rica', 'Syria', 'Brunei', 'Niger', 'Azerbaijan',
       'Slovakia', 'Comoros', 'Iceland', 'Macedonia', 'Mauritania',
       'Albania', 'Lesotho', 'Saudi Arabia', 'Sierra Leone',
       "Cote d'Ivoire", 'Fiji', 'Austria', 'United Kingdom', 'San Marino',
       'Libya', 'Haiti', 'Gabon', 'Belize', 'Lithuania', 'Madagascar',
       'Democratic Republic of the Congo', 'Pakistan', 'Mexico',
       'Federated States of Micronesia', 'Laos', 'Monaco', 'Samoa ',
       'Spain', 'Lebanon', 'Iran', 'Zambia', 'Kenya', 'Kuwait',
       'Slovenia', 'Romania', 'Nicaragua', 'Malaysia', 'Mozambique'],
      dtype=object)
```

In [14]:
```
# check profit margin
sale_data['Profit Margin'] = (sale_data['Total Profit'] / sale_data['Total Revenue']
```

In [15]:
```
profit_margin_head = sale_data['Profit Margin'].head(10)
```

In [16]:
```
print("profit margin :",profit_margin_head)
```

```
profit margin : 0    37.550924
1    43.067574
2    19.386987
3    25.830654
4    19.386987
5    37.550924
6    24.799856
7    40.977541
8    30.661936
```

```
9    43.067574
Name: Profit Margin, dtype: float64
```

In [17]:
```
# convert order date and ship date
sale_data['Order Date'] = pd.to_datetime(sale_data['Order Date'])
sale_data['Ship Date'] = pd.to_datetime(sale_data['Ship Date'])
```

In [18]:
```
sale_data['Order Date'].dtype
```

Out[18]:
```
dtype('<M8[ns]')
```

In [19]:
```
#Average Unit Price by Region
Avg_unit_price_by_region = sale_data.groupby ('Region') ['Unit Price'].mean()
print(Avg_unit_price_by_region)
```

```
Region
Asia                                335.809091
Australia and Oceania               222.672727
Central America and the Caribbean   243.172857
Europe                              328.979545
Middle East and North Africa        241.506000
North America                       277.243333
Sub-Saharan Africa                  259.618889
Name: Unit Price, dtype: float64
```

In [20]:
```
#Average Unit Cost by Region
Avg_unit_cost_by_region = sale_data.groupby ('Region') ['Unit Cost'].mean()
print(Avg_unit_cost_by_region)
```

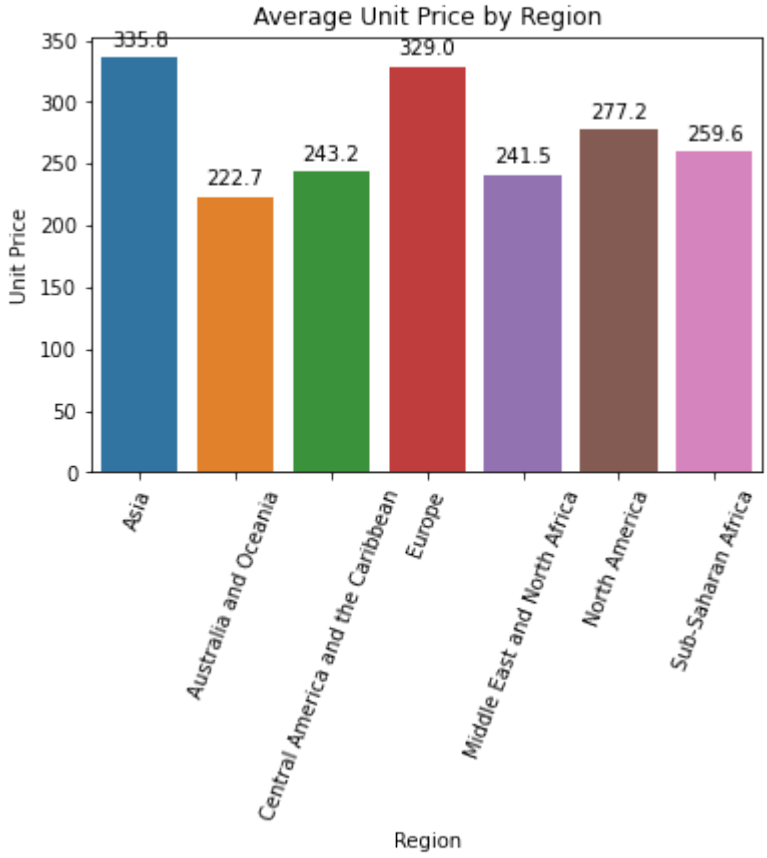
```
Region
Asia                                239.587273
Australia and Oceania               154.744545
Central America and the Caribbean   157.817143
Europe                              223.166364
Middle East and North Africa        152.450000
North America                       205.293333
Sub-Saharan Africa                  183.677500
Name: Unit Cost, dtype: float64
```

In [21]:
```
#Average Unit Cost by Region
Avg_unit_sold_by_region = sale_data.groupby ('Region') ['Units Sold'].mean()
print(Avg_unit_sold_by_region)
```

```
Region
Asia                                5451.545455
Australia and Oceania               6211.363636
Central America and the Caribbean   5110.142857
Europe                              4459.863636
Middle East and North Africa        4867.800000
North America                       6381.000000
Sub-Saharan Africa                  5079.722222
Name: Units Sold, dtype: float64
```

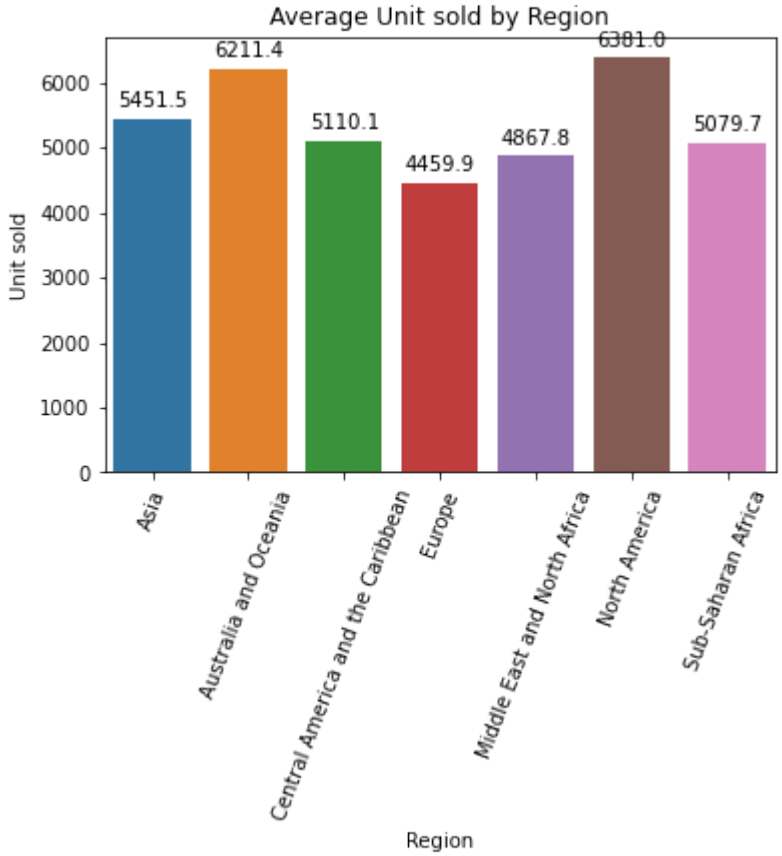
In [23]:
```
#Bar graph for unit price by region
import matplotlib.pyplot as plt
import seaborn as sns

ax = sns.barplot(x = 'Region', y = 'Unit Price', data =Avg_unit_price_by_region.rese
plt.xlabel('Region')
```

```
plt.ylabel('Unit Price')
plt.title('Average Unit Price by Region')

for p in ax.patches:
    ax.annotate(format(p.get_height(), '.1f'),
                (p.get_x() + p.get_width() / 2, p.get_height()),
                ha='center', va='center',
                xytext=(0, 9),
                textcoords='offset points')

plt.xticks(rotation=69)
plt.show()
```



In [64]:

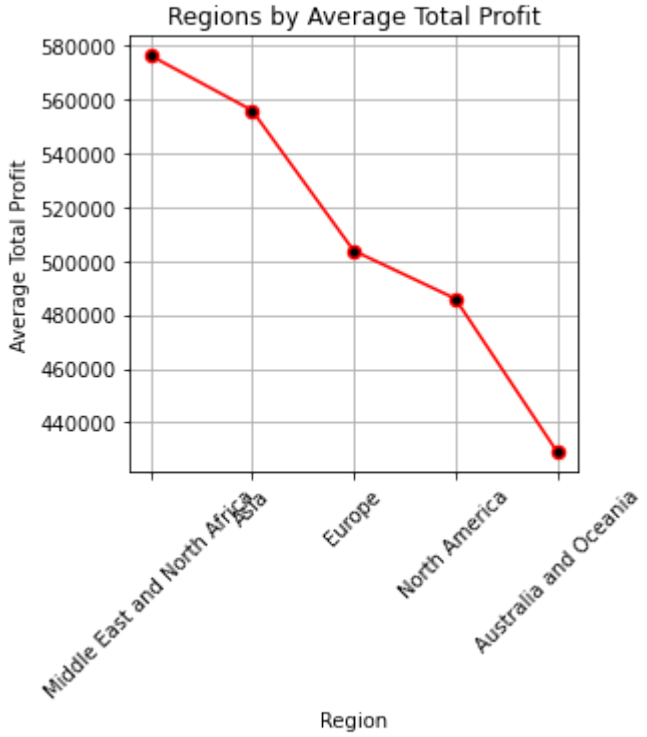
```
#Bar graph for unit price by region
import matplotlib.pyplot as plt
import seaborn as sns

ax = sns.barplot(x = 'Region', y = 'Units Sold', data =Avg_unit_sold_by_region.reset
plt.xlabel('Region')
plt.ylabel('Unit sold')
plt.title('Average Unit sold by Region')

for p in ax.patches:
    ax.annotate(format(p.get_height(), '.1f'),
                (p.get_x() + p.get_width() / 2, p.get_height()),
                ha='center', va='center',
                xytext=(0, 9),
                textcoords='offset points')

plt.xticks(rotation=69)
plt.show()
```



In [24]:
```
avg_total_profit_by_region = sale_data.groupby('Region')['Total Profit'].mean()
avg_total_profit_by_region
```

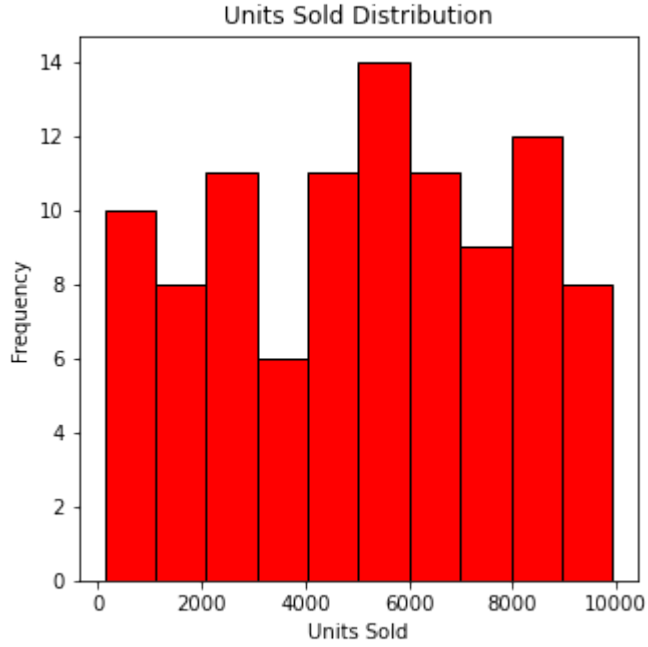
Out[24]:
```
Region
Asia                                555804.170000
Australia and Oceania               429287.275455
Central America and the Caribbean   406701.121429
Europe                              503769.937727
Middle East and North Africa        576119.186000
North America                       485980.920000
Sub-Saharan Africa                  338422.538889
Name: Total Profit, dtype: float64
```

In [25]:
```
# Regions by Average Total Profit
regions = avg_total_profit_by_region.nlargest()
plt.figure(figsize=(4, 4))
regions.plot(kind='line', color='r', marker='o', markerfacecolor='black', markeredge
plt.xlabel('Region')
plt.ylabel('Average Total Profit')
plt.title('Regions by Average Total Profit')
plt.xticks(rotation=45)
plt.grid(True)
plt.show()
```



In [74]:

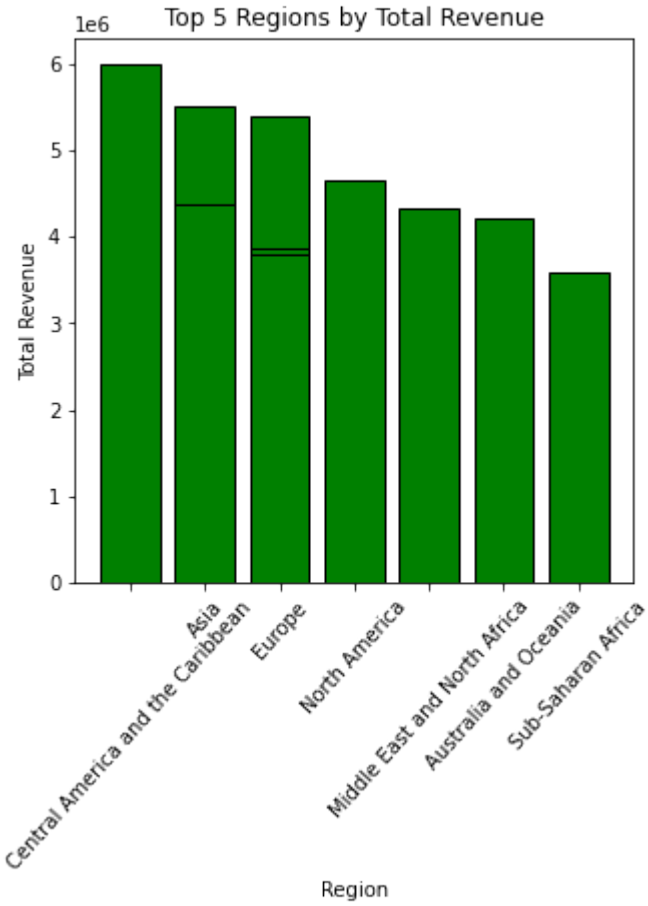
```
plt.figure(figsize=(5, 5))
# Create a histogram of Units Sold
plt.hist(sale_data['Units Sold'], color='r',edgecolor='black', bins=10)
# Labeling and title
plt.xlabel('Units Sold')
plt.ylabel('Frequency')
plt.title('Units Sold Distribution')
# Show the plot
plt.show()
```



In [82]:

```
import numpy as np
sorted_sale_data = sale_data.sort_values(by='Total Revenue', ascending=False)
total_revenue = sorted_sale_data['Total Revenue'].head(10)
colors = plt.cm.Reds(np.linspace(0.2, 1, len(total_revenue)))
plt.figure(figsize=(5, 5))
plt.bar(sorted_sale_data['Region'].head(10), total_revenue, color='g', edgecolor='bl
plt.xlabel('Region')
```

```
plt.ylabel('Total Revenue')
plt.title('Top 5 Regions by Total Revenue')
plt.xticks(rotation=48)
plt.show()
```



In [79]:
```
sale_data.head
```

Out[79]:
```
<bound method NDFrame.head of                                 Region                Co
untry        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
..                                 ...                  ...             ...
95                  Sub-Saharan Africa                Mali         Clothes
96                                Asia             Malaysia           Fruits
97                  Sub-Saharan Africa         Sierra Leone       Vegetables
98                       North America               Mexico    Personal Care
99                  Sub-Saharan Africa           Mozambique       Household

   Sales Channel Order Priority Order Date   Order ID  Ship Date  Units Sold  \
0        Offline              H 2010-05-28  669165933 2010-06-27        9925
1         Online              C 2012-08-22  963881480 2012-09-15        2804
2        Offline              L 2014-05-02  341417157 2014-05-08        1779
3         Online              C 2014-06-20  514321792 2014-07-05        8102
4        Offline              L 2013-02-01  115456712 2013-02-06        5062
..           ...            ...        ...        ...        ...         ...
95        Online              M 2011-07-26  512878119 2011-09-03         888
96       Offline              L 2011-11-11  810711038 2011-12-28        6267
97       Offline              C 2016-06-01  728815257 2016-06-29        1485
98       Offline              M 2015-07-30  559427106 2015-08-08        5767
99       Offline              L 2012-02-10  665095412 2012-02-15        5367
```

```
    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
..         ...        ...            ...         ...           ...
95      109.28      35.84       97040.64    31825.92      65214.72
96        9.33       6.92       58471.11    43367.64      15103.47
97      154.06      90.93      228779.10   135031.05      93748.05
98       81.73      56.67      471336.91   326815.89     144521.02
99      668.27     502.54     3586605.09  2697132.18     889472.91

    Profit Margin
0       37.550924
1       43.067574
2       19.386987
3       25.830654
4       19.386987
..            ...
95      67.203514
96      25.830654
97      40.977541
98      30.661936
99      24.799856

[100 rows x 15 columns]>
```

In [10]:

```
sale_data.head()
```

Out[10]:

	Region	Country	Item Type	Sales Channel	Order Priority	Order Date	Order ID	Ship Date	Units Sold	Unit Price	
0	Australia and Oceania	Tuvalu	Baby Food	Offline	H	5/28/2010	669165933	6/27/2010	9925	255.28	1
1	Central America and the Caribbean	Grenada	Cereal	Online	C	8/22/2012	963881480	9/15/2012	2804	205.70	1
2	Europe	Russia	Office Supplies	Offline	L	5/2/2014	341417157	5/8/2014	1779	651.21	5
3	Sub-Saharan Africa	Sao Tome and Principe	Fruits	Online	C	6/20/2014	514321792	7/5/2014	8102	9.33	
4	Sub-Saharan Africa	Rwanda	Office Supplies	Offline	L	2/1/2013	115456712	2/6/2013	5062	651.21	5

In [27]:

```
pivot_table = pd.pivot_table(sale_data,
                             values=['Total Revenue', 'Total Cost', 'Total Profit'],
                             index='Region',
                             aggfunc='sum')
print(pivot_table)
```

```
                                Total Cost  Total Profit  Total Revenue
Region
```

```
Asia                                15233245.15    6113845.87    21347091.02
Australia and Oceania                9372105.10    4722160.03    14094265.13
Central America and the Caribbean    6323477.64    2846907.85     9170385.49
Europe                              22285993.48   11082938.63    33368932.11
Middle East and North Africa         8291514.72    5761191.86    14052706.58
North America                        4185413.79    1457942.76     5643356.55
Sub-Saharan Africa                  27488820.03   12183211.40    39672031.43
```

In [29]:

```
table = pd.pivot_table(sale_data,
                       values=['Units Sold', 'Unit Price', 'Unit Cost'],
                       index='Region',
                       aggfunc='sum')
print(table)
```

```
                                Unit Cost  Unit Price  Units Sold
Region
Asia                              2635.46     3693.90       59967
Australia and Oceania             1702.19     2449.40       68325
Central America and the Caribbean 1104.72     1702.21       35771
Europe                            4909.66     7237.55       98117
Middle East and North Africa      1524.50     2415.06       48678
North America                      615.88      831.73       19143
Sub-Saharan Africa                6612.39     9346.28      182870
```

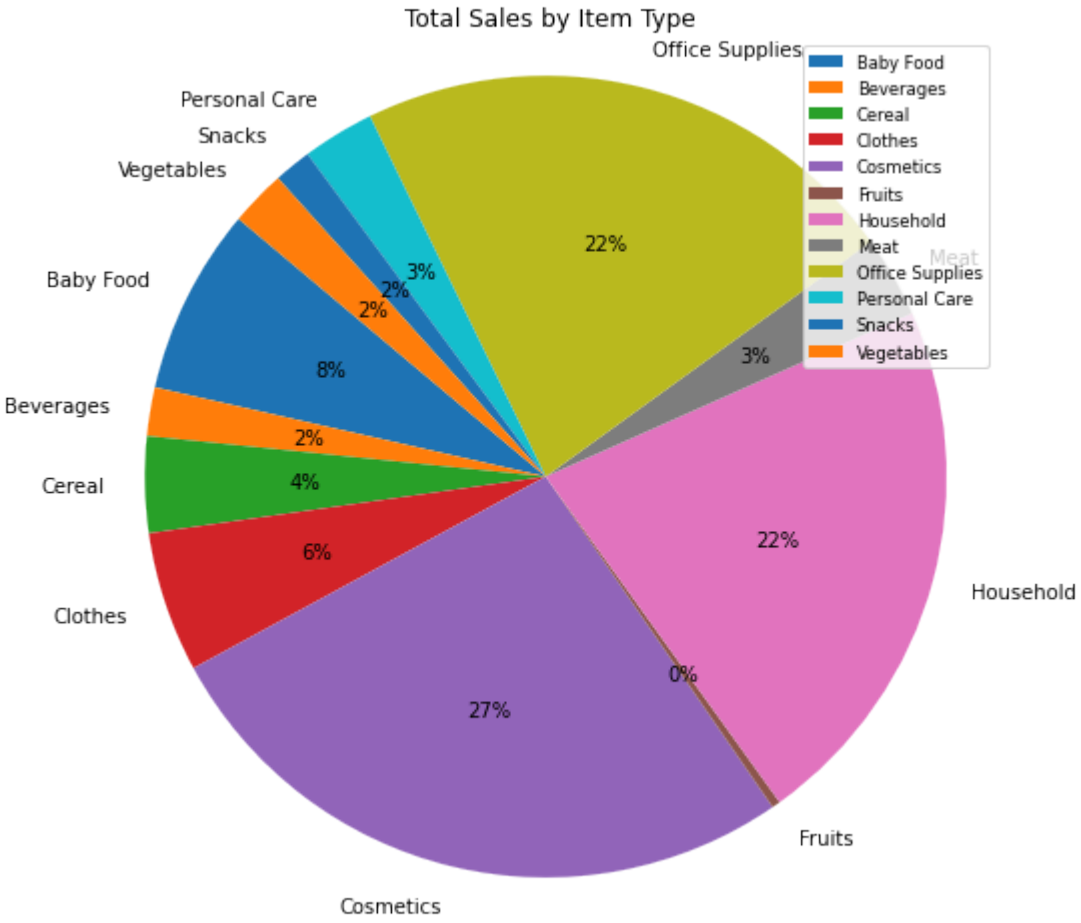
In [30]:

```
table1 = pd.pivot_table(sale_data,
                       values='Total Revenue',
                       index='Item Type',
                       columns='Sales Channel',
                       aggfunc='count')

print(table1)
```

```
Sales Channel    Offline  Online
Item Type
Baby Food            3.0     4.0
Beverages            6.0     2.0
Cereal               3.0     4.0
Clothes              6.0     7.0
Cosmetics            7.0     6.0
Fruits               2.0     8.0
Household            8.0     1.0
Meat                 NaN     2.0
Office Supplies      6.0     6.0
Personal Care        7.0     3.0
Snacks               NaN     3.0
Vegetables           2.0     4.0
```

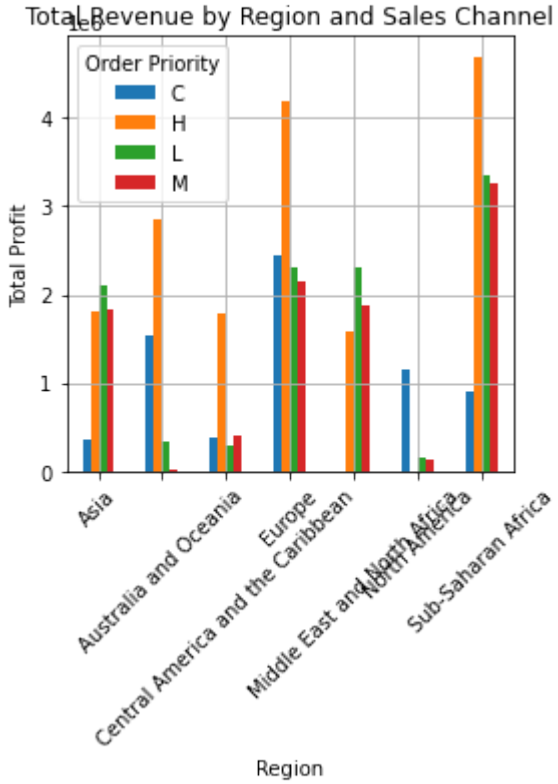
In [36]:

```
total_sales_by_item = sale_data.groupby('Item Type')['Total Revenue'].sum()
plt.figure(figsize=(8,8))
plt.pie(total_sales_by_item, labels=total_sales_by_item.index, autopct='%0.0f%%', st
plt.title('Total Sales by Item Type')
plt.legend(loc='upper right',fontsize='small')
plt.axis('equal')
plt.show()
```



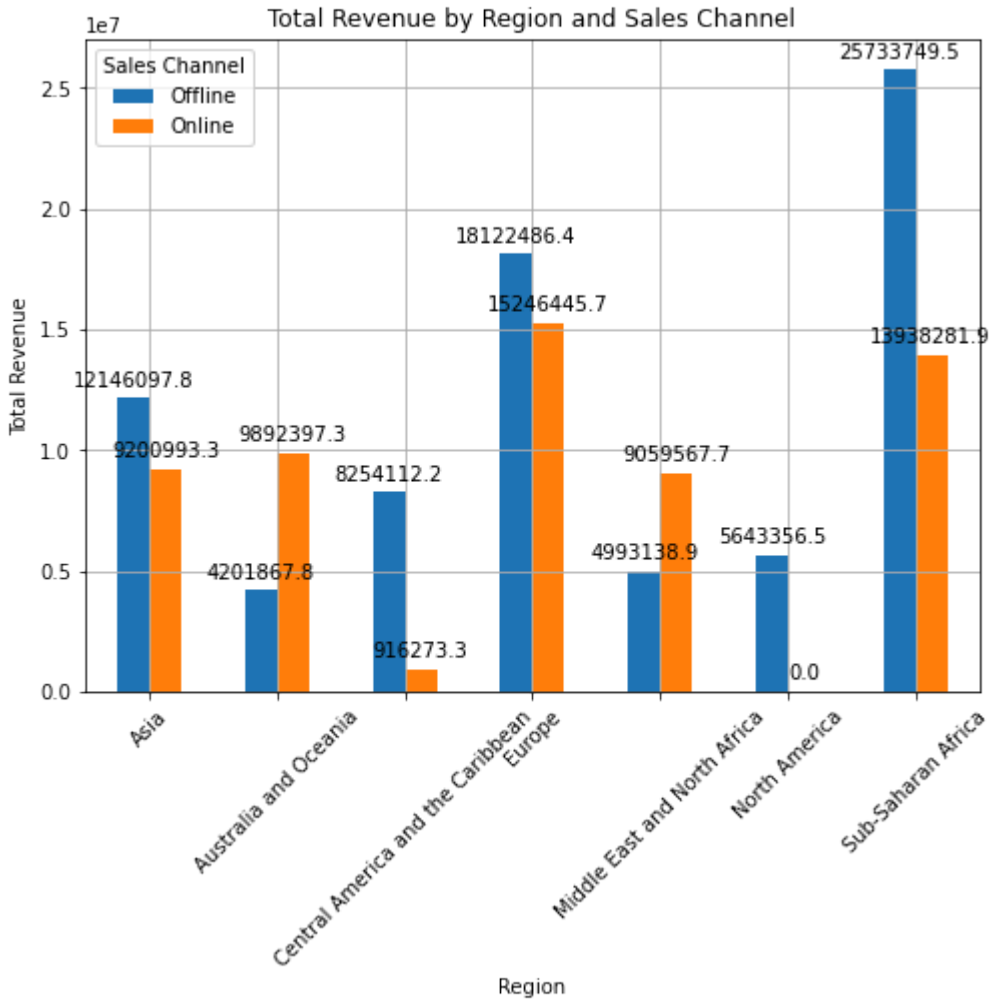
In [37]:

```
pivot_table = sale_data.pivot_table(values='Total Profit', index='Region', columns='
pivot_table.plot(kind='bar', figsize=(4, 4))
plt.xlabel('Region')
plt.ylabel('Total Profit')
plt.title('Total Revenue by Region and Sales Channel')
plt.xticks(rotation=45)
plt.legend(title='Order Priority')
plt.grid()
plt.show()
```



In [38]:

```
pivot_table = sale_data.pivot_table(values='Total Revenue', index='Region', columns=
ax = pivot_table.plot(kind='bar', figsize=(8, 6))

plt.xlabel('Region')
plt.ylabel('Total Revenue')
plt.title('Total Revenue by Region and Sales Channel')
plt.xticks(rotation=45)
plt.legend(title='Sales Channel')
plt.grid(True)

# Add data labels
for p in ax.patches:
    ax.annotate(format(p.get_height(), '.1f'),
                (p.get_x() + p.get_width() / 2., p.get_height()),
                ha='center', va='center',
                xytext=(0, 9),
                textcoords='offset points')

plt.show()
```



In [39]:
```
sale_data.head(5)
```

Out[39]:

	Region	Country	Item Type	Sales Channel	Order Priority	Order Date	Order ID	Ship Date	Units Sold	Unit Price	Unit Cost	
0	Australia and Oceania	Tuvalu	Baby Food	Offline	H	2010-05-28	669165933	2010-06-27	9925	255.28	159.42	2
1	Central America and the Caribbean	Grenada	Cereal	Online	C	2012-08-22	963881480	2012-09-15	2804	205.70	117.11	
2	Europe	Russia	Office Supplies	Offline	L	2014-05-02	341417157	2014-05-08	1779	651.21	524.96	1
3	Sub-Saharan Africa	Sao Tome and Principe	Fruits	Online	C	2014-06-20	514321792	2014-07-05	8102	9.33	6.92	
4	Sub-Saharan Africa	Rwanda	Office Supplies	Offline	L	2013-02-01	115456712	2013-02-06	5062	651.21	524.96	3

In [41]:
```
df=sale_data
df['Ship Date']=pd.to_datetime(df['Ship Date'])
```

```
df['Year']=df['Ship Date'].dt.year
df[['Ship Date','Year']].head(10)
```

Out[41]:

	Ship Date	Year
0	2010-06-27	2010
1	2012-09-15	2012
2	2014-05-08	2014
3	2014-07-05	2014
4	2013-02-06	2013
5	2015-02-21	2015
6	2011-04-27	2011
7	2012-07-27	2012
8	2015-08-25	2015
9	2014-05-30	2014

In [42]:

```
df['month']=df['Ship Date'].dt.strftime("%B")
df[['Ship Date','month']].head(10)
```

Out[42]:

	Ship Date	month
0	2010-06-27	June
1	2012-09-15	September
2	2014-05-08	May
3	2014-07-05	July
4	2013-02-06	February
5	2015-02-21	February
6	2011-04-27	April
7	2012-07-27	July
8	2015-08-25	August
9	2014-05-30	May

In [43]:

```
Total_Profit_per_year=df.groupby(df['Year'])['Total Profit'].sum()
Total_Profit_per_year
```

Out[43]:

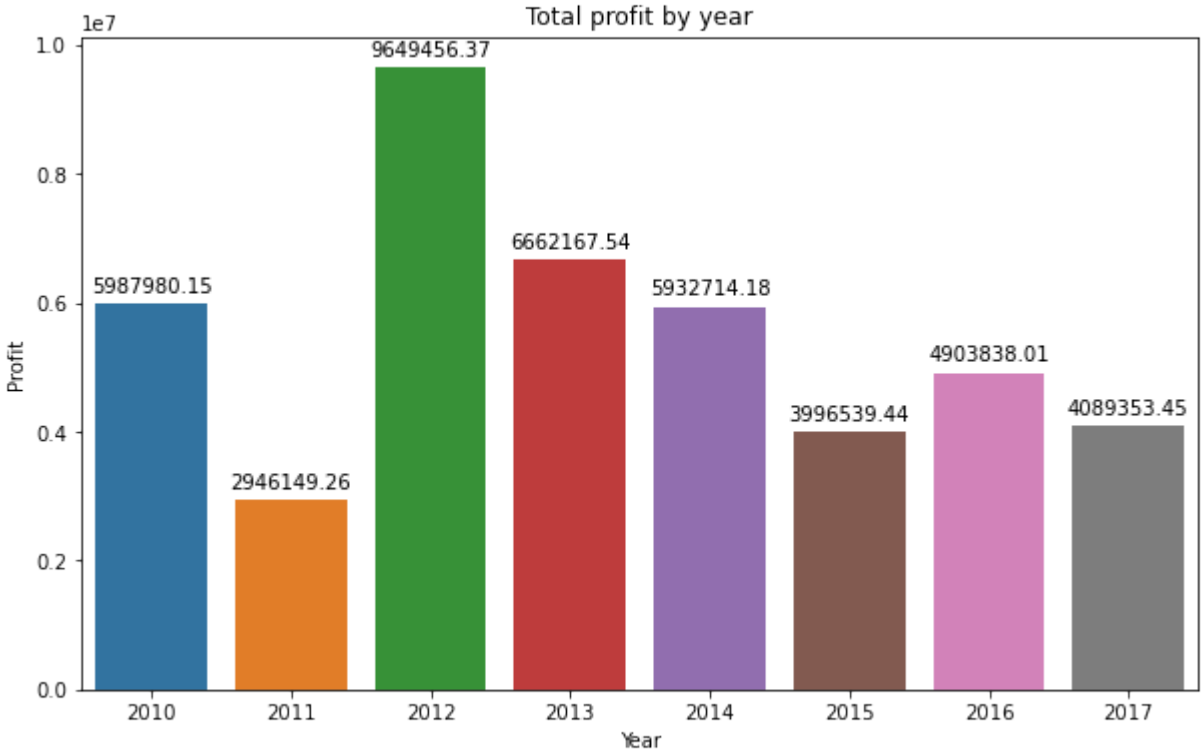
```
Year
2010    5987980.15
2011    2946149.26
2012    9649456.37
2013    6662167.54
2014    5932714.18
2015    3996539.44
2016    4903838.01
2017    4089353.45
Name: Total Profit, dtype: float64
```

In [44]:
```
profit_df=Total_Profit_per_year.reset_index()
profit_df.columns=['Year','Total Profit']
profit_df
```

Out[44]:

	Year	Total Profit
0	2010	5987980.15
1	2011	2946149.26
2	2012	9649456.37
3	2013	6662167.54
4	2014	5932714.18
5	2015	3996539.44
6	2016	4903838.01
7	2017	4089353.45

In [45]:
```
import seaborn as sns
import matplotlib.pyplot as plt

plt.figure(figsize=(10, 6))
ax = sns.barplot(x='Year', y='Total Profit', data=profit_df)
plt.xlabel('Year')
plt.ylabel('Profit')
plt.title("Total profit by year")

for p in ax.patches:
    ax.annotate(format(p.get_height(),'.2f'),
                (p.get_x()+p.get_width()/2,p.get_height()),
                ha='center',va='center',
                xytext=(0,9),
                  textcoords='offset points') #This specifies that the coordinates g


plt.show()
```



In [49]:
```
df.to_excel(r'C:\Users\DELL\Desktop\unified Mentor\Amazon sales data\Amazon Sales da
```

```
  File "C:\Users\DELL\AppData\Local\Temp/ipykernel_4772/2394076817.py", line 1
    df.to_excel(r'C:\Users\DELL\Desktop\unified Mentor\Amazon sales data\Amazon Sales
data.csv")'', index=False)

^
SyntaxError: EOL while scanning string literal
```

In [47]:
```
pip install openpyxl
```

```
Requirement already satisfied: openpyxl in g:\anaconda\lib\site-packages (3.0.9)
Requirement already satisfied: et-xmlfile in g:\anaconda\lib\site-packages (from open
pyxl) (1.1.0)
Note: you may need to restart the kernel to use updated packages.
```

In [ ]:
```

```