

File Edit Selection View Go Run Terminal Help

inventory data analysis

EXPLORER

OPEN EDITORS

- Welcome
- data_loading.py
- data_cleaning.py
- eda_analysis.py
- inventory_metrics.py
- visualization.py

INVENTORY DATA ANALYSIS

- data_cleaning.py
- data_loading.py
- eda_analysis.py
- inventory_metrics.py
- visualization.py

data_cleaning.py

```
1 import pandas as pd
2
3 purchase_price = pd.read_csv("C:/Users/Admin/Desktop/2017PurchasePricesDec.csv")
4
5 # Check null values
6 print(purchase_price.isnull().sum())
7
8 # Drop missing rows
9 purchase_price.dropna(inplace=True)
10
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

PS C:\Users\Admin\Documents\inventory data analysis> python -u "c:\Users\Admin\Documents\inventory data analysis\data_cleaning.py"

```
Brand      0
Description 1
Price      0
Size       1
Volume     1
Classification 0
PurchasePrice 0
VendorNumber 0
VendorName 0
dtype: int64
Brand      int64
Description object
Price      float64
Size       object
Volume     object
Classification int64
PurchasePrice float64
VendorNumber int64
VendorName object
dtype: object
Cleaning completed
PS C:\Users\Admin\Documents\inventory data analysis>
```

powerShell

Code

master

Ln 14, Col 28 Spaces: 4 UTF-8 CRLF Python Python 3.13 (64-bit)

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INVENTORY DATA ANALYSIS

- data_cleaning.py
- data_loading.py
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- inventory_metrics.py
- tempCodeRunnerFile.py
- visualization.py

data_loading.py > ...

```
1 import pandas as pd
2
3 # Load datasets
4 purchase_price = pd.read_csv("C:/Users/Admin/Desktop/2017PurchasePricesDec.csv")
5 begin_inventory = pd.read_csv("C:/Users/Admin/Desktop/BegInvFINAL12312016.csv")
6 end_inventory = pd.read_csv("C:/Users/Admin/Desktop/EndInvFINAL12312016.csv")
7 invoice = pd.read_csv("C:/Users/Admin/Desktop/InvoicePurchases12312016.csv")
8 sales = pd.read_csv("C:/Users/Admin/Desktop/SalesFINAL12312016.csv")
9
10 print("Data Loaded Successfully!")
11 print(purchase_price.head())
12
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

Price	0
Size	1
Volume	1
Classification	0
PurchasePrice	0
VendorNumber	0
VendorName	0
dtype: int64	
Brand	int64
Description	object
Price	float64
Size	object
Volume	object
Classification	int64
PurchasePrice	float64
VendorNumber	int64
VendorName	object
dtype: object	
Cleaning completed	
PS C:\Users\Admin\Documents\inventory data analysis> python -u "C:\Users\Admin\Documents\inventory data analysis\tempCodeRunnerFile.py"	
PS C:\Users\Admin\Documents\inventory data analysis>	

OUTLINE

TIMELINE

master

Ln 7, Col 76 (53 selected) Spaces: 4 UTF-8 CRLF Python Python 3.13 (64-bit)

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INVENTORY DATA ANALYSIS

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eda_analysis.py > ...

```
1 import pandas as pd
2
3 sales = pd.read_csv("C:/Users/Admin/Desktop/SalesFINAL12312016.csv")
4
5 # Basic statistics
6 print(sales.describe())
7
8 # Top selling products
9 top_products = sales.groupby("Description")["SalesQuantity"].sum().sort_values(ascending=False).head(10)
10
11 print(top_products)
12
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

Code

PS C:\Users\Admin\Documents\inventory data analysis> python -u "C:\Users\Admin\Documents\inventory data analysis\eda_analysis.py"

	Store	Brand	SalesQuantity	SalesDollars	SalesPrice	Volume	Classification	ExciseTax	VendorNo
count	1.048575e+06	1.048575e+06	1.048575e+06	1.048575e+06	1.048575e+06	1.048575e+06	1.048575e+06	1.048575e+06	1.048575e+06
mean	4.088863e+01	1.216959e+04	2.337619e+00	3.160420e+01	1.543162e+01	9.500280e+02	1.416550e+00	1.326847e+00	6.995043e+03
std	2.435739e+01	1.241921e+04	3.511492e+00	6.570249e+01	1.404967e+01	7.142708e+02	4.929872e-01	3.407898e+00	8.426736e+03
min	1.000000e+00	5.800000e+01	1.000000e+00	4.900000e-01	4.900000e-01	5.000000e+01	1.000000e+00	1.000000e-02	2.000000e+00
25%	1.500000e+01	3.680000e+03	1.000000e+00	1.099000e+01	8.990000e+00	7.500000e+02	1.000000e+00	1.600000e-01	3.252000e+03
50%	3.900000e+01	6.290000e+03	1.000000e+00	1.799000e+01	1.299000e+01	7.500000e+02	1.000000e+00	6.800000e-01	4.425000e+03
75%	6.400000e+01	1.795400e+04	2.000000e+00	3.199000e+01	1.899000e+01	1.500000e+03	2.000000e+00	1.570000e+00	9.552000e+03
max	7.900000e+01	9.000000e+04	4.320000e+02	1.327997e+04	4.999990e+03	2.000000e+04	2.000000e+00	3.785200e+02	1.733570e+05

Description

Smirnoff 80 Proof	43423
Capt Morgan Spiced Rum	35866
Dr. McGillicuddy's Mentholant	24188
Yukon Jack	24037
Jack Daniels No 7 Black	23797
Absolut 80 Proof	23171
Smirnoff Raspberry Vodka	22459
Jim Beam	21239
Tito's Handmade Vodka	20125
Canadian Club	19187

Name: SalesQuantity, dtype: int64

PS C:\Users\Admin\Documents\inventory data analysis>

Ln 3, Col 68 Spaces: 4 UTF-8 CRLF Python Python 3.13 (64-bit)

The screenshot shows a Visual Studio Code editor window with the following components:

- Explorer Panel:** Displays the file structure of the 'inventory data analysis' project. The 'OPEN EDITORS' list includes 'Welcome', 'data_loading.py', 'data_cleaning.py', 'eda_analysis.py', 'inventory_metrics.py' (selected), and 'visualization.py'. The 'INVENTORY DATA ANALYSIS' section lists the same files, plus 'tempCodeRunnerFile.py'.
- Editor Panel:** Shows the code in 'inventory_metrics.py'. The code imports pandas and reads three CSV files from the desktop: 'BegInvFINAL12312016.csv', 'EndInvFINAL12312016.csv', and 'SalesFINAL12312016.csv'. It calculates the average inventory, cost of goods sold, and inventory turnover, printing the turnover value rounded to two decimal places.
- Terminal Panel:** Shows the command prompt output of running the script. The command is `python -u "C:\Users\Admin\Documents\inventory data analysis\inventory_metrics.py"`. The output is:

```
Inventory Turnover: 7.28
EOQ: 632
```
- Status Bar:** At the bottom, it shows 'master' as the active branch, 'Ln 14, Col 1', 'Spaces: 4', 'UTF-8', 'CRLF', 'Python' interpreter, and 'Python 3.13 (64-bit)'.

```
1 import pandas as pd
2
3 beg = pd.read_csv("C:/Users/Admin/Desktop/BegInvFINAL12312016.csv")
4 end = pd.read_csv("C:/Users/Admin/Desktop/EndInvFINAL12312016.csv")
5 sales = pd.read_csv("C:/Users/Admin/Desktop/SalesFINAL12312016.csv")
6
7 average_inventory = (beg["onHand"].sum() + end["onHand"].sum()) / 2
8 cost_of_goods_sold = sales["SalesDollars"].sum()
9
10 inventory_turnover = cost_of_goods_sold / average_inventory
11 print("Inventory Turnover:", round(inventory_turnover, 2))
12
13
```

PS C:\Users\Admin\Documents\inventory data analysis> python -u "C:\Users\Admin\Documents\inventory data analysis\inventory_metrics.py"

Inventory Turnover: 7.28
EOQ: 632

PS C:\Users\Admin\Documents\inventory data analysis>

