visualization – Project Visual Summary

This folder contains all charts and graphs generated throughout the six core tasks of the **Employee Sentiment Analysis** project.
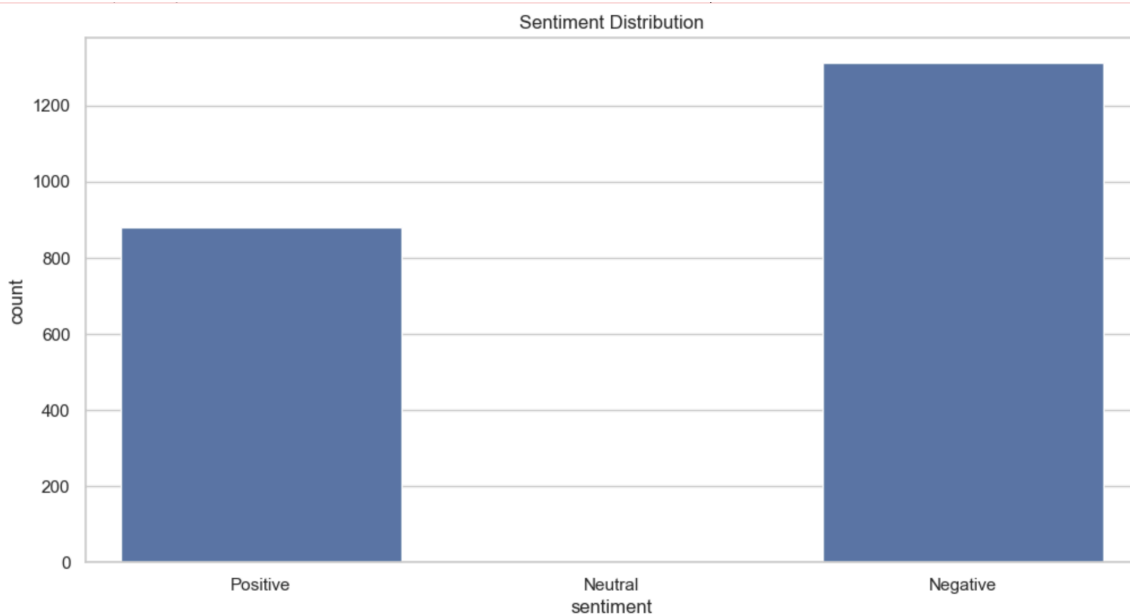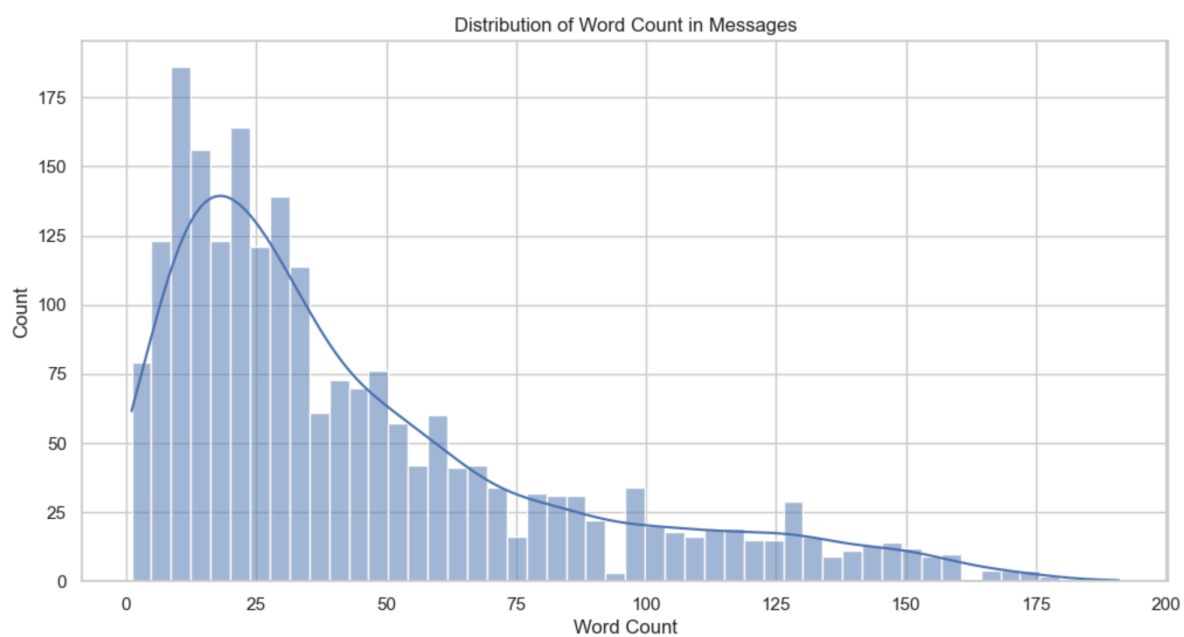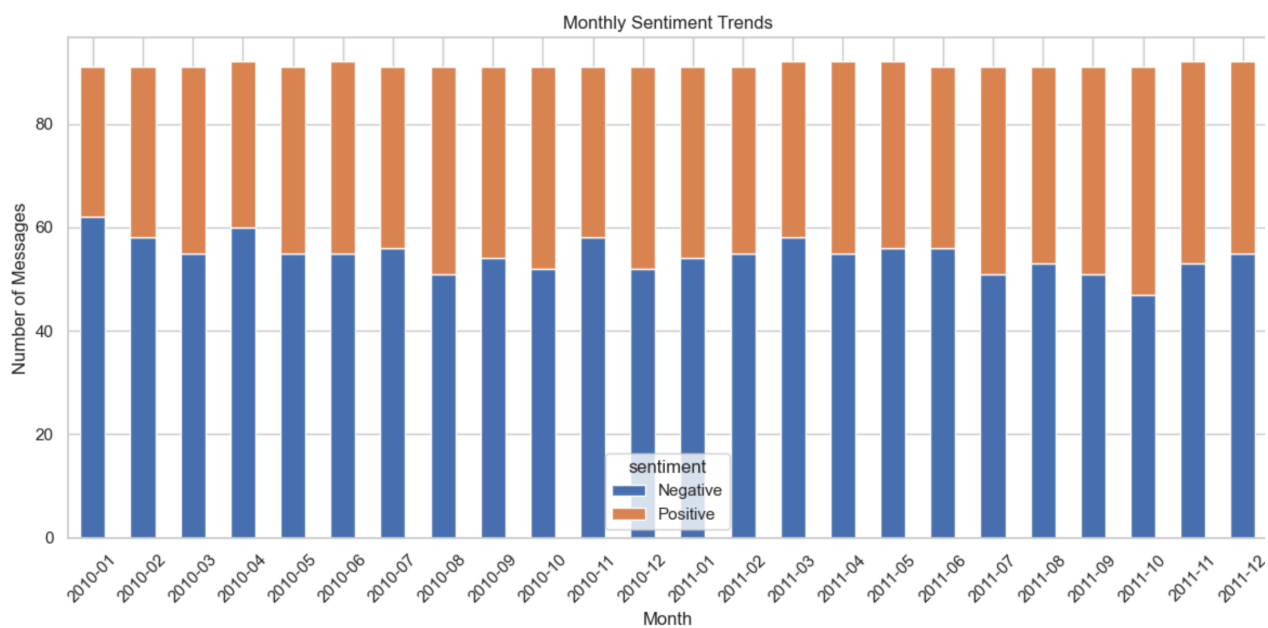
🔷 Task 1: Sentiment Labeling

[18]:		from	date	sentiment
	0	sally.beck@enron.com	2010-05-10	Negative
	1	eric.bass@enron.com	2010-07-29	Negative
	2	sally.beck@enron.com	2011-07-25	Negative
	3	johnny.palmer@enron.com	2010-03-25	Negative
	4	lydia.delgado@enron.com	2011-05-21	Positive

🔷 Task 2: Exploratory Data Analysis (EDA)

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Monthly Sentiment Trends

Distribution of Word Count in Messages

◆ Task 3: Monthly Sentiment Scoring

[22]:

	employee	month	monthly_score
0	bobette.riner@ipgdirect.com	2010-01	-2
1	bobette.riner@ipgdirect.com	2010-02	-4
2	bobette.riner@ipgdirect.com	2010-03	-3
3	bobette.riner@ipgdirect.com	2010-04	-2
4	bobette.riner@ipgdirect.com	2010-05	2

◆ Task 4: Employee Ranking

[24]:

	employee	month	monthly_score	rank_type
24	don.baughman@enron.com	2010-01	-5	Top Negative
144	lydia.delgado@enron.com	2010-01	-5	Top Negative
120	kayne.coulter@enron.com	2010-01	-6	Top Negative
72	john.arnold@enron.com	2010-01	-1	Top Positive
192	rhonda.denton@enron.com	2010-01	-1	Top Positive
0	bobette.riner@ipgdirect.com	2010-01	-2	Top Positive
1	bobette.riner@ipgdirect.com	2010-02	-4	Top Negative
73	john.arnold@enron.com	2010-02	-8	Top Negative
121	kayne.coulter@enron.com	2010-02	-8	Top Negative
145	lydia.delgado@enron.com	2010-02	1	Top Positive

🔷 Task 5: Flight Risk Detection

[26]:

	employee	flight_risk
0	lydia.delgado@enron.com	True
1	sally.beck@enron.com	True
2	johnny.palmer@enron.com	True
3	don.baughman@enron.com	True
4	eric.bass@enron.com	True

🔷 Task 6: Predictive Modeling

📷 **regression_model_performance.png**

```
📊 Model Performance:
R² Score: 0.5484671927215263
MAE: 1.4888852658812815

Feature Importance:
         Feature   Coefficient
0      msg_count     -0.198727
1  avg_word_count     0.005465
2   avg_sentiment     2.715936
3        pos_pct     1.357968
4        neg_pct    -1.357968
```