In [3]:
```
import numpy as np
import pandas as pd

import os

# Specify the path to your downloaded dataset folder
dataset_path = r"C:\Users\Praka\OneDrive\Documents\port 4\archive"

# List all files in the dataset folder
for root, dirs, files in os.walk(dataset_path):
    for filename in files:
        print(os.path.join(root, filename))
```

```
C:\Users\Praka\OneDrive\Documents\port 4\archive\US_Regional_Sales_Data.csv
```

In [7]:
```
import numpy as np
import pandas as pd
import matplotlib.pyplot as plt
import seaborn as sns
import warnings
warnings.filterwarnings('ignore')
```

In [11]:
```
df = pd.read_csv(r"C:\Users\Praka\OneDrive\Documents\port 4\archive\US_Regional_Sales_Data.csv")
df.head()
```

Out[11]:

	OrderNumber	Sales Channel	WarehouseCode	ProcuredDate	OrderDate	ShipDate	DeliveryDate	CurrencyCode	_SalesTeamID	_CustomerID	_StoreID	_ProductID	Order Quantity	Discount Applied	Unit Cost	Unit Price
0	SO - 000101	In-Store	WARE-UHY1004	31/12/17	31/5/18	14/6/18	19/6/18	USD	6	15	259	12	5	0.08	$1,001.18	$1,963.10
1	SO - 000102	Online	WARE-NMK1003	31/12/17	31/5/18	22/6/18	2/7/2018	USD	14	20	196	27	3	0.08	$3,348.66	$3,939.60
2	SO - 000103	Distributor	WARE-UHY1004	31/12/17	31/5/18	21/6/18	1/7/2018	USD	21	16	213	16	1	0.05	$781.22	$1,775.50
3	SO - 000104	Wholesale	WARE-NMK1003	31/12/17	31/5/18	2/6/2018	7/6/2018	USD	28	48	107	23	8	0.08	$1,464.69	$2,324.90
4	SO - 000105	Distributor	WARE-NMK1003	10/4/2018	31/5/18	16/6/18	26/6/18	USD	22	49	111	26	8	0.10	$1,476.14	$1,822.40

In [13]:
```
date_col = ['ProcuredDate','OrderDate','ShipDate','DeliveryDate']
def parse_date(date_str):
    formats = ['%d/%m/%y', '%d/%m/%Y']
    for fmt in formats:
        try:
            return pd.to_datetime(date_str, format=fmt)
        except ValueError:
            continue
    return pd.NaT
for col in date_col:
    df[col] = df[col].apply(parse_date)

df.head()
```

Out[13]:

	OrderNumber	Sales Channel	WarehouseCode	ProcuredDate	OrderDate	ShipDate	DeliveryDate	CurrencyCode	_SalesTeamID	_CustomerID	_StoreID	_ProductID	Order Quantity	Discount Applied	Unit Cost	Unit Price
0	SO - 000101	In-Store	WARE-UHY1004	2017-12-31	2018-05-31	2018-06-14	2018-06-19	USD	6	15	259	12	5	0.08	$1,001.18	$1,963.10
1	SO - 000102	Online	WARE-NMK1003	2017-12-31	2018-05-31	2018-06-22	2018-07-02	USD	14	20	196	27	3	0.08	$3,348.66	$3,939.60
2	SO - 000103	Distributor	WARE-UHY1004	2017-12-31	2018-05-31	2018-06-21	2018-07-01	USD	21	16	213	16	1	0.05	$781.22	$1,775.50
3	SO - 000104	Wholesale	WARE-NMK1003	2017-12-31	2018-05-31	2018-06-02	2018-06-07	USD	28	48	107	23	8	0.08	$1,464.69	$2,324.90
4	SO - 000105	Distributor	WARE-NMK1003	2018-04-10	2018-05-31	2018-06-16	2018-06-26	USD	22	49	111	26	8	0.10	$1,476.14	$1,822.40

In [15]:
```
df.isnull().sum()
```

Out[15]:
```
OrderNumber         0
Sales Channel       0
WarehouseCode       0
ProcuredDate        0
OrderDate           0
ShipDate            0
DeliveryDate        0
CurrencyCode        0
_SalesTeamID        0
 CustomerID         0
_StoreID            0
_ProductID          0
Order Quantity      0
Discount Applied    0
Unit Cost           0
Unit Price          0
dtype: int64
```

In [17]:
```
df.info()
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 7991 entries, 0 to 7990
Data columns (total 16 columns):
 #   Column            Non-Null Count  Dtype
---  ------            --------------  -----
 0   OrderNumber       7991 non-null   object
 1   Sales Channel     7991 non-null   object
 2   WarehouseCode     7991 non-null   object
 3   ProcuredDate      7991 non-null   datetime64[ns]
 4   OrderDate         7991 non-null   datetime64[ns]
 5   ShipDate          7991 non-null   datetime64[ns]
 6   DeliveryDate      7991 non-null   datetime64[ns]
 7   CurrencyCode      7991 non-null   object
 8   _SalesTeamID      7991 non-null   int64
 9   _CustomerID       7991 non-null   int64
 10  _StoreID          7991 non-null   int64
 11  _ProductID        7991 non-null   int64
 12  Order Quantity    7991 non-null   int64
 13  Discount Applied  7991 non-null   float64
 14  Unit Cost         7991 non-null   object
 15  Unit Price        7991 non-null   object
dtypes: datetime64[ns](4), float64(1), int64(5), object(6)
memory usage: 999.0+ KB
```

In [21]:
```
df['Delivery_time'] = (df['DeliveryDate'] - df['OrderDate']).dt.days
df['Unit Cost'] = pd.to_numeric(df['Unit Cost'].str.replace('$', '').str.replace(',', ''))
df['Unit Price'] = pd.to_numeric(df['Unit Price'].str.replace('$', '').str.replace(',', ''))
df.head()
```

Out[21]:

	OrderNumber	Sales Channel	WarehouseCode	ProcuredDate	OrderDate	ShipDate	DeliveryDate	CurrencyCode	_SalesTeamID	_CustomerID	_StoreID	_ProductID	Order Quantity	Discount Applied	Unit Cost	Unit Price	Delivery
0	SO - 000101	In-Store	WARE-UHY1004	2017-12-31	2018-05-31	2018-06-14	2018-06-19	USD	6	15	259	12	5	0.08	1001.18	1963.1	
1	SO - 000102	Online	WARE-NMK1003	2017-12-31	2018-05-31	2018-06-22	2018-07-02	USD	14	20	196	27	3	0.08	3348.66	3939.6	
2	SO - 000103	Distributor	WARE-UHY1004	2017-12-31	2018-05-31	2018-06-21	2018-07-01	USD	21	16	213	16	1	0.05	781.22	1775.5	
3	SO - 000104	Wholesale	WARE-NMK1003	2017-12-31	2018-05-31	2018-06-02	2018-06-07	USD	28	48	107	23	8	0.08	1464.69	2324.9	
4	SO - 000105	Distributor	WARE-NMK1003	2018-04-10	2018-05-31	2018-06-16	2018-06-26	USD	22	49	111	26	8	0.10	1476.14	1822.4	

In [23]:
```
df.describe().T
```

Out[23]:

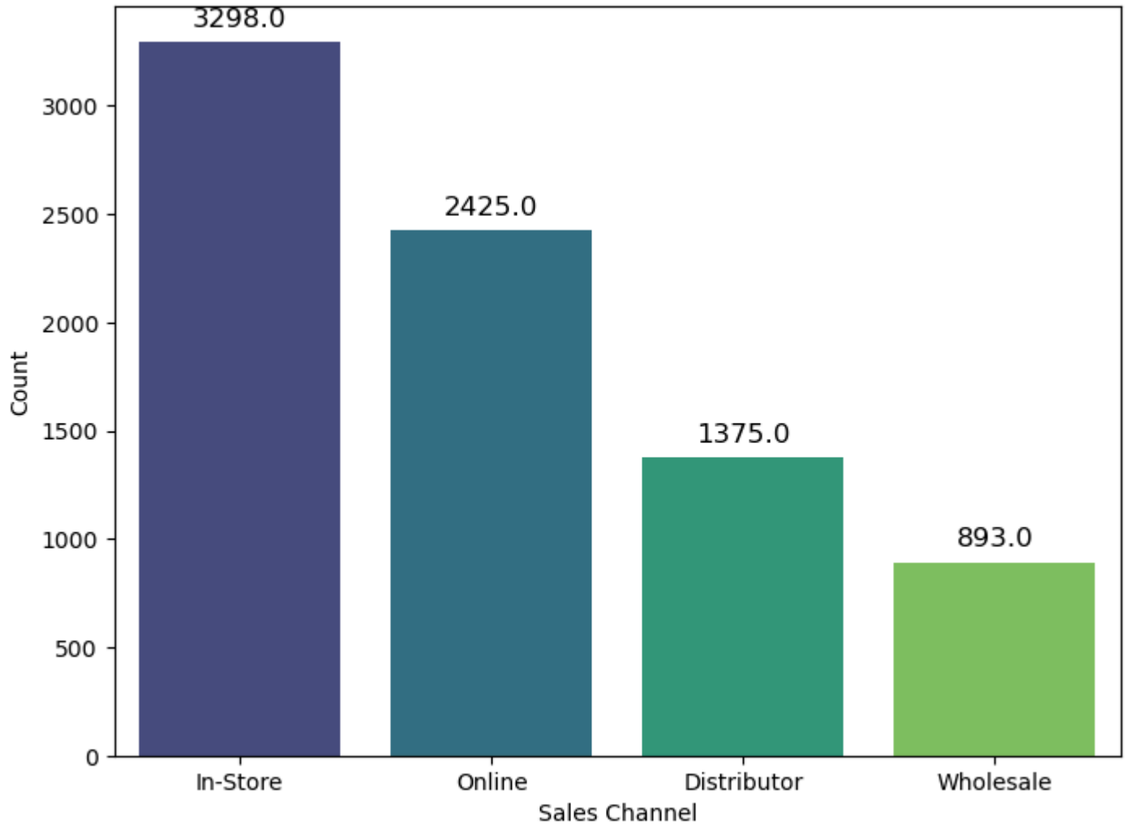
	count	mean	min	25%	50%	75%	max	std
ProcuredDate	7991	2019-05-29 05:11:01.794518784	2017-12-31 00:00:00	2018-10-27 00:00:00	2019-05-15 00:00:00	2020-03-10 00:00:00	2020-09-26 00:00:00	NaN
OrderDate	7991	2019-09-15 11:01:09.828557312	2018-05-31 00:00:00	2019-01-16 12:00:00	2019-09-15 00:00:00	2020-05-12 00:00:00	2020-12-30 00:00:00	NaN
ShipDate	7991	2019-09-30 15:04:26.249530624	2018-06-02 00:00:00	2019-01-31 00:00:00	2019-09-30 00:00:00	2020-05-28 00:00:00	2021-01-24 00:00:00	NaN
DeliveryDate	7991	2019-10-06 03:10:06.832686592	2018-06-07 00:00:00	2019-02-06 00:00:00	2019-10-05 00:00:00	2020-06-01 00:00:00	2021-02-02 00:00:00	NaN
_SalesTeamID	7991.0	14.384307	1.0	8.0	14.0	21.0	28.0	7.986086
_CustomerID	7991.0	25.457014	1.0	13.0	25.0	38.0	50.0	14.414883
_StoreID	7991.0	183.850081	1.0	91.0	183.0	276.0	367.0	105.903946
_ProductID	7991.0	23.771743	1.0	12.0	24.0	36.0	47.0	13.526545
Order Quantity	7991.0	4.525341	1.0	3.0	5.0	7.0	8.0	2.312631
Discount Applied	7991.0	0.115649	0.05	0.05	0.08	0.15	0.4	0.085018
Unit Cost	7991.0	1431.911513	68.68	606.12	1080.58	2040.25	5498.56	1112.413063
Unit Price	7991.0	2284.536504	167.5	1031.8	1849.2	3611.3	6566.0	1673.096364
Delivery_time	7991.0	20.672882	3.0	14.0	21.0	27.0	38.0	8.295398

In [25]:
```
df['Profit']=round((df['Unit Price']-df['Unit Cost'])*df['Order Quantity']*(1-df['Discount Applied']),2)
df.head()
```

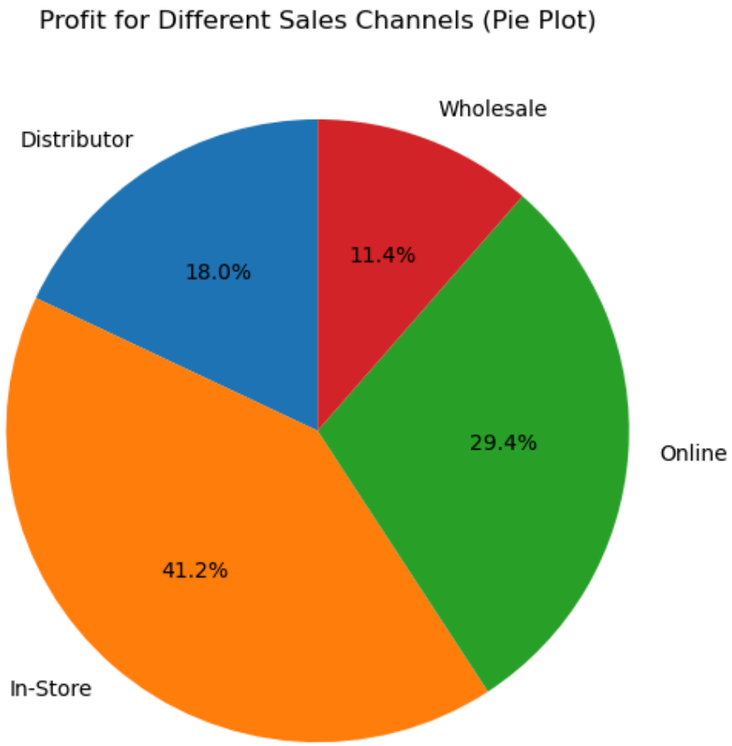
Out[25]:

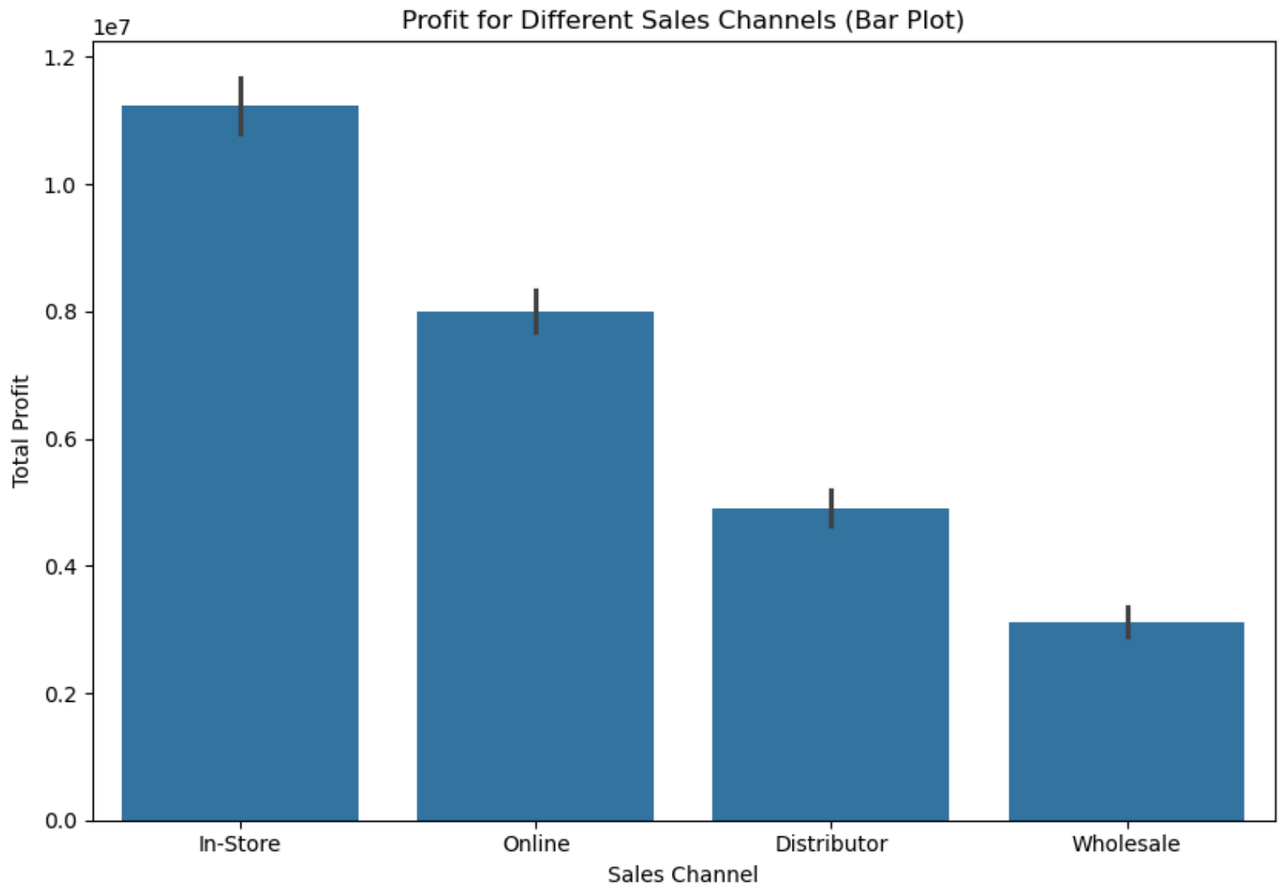
	OrderNumber	Sales Channel	WarehouseCode	ProcuredDate	OrderDate	ShipDate	DeliveryDate	CurrencyCode	_SalesTeamID	_CustomerID	_StoreID	_ProductID	Order Quantity	Discount Applied	Unit Cost	Unit Price	Delivery
0	SO - 000101	In-Store	WARE-UHY1004	2017-12-31	2018-05-31	2018-06-14	2018-06-19	USD	6	15	259	12	5	0.08	1001.18	1963.1	
1	SO - 000102	Online	WARE-NMK1003	2017-12-31	2018-05-31	2018-06-22	2018-07-02	USD	14	20	196	27	3	0.08	3348.66	3939.6	
2	SO - 000103	Distributor	WARE-UHY1004	2017-12-31	2018-05-31	2018-06-21	2018-07-01	USD	21	16	213	16	1	0.05	781.22	1775.5	
3	SO - 000104	Wholesale	WARE-NMK1003	2017-12-31	2018-05-31	2018-06-02	2018-06-07	USD	28	48	107	23	8	0.08	1464.69	2324.9	
4	SO - 000105	Distributor	WARE-NMK1003	2018-04-10	2018-05-31	2018-06-16	2018-06-26	USD	22	49	111	26	8	0.10	1476.14	1822.4	

In [27]:
```
plt.figure(figsize=(8, 6))
ax = sns.countplot(x='Sales Channel', data=df, palette='viridis')
for p in ax.patches:
    ax.annotate(f'{p.get_height()}', (p.get_x() + p.get_width() / 2., p.get_height()),
                ha='center', va='center', fontsize=12, color='black', xytext=(0, 10),
                textcoords='offset points')
plt.xlabel('Sales Channel')
plt.ylabel('Count')
plt.show()
```

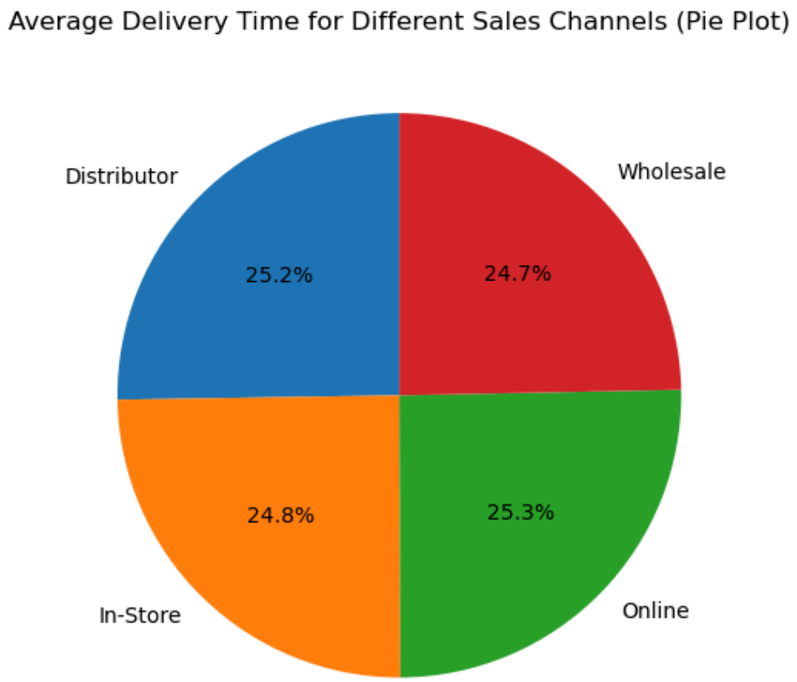


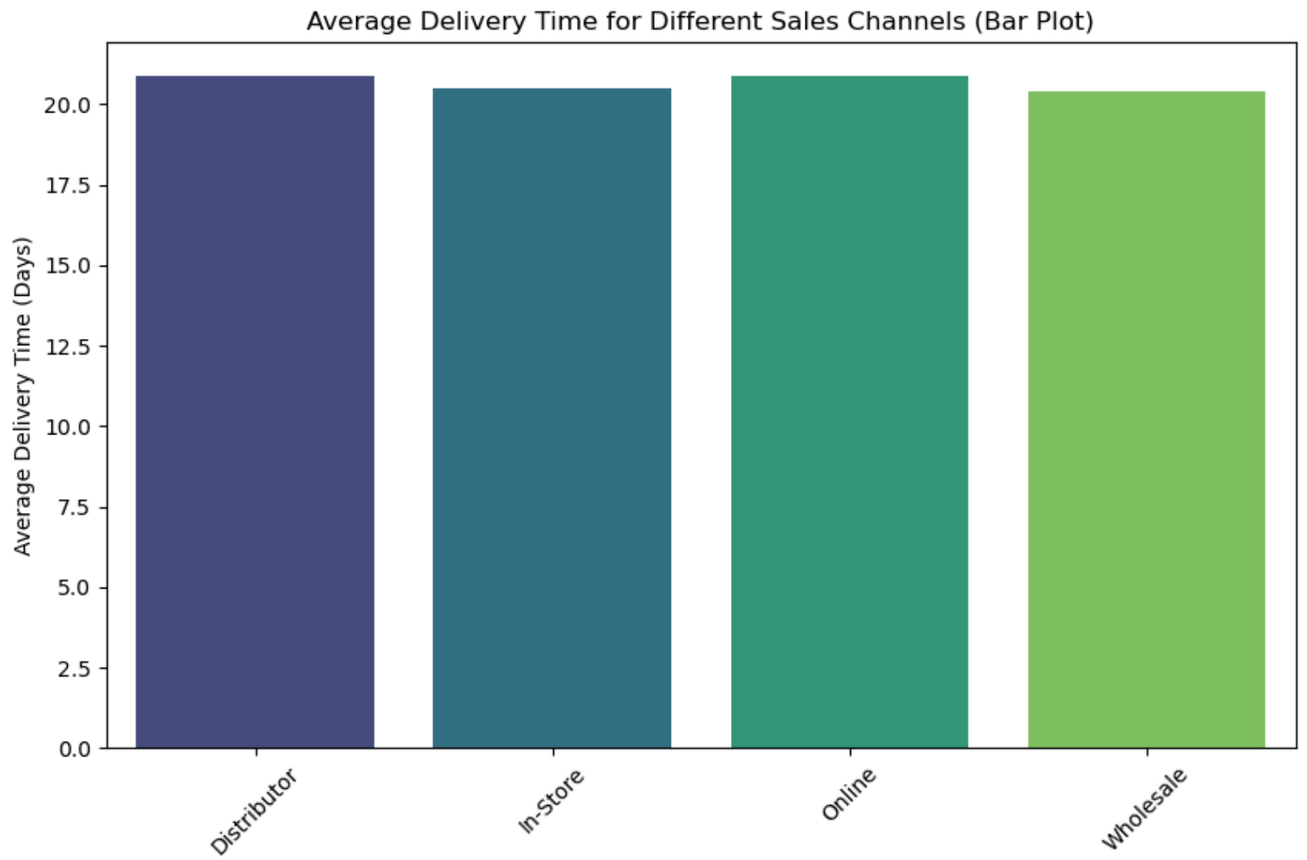
In [29]:
```
fig, axes = plt.subplots(nrows=1, ncols=2, figsize=(16, 6))

# Plotting Profit for Different Sales Channels (Pie Plot)
df.groupby('Sales Channel')['Profit'].sum().plot.pie(autopct='%1.1f%%', startangle=90, ax=axes[0])
axes[0].set_title('Profit for Different Sales Channels (Pie Plot)')
axes[0].set_ylabel('')

# Plotting Profit for Different Sales Channels (Bar Plot)
sns.barplot(x='Sales Channel', y='Profit', data=df, estimator=sum, ax=axes[1])
axes[1].set_title('Profit for Different Sales Channels (Bar Plot)')
axes[1].set_xlabel('Sales Channel')
axes[1].set_ylabel('Total Profit')

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



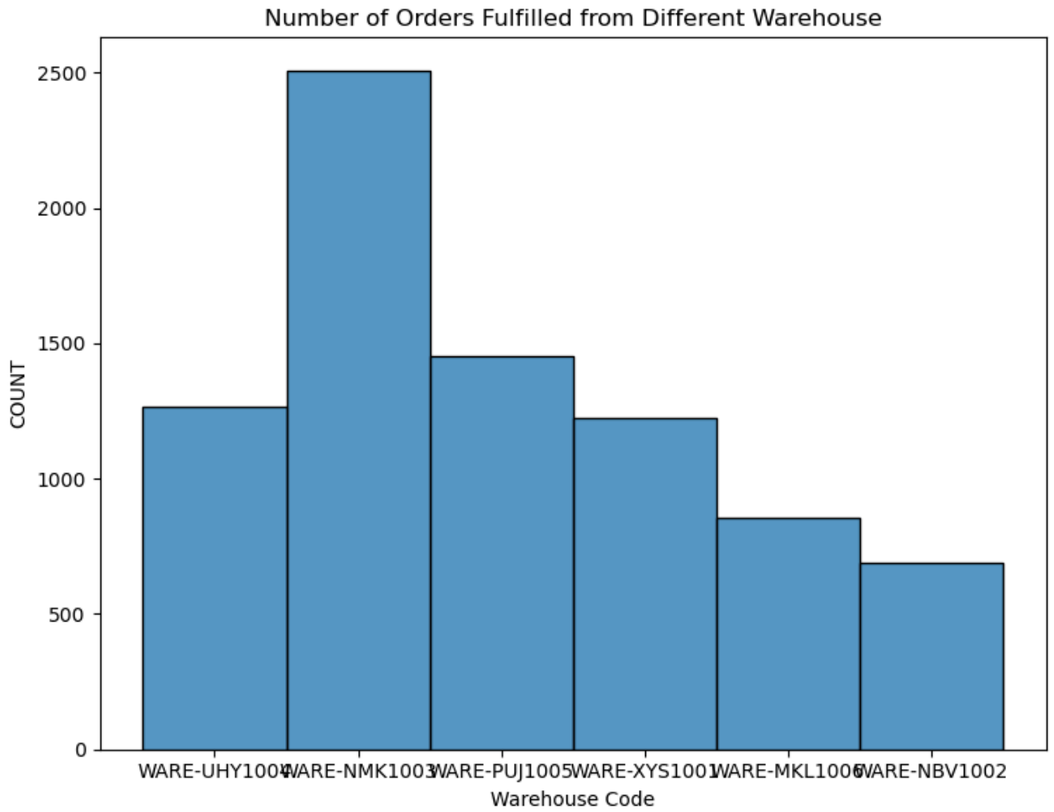


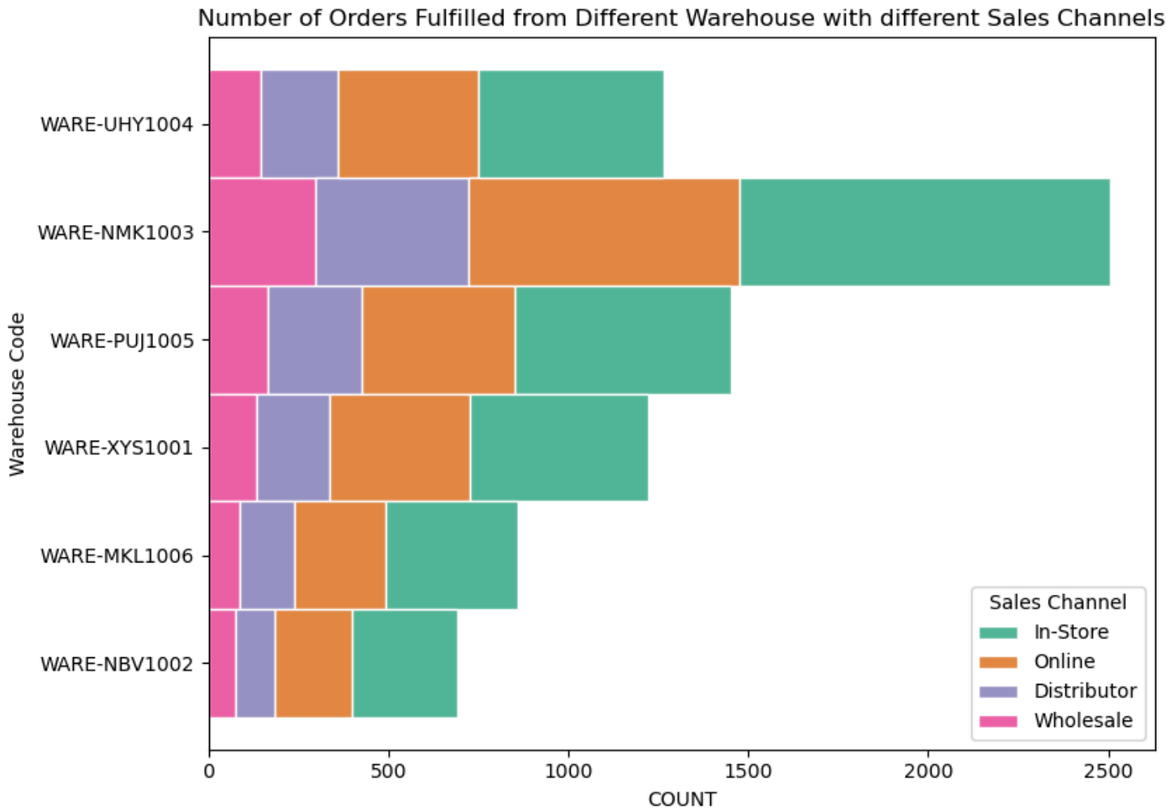
In [31]:
```
avg_delivery_time = df.groupby('Sales Channel')['Delivery_time'].mean()
fig, axes = plt.subplots(nrows=1, ncols=2, figsize=(16, 6))

# Plotting Average Delivery Time for Different Sales Channels (Pie Plot)
avg_delivery_time.plot.pie(autopct='%1.1f%%', startangle=90, ax=axes[0])
axes[0].set_title('Average Delivery Time for Different Sales Channels (Pie Plot)')
axes[0].set_ylabel('')

# Plotting Average Delivery Time for Different Sales Channels (Bar Plot)
sns.barplot(x=avg_delivery_time.index, y=avg_delivery_time.values, palette='viridis', ax=axes[1])
axes[1].set_title('Average Delivery Time for Different Sales Channels (Bar Plot)')
axes[1].set_xlabel('Sales Channel')
axes[1].set_ylabel('Average Delivery Time (Days)')
axes[1].tick_params(axis='x', rotation=45)

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



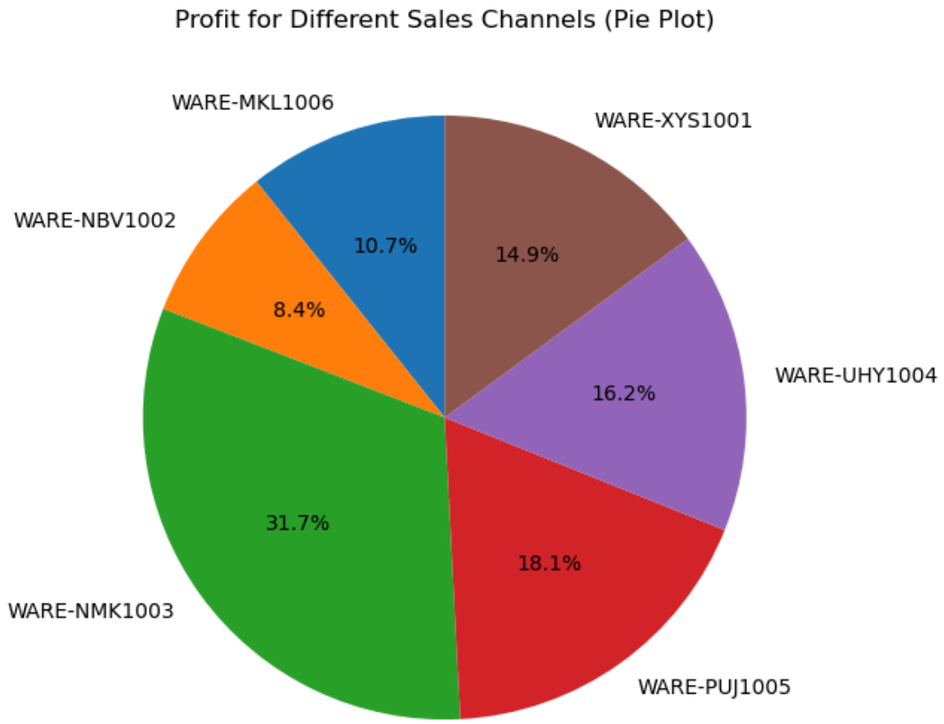


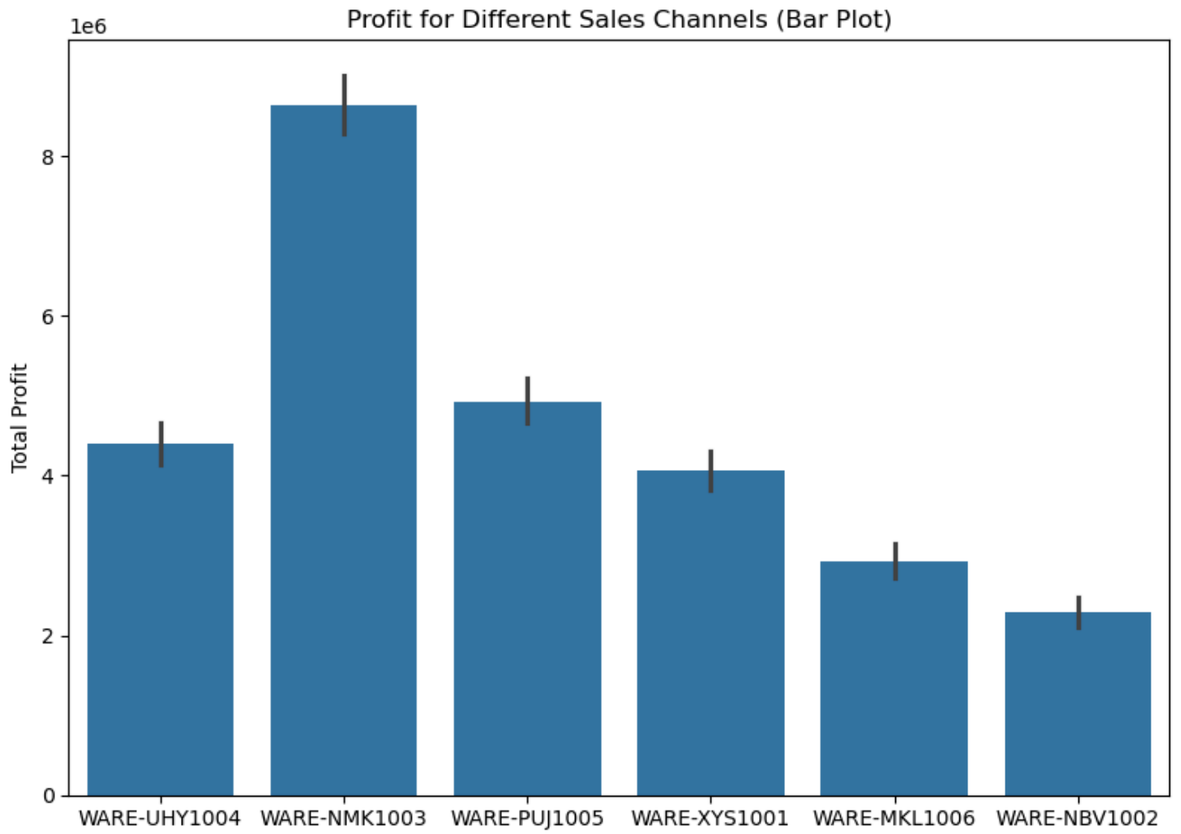
In [33]:
```
fig, axes = plt.subplots(nrows=1, ncols=2, figsize=(16, 6))

# Plotting Number of Orders Fulfilled from Different Warehouse using Seaborn
sns.histplot(data=df, x='WarehouseCode', palette='Dark2', ax=axes[0])
axes[0].set_title('Number of Orders Fulfilled from Different Warehouse')
axes[0].set_xlabel('Warehouse Code')
axes[0].set_ylabel('COUNT')

# Plotting Number of Orders Fulfilled from Different Warehouse using Seaborn (Stacked Bar Plot)
sns.histplot(data=df, y='WarehouseCode', hue='Sales Channel', multiple='stack', palette='Dark2', edgecolor='w', ax=axes[1])
axes[1].set_title('Number of Orders Fulfilled from Different Warehouse with different Sales Channels')
axes[1].set_xlabel('COUNT')
axes[1].set_ylabel('Warehouse Code')

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



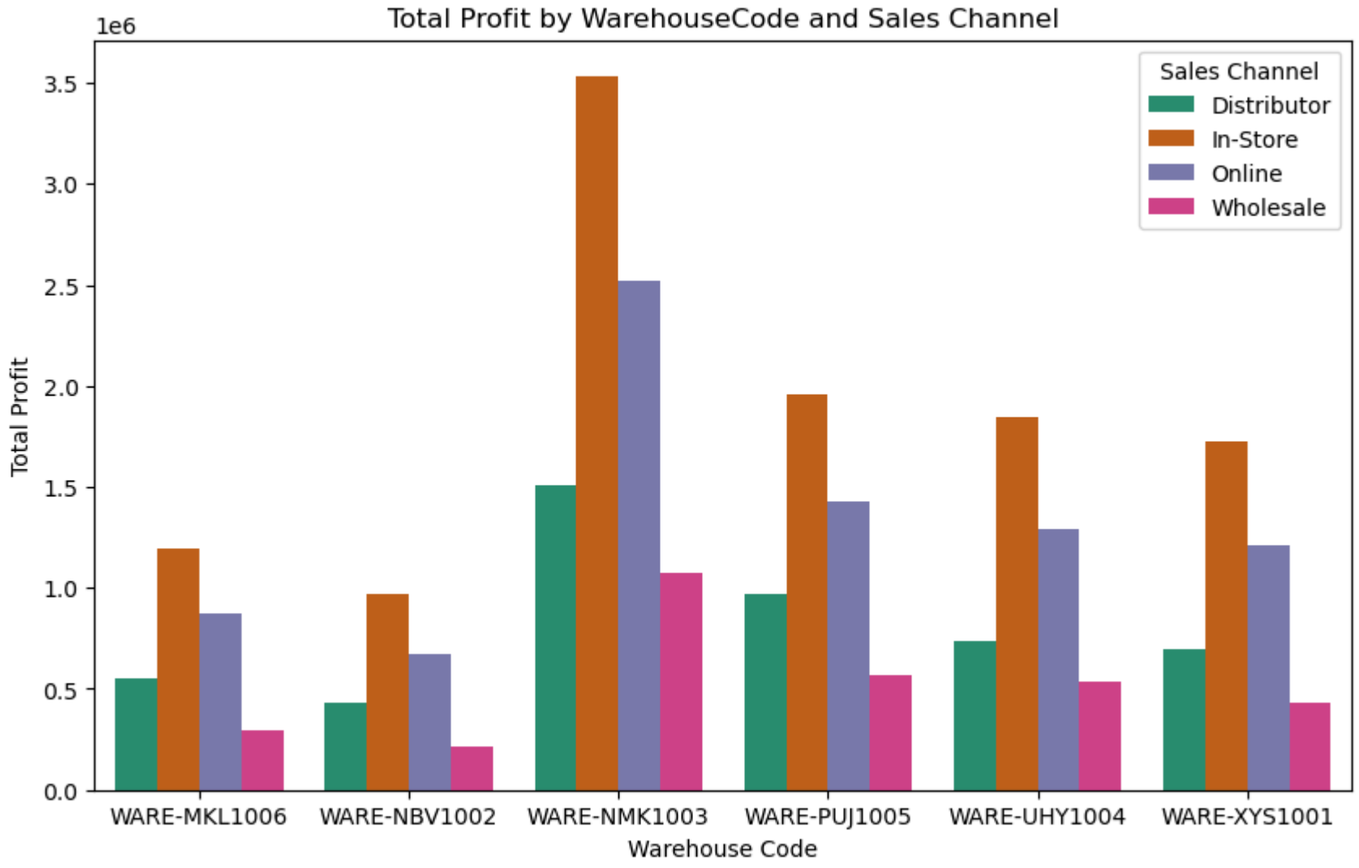


In [35]:
```
fig, axes = plt.subplots(nrows=1, ncols=2, figsize=(16, 6))

# Plotting Profit for Different Sales Channels (Pie Plot)
df.groupby('WarehouseCode')['Profit'].sum().plot.pie(autopct='%1.1f%%', startangle=90, ax=axes[0])
axes[0].set_title('Profit for Different Sales Channels (Pie Plot)')
axes[0].set_ylabel('')

# Plotting Profit for Different Sales Channels (Bar Plot)
sns.barplot(x='WarehouseCode', y='Profit', data=df, estimator=sum, ax=axes[1])
axes[1].set_title('Profit for Different Sales Channels (Bar Plot)')
axes[1].set_xlabel('Sales Channel')
axes[1].set_ylabel('Total Profit')

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

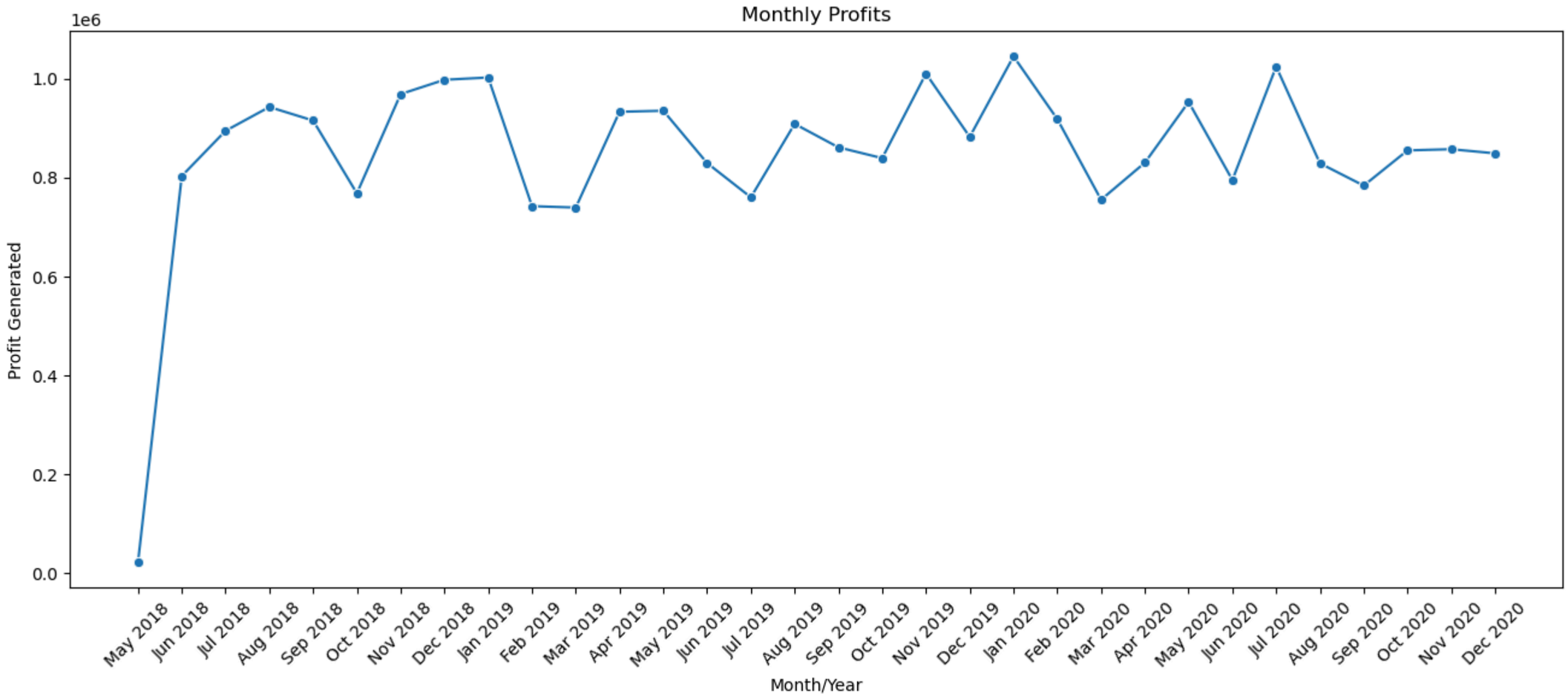




In [37]:
```
profit_by_category = df.groupby(['WarehouseCode', 'Sales Channel'])['Profit'].sum().reset_index()

# Plotting total profit for each combination using Seaborn (Bar Plot)
plt.figure(figsize=(10, 6))
sns.barplot(x='WarehouseCode', y='Profit', hue='Sales Channel', data=profit_by_category, palette='Dark2')
plt.title('Total Profit by WarehouseCode and Sales Channel')
plt.xlabel('Warehouse Code')
plt.ylabel('Total Profit')
plt.show()
```

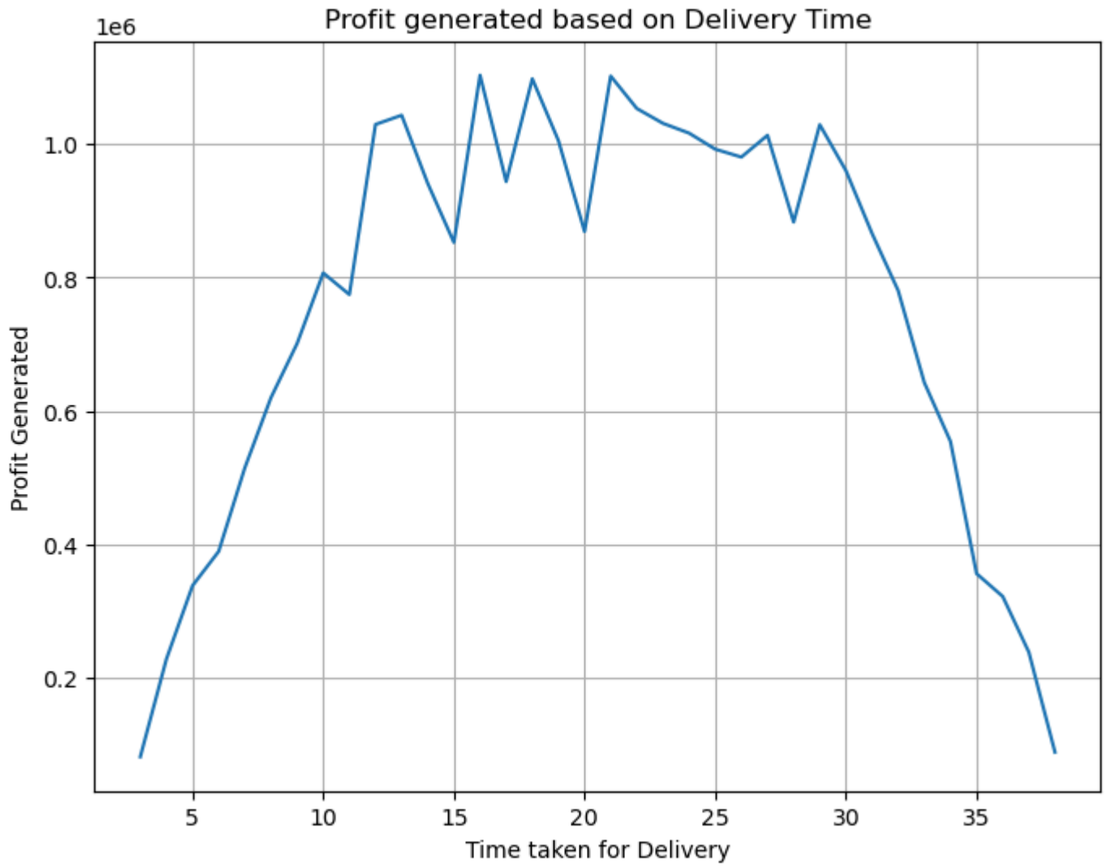


In [41]:
```
profit_by_month_year = df.groupby([df['OrderDate'].dt.to_period('M')])['Profit'].sum().reset_index()

# Plotting Profit generated per month for each month/year using Seaborn (Line Plot)
plt.figure(figsize=(16, 6))
sns.lineplot(x=profit_by_month_year.index, y='Profit', data=profit_by_month_year, marker='o')

# Format x-axis labels as "Jan 2018", "Feb 2018", etc.
plt.xticks(ticks=profit_by_month_year.index, labels=[date.strftime('%b %Y') for date in profit_by_month_year['OrderDate']], rotation=45)
plt.title('Monthly Profits')
plt.xlabel('Month/Year')
plt.ylabel('Profit Generated')
plt.show()
```

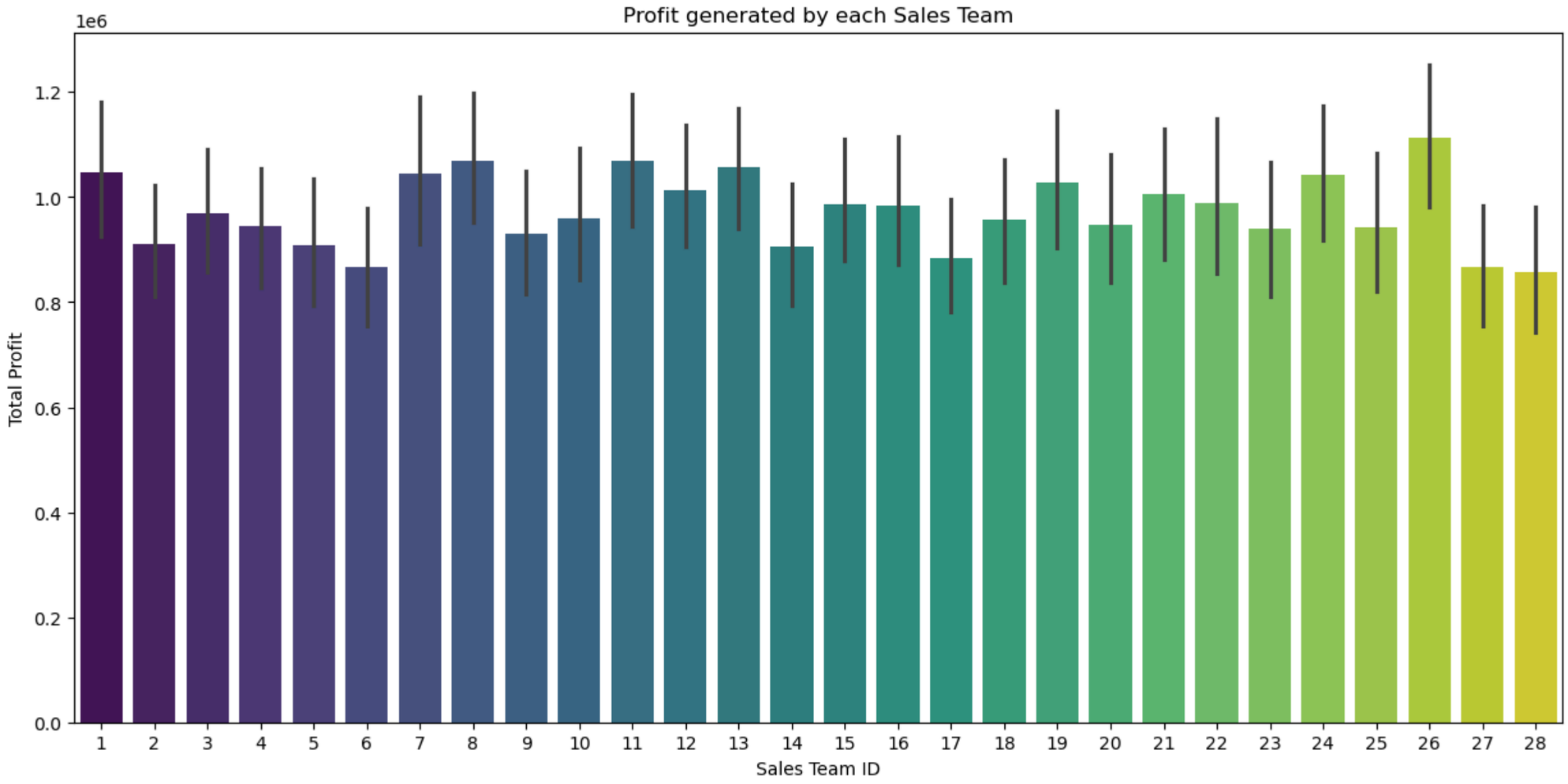


In [43]:
```
proift_delivery_time=df.groupby('Delivery_time')['Profit'].sum().reset_index()
```

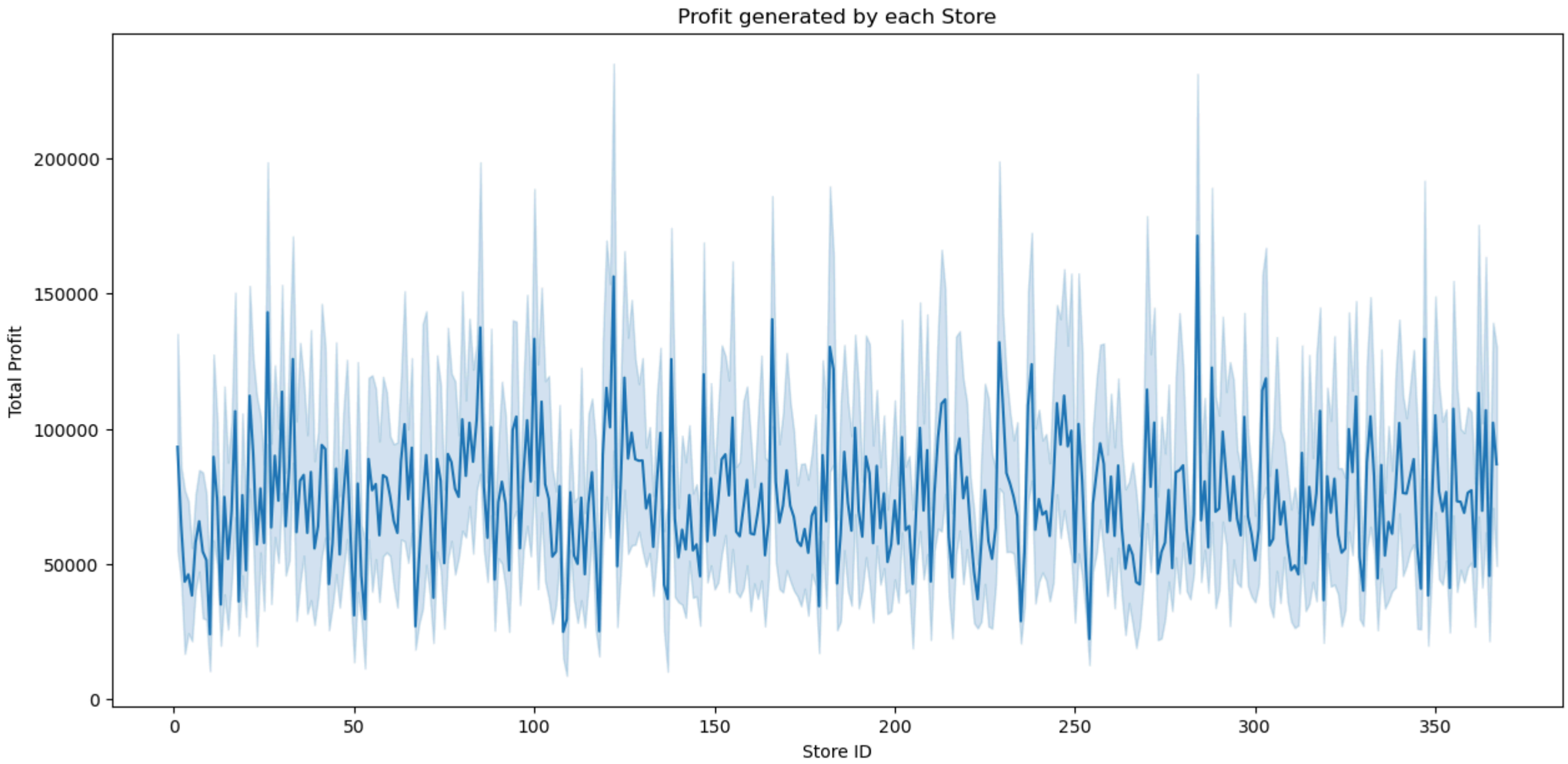
In [45]:
```
# Plotting Profit generated based on Delivery Time using Seaborn (Line Plot)
plt.figure(figsize=(8, 6))
sns.lineplot(x='Delivery_time', y='Profit', data=proift_delivery_time)
plt.title('Profit generated based on Delivery Time')
plt.xlabel('Time taken for Delivery')
plt.ylabel('Profit Generated')
plt.grid(True)
plt.show()
```



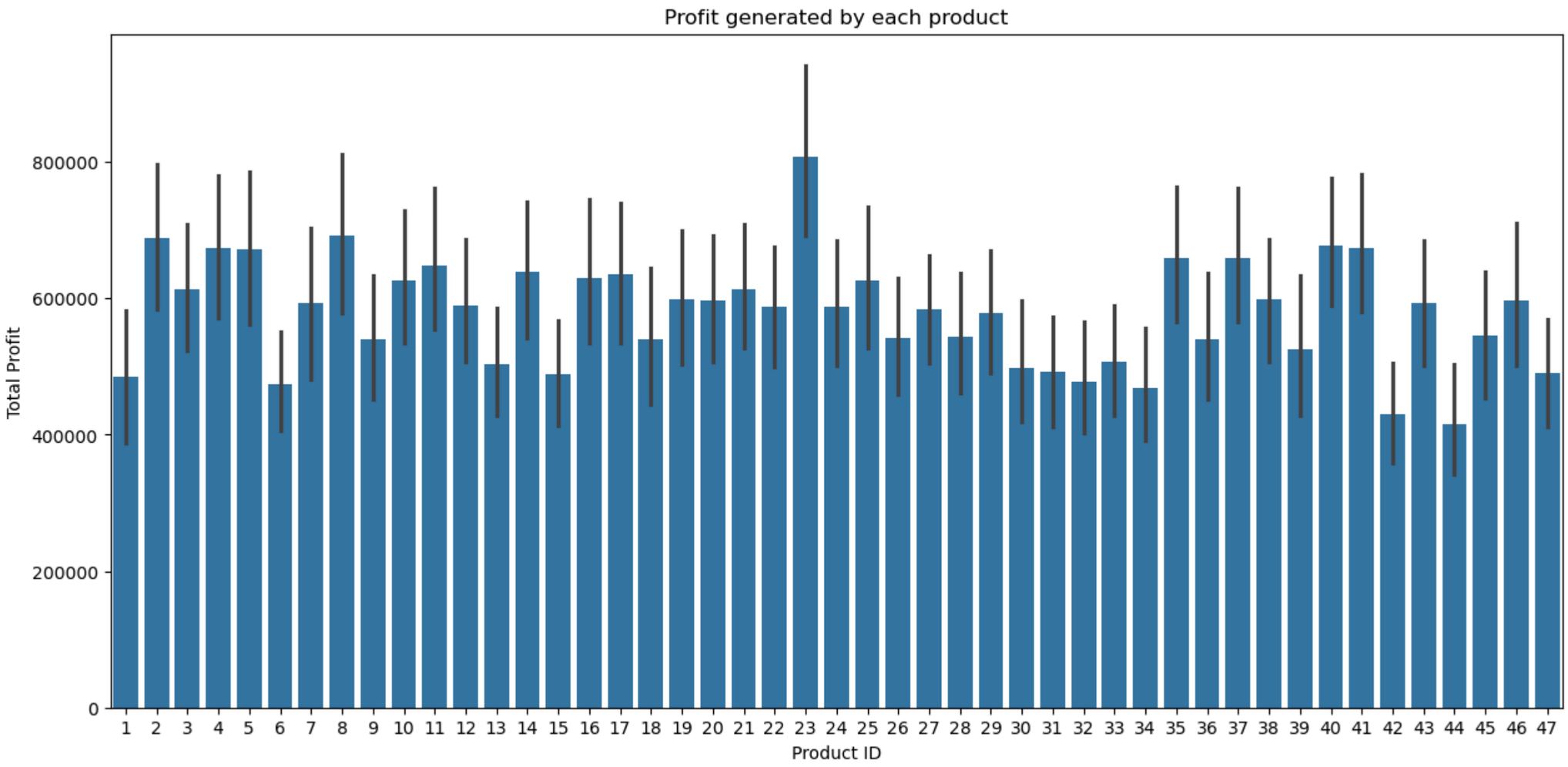
In [47]:
```
plt.figure(figsize=(15, 7))
ax = sns.barplot(x='_SalesTeamID', y='Profit', data=df, estimator=sum, palette='viridis')
plt.title('Profit generated by each Sales Team')
plt.xlabel('Sales Team ID')
plt.ylabel('Total Profit')
plt.show()
```



In [49]:
```
plt.figure(figsize=(15, 7))
ax = sns.lineplot(x='_StoreID', y='Profit', data=df, estimator=sum)
plt.title('Profit generated by each Store')
plt.xlabel('Store ID')
plt.ylabel('Total Profit')
plt.show()
```



In [51]:
```
plt.figure(figsize=(15, 7))
ax = sns.barplot(x='_ProductID', y='Profit', data=df, estimator=sum)
plt.title('Profit generated by each product')
plt.xlabel('Product ID')
plt.ylabel('Total Profit')
plt.show()
```



In [53]:
```
coefficients = np.polyfit(df['Delivery_time'], df['Profit'], 1)
trendline = np.polyval(coefficients, df['Delivery_time'])

# Plotting Delivery time vs Profit with Order Quantity as size using Seaborn (Scatter Plot)
plt.figure(figsize=(10, 6))
sns.scatterplot(x='Delivery_time', y='Profit', size='Order Quantity', data=df)
plt.plot(df['Delivery_time'], trendline, color='red', label='Trendline')
plt.title('Delivery time vs Profit with Order Quantity as size')
plt.xlabel('Delivery time')
plt.ylabel('Profit')
plt.legend()
plt.show()
```

In [55]:
```
df=df.drop(['OrderNumber','ProcuredDate','OrderDate','ShipDate','DeliveryDate','CurrencyCode'],axis=1)
```

In [57]:
```
df.head()
```

Out[57]:

	Sales Channel	WarehouseCode	_SalesTeamID	_CustomerID	_StoreID	_ProductID	Order Quantity	Discount Applied	Unit Cost	Unit Price	Delivery_time	Profit
0	In-Store	WARE-UHY1004	6	15	259	12	5	0.08	1001.18	1963.1	19	4424.83
1	Online	WARE-NMK1003	14	20	196	27	3	0.08	3348.66	3939.6	32	1630.99
2	Distributor	WARE-UHY1004	21	16	213	16	1	0.05	781.22	1775.5	31	944.57
3	Wholesale	WARE-NMK1003	28	48	107	23	8	0.08	1464.69	2324.9	7	6331.15
4	Distributor	WARE-NMK1003	22	49	111	26	8	0.10	1476.14	1822.4	26	2493.07

In [59]:
```
df.info()
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 7991 entries, 0 to 7990
Data columns (total 12 columns):
 #   Column            Non-Null Count  Dtype  
---  ------            --------------  -----  
 0   Sales Channel     7991 non-null   object 
 1   WarehouseCode     7991 non-null   object 
 2   _SalesTeamID      7991 non-null   int64  
 3   _CustomerID       7991 non-null   int64  
 4   _StoreID          7991 non-null   int64  
 5   _ProductID        7991 non-null   int64  
 6   Order Quantity    7991 non-null   int64  
 7   Discount Applied  7991 non-null   float64
 8   Unit Cost         7991 non-null   float64
 9   Unit Price        7991 non-null   float64
 10  Delivery_time     7991 non-null   int64  
 11  Profit            7991 non-null   float64
dtypes: float64(4), int64(6), object(2)
memory usage: 749.3+ KB
```

In [61]:
```
from sklearn import preprocessing
le = preprocessing.LabelEncoder()
df['Sales Channel']= le.fit_transform(df['Sales Channel'])
df['WarehouseCode']= le.fit_transform(df['WarehouseCode'])
```

In [64]:
```
from sklearn.preprocessing import StandardScaler

scaler = StandardScaler()
df[['Profit']] = scaler.fit_transform(df[['Profit']])
df[['Unit Cost']] = scaler.fit_transform(df[['Unit Cost']])
df[['Unit Price']] = scaler.fit_transform(df[['Unit Price']])
df.head()
```

Out[64]:

	Sales Channel	WarehouseCode	_SalesTeamID	_CustomerID	_StoreID	_ProductID	Order Quantity	Discount Applied	Unit Cost	Unit Price	Delivery_time	Profit
0	1	4	6	15	259	12	5	0.08	-0.387229	-0.192133	19	0.272637
1	2	2	14	20	196	27	3	0.08	1.723162	0.989284	32	-0.478134
2	0	4	21	16	213	16	1	0.05	-0.584974	-0.304267	31	-0.662591
3	3	2	28	48	107	23	8	0.08	0.029468	0.024127	7	0.784909
4	0	2	22	49	111	26	8	0.10	0.039762	-0.276234	26	-0.246473

In [66]:
```
from sklearn.model_selection import train_test_split

X = df.drop(['Profit'], axis = 1)
y = df['Profit']
X_train, X_test, y_train, y_test = train_test_split(X, y, train_size = 0.9, random_state = 42)
```

In [68]:
```
print("Shape of X_train:", X_train.shape)
print("Shape of X_test:", X_test.shape)
print("Shape of y_train:", y_train.shape)
print("Shape of y_test:", y_test.shape)
```

```
Shape of X_train: (7191, 11)
Shape of X_test: (800, 11)
Shape of y_train: (7191,)
Shape of y_test: (800,)
```

In [72]:
```
from sklearn.metrics import r2_score
from lightgbm import LGBMRegressor, Dataset
```

In [76]:
```
lgb_params = {
    'n_jobs': -1,
    'random_state': 123
}

# Create and train LGBMRegressor
lgb_model = LGBMRegressor(**lgb_params)

# Train the model
lgb_model.fit(X_train, y_train)
```

```
[LightGBM] [Warning] Found whitespace in feature_names, replace with underlines
[LightGBM] [Info] Auto-choosing col-wise multi-threading, the overhead of testing was 0.000669 seconds.
You can set `force_col_wise=true` to remove the overhead.
[LightGBM] [Info] Total Bins 942
[LightGBM] [Info] Number of data points in the train set: 7191, number of used features: 11
[LightGBM] [Info] Start training from score 0.000265
```

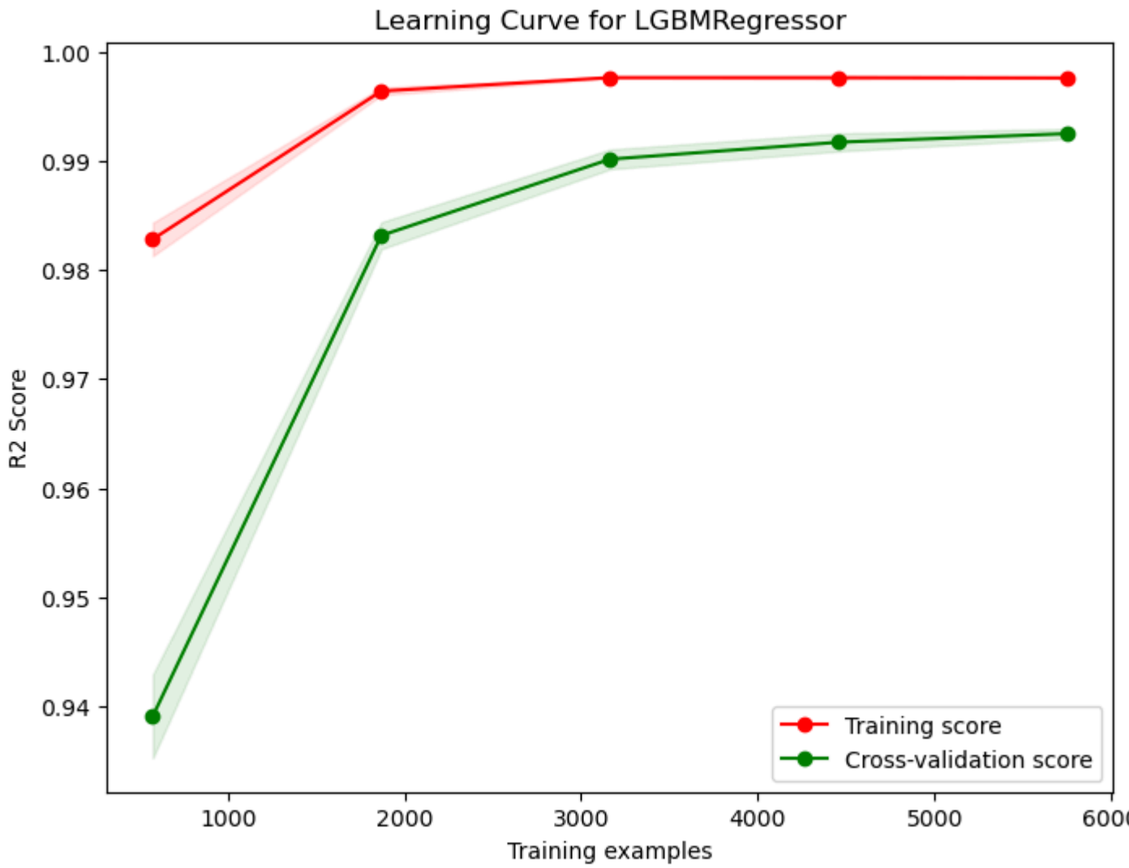
Out[76]:
```
LGBMRegressor(n_jobs=-1, random_state=123)
```

In [78]:
```
y_pred = lgb_model.predict(X_test)
r2 = r2_score(y_test, y_pred)

print(f"R2 score: {r2}")
```

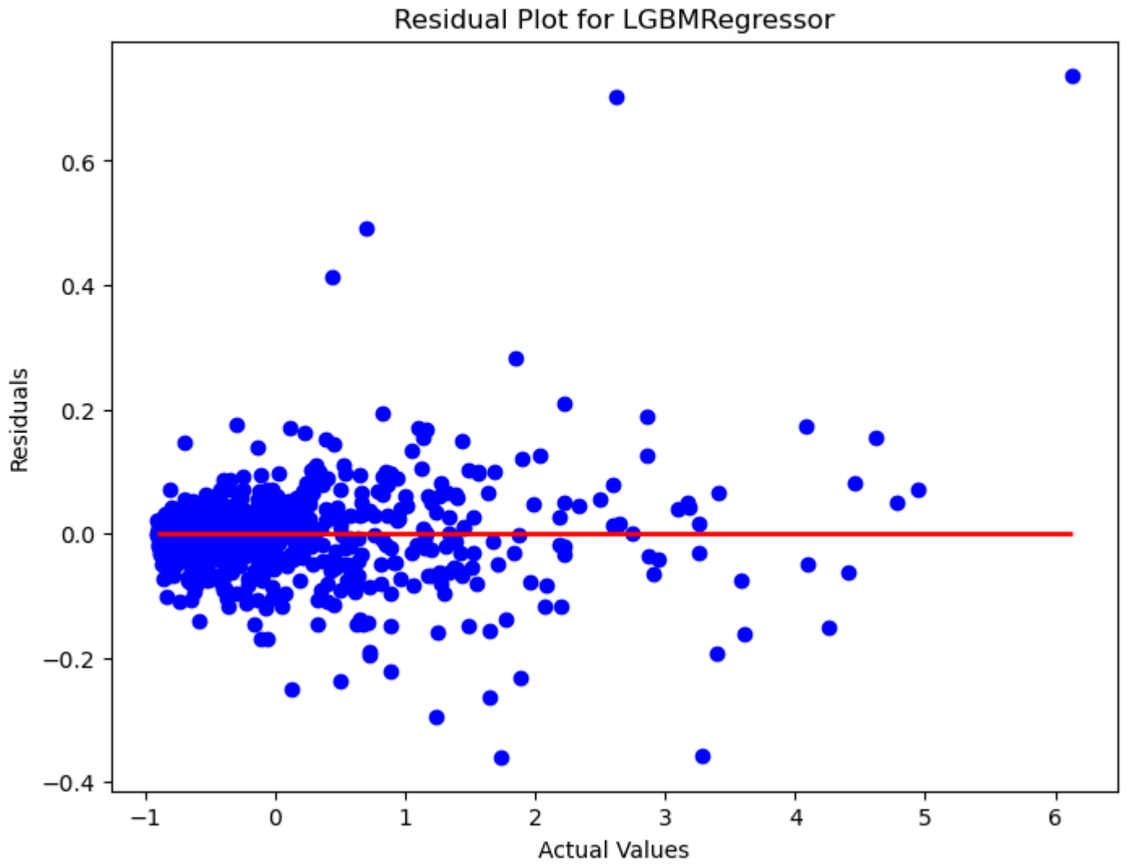
```
R2 score: 0.9944052532120707
```

In [80]:
```
from sklearn.model_selection import learning_curve

train_sizes, train_scores, test_scores = learning_curve(
    lgb_model, X_train, y_train, cv=5, scoring='r2', n_jobs=-1)

train_scores_mean = np.mean(train_scores, axis=1)
train_scores_std = np.std(train_scores, axis=1)
test_scores_mean = np.mean(test_scores, axis=1)
test_scores_std = np.std(test_scores, axis=1)

plt.figure(figsize=(8, 6))
plt.fill_between(train_sizes, train_scores_mean - train_scores_std,
                 train_scores_mean + train_scores_std, alpha=0.1,
                 color="r")
plt.fill_between(train_sizes, test_scores_mean - test_scores_std,
                 test_scores_mean + test_scores_std, alpha=0.1, color="g")
plt.plot(train_sizes, train_scores_mean, 'o-', color="r",
         label="Training score")
plt.plot(train_sizes, test_scores_mean, 'o-', color="g",
         label="Cross-validation score")
plt.xlabel("Training examples")
plt.ylabel("R2 Score")
plt.legend(loc="best")
```

```
plt.title("Learning Curve for LGBMRegressor")
plt.show()
```



In [82]:
```
residuals = y_test - y_pred

plt.figure(figsize=(8, 6))
plt.scatter(y_test, residuals, color='blue')
plt.hlines(y=0, xmin=min(y_test), xmax=max(y_test), color='red', linewidth=2)
plt.xlabel('Actual Values')
plt.ylabel('Residuals')
plt.title('Residual Plot for LGBMRegressor')
plt.show()
```


Residual Plot for LGBMRegressor
Residuals
0.6
0.4
0.2
0.0
−0.2
−0.4
−1
0
1
2
3
4
5
6
Actual Values

In [ ]: