

# 資工碩一 113598007 楊明哲

## 環境設置

### 1. Windows

- 環境版本
  - Java : 17.0.12
  - Python : 3.10.10
  - PySpark : 3.5.3
  - Pandas : 2.2.3
- 執行指令 `spark-class org.apache.spark.deploy.master.Master` , 並打開 URL
  - 指令結果

```
C:\Windows\System32>spark-class org.apache.spark.deploy.master.Master
Using Spark's default log4j profile: org/apache/spark/log4j2-defaults.properties
24/11/19 18:11:42 INFO Master: Started daemon with process name: 24436@DESKTOP-F8U5CHM
24/11/19 18:11:42 WARN NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java cl
asses where applicable
24/11/19 18:11:42 INFO SecurityManager: Changing view acls to: Zhe
24/11/19 18:11:42 INFO SecurityManager: Changing modify acls to: Zhe
24/11/19 18:11:42 INFO SecurityManager: Changing view acls groups to:
24/11/19 18:11:42 INFO SecurityManager: Changing modify acls groups to:
24/11/19 18:11:42 INFO SecurityManager: SecurityManager: authentication disabled; ui acls disabled; users with view perm
issions: Zhe; groups with view permissions: EMPTY; users with modify permissions: Zhe; groups with modify permissions: E
MPTY
24/11/19 18:11:43 INFO Utils: Successfully started service 'sparkMaster' on port 7077.
24/11/19 18:11:43 INFO Master: Starting Spark master at spark://192.168.18.11:7077
24/11/19 18:11:43 INFO Master: Running Spark version 3.5.3
24/11/19 18:11:43 INFO JettyUtils: Start Jetty 0.0.0.0:8080 for MasterUI
24/11/19 18:11:43 INFO Utils: Successfully started service 'MasterUI' on port 8080.
24/11/19 18:11:43 INFO MasterWebUI: Bound MasterWebUI to 0.0.0.0, and started at http://DESKTOP-F8U5CHM:8080
24/11/19 18:11:43 INFO Master: I have been elected leader! New state: ALIVE
24/11/19 18:12:05 INFO Master: Registering worker 192.168.46.128:37775 with 16 cores, 6.7 GiB RAM
```

### 2. Ubuntu

- 環境版本
  - Memory : 8GB
  - Processors : 16
  - Java : 17.0.12
  - Python : 3.10.12
  - Spark : 3.5.3
- 執行 `spark-class org.apache.spark.depley.worker.Worker spark://192.168.18.11:7077`

## 資料夾結構

- homework2.py
- Data
  - all of datasets
- Output
  - all of output csv

## 源代碼

```
1 import pandas as pd
2 import numpy as np
3 from pyspark.sql import SparkSession
4 from pyspark.sql.functions import explode, split, lower, regexp_replace, to_date, avg, col, expr, sum, regexp_replace, udf
5 from itertools import combinations
6
7 # Create SparkSession
8 spark = SparkSession.builder.appName("News Word Frequency Analysis").getOrCreate()
9
10 # Read Data
11 file_path = './Data/News_Final.csv'
12 df = pd.read_csv(file_path)
13 df.dropna(inplace=True)
14
15 # Convert Pandas DataFrame to Spark DataFrame
16 spark_df_origin = spark.createDataFrame(df)
17 spark_df_origin = spark_df_origin.withColumn('PublishDate', to_date(col('PublishDate'), 'yyyy-MM-dd HH:mm:ss'))
18
19 # Q1 : Title word frequency
20 spark_df = spark_df_origin
21 spark_df = spark_df.withColumn('Title', lower(col('Title')))
22 spark_df = spark_df.withColumn('Title', regexp_replace(col('Title'), '[^\w\s]', ''))
23 spark_df = spark_df.withColumn('word', explode(split(col('Title'), '\s+'))))
24
25 # Total word frequency
26 total_word_freq = spark_df.groupBy('word').count().orderBy(col('count').desc())
27
28 # Daily word frequency
29 daily_word_freq = spark_df.groupBy('PublishDate', 'word').count().orderBy(col('PublishDate'), col('count').desc())
30
31 # Topic word frequency
32 topic_word_freq = spark_df.groupBy('Topic', 'word').count().orderBy(col('Topic'), col('count').desc())
33
34 total_word_freq.show()
35 daily_word_freq.show()
36 topic_word_freq.show()
37
38 # Save results as CSV
39 total_word_freq_path = "./output/total_word_frequency.csv"
40 daily_word_freq_path = "./output/daily_word_frequency.csv"
41 topic_word_freq_path = "./output/topic_word_frequency.csv"
42
43 # Convert to Pandas and save
44 total_word_freq.toPandas().to_csv(total_word_freq_path, index=False)
45
46 daily_word_freq.toPandas().to_csv(daily_word_freq_path, index=False)
47 topic_word_freq.toPandas().to_csv(topic_word_freq_path, index=False)
48
49 print(f"Total word frequency saved to: {total_word_freq_path}")
50 print(f"Daily word frequency saved to: {daily_word_freq_path}")
51 print(f"Topic word frequency saved to: {topic_word_freq_path}")
52
53 # Q2 : Social Media word frequency
54 platforms = ['Facebook', 'GooglePlus', 'LinkedIn']
55 topics = ['Economy', 'microsoft', 'obama', 'palestine']
56
57 hourly_avg_combined = {topic: [] for topic in topics} # 初始化字典
58 daily_avg_combined = {topic: [] for topic in topics} # 初始化字典
59
60 for topic in topics:
61     hourly_results = []
62     daily_results = []
63
64     for platform in platforms:
65         # Read Media Data
66         file_path = f'./Data/{platform}_{topic}.csv'
67         df_platform = pd.read_csv(file_path)
68         df_platform.dropna(inplace=True)
69
70         # Convert Pandas DataFrame to Spark DataFrame
71         spark_df = spark.createDataFrame(df_platform)
72
73         # Hour
74         hourly_avg_df = spark_df.select(
75             [avg(col(f'TS{i}')).alias(f'Hour_{i}') for i in range(1, 145)]
76         )
77         hourly_results.append(hourly_avg_df.toPandas())
78
79         # Daily
80         daily_avg_df = spark_df.withColumn(
81             "Daily_Avg", expr(" + ".join([f"TS{i}" for i in range(1, 145)] + " / 144")
82         ).select(avg(col("Daily_Avg")).alias("Daily_Avg_Popularity"))
83         daily_results.append(daily_avg_df.toPandas())
84
85     # Combine results
86     hourly_combined = pd.concat(hourly_results, axis=1)
87     daily_combined = pd.concat(daily_results, axis=1)
```

```

89     # Save results
90     hourly_avg_combined[topic] = hourly_combined
91     daily_avg_combined[topic] = daily_combined
92
93     hourly_output_path = f"./output/{topic}_hourly_avg.csv"
94     daily_output_path = f"./output/{topic}_daily_avg.csv"
95
96     hourly_combined.to_csv(hourly_output_path, index=False)
97     daily_combined.to_csv(daily_output_path, index=False)
98
99     print(f"Hourly average for topic '{topic}' saved to: {hourly_output_path}")
100    print(f"Daily average for topic '{topic}' saved to: {daily_output_path}")
101
102    for topic in topics:
103        print(f"\nHourly average for topic '{topic}':")
104        print(hourly_avg_combined[topic])
105
106        print(f"\nDaily average for topic '{topic}':")
107        print(daily_avg_combined[topic])
108
109    # Q3 : Sum and average sentiment score of each topic
110
111    spark_df = spark_df_origin
112
113    # Calculate the sum and average
114    sentiment_results = spark_df.groupBy("Topic").agg(
115        sum(col("SentimentTitle")).alias("Sum_SentimentTitle"),
116        avg(col("SentimentTitle")).alias("Avg_SentimentTitle"),
117        sum(col("SentimentHeadline")).alias("Sum_SentimentHeadline"),
118        avg(col("SentimentHeadline")).alias("Avg_SentimentHeadline")
119    )
120
121    print("Sentiment analysis results:")
122    sentiment_results.show(truncate=False)
123
124    sentiment_results_pd = sentiment_results.toPandas()
125    output_path = "./output/sentiment_analysis_results.csv"
126    sentiment_results_pd.to_csv(output_path, index=False)
127    print(f"Sentiment analysis results saved to: {output_path}")
128
129    # Q4 : Top 100 words in title and content
130
131    # Clean text data
132    def preprocess_text(df, column_name):
133
134        df = df.withColumn(column_name, lower(col(column_name)))
135        df = df.withColumn(column_name, regexp_replace(col(column_name), r"^[^w\s]", ""))
136        return df
137
138
139    # Calculate top 100 words
140    def get_top_words(df, column_name, topic):
141        # Filter by topic
142        df = df.filter(col("Topic") == topic)
143
144        # Split words and explode
145        word_freq = df.withColumn("word", explode(split(col(column_name), r"\s+"))) \
146            .groupBy("word").count().orderBy(col("count").desc())
147
148        # Extract top 100 words
149        top_words = word_freq.limit(100).select("word").rdd.flatMap(lambda x: x).collect()
150        return top_words
151
152    # Calculate top 100 words for each topic
153    def compute_cooccurrence_matrix(df, column_name, topic, top_words):
154        # Filter by topic
155        df = df.filter(col("Topic") == topic)
156
157        # Split words
158        df = df.withColumn("words", split(col(column_name), r"\s+"))
159
160        # Filter top 100 words
161        @udf("array<string>")
162        def filter_top_words(words):
163            return [word for word in words if word in top_words]
164
165        df = df.withColumn("filtered_words", filter_top_words(col("words")))
166
167        # Create word pairs
168        @udf("array<string>")
169        def generate_word_pairs(words):
170            return ["|".join(sorted(pair)) for pair in combinations(words, 2)]
171
172        df = df.withColumn("word_pairs", generate_word_pairs(col("filtered_words")))
173        exploded_df = df.select(explode(col("word_pairs")).alias("word_pair"))
174        cooccurrence_count = exploded_df.groupBy("word_pair").count()
175

```

```


176 # Convert to co-occurrence matrix
177 word_index = {word: idx for idx, word in enumerate(top_words)}
178 matrix_size = len(top_words)
179 cooccurrence_matrix = np.zeros((matrix_size, matrix_size), dtype=int)
180
181 for row in cooccurrence_count.collect():
182     word1, word2 = row["word_pair"].split("|")
183     count = row["count"]
184     if word1 in word_index and word2 in word_index:
185         idx1, idx2 = word_index[word1], word_index[word2]
186         cooccurrence_matrix[idx1, idx2] += count
187         cooccurrence_matrix[idx2, idx1] += count
188
189 # Save co-occurrence matrix
190 output_path = f"./output/{topic}_{column_name}_top100_cooccurrence_matrix.csv"
191 pd.DataFrame(cooccurrence_matrix, index=top_words, columns=top_words).to_csv(output_path, index=True)
192 print(f"Co-occurrence matrix for topic '{topic}' ({column_name}) saved to {output_path}")
193
194 # Process each topic
195 topics = ["economy", "microsoft", "obama", "palestine"]
196 for topic in topics:
197     spark_df = spark_df_origin
198     spark_df = preprocess_text(spark_df, "Title")
199     spark_df = preprocess_text(spark_df, "Headline")
200     print(f"Processing topic: {topic}")
201
202 # Calculate Title's Top 100 words
203 top_words_title = get_top_words(spark_df, "Title", topic)
204 compute_cooccurrence_matrix(spark_df, "Title", topic, top_words_title)
205
206 # Calculate Headline's Top 100 words
207 top_words_headline = get_top_words(spark_df, "Headline", topic)
208 compute_cooccurrence_matrix(spark_df, "Headline", topic, top_words_headline)

```

## 輸出結果

- 執行 `spark-submit --master spark://192.168.18.11:7077 --conf spark.driver.host=192.168.18.11 homework2.py`

## Spark Master Web


**Spark Master at spark://192.168.18.11:7077**

URL: spark://192.168.18.11:7077

Alive Workers: 1

Cores in use: 16 Total, 0 Used

Memory in use: 6.7 GiB Total, 0.0 B Used

Resources in use:

Applications: 0 Running, 1 Completed

Drivers: 0 Running, 0 Completed

Status: ALIVE

Workers (1)

Worker id	Address	State	Cores	Memory
worker-20241119181202-192.168.46.128-37775	192.168.46.128:37775	ALIVE	16 (0 Used)	6.7 GiB (0.0 B Used)

Running Applications (0)

Application ID	Name	Cores	Memory per Executor	Resources Per Executor	Submitted Time	User	State
----------------	------	-------	---------------------	------------------------	----------------	------	-------

Completed Applications (1)

Application ID	Name	Cores	Memory per Executor	Resources Per Executor	Submitted Time	User	State
app-20241119181339-0000	News Word Frequency Analysis	16	1024.0 MIB		2024/11/19 18:13:39	Zhe	FINISH

## 第一題

- Words frequency

## Total word frequency

	A	B
1	word	count
2	to	27406
3	economy	26197
4		22647
5	obama	22572
6	the	17732
7	microsoft	17584
8	in	15782
9	for	12469
10	of	11407
11	on	10594
12	and	7772
13	a	7555
14	is	6653
15	with	5421
16	obamas	5203
17	us	4708
18	as	4199
19	palestine	3831
20	new	3739
21	says	3514
22	at	3479
23	president	3040
24	will	2971
25	economic	2950
26	microsofts	2944
27	windows	2739
28	2016	2238
29	from	2216
30	it	2204

Daily word frequency

1	PublishDate	word	count
2	2002/4/2	national	1
3	2002/4/2	cemetery	1
4	2002/4/2	obama	1
5	2002/4/2	at	1
6	2002/4/2	lays	1
7	2002/4/2	wreath	1
8	2002/4/2	arlington	1
9	2008/9/20	the	2
10	2008/9/20	look	1
11	2008/9/20	of	1
12	2008/9/20	a	1
13	2008/9/20	at	1
14	2008/9/20	chinese	1
15	2008/9/20	economy	1
16	2008/9/20	health	1
17	2012/1/28	2008	1
18	2012/1/28	not	1
19	2012/1/28	to	1
20	2012/1/28	roubini	1
21	2012/1/28	global	1
22	2012/1/28	back	1
23	2012/1/28	nouriel	1
24	2012/1/28	economy	1
25	2015/3/1	microsoft	65
26	2015/3/1	to	46
27	2015/3/1	hololens	42
28	2015/3/1	for	32
29	2015/3/1	the	27

## Topic word frequency

1	Topic	word	count
2	economy	economy	26078
3	economy	the	8973
4	economy	to	8813
5	economy	in	6852
6	economy		6731
7	economy	of	4055
8	economy	for	3978
9	economy	on	3601
10	economy	us	2876
11	economy	economic	2790
12	economy	a	2707
13	economy	is	2521
14	economy	as	2329
15	economy	and	2204
16	economy	global	1945
17	economy	growth	1810
18	economy	says	1727
19	economy	china	1237
20	economy	will	1231
21	economy	2016	1155
22	economy	chinas	1131
23	economy	new	1075
24	economy	at	1066
25	economy	brexit	984
26	economy	about	945
27	economy	by	940
28	economy	with	924
29	economy	how	899
30	economy	what	888

## 第二題

- Social Media word frequency

### economy

- Hours

Hour_1	Hour_2	Hour_3	Hour_4	Hour_5	Hour_6	Hour_7	Hour_8	Hour_9	Hour_10	Hour_11	Hour_12	Hour_13	Hour_14	Hour_15	Hour_16
-0.42071	0.0198142	2.0610799	2.5862403	2.994988	3.2852513	3.8130847	4.3452954	4.7017509	5.2442195	5.7185245	6.1137396	6.644313	7.1203555	7.4252874	7.9

- Daily

- Facebook 、GooglePlus 、LinkedIn

Daily_Avg	Daily_Avg	Daily_Avg_Popularity
4085.3437	157.59615	1460.5405

### microsoft

- Hours

Hour_1	Hour_2	Hour_3	Hour_4	Hour_5	Hour_6	Hour_7	Hour_8	Hour_9	Hour_10	Hour_11	Hour_12	Hour_13	Hour_14	Hour_15	Hour_16	Hour_17	Hour_18	Hour_19
-0.404349	0.0508877	0.4828665	1.0308132	1.3760725	1.6718472	2.1459716	2.4443905	2.673574	3.1357725	3.464357	3.7843613	4.1010199	4.4868599	4.7153958	5.1086827	5.3317684	5.6526361	5.9

- Daily

- Facebook 、GooglePlus 、LinkedIn

Daily_Avg	Daily_Avg	Daily_Avg_Popularity
3369.3239	463.57691	3250.1672

## obama

- Hours

Hour_1	Hour_2	Hour_3	Hour_4	Hour_5	Hour_6	Hour_7	Hour_8	Hour_9	Hour_10	Hour_11	Hour_12	Hour_13	Hour_14	Hour_15	Hour_16	Hour_17
2.773903	4.434833	6.643272	11.19937	13.37342	15.51816	19.44686	22.26045	24.85726	29.55606	32.44038	35.29998	39.93781	43.19693	46.7598	51.67792	54.720

- Daily

- Facebook 、GooglePlus 、LinkedIn

Daily_Avg	Daily_Avg	Daily_Avg_Popularity
27092.455	681.34804	754.51823

## palestine

- Hours

Hour_1	Hour_2	Hour_3	Hour_4	Hour_5	Hour_6	Hour_7	Hour_8	Hour_9	Hour_10	Hour_11	Hour_12	Hour_13	Hour_14	Hour_15	Hour_16	Hour_17
-0.177442	0.148432	0.516977	2.323663	2.673735	3.123715	3.651359	4.105373	4.566671	5.092754	5.616495	6.192923	6.694159	7.158319	7.53558	8.051385	8.4480

- Daily

- Facebook 、GooglePlus 、LinkedIn

Daily_Avg	Daily_Avg	Daily_Avg_Popularity
4696.3331	183.54797	73.945923

## 第三題

- Social Media word frequency

Topic	Sum_Sentir	Avg_Sentir	Sum_Sentir	Avg_Sentiment	Headline
microsoft	51.850245	0.0023729	-322.1031	-0.014741	
economy	-350.9222	-0.010355	-1340.504	-0.039556	
obama	-28.52565	-0.000997	-507.265	-0.017738	
palestine	-167.4022	-0.01945	-385.2141	-0.044756	

Topic	Sum_SentimentTitle	Avg_SentimentTitle	Sum_SentimentHeadline	Avg_SentimentHeadline
microsoft	51.850245380787435	0.002372900342354466	-322.103089521427	-0.014740885521094094
economy	-350.9221887940765	-0.010355047029834946	-1340.5043008124867	-0.03955573492320478
obama	-28.525649749692626	-9.974700940517738E-4	-507.26499424680156	-0.017737778664480088
palestine	-167.40219191302486	-0.01944954013163993	-385.2141135012906	-0.044755909550515935

## 第四題

- Top 100 words in title and content

## enconomy



[illegible]

• Title

	microsoft	fox	the	microsofts	in	and	in	with	a	on	of	to	in	10	1404	new	surface	thor	m	cloud	one	office	app	at	will	400	google	apple	2016	from	m	pro	500	you	lunia	up		
microsoft	1290	5277	4848	3096	2565	115	2354	2269	2008	1877	1715	1737	1593	1447	1404	1152	1011	893	1009	800	561	645	539	556	400	983	583	540	146	196	96	88	261	100	303	903	42	
is	5277	1110	4843	625	818	658	790	735	857	666	580	493	586	595	511	341	220	313	381	332	181	204	167	148	148	131	219	149	146	196	96	88	261	100	303	903	42	
4848	1843	0	1030	1032	829	1200	733	879	799	607	615	748	618	534	527	409	459	268	157	308	165	185	227	231	253	243	161	196	235	243	161	196	235	243	161	196	235	243
fox	2096	425	1030	160	688	382	442	359	512	259	405	216	225	276	233	294	175	221	209	155	127	226	182	67	65	80	67	127	18	64	80	75	62	80	75	62	80	75
the	2565	818	1032	608	544	481	494	593	299	274	342	352	785	200	539	189	260	220	190	214	150	63	97	129	141	96	133	91	114	91	114	91	114	91	115	99	139	8
microsofts	15	658	829	382	481	0	290	308	350	201	330	284	373	243	397	313	218	192	104	138	134	62	171	117	148	44	48	85	80	68	72	125	68	72	125	68	72	
and	2354	790	1200	442	494	290	226	299	280	238	302	243	230	218	189	190	169	170	106	155	122	114	70	95	74	277	207	65	62	62	85	73	103	68	72	125	68	
in	2269	735	733	359	593	308	320	108	255	161	247	155	222	178	180	190	140	97	137	219	76	99	44	56	119	109	135	104	50	49	53	43	42	114	91	115	99	
in	2080	857	879	512	299	350	255	132	248	225	322	225	1998	259	258	41	60	141	11	56	47	141	52	121	12	14	53	93	73	36	103	73	36	103	73	36		
with	1897	666	789	259	274	201	280	161	248	30	268	182	147	190	123	245	93	109	137	93	70	115	94	42	37	72	63	55	31	23	41	50	41	50	41	50		
a	1715	580	667	405	342	330	258	247	225	268	190	201	223	152	415	254	155	117	132	85	85	63	122	115	88	50	61	35	73	43	61	123	67	43	61			
on	1737	493	615	216	352	284	302	155	322	182	203	58	137	221	229	129	117	161	118	104	87	57	65	41	79	74	70	42	26	52	44	43	64	11	52			
of	1593	426	718	225	785	373	243	222	225	147	292	137	124	150	190	147	78	131	150	47	139	52	41	64	64	52	34	74	40	81	23	50	32	8	2			
10	1497	595	618	376	200	243	230	178	1898	190	152	221	150	44	178	180	30	46	93	11	29	39	37	86	11	12	21	71	50	31	88	54	38	54				
is	1404	511	534	323	539	397	210	180	259	123	415	229	190	178	82	152	121	109	199	97	10	87	50	71	46	65	69	35	39	47	63	45	35	39				
new	1152	341	527	294	189	313	218	190	258	245	254	129	147	180	132	34	86	153	69	62	111	88	116	46	52	32	24	45	41	36	34	47	27	27	27			
surface	1011	223	409	173	260	218	169	140	41	93	155	117	30	121	86	198	21	60	6	30	5	3	43	51	2	48	33	15	31	647	30	15	31	647				
thor	893	313	459	221	220	192	170	97	60	109	117	161	131	46	109	153	21	144	38	4	638	5	20	72	64	0	11	52	34	8	31	3	4	8	31			
m	1009	381	268	206	290	104	166	137	141	137	118	150	93	199	69	60	38	54	83	39	18	49	24	29	16	26	14	39	26	19	15	18	15	18	15			
cloud	800	332	157	155	214	138	155	219	11	93	58	104	47	11	57	62	6	4	83	14	9	20	9	12	29	55	4	13	27	35	1	5	2	1	5			
one	561	181	308	127	150	134	122	76	66	70	85	97	139	47	111	30	636	19	9	24	6	5	25	30	9	8	34	18	16	11	31	12	16	11	31			
office	642	204	165	226	83	62	114	99	47	115	63	57	52	29	50	88	5	5	18	20	6	32	23	7	9	27	7	56	15	15	12	19	8	15	12			
app	519	167	185	182	97	171	70	44	141	94	122	65	41	93	71	116	3	20	49	9	5	23	8	12	27	15	11	2	31	15	6	48	2	31	15			
at	556	148	227	67	129	117	95	56	52	42	115	41	64	57	46	46	43	72	24	12	25	7	12	10	29	18	18	42	12	11	21	16	57	7	16			
will	490	131	231	65	141	148	74	119	121	37	84	79	64	86	16	52	51	64	29	29	30	9	27	29	10	17	17	30	24	13	18	77	20	17	30			
google	583	219	255	80	98	44	277	109	12	72	50	74	52	11	69	32	2	0	16	55	9	27	15	18	17	20	138	7	18	24	4	3	4	3	4			
apple	540	149	243	67	133	48	207	135	14	63	65	70	54	12	66	24	48	11	26	4	8	7	11	18	17	138	8	9	21	31	76	7	5	7				
2016	502	146	161	127	91	91	95	104	53	35	35	42	74	21	35	45	33	52	14	13	34	56	2	42	3	7	9	4	2	19	7	14	7	9				
from	509	196	196	49	114	80	62	50	93	31	73	26	40	71	39	41	15	32	39	27	18	15	31	12	24	18	21	32	2	10	10	31	6	10				
as	508	96	235	64	91	68	62	49	73	23	83	52	81	50	47	36	31	34	26	35	16	15	15	11	13	24	31	19	10	58	16	2	10	58				
pro	521	88	236	80	115	72	85	80	41	61	44	23	31	63	34	647	8	19	1	18	12	6	21	18	4	76	7	10	16	150	17	10	16	150				
you	383	261	174	75	99	99	125	73	42	103	50	123	43	80	88	45	28	12	43	20	11	14	20	12	45	3	7	16	31	2	17	12	17	31				
lunia	503	100	201	82	139	68	103	114	73	41	67	64	32	54	35	27	15	3	18	2	12	8	2	57	20	4	5	7	6	10	6	17	94	10				
up	483	272	134	97	66	64	95	73	63	85	40	100	31	37	47	46	57	21	54	35	17	19	11	11	10	18	16	11	18	28	12	16	8	28				
thor	421	275	14	35	144	144	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14				
data	504	185	125	103	73	40	52	89	22	38	33	44	41	14	38	43	2	0	30	51	1	7	16	12	12	1	6	12	28	9	0	4	0	4				
update	449	104	208	105	51	50	54	45	276	49	55	57	35	228	14	62	34	70	15	2	60	17	5	28	1	2	16	7	19	19	17	13	0	13				
is	389	82	119	80	128	63	96	66	83	32	96	66	83	32	96	66	83	32	96	66	83	32	96	66	83	32	96	66	83	32	96	66	83	32	96			
active	540	172	109	78	47	81	93	70	6	90	16	55	75	33	3	41	15	3	41	15	3	41	15	3	41	15	3	41	15	3	41	15	3	41	15			
your	383	219	152	83	65	107	51	53	66	44	81	49	38	47	62	50	21	29	14	6	20	15	58	13	40	5	8	3	36	3	12	81	6	3				
holders	393	167	128	94	91	126	75	35	16	80	71	55	52	10	48	24	3	10	30	0	11	1	25	26	22	15	1	8	14	6	0	23	0	23				
41	414	118	68	94	60	68	51	82	61	69	68	51	82	61	69	68	51	82	61	69	68	51	82	61	69	68	51	82	61	69	68	51	82	61	69			
mobile	346	167	137	81	56	85	50	48	247	59	34	57	27	221	30	39	6	1	30	8	3	23	39	9	18	5	1	8	6	8	0	6	24	3	24			
be	346	220	134	63	116	83	43	72	48	33	99	50	47	32	20	28	53	42	19	6	27	10	10	21	88	28	13	21	15	13	17	11	6	34				
138	158	143	68	46	46	43	14	54	79	54	12	66	35	45	28	35	28	16	21	30	7	15	20	28	21	18	11	4	19	20	1	4	19	20				
inf	405	89	129	72	76	31	42	58	21	16	55	79	37	13	69	17	9																					

• Title

	chama	he	chamas	the	in	on	for	of	president	a	and	is	with	us	at	trump	says	1203	hauck	an	916	stitt	court	will	clinton	house	white	his	gun	new	administration	supreme	after	over	
chama	76	8700	5520	24	261	377	3189	3028	2635	2139	1582	1640	144	1545	1176	1150	1063	1203	1044	916	777	707	691	705	710	675	706	556	696	774	626	952	619	5	
to	8700	2428	2793	1287	1068	1322	1209	995	879	813	535	480	442	508	695	379	271	329	321	275	766	457	193	282	410	339	286	261	255	330	277	360	185		
to	5529	2793	0	1650	1606	1057	1120	1057	1230	1181	794	871	660	561	322	355	401	311	599	379	139	185	297	270	262	286	283	204	233	300	238	208	277	2	
chamas	24	1287	1650	804	850	1056	694	806	446	402	484	386	242	132	169	184	73	172	140	225	202	194	124	107	80	69	232	159	31	113	178	69			
the	2961	1065	1606	850	708	578	592	396	1151	523	327	494	159	126	255	204	122	57	87	143	96	175	199	140	65	88	130	86	91	72	91	72			
in	3377	1322	1057	516	578	262	399	494	500	332	296	221	200	244	153	163	178	174	208	123	186	66	147	116	123	105	143	90	129	60	87	50	92		
on	3189	1299	1120	694	592	399	142	259	324	330	249	277	248	235	163	104	168	138	135	107	102	187	95	115	102	79	159	200	116	133	110	137	73		
for	3028	196	1057	532	396	494	259	146	350	328	324	191	200	125	171	139	175	153	118	101	149	119	80	142	82	77	102	137	112	65	107	97	85		
of	2635	879	1230	806	1151	500	324	350	246	332	389	250	225	174	231	159	164	148	165	138	131	64	101	61	73	59	165	109	83	74	72	54	65		
president	2139	813	1181	446	523	332	330	328	332	34	240	194	211	202	130	133	112	99	174	83	138	32	121	71	65	76	123	43	47	13	88	38	67		
a	1582	1640	144	402	327	296	249	324	389	249	100	210	375	125	80	109	133	60	133	60	57	33	43	35	43	35	76	145	86	130	151	57	50		
and	1640	480	871	304	494	221	277	191	250	194	210	104	115	91	80	109	138	50	171	37	36	12	45	122	49	56	47	32	46	18	31	11	24		
is	1409	442	660	386	515	200	248	200	225	211	375	115	86	82	69	107	176	123	68	26	29	17	73	27	29	69	34	45	44	155	30	39			
with	1545	508	561	219	189	344	235	125	174	202	125	91	84	48	102	95	77	43	101	24	63	53	44	93	77	75	53	42	58	35	32	34	39		
us	1176	695	322	132	128	315	163	171	231	130	86	80	62	102	12	46	47	163	89	74	132	39	80	10	12	9	28	20	35	19	37	77	82		
at	1190	379	355	160	255	163	104	139	159	133	109	109	69	95	46	34	108	43	63	24	19	51	29	32	187	196	40	35	14	32	29	35	20		
trump	1063	271	401	164	204	178	168	175	164	112	133	138	167	77	27	108	10	119	72	64	9	14	47	103	13	15	27	11	13	4	99	13	35		
says	1203	329	311	73	122	174	138	153	148	99	50	170	43	163	43	113	4	60	40	37	46	78	33	31	34	44	19	10	16	15	15	16	18		
hauck	1044	321	599	172	259	208	135	118	165	174	133	171	123	101	89	63	72	60	2	48	35	2	61	47	36	38	42	22	22	4	44	1	28		
as	916	275	379	101	121	123	107	101	138	83	91	37	68	34	74	24	64	40	48	84	49	36	20	48	15	17	49	21	36	12	31	26	8		
vint	777	786	139	225	57	186	102	149	131	138	80	36	26	63	132	19	9	37	35	49	14	3	30	2	50	52	47	1	17	1	15	2	44		
court	707	457	185	202	829	66	187	613	64	32	60	29	53	379	51	14	46	2	36	3	6	27	31	15	22	29	3	12	27	19	68	5			
will	691	193	297	194	143	147	95	80	101	121	57	45	17	44	80	29	47	78	61	20	50	27	16	28	24	24	48	27	31	16	103	22	30		
clinton	705	282	270	124	96	116	115	143	61	71	35	122	73	93	10	32	103	33	47	48	2	16	28	2	12	13	18	12	7	5	37	15	17		
house	710	410	262	107	176	123	102	82	73	45	49	27	77	12	187	13	31	46	15	50	14	25	24	12	710	14	1	8	9	15	15	16	18		
white	675	339	286	90	199	105	79	77	59	76	35	56	29	75	9	198	15	34	38	17	52	22	24	13	710	4	15	10	8	3	16	19	21		
his	703	286	263	89	140	143	159	102	165	123	76	47	69	53	28	40	27	44	42	49	47	29	48	18	14	15	18	15	11	2	16	31	19		
gun	556	261	204	232	65	190	200	137	109	43	46	32	34	42	23	35	11	16	22	21	1	3	27	12	12	13	15	24	65	3	16	1	51		
new	606	253	233	659	88	169	116	112	83	47	86	46	45	58	35	14	13	29	22	36	17	12	31	7	11	8	11	65	2	73	21	8	16		
administration	774	330	300	71	130	60	133	65	74	13	30	18	44	35	19	32	4	10	2	12	1	27	16	5	5	3	2	3	73	0	14	9	10		
not	626	277	238	113	98	87	110	107	72	88	151	31	155	32	37	29	99	76	44	31	15	19	103	37	15	16	16	16	21	14	6	13	8		
supreme	562	380	208	178	91	91	137	97	54	38	57	111	30	34	27	19	30	34	27	19	2	69	22	15	18	19	31	1	8	9	13	8	3		
after	619	185	277	69	72	92	73	85	65	67	50	24	39	39	52	20	35	38	28	8	44	3	30	17	18	21	19	51	16	10	8	3	2		
over	579	99	212	104	78	55	64	35	53	35	36	57	41	35	36	41	39	34	31	14	13	46	7	25	12	12	8	24	13	45	9	31	6		
about	232	108	131	161	84	38	34	24	66	57	68	27	68	27	77	12	107	13	31	29	10	8	12	11	12	12	1	1	1	1	1	1	1		
from	518	210	249	110	110	45	50	67	54	75	60	50	21	21	35	18	17	43	90	9	19	8	12	35	22	21	13	6	16	13	11	8	8		
state	541	253	155	188	327	151	91	90	327	42	40	38	26	36	43	61	14	24	24	17	22	26	0	39	6	6	37	4	6	2	18	0	7		
michelle	447	277	296	77	97	83	69	70	46	29	71	134	47	59	6	55	14	12	58	19	12	1	18	1	35	33	3	0	20	0	9	1	7		
be	449	252	181	135	91	61	137	97	54	38	57	111	30	34	27	16	14	182	29	12	13	16	182	29	12	13	16	182	29	12	13	16	182	29	
gop	450	231	181	98	96	49	110	107	70	19	39	28	41	52	4	34	59	50	6	27	3	81	11	18	13	3	6	13	11	3	21	43	9		
into	452	203	135	105	71	61	124	42	68	41	41	57	63	40	46	19	25	37	22	20	9	1	31	20	7	5	15	1	22	5	30	0	13		
to	456	127	141	135	91	61	137	97	54	38	57	111	30	34	27	16	14	182	29	12	13	16	182	29	12	13	16	182	29	12	13	16	182	29	
climate	395	195	113	125	71	70	77	63	87	25	35	36	29	29	20	39	12	33	14	25	4	20	17	1	11	7	8	0	6	4	3	15	6		
calls	485	200	162	24	51	92	140	213	87	60	40	23	13	17	17	14	18	7	11	23	9	8	1	9	5	7	39	13	5	6	8	38			
has	428	127	213	75	111	50	57	61	59	70	102	26	16	22	27	15	22	39	34	11	5	11	7	11	9	10	26	12	10	13	9	16	14		
be	448	143	233	49	77	73	65	53	43	46	51	24	71	28	24	20	37	11	27	46	8	10	38	18	8	9	27	11	6	0	17	6	7		
plan	276	306	117	212	43	48	59	43	31	30	32	20	27	18	32	10	17	6	10	16	4	71	13	6	13	9	13	25	31	23	4	50	7		
against	402	120	137	72	46	72	29	30	4																										

● Title

	palestine		of		palestinian		for israel		and		in israel		with		in		at new israel		palestine		from		by		palestinian		state		east		over		palestine		as		un		peace		conflict		says		bank	
palestine	in	1023	170	417	426	355	319	337	211	205	107	137	115	143	93	73	39	65	65	57	51	33	57	76	51	29	84	41	47	32	42	75	54	29	31	51	19	50	19	50						
to	977	417	232	508	260	417	246	234	332	197	136	122	96	72	79	56	67	61	83	97	89	36	48	34	73	44	30	33	35	56	33	37	44	22	2	2	2	2	2	2	2	2				
of	639	426	508	6	466	392	382	264	224	200	243	156	148	116	90	66	60	69	71	69	78	58	49	59	32	19	58	37	70	34	14	36	50	19	50	19	50	19	50	19	50					
inrael	437	205	332	224	170	195	115	177	4	106	178	58	5	72	49	24	14	2	58	38	48	37	54	21	14	6	41	11	41	31	24	14	22	2	2	2	2	2	2	2	2	2				
palestinian	the	487	337	246	353	240	368	135	115	126	210	151	47	49	113	56	30	64	27	26	62	27	27	28	28	46	16	34	18	37	12	74	10	16	16	16	16	16	16	16	16					
for	968	211	234	264	162	190	135	68	177	61	76	96	30	48	30	71	32	78	67	16	13	34	16	40	11	14	24	32	32	18	9	16	7	16	7	16	7	16	7	16						
on	357	205	332	224	170	195	115	177	4	106	178	58	5	72	49	24	14	2	58	38	48	37	54	21	14	6	41	11	41	31	24	14	22	2	2	2	2	2	2	2	2					
and	139	137	136	243	124	103	210	76	178	67	36	77	43	31	33	26	21	17	42	14	11	18	18	5	7	8	10	14	10	14	6	12	12	1	1	1	1	1	1	1						
a	216	115	122	156	152	115	151	98	58	54	77	96	16	24	80	21	31	37	20	2	30	18	15	15	39	9	11	12	31	11	10	24	11	1	1	1	1	1	1	1						
inraeli	142	143	96	148	99	196	47	50	5	90	43	16	2	31	25	24	11	0	11	21	24	21	49	15	6	7	14	2	15	7	32	2	16	2	16	2	16	2	16							
with	211	93	72	116	76	81	49	30	72	23	31	24	31	6	22	10	18	7	23	7	7	3	8	8	9	14	8	6	6	8	4	6	4	6	4	6	4	6	4							
inrael	121	73	79	90	66	69	113	48	49	49	33	80	25	22	18	5	12	17	21	2	13	12	7	3	4	1	4	12	6	9	1	15	21	1	1	1	1	1	1							
at	140	39	56	66	72	59	56	30	24	14	26	21	24	10	6	2	8	14	4	25	4	11	18	17	12	4	6	9	4	5	6	8	2	8	2	8	2	8								
new	169	65	67	60	45	39	30	71	14	28	21	31	11	18	12	8	4	8	6	18	3	18	6	11	13	6	12	9	7	2	4	8	8	2	4	8	2	4								
inraelpalest	80	65	61	66	58	4	164	32	2	55	17	37	0	7	17	14	8	6	43	10	2	5	0	1	3	0	17	0	5	10	10	66	9	3	3	3	3									
peace	116	57	83	71	35	20	27	78	58	27	42	20	11	23	21	4	6	43	6	6	8	5	5	0	1	10	4	3	1	6	0	5	12	1	1	1	1	1								
un	123	51	97	69	69	49	67	38	34	14	2	21	7	2	25	18	10	6	4	9	8	7	2	5	3	13	2	8	7	3	5	2	3	5	2	3	5									
from	101	33	89	78	35	69	62	16	48	11	71	30	24	7	13	4	1	2	8	9	2	4	8	8	1	2	3	0	3	4	9	2	3	3	3	3	3									
by	83	57	38	38	39	73	27	13	37	9	18	18	21	3	12	11	18	5	5	8	4	2	13	5	4	8	3	1	5	4	6	2	6	2	6	2	6									
palestinian	23	76	48	49	49	1	27	34	54	16	15	15	49	8	7	18	6	0	5	7	8	13	0	4	2	0	5	2	9	1	6	1	2	1	1	1	1	1								
after	106	51	34	59	20	47	28	16	21	6	5	15	8	3	17	11	1	0	2	8	5	4	0	4	1	1	5	0	0	3	5	0	1	1	1	1	1	1								
inrael	118	29	73	32	107	55	28	40	14	20	14	20	7	39	6	4	12	13	3	7	5	1	4	2	1	8	2	5	8	12	1	11	1	1	1	1	1	1								
east	106	84	44	19	37	12	46	11	6	11	8	9	7	14	1	4	6	0	10	3	2	8	0	1	8	0	0	6	5	2	0	0	1	2	1	2	1	2								
over	44	31	58	23	38	16	14	41	12	10	11	14	8	4	6	12	17	4	13	3	3	5	5	2	0	0	1	1	7	4	3	1	1	1	1	1	1									
palestine	0	47	33	37	36	34	24	11	12	14	12	2	4	12	9	0	3	1	2	0	0	4	1	2	0	0	1	0	5	2	1	6	2	1	1	1	1									
as	77	32	35	70	40	30	18	32	41	13	10	31	15	8	6	4	7	5	1	8	3	5	9	0	8	5	1	5	14	3	3	1	1	1	1	1	1									
un	54	42	56	34	24	28	37	32	31	37	14	11	7	6	9	5	2	10	6	7	4	4	1	3	12	2	7	2	3	0	0	4	9	9	9	9	9									
says	29	75	33	14	31	32	12	18	24	16	6	10	32	8	1	6	4	0	0	3	9	6	6	5	2	2	0	4	1	3	0	0	0	0	0	0	0									
conflict	31	48	37	36	35	6	74	9	14	20	12	24	2	4	15	8	7	66	5	74	2	2	1	1	1	1	3	4	2	5	0	0	0	0	0	0	0									
inrael	51	32	44	50	32	28	10	16	22	13	12	11	16	6	21	2	8	9	12	2	3	6	2	1	11	2	1	2	1	9	3	5	0	0	0	0	0									
bank	48	79	26	24	26	34	23	10	27	9	9	8	22	6	2	7	10	2	1	6	10	5	22	5	0	0	6	2	4	2	12	0	2	0	2	0	2									
support	74	20	35	38	18	24	21	20	29	15	14	8	1	3	2	6	8	1	10	1	4	2	7	1	14	7	4	2	4	3	6	1	1	1	1	1	1									
well	73	20	35	38	18	24	21	20	29	15	14	8	1	3	2	6	8	1	10	1	4	2	7	1	14	7	4	2	4	3	6	1	1	1	1	1	1									
leaves	21	82	18	10	26	1	27	6	0	8	1	0	3	14	0	9	0	0	0	0	0	1	10	0	23	5	56	3	1	4	2	0	0	1	1	1	1	1								
west	34	81	25	28	21	31	29	9	35	13	12	8	27	3	2	2	8	2	3	6	13	3	26	4	1	0	6	3	4	3	11	0	0	0	0	0	0									
a 2016	117	46	11	7	0	1	3	1	0	1	1	3	2	0	3	1	0	3	1	0	1	0	4	1	2	0	1	0	1	0	3	0	4	1	1	1	1	1								
inrael	39	94	8	24	19	35	6	3	13	8	6	3	19	4	1	2	2	0	0	0	2	1	28	21	0	0	19	1	0	8	3	4	0	0	0	0	0	0								
abbas	44	26	54	21	49	27	20	17	5	11	3	16	7	5	7	10	5	1	2	4	1	7	5	14	21	0	1	13	4	2	1	0	11	1	1	1	1									
around	72	47	64	22	14	11	23	13	7	7	49	5	6	4	4	3	5	1	1	6	1	4	2	3	2	1	2	3	2	3	0	7	7	7	7	7										
visit	97	12	107	14	17	10	3	17	73	15	12	2	0	4	0	2	0	1	4	0	8	0	1	4	2	0	2	1	2	3	2	1	2	1	2	1	2									
not	55	18	23	21	12	15	15	5	25	5	12	16	1	10	21	3	0	6	13	2	0	1	7	1	4	3	2	1	5	2	3	3	19	2	3	19	2									
be	54	28	58	39	22	23	16	16	16	21	7	14	10	5	5	4	3	8	4	4	3	5	0	2	5	4	1	3	3	2	1	4	7	7	7	7										
police	80	41	16	17	10	8	6	25	3	8	4	3	8	3	0	3	1	7	8	3	1	11	0	7	1	2	8	0	1	3	0	0	0	0	0	0	0									
calls	71	20	58	28	31	19	1	74	19	60	10	3	14	3	1	1	1	3	4	10	14	1	2	3	0	4	0	1	1	1	4	3	2	0	0	0	0									
falls	52	21	37	23	19	10	11	23	34	12	14	2	1	20	0	2	1	15	29	4	5	3	5	1	2	4	5	2	1	4	1	1	1	1	1	1	1									

● Headline

	the	of	a	in	to	9729	7721	8093	6000	4952	4250	4190	3139	2885	2471	2213	2468	2337	1904	1751	1998	1913	1937	1792	1122	1287	1165	1099	887	1258	1165	1315	1036	1134	107
the	23804	15380	9503	10472	9729	7721	8093	6000	4952	4250	4190	3139	2885	2471	2213	2468	2337	1904	1751	1998	1913	1937	1792	1122	1287	1165	1099	887	1258	1165	1315	1036	1134	107	
a	9503	5325	4516	4382	4070	3335	3155	2535	2033	1914	2035	1444	1250	1051	884	1140	910	987	953	1112	742	857	856	884	441	633	500	506	432	424	528	479	481	48	
in	10472	4783	582	332	3384	3300	3226	2148	1794	1549	1786	1196	1048	869	934	869	833	781	773	888	708	720	644	504	487	476	459	488	449	478	451	389	38	3	
to	9729	4377	4070	3384	3408	3078	3035	1965	1821	1555	1810	1275	1007	852	734	667	741	607	763	615	903	724	665	628	543	487	443	490	471	556	448	469	64	6	
from	7721	8093	6000	4978	3335	3155	2535	2033	1914	2035	1444	1250	1051	884	1140	910	987	953	1112	742	857	856	884	441	633	500	506	432	424	528	479	481	48	4	
and	8093	9453	3206	3035	2663	2178	1714	1531	1255	1539	1072	870	614	706	564	713	616	563	553	561	916	632	542	336	475	344	425	340	730	449	399	347	365	3	
and	6000	2863	2525	2148	1965	528	1714	626	1054	756	422	354	595	520	375	420	542	821	444	430	408	455	316	287	238	102	266	292	241	238	336	194	211	2	
to	4952	2033	2033	1794	1821	1562	1531	1054	814	716	599	444	595	355	413	500	399	827	401	404	438	290	301	193	288	208	188	228	203	168	316	188	194	2	
in	1914	2035	1444	1250	1051	884	1140	910	987	953	1112	742	857	856	884	441	633	500	506	432	424	528	479	480	563	568	524	595	636	579	530	494	47	4	
in	1444	1250	1051	884	1140	910	987	953	1112	742	857	856	884	441	633	500	506	432	424	528	479	480	563	568	524	595	636	579	530	494	47	4			
is	3139	2884	2205	2406	1796	1810	1457	1539	516	959	73	52	507	502	442	400	438	391	254	416	385	371	334	332	307	217	254	233	217	236	220	163	194	2	
israel	1134	1036	1134	1036	1134	1036	1134	1036	1134	1036	1134	1036	1134	1036	1134	1036	1134	1036	1134	1036	1134	1036	1134	1036	1134	1036	1134	1036	1134	1036	1134	1036	1134	1036	
with	2471	1148	1051	895	852	670	614	524	335	456	442	389	346	152	192	150	194	179	271	106	218	187	140	115	77	91	43	129	204	95	106	77	132	107	
has	2213	1065	1084	914	734	725	706	575	413	324	400	364	227	192	186	150	299	125	162	221	187	221	199	141	122	113	124	105	117	102	105	107	77	82	101
to	2468	1071	1040	869	677	679	624	420	300	347	458	218	173	150	299	232	185	150	242	236	114	95	162	156	178	109	95	102	89	102	89	102	89	102	
by	910	987	953	1112	742	857	856	884	441	633	500	506	432	424	528	479	480	563	568	524	595	636	579	530	494	47	48	50	49	48	49	48	49	48	
israeli	1040	983	867	781	607	679	627	616	321	387	211	254	184	218	179	162	150	240	226	281	185	117	128	108	142	49	47	99	80	77	78	131	55	64	4
is	1751	975	953	783	623	553	444	401	359	416	254	256	271	201	242	202	218	178	251	154	137	197	125	109	85	150	89	91	129	54	112	54	119	4	
was	1998	997	1112	888	615	624	561	430	404	327	385	118	106	187	236	342	185	251	258	125	177	152	233	29	112	76	121	82	101	42	102	90	181	5	
in	1913	742	857	856	884	441	633	500	506	432	424	528	479	480	563	568	524	595	636	579	530	494	47	48	50	49	48	49	48	49	48	49	48	49	48
as	1937	991	857	720	724	584	632	455	290	262	334	225	239	187	179	95	133	128	197	177	175	172	124	145	76	84	87	104	107	122	109	82	107	9	
from	1792	856	644	665	628	542	316	301	244	332	220	140	141	162	136	108	125	152	121	145	120	96	79	55	96	100	84	50	88	82	103	82	103	82	103
israel	1937	991	857	720	724	584	632	455	290	262	334	225	239	187	179	95	133	128	197	177	175	172	124	145	76	84	87	104	107	122	109	82	107	9	
to	1792	856	644	665	628	542	316	301	244	332	220	140	141	162	136	108	125	152	121	145	120	96	79	55	96	100	84	50	88	82	103	82	103	82	103
and	1327	480	441	387	543	497	475	388	287	193	125	118	107	162	113	107	132	199	234	122	114	102	94	29	126	84	36	61	55	85	87	55	85	87	
east	1165	563	433	476	487	589	344	218	208	297	254	125	105	91	124	109	79	47	150	112	48	87	55	82	54	90	40	15	62	39	37	91	44	3	
have	1909	568	500	459	443	347	425	266	180	266	233	83	177	43	105	95	94	99	89	76	96	99	104	96	56	40	44	41	40	79	68	56	34	3	
and	4952	2033	2033	1794	1821	1562	1531	1054	814	716	599	444	595	355	413	500	399	827	401	404	438	290	301	193	288	208	188	228	203	168	316	188	194	2	
is	1258	955	432	449	509	413	370	241	203	252	236	136	115	129	204	101	89	87	57	129	82	104	122	54	93	61	62	40	33	90	41	52	38	84	4
are	1165	636	424	499	411	357	449	238	168	170	220	125	168	59	92	80	82	78	54	54	40	103	109	80	41	33	39	79	37	41	106	63	47	48	4
and	1115	739	528	475	556	375	399	336	316	193	285	139	159	245	106	111	85	95	131	112	102	102	99	88	55	112	37	68	74	52	63	47	48	4	
the	478	511	478	511	478	511	478	511	478	511	478	511	478	511	478	511	478	511	478	511	478	511	478	511	478	511	478	511	478	511	478	511	478	511	478
it	1134	494	481	389	449	331	365	211	194	183	194	248	220	132	82	90	108	64	119	181	111	107	103	50	60	44	34	38	84	48	86	43	74	4	
be	1055	458	442	389	605	327	333	189	211	153	212	169	181	84	92	89	101	47	70	53	80	84	89	49	247	57	36	49	46	30	73	59	66	6	
and	1175	633	462	399	440	365	272	238	192	127	178	137	109	95	80	78	48	45	55	32	101	77	60	41	39	40	34	43	66	41	77	36	70	3	
present	478	511	478	511	478	511	478	511	478	511	478	511	478	511	478	511	478	511	478	511	478	511	478	511	478	511	478	511	478	511	478	511	478	511	478
israel	797	478	294	270	343	219	196	319	227	119	149	96	89	389	389	389	389	389	389	389	389	389	389	389	389	389	389	389	389	389	389	389	389	389	
been	808	463	441	377	285	271	248	183	146	223	174	84	138	366	73	78	92	69	74	48	80	78	74	39	11	48	154	31	39	56	34	46	40	4	
name	979	533	458	330	355	303	315	151	151	151	151	151	151	151	151	151	151	151	151	151	151	151	151	151	151	151	151	151	151	151	151	151	151	151	
new	885	378	455	376	309	341	267	131	176	156	157	114	67	75	82	100	57	29	70	62	61	76	46	55	31	36	38	40	46	20	40	47	40	47	
who	1114	550	424	552	309	187	304	314	182	110	173	82	76	75	88	88	91	182	71	78	87	55	61	57	74	30	37	22	51	39	52	40	33	4	
west	772	399	487	318	333	247	227	241	120	144	138	139	76	75	104	67	69	101	87	126	57	53	62	38	28	36	61	53	14	59	49	34	24	4	
the	445	392	318	333	220	241	220	241	120	144	138	139	76	75	104	67	69	101	87	126	57	53	62	38	28	36	61	53	14	59	49	34	24	4	
minister	636	318	263	237	375	220	241	2																											