```
from google.colab import files
uploaded = files.upload()   # click "Choose Files" and upload both CSV files
```

Choose files No file chosen Upload widget is only available when the cell has been executed in the current browser session. Please rerun this cell to enable.

```
Saving fear_greed_index.csv to fear_greed_index (2).csv
```

```
import os

root = "/content/ds_VakitiSravanthi"
os.makedirs(root, exist_ok=True)
os.makedirs(os.path.join(root, "csv_files"), exist_ok=True)
os.makedirs(os.path.join(root, "outputs"), exist_ok=True)

print("Folders created at:", root)
```

```
Folders created at: /content/ds_VakitiSravanthi
```

```
import os

print("Current working directory:", os.getcwd())
print("\nFiles in /content:")
for fname in os.listdir('/content'):
    path = os.path.join('/content', fname)
    try:
        size = os.path.getsize(path)
    except:
        size = "?"
    print(f" - {fname}  ({size} bytes)")
```

```
Current working directory: /content

Files in /content:
 - .config  (4096 bytes)
 - fear_greed_index (2).csv  (90801 bytes)
 - ds_VakitiSravanthi  (4096 bytes)
 - fear_greed_index.csv  (90801 bytes)
 - fear_greed_index (1).csv  (90801 bytes)
 - historical_data.csv  (47516935 bytes)
 - sample_data  (4096 bytes)
```

```
import pandas as pd

trader_df = pd.read_csv("historical_data.csv")
sentiment_df = pd.read_csv("fear_greed_index.csv")

print(trader_df.head())
print(sentiment_df.head())
```

```
                                      Account  Coin  Execution Price  \
0  0xae5eacaf9c6b9111fd53034a602c192a04e082ed  @107           7.9769
1  0xae5eacaf9c6b9111fd53034a602c192a04e082ed  @107           7.9800
2  0xae5eacaf9c6b9111fd53034a602c192a04e082ed  @107           7.9855
3  0xae5eacaf9c6b9111fd53034a602c192a04e082ed  @107           7.9874
4  0xae5eacaf9c6b9111fd53034a602c192a04e082ed  @107           7.9894

   Size Tokens  Size USD Side     Timestamp IST  Start Position Direction  \
0       986.87   7872.16  BUY  02-12-2024 22:50        0.000000       Buy
1        16.00    127.68  BUY  02-12-2024 22:50      986.524596       Buy
2       144.09   1150.63  BUY  02-12-2024 22:50     1002.518996       Buy
3       142.98   1142.04  BUY  02-12-2024 22:50     1146.558564       Buy
4         8.73     69.75  BUY  02-12-2024 22:50     1289.488521       Buy

   Closed PnL                                   Transaction Hash     Order ID  \
0         0.0  0xec09451986a1874e3a980418412fcd0201f500c95bac...  52017706630
1         0.0  0xec09451986a1874e3a980418412fcd0201f500c95bac...  52017706630
2         0.0  0xec09451986a1874e3a980418412fcd0201f500c95bac...  52017706630
3         0.0  0xec09451986a1874e3a980418412fcd0201f500c95bac...  52017706630
4         0.0  0xec09451986a1874e3a980418412fcd0201f500c95bac...  52017706630

   Crossed       Fee      Trade ID     Timestamp
0     True  0.345404  8.950000e+14  1.730000e+12
1     True  0.005600  4.430000e+14  1.730000e+12
2     True  0.050431  6.600000e+14  1.730000e+12
3     True  0.050043  1.080000e+15  1.730000e+12
4     True  0.003055  1.050000e+15  1.730000e+12
```

```
    timestamp  value classification        date
0  1517463000     30           Fear  2018-02-01
1  1517549400     15   Extreme Fear  2018-02-02
2  1517635800     40           Fear  2018-02-03
3  1517722200     24   Extreme Fear  2018-02-04
4  1517808600     11   Extreme Fear  2018-02-05
```

```
Start coding or generate with AI.
```

```
print("Trader file columns:", trader_df.columns.tolist())
print("Sentiment file columns:", sentiment_df.columns.tolist())
```

```
n Price', 'Size Tokens', 'Size USD', 'Side', 'Timestamp IST', 'Start Position', 'Direction', 'Closed PnL', 'Transaction Hash', 'Orde
assification', 'date']
```

```
sentiment_df['Date'] = pd.to_datetime(sentiment_df['date']).dt.date
```

```
# For trader file: convert Timestamp IST to Date
trader_df['Date'] = pd.to_datetime(trader_df['Timestamp IST'], errors='coerce').dt.date

# For sentiment file: convert 'date' to Date
sentiment_df['Date'] = pd.to_datetime(sentiment_df['date'], errors='coerce').dt.date

# Quick check
print(trader_df[['Timestamp IST', 'Date']].head())
print(sentiment_df[['date', 'Date']].head())
```

```
      Timestamp IST        Date
0  02-12-2024 22:50  2024-02-12
1  02-12-2024 22:50  2024-02-12
2  02-12-2024 22:50  2024-02-12
3  02-12-2024 22:50  2024-02-12
4  02-12-2024 22:50  2024-02-12
         date        Date
0  2018-02-01  2018-02-01
1  2018-02-02  2018-02-02
2  2018-02-03  2018-02-03
3  2018-02-04  2018-02-04
4  2018-02-05  2018-02-05
```

```
merged_df = pd.merge(
    trader_df,
    sentiment_df[['Date', 'classification']],
    on="Date",
    how="inner"
)
```

```
print(merged_df.head())
print("Rows in merged data:", len(merged_df))
```

```
                                       Account  Coin  Execution Price  \
0  0xae5eacaf9c6b9111fd53034a602c192a04e082ed  @107           7.9769
1  0xae5eacaf9c6b9111fd53034a602c192a04e082ed  @107           7.9800
2  0xae5eacaf9c6b9111fd53034a602c192a04e082ed  @107           7.9855
3  0xae5eacaf9c6b9111fd53034a602c192a04e082ed  @107           7.9874
4  0xae5eacaf9c6b9111fd53034a602c192a04e082ed  @107           7.9894

   Size Tokens  Size USD Side     Timestamp IST  Start Position Direction  \
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   Closed PnL                                   Transaction Hash     Order ID  \
0         0.0  0xec09451986a1874e3a980418412fcd0201f500c95bac...  52017706630
1         0.0  0xec09451986a1874e3a980418412fcd0201f500c95bac...  52017706630
2         0.0  0xec09451986a1874e3a980418412fcd0201f500c95bac...  52017706630
3         0.0  0xec09451986a1874e3a980418412fcd0201f500c95bac...  52017706630
4         0.0  0xec09451986a1874e3a980418412fcd0201f500c95bac...  52017706630

   Crossed       Fee      Trade ID     Timestamp        Date classification
0     True  0.345404  8.950000e+14  1.730000e+12  2024-02-12           Greed
1     True  0.005600  4.430000e+14  1.730000e+12  2024-02-12           Greed
2     True  0.050431  6.600000e+14  1.730000e+12  2024-02-12           Greed
3     True  0.050043  1.080000e+15  1.730000e+12  2024-02-12           Greed
4     True  0.003055  1.050000e+15  1.730000e+12  2024-02-12           Greed
```

```
Rows in merged data: 35864
```

```
print(merged_df['classification'].value_counts())
```

```
classification
Fear             13869
Greed            11292
Extreme Greed     5621
Neutral           2756
Extreme Fear      2326
Name: count, dtype: int64
```

```
print(merged_df.groupby('classification')['Closed PnL'].mean())
```

```
classification
Extreme Fear       1.891632
Extreme Greed    205.816345
Fear             128.287950
Greed             53.988003
Neutral           27.088803
Name: Closed PnL, dtype: float64
```

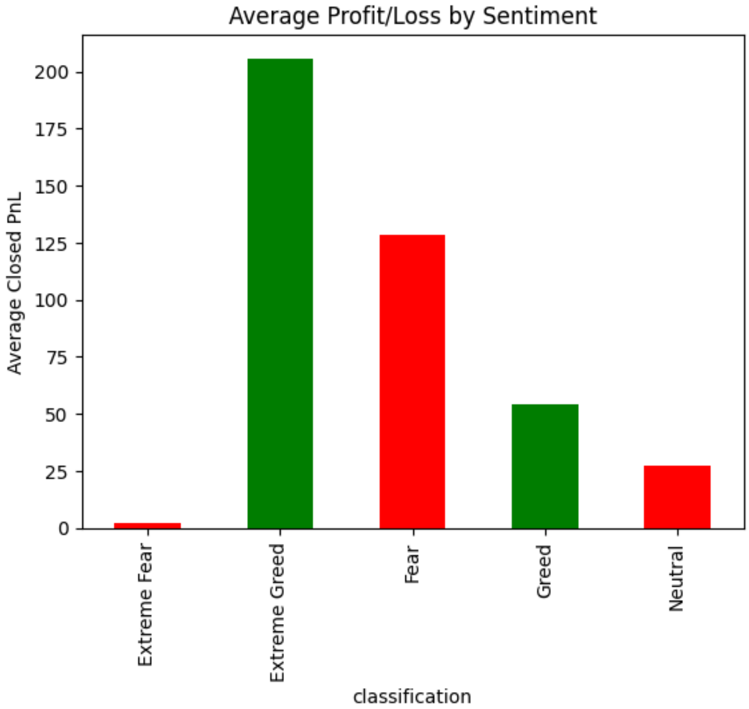
```
print(merged_df.columns.tolist())
```

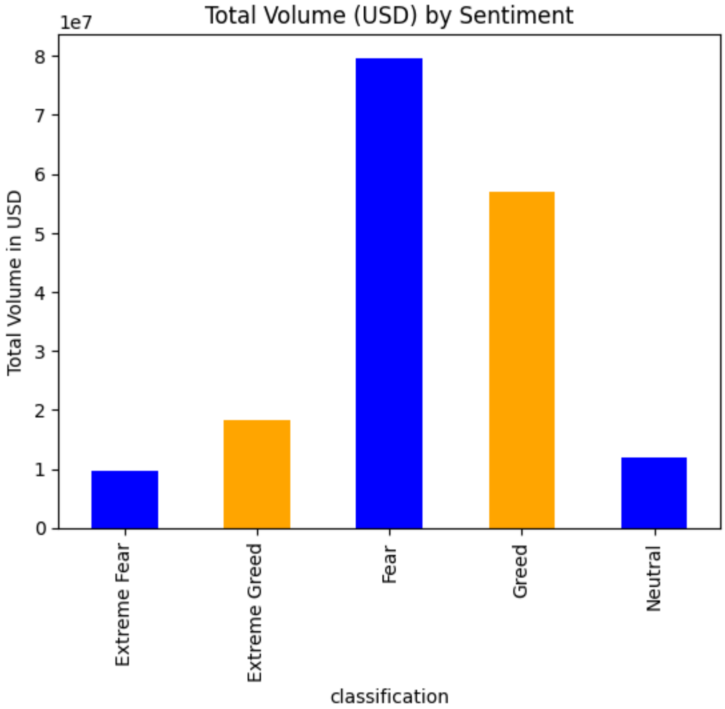
```
ize USD', 'Side', 'Timestamp IST', 'Start Position', 'Direction', 'Closed PnL', 'Transaction Hash', 'Order ID', 'Crossed', 'Fee', 'T
```

```
# Average profit/loss in each sentiment
print("Average Profit/Loss:")
print(merged_df.groupby('classification')['Closed PnL'].mean())

# Total trading volume in each sentiment
print("\nTotal Volume (USD):")
print(merged_df.groupby('classification')['Size USD'].sum())
```

```
Average Profit/Loss:
classification
Extreme Fear       1.891632
Extreme Greed    205.816345
Fear             128.287950
Greed             53.988003
Neutral           27.088803
Name: Closed PnL, dtype: float64

Total Volume (USD):
classification
Extreme Fear      9580240.04
Extreme Greed    18223760.27
Fear             79674391.06
Greed            57045815.74
Neutral          11939551.21
Name: Size USD, dtype: float64
```

```
import matplotlib.pyplot as plt
import os

# Create folder to save images
os.makedirs("outputs", exist_ok=True)

# 1. Average Profit/Loss chart
merged_df.groupby('classification')['Closed PnL'].mean().plot(kind='bar', color=['red','green'])
plt.title("Average Profit/Loss by Sentiment")
plt.ylabel("Average Closed PnL")
plt.savefig("outputs/avg_pnl_by_sentiment.png")
plt.show()

# 2. Total Volume chart
merged_df.groupby('classification')['Size USD'].sum().plot(kind='bar', color=['blue','orange'])
plt.title("Total Volume (USD) by Sentiment")
plt.ylabel("Total Volume in USD")
plt.savefig("outputs/total_volume_by_sentiment.png")
plt.show()
```





```
os.makedirs("csv_files", exist_ok=True)
merged_df.to_csv("csv_files/merged_data.csv", index=False)
```

Start coding or generate with AI.

```
csv_files/merged_data.csv
outputs/avg_pnl_by_sentiment.png
outputs/total_volume_by_sentiment.png
```

```
---------------------------------------------------------------------------
NameError                                 Traceback (most recent call last)
/tmp/ipython-input-4041393929.py in <cell line: 0>()
----> 1 csv_files/merged_data.csv
      2 outputs/avg_pnl_by_sentiment.png
      3 outputs/total_volume_by_sentiment.png

NameError: name 'csv_files' is not defined
```

```
!ls csv_files
!ls outputs
```

```
merged_data.csv
avg_pnl_by_sentiment.png  total_volume_by_sentiment.png
```

```
merged_df.groupby('classification')['Closed PnL'].mean()
```

```
                 Closed PnL
classification
 Extreme Fear      1.891632
Extreme Greed    205.816345
     Fear        128.287950
    Greed         53.988003
   Neutral        27.088803

dtype: float64
```

```
merged_df.groupby('classification')['Size USD'].sum()
```

```
                  Size USD
classification
 Extreme Fear    9580240.04
Extreme Greed   18223760.27
     Fear       79674391.06
    Greed       57045815.74
   Neutral      11939551.21

dtype: float64
```

```
from google.colab import files
files.download("csv_files/merged_data.csv")
```

```
csv_files
outputs
```

```
---------------------------------------------------------------------------
NameError                                 Traceback (most recent call last)
/tmp/ipython-input-1854661801.py in <cell line: 0>()
----> 1 csv_files
      2 outputs

NameError: name 'csv_files' is not defined
```

Next steps: Explain error