Output Pic

```python
# Merge trade data with daily market sentiment
# Each trade is associated with the sentiment of the day it was executed
df = trades.merge(
    sentiment[['date', 'classification']],
    on='date',
    how='left'
)

# Validate merge result
df[['date', 'classification']].head()
```

[29] Python

	date	classification
0	2024-10-27	Greed
1	2024-10-27	Greed
2	2024-10-27	Greed
3	2024-10-27	Greed
4	2024-10-27	Greed

```python
# Aggregate trades at a daily account level to analyze behavior and performance
daily = (
    df.groupby(['account', 'date', 'classification'])
      .agg(
          daily_pnl=('closed pnl', 'sum'),            # Total PnL per day
          win_rate=('is_win', 'mean'),                # Percentage of winning trades
          avg_trade_size_usd=('abs_size_usd', 'mean'),# Average trade size
          trades_per_day=('closed pnl', 'count'),     # Trading frequency
          long_ratio=('is_long', 'mean')              # Long vs short bias
      )
      .reset_index()
)

# Preview aggregated metrics
daily.head()
```

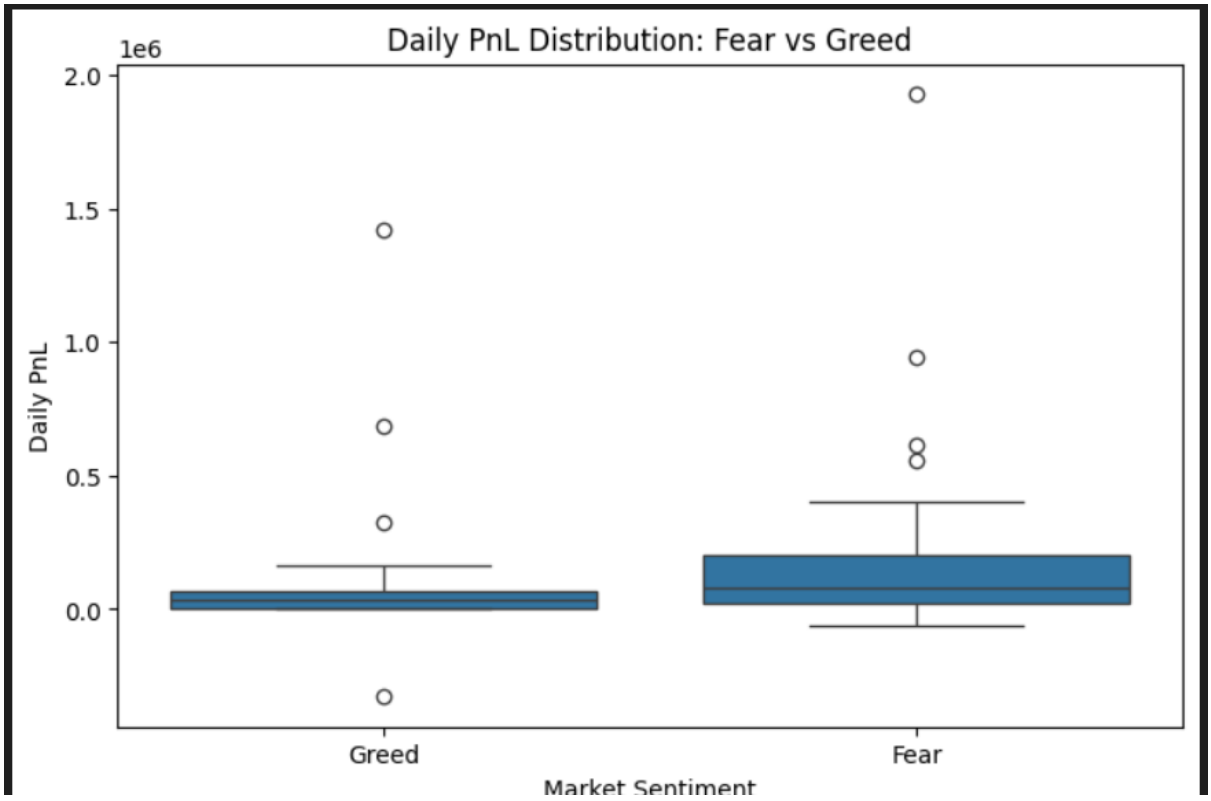
[31] Python

	account	date	classification	daily_pnl	win_rate	avg_trade_size_usd	trades_per_day	long_ratio
0	0x083384f897ee0f19899168e3b1bec365f52a9012	2024-10-27	Greed	-3.275059e+05	0.025974	14810.891818	462	0.300866
1	0x083384f897ee0f19899168e3b1bec365f52a9012	2025-02-19	Fear	1.927736e+06	0.405542	16345.241940	3356	0.468415
2	0x23e7a7f8d14b550961925fbfdaa92f5d195ba5bd	2024-10-27	Greed	2.060745e+04	0.531250	2492.749906	320	0.453125
3	0x23e7a7f8d14b550961925fbfdaa92f5d195ba5bd	2025-02-19	Fear	1.709873e+04	0.435041	1693.351684	3533	0.432494
4	0x271b280974205ca63b716753467d5a371de622ab	2024-07-03	Neutral	-1.000000e+00	0.000000	6070.200000	5	0.400000

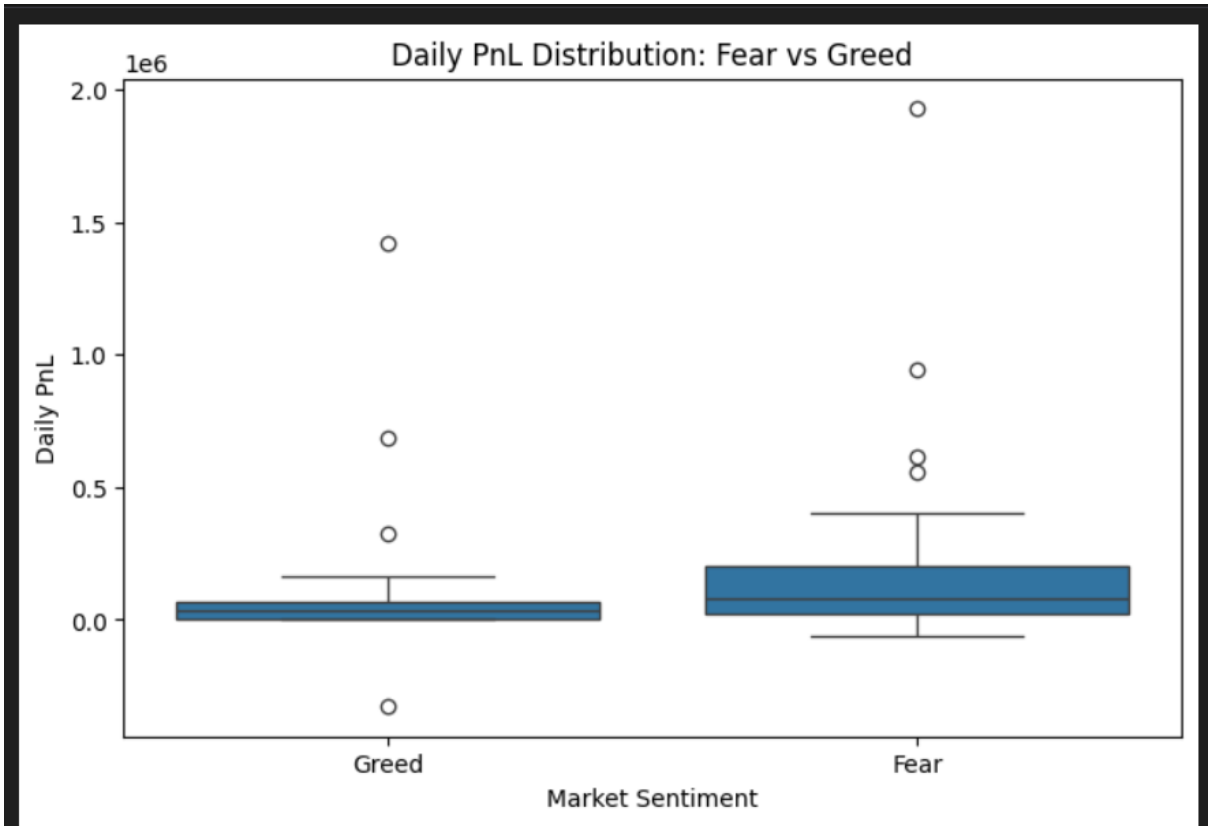
```python
# Focus analysis on extreme sentiment regimes only
analysis_df = daily[daily['classification'].isin(['Fear', 'Greed'])].copy()

# Check distribution of sentiment classes
analysis_df['classification'].value_counts()
```

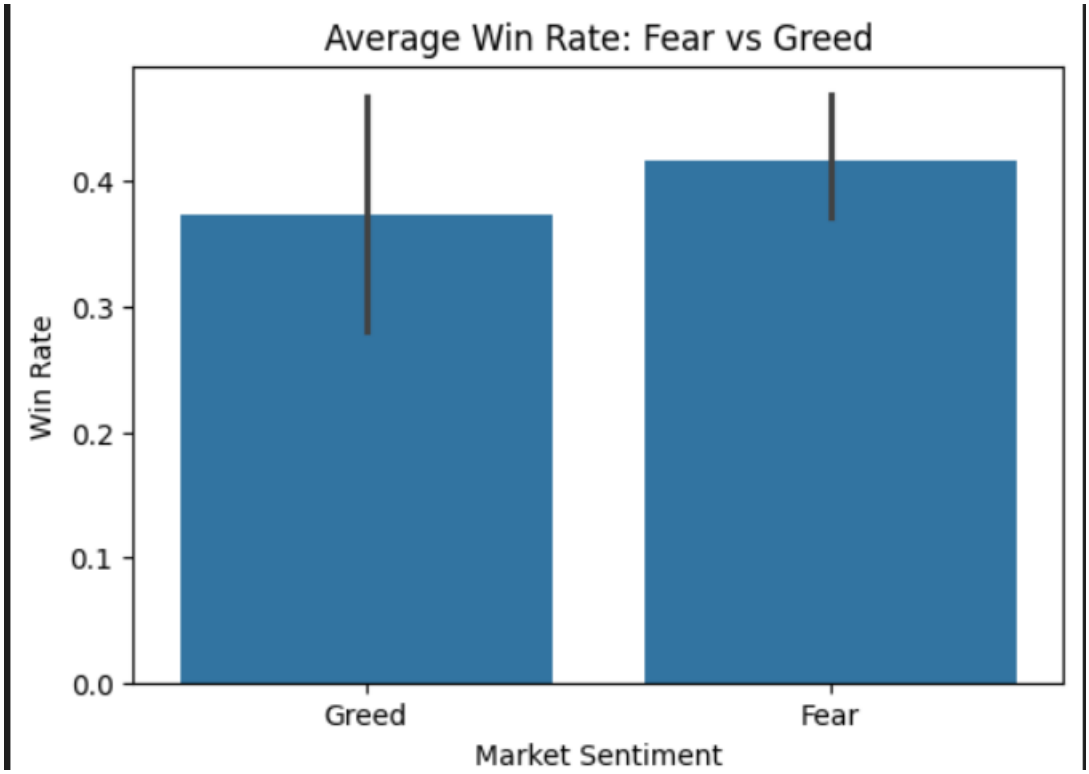
[32] Python

```
classification
Greed    32
Fear     32
Name: count, dtype: int64
```

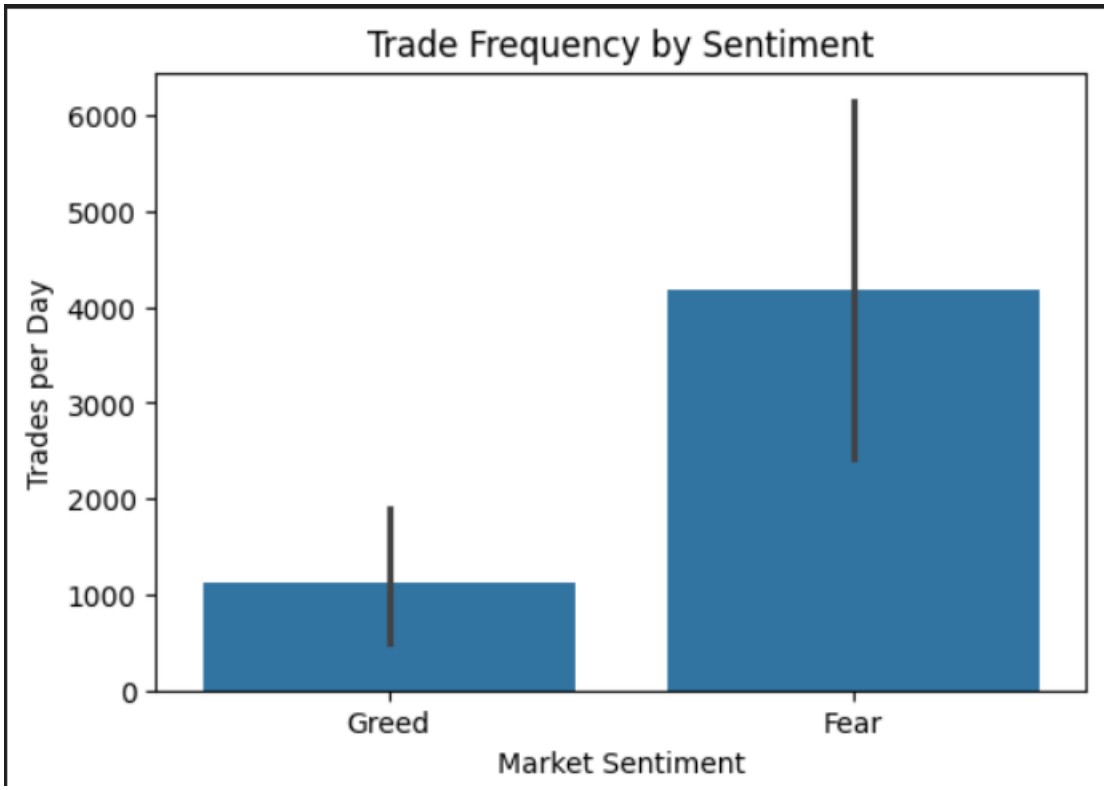


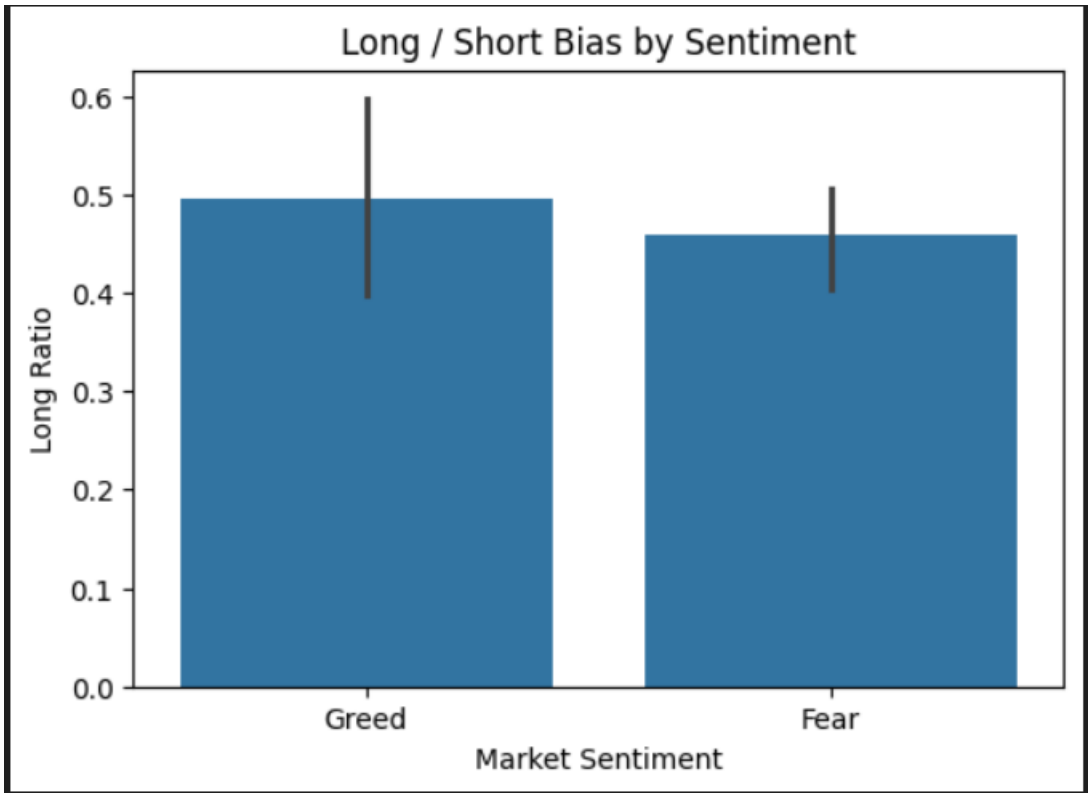
Output Pic


Daily PnL Distribution: Fear vs Greed
1e6
2.0
1.5
1.0
0.5
0.0
Daily PnL
Greed
Fear
Market Sentiment

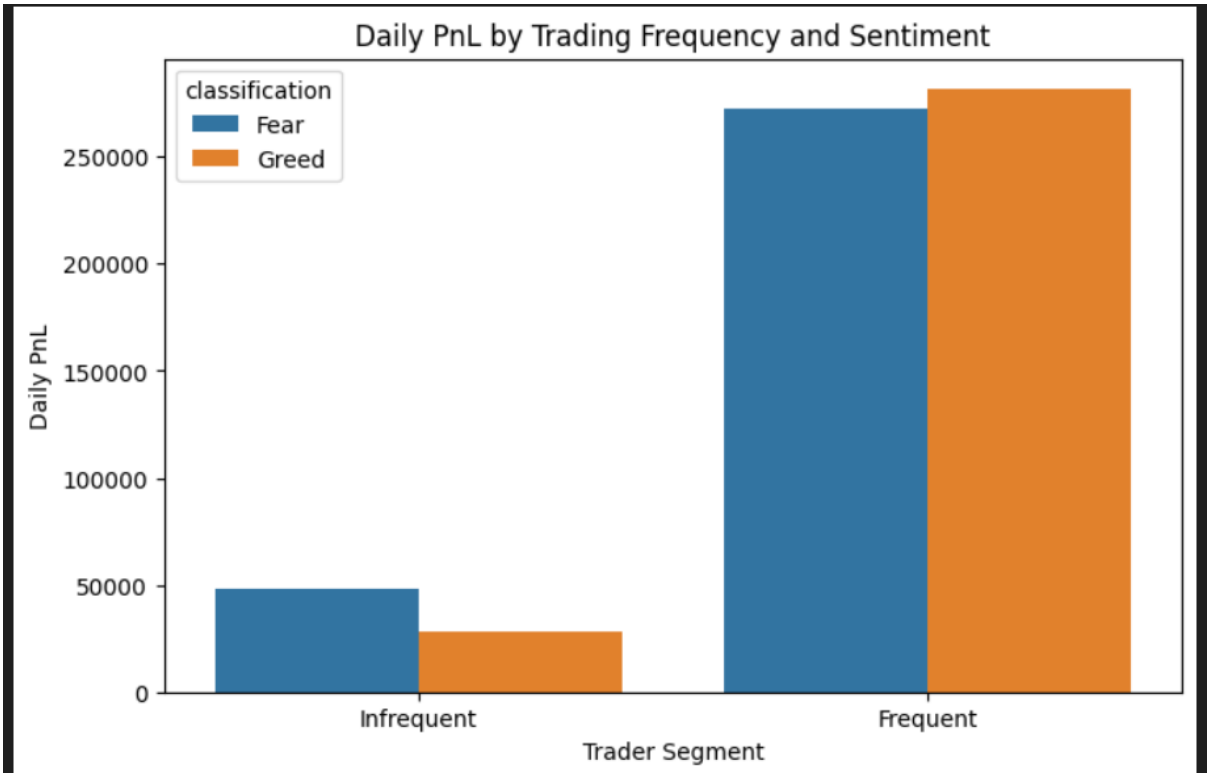

Average Win Rate: Fear vs Greed
0.4
0.3
0.2
0.1
0.0
Win Rate
Greed
Fear
Market Sentiment

Output Pic


Trade Frequency by Sentiment
Trades per Day
6000
5000
4000
3000
2000
1000
0
Greed
Fear
Market Sentiment


Long / Short Bias by Sentiment
Long Ratio
0.6
0.5
0.4
0.3
0.2
0.1
0.0
Greed
Fear
Market Sentiment

Output Pic



	account	date	classification	strategy_signal
0	0x083384f897ee0f19899168e3b1bec365f52a9012	2024-10-27	Greed	Reduce position size
1	0x083384f897ee0f19899168e3b1bec365f52a9012	2025-02-19	Fear	Reduce trade frequency
2	0x23e7a7f8d14b550961925fbfdaa92f5d195ba5bd	2024-10-27	Greed	No action
3	0x23e7a7f8d14b550961925fbfdaa92f5d195ba5bd	2025-02-19	Fear	Reduce trade frequency
5	0x271b280974205ca63b716753467d5a371de622ab	2024-10-27	Greed	Reduce position size

Output Pic

	precision	recall	f1-score	support
Loss	0.50	0.50	0.50	4
Neutral	0.33	0.67	0.44	3
Profit	0.67	0.33	0.44	6
accuracy			0.46	13
macro avg	0.50	0.50	0.46	13
weighted avg	0.54	0.46	0.46	13