

# Shakespher\_WIP

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## Partners for this homework are:

1. Pinaki Bhagat
2. Sydney Correa

We tried couple of approaches for this homework to find out whether Shakespeare wrote all his 36 plays. First Approach - Using text mining to find out which plays are similar

In this approach we tried the following steps:

- a. Download the file and group by all plays to determine the unique plays for our analysis. We found that there are 36 plays in the dataset.
- b. Basic cleansing of the line spoken by the player. This was done to remove all numbers and special characters from the lines. We also converted all the line spoken by players into lower case.
- c. Tokenize the line spoken by every player so that we can use it for next steps
- d. Remove stop words to make sure our analysis doesn't get influenced by these redundant words
- e. Use Porter Stemmer to stemmatize the words
- f. Find out lines spoken by each player
- g. Prepare a word cloud to visualize the highly occurring words and further enhance the stop word step to remove highly occurring words
- h. Prepare a dictionary of words per play to be used for vectorizer step
- i. Use count vectorizer to extract the feature vector at a play level
- j. Perform tf-idf on this feature vector to obtain a normalized metrics for similarity measure
- k. Perform cosine similarity measure to determine the similar plays based on tf-idf metrics for all plays

Shortcomings of this approach - We didn't have enough time to debug the issues with dictionary. The corpus that we created was combining all tokens from every play and we didn't have a way to segregate it at a play level. Because of this we were not able to get the similarity metric for all plays.

Second Approach - Using network graph to determine which plays are similar

Our idea with this approach was to plot the network graph for the entire play vs individual play and determine the player interaction to see if all plays are having similar level of interactions.

We tried the following steps in this approach:

- a. Combine all plays together and determine the interactions of plays with all the players

- b. Generate graph for play versus player interactions
- c. Generate centrality measures for these player interactions.
- d. At a play level determine the interaction of players. For this we analyzed the Player who was speaking the lines and try to relate to which all players he/she was interacting in a line
- e. Generate a dataframe with these play interactions and perform basis cleaning
- f. Generate graph of the interactions
- g. Generate centrality measures for these player interactions.

Shortcomings of this approach - Although interactions of plays and players gave us good picture of player interactions but, at a play level we were not able to establish

## 1 Importing std libraries

```
In [1]: import pandas as pd
import networkx as nx
import numpy as np
import seaborn as sns
import matplotlib.pyplot as plt

from gensim.models.ldamodel import LdaModel
# NLTK
from nltk.tokenize import RegexpTokenizer
from nltk.stem.snowball import SnowballStemmer
from nltk.corpus import stopwords
from nltk.stem.porter import PorterStemmer
from nltk.probability import FreqDist
import re
```

```
from sklearn.feature_extraction.text import CountVectorizer
```

```
C:\Users\corre\Anaconda3\lib\site-packages\gensim\utils.py:1212: UserWarning: detected Windows
warnings.warn("detected Windows; aliasing chunkize to chunkize_serial")
```

## 2 Installing and importing CLTK library for old english stop words

```
In [ ]: # !pip install CLTK
from cltk.stop.old_english.stops import STOPS_LIST as sl
from cltk.stop.middle_english.stops import STOPS_LIST as sl1
```

## 3 Reading from csv into dataset

```
In [3]: data_sh = pd.read_csv('C:\\Users\\corre\\Desktop\\CSCI E-82\\PS 6\\input\\Shakespeare_
```

```
In [4]: #sample dataset rows
data_sh.head()
```

```
Out[4]:
```

	Dataline	Play	PlayerLinenumber	ActSceneLine	Player	\
0	1	Henry IV	NaN	NaN	NaN	
1	2	Henry IV	NaN	NaN	NaN	
2	3	Henry IV	NaN	NaN	NaN	
3	4	Henry IV	1.0	1.1.1	KING HENRY IV	
4	5	Henry IV	1.0	1.1.2	KING HENRY IV	

```

                                PlayerLine
0                                ACT I
1                                SCENE I. London. The palace.
2 Enter KING HENRY, LORD JOHN OF LANCASTER, the ...
3                                So shaken as we are, so wan with care,
4                                Find we a time for frightened peace to pant,

```

## 4 Data Analysis

In [129]: *##check the number of plays in the dataset*

```

print('Number of plays - ', data_sh['Play'].nunique())
sorted(data_sh['Play'].unique())

```

Number of plays - 36

```

Out[129]: ['A Comedy of Errors',
           'A Midsummer nights dream',
           'A Winters Tale',
           'Alls well that ends well',
           'Antony and Cleopatra',
           'As you like it',
           'Coriolanus',
           'Cymbeline',
           'Hamlet',
           'Henry IV',
           'Henry V',
           'Henry VI Part 1',
           'Henry VI Part 2',
           'Henry VI Part 3',
           'Henry VIII',
           'Julius Caesar',
           'King John',
           'King Lear',
           'Loves Labours Lost',
           'Measure for measure',
           'Merchant of Venice',
           'Merry Wives of Windsor',
           'Much Ado about nothing',
           'Othello',
           'Pericles',
           'Richard II',
           'Richard III',
           'Romeo and Juliet',
           'Taming of the Shrew',
           'The Tempest',
           'Timon of Athens',

```

```

'Titus Andronicus',
'Troilus and Cressida',
'Twelfth Night',
'Two Gentlemen of Verona',
'macbeth']

```

```

In [130]: ## count number of
          data_sh.groupby('Play').count().sort_values(by='PlayerLine',ascending=False)['PlayerLine']

```

```

Out[130]: Play
          Hamlet                4244
          Coriolanus            3992
          Cymbeline             3958
          Richard III           3941
          Antony and Cleopatra   3862
          King Lear              3766
          Othello                3762
          Troilus and Cressida   3711
          A Winters Tale         3489
          Henry VIII             3419
          Henry V                3395
          Henry VI Part 2        3334
          Romeo and Juliet       3313
          Henry IV               3205
          Henry VI Part 3        3138
          Alls well that ends well 3083
          Measure for measure    2998
          Loves Labours Lost     2986
          Henry VI Part 1        2983
          Richard II             2937
          Merry Wives of Windsor 2831
          As you like it         2822
          Taming of the Shrew    2806
          Merchant of Venice     2802
          Julius Caesar          2771
          King John              2766
          Titus Andronicus       2726
          Much Ado about nothing 2704
          Timon of Athens        2662
          Twelfth Night          2648
          Pericles               2641
          macbeth                2586
          The Tempest            2403
          Two Gentlemen of Verona 2357
          A Midsummer nights dream 2300
          A Comedy of Errors     2055
          Name: PlayerLine, dtype: int64

```

```

In [17]: ## count number of lines per player

```

```
lines_per_player= data_sh.groupby(['Player']).count()
lines_per_player
```

Out[17]:

	Dataline	Play	PlayerLinenumber	ActSceneLine	PlayerLine
Player					
A Lord	1	1	1	1	1
A Patrician	4	4	4	3	4
A Player	4	4	4	4	4
AARON	375	375	375	356	375
ABERGAVENNY	18	18	18	18	18
ABHORSON	21	21	21	19	21
ABRAHAM	5	5	5	5	5
ACHILLES	208	208	208	190	208
ADAM	69	69	69	65	69
ADRIAN	16	16	16	12	16
ADRIANA	284	284	284	276	284
ADRIANO DE ARMADO	284	284	284	268	284
AEGEON	150	150	150	147	150
AEMELIA	75	75	75	73	75
AEMILIUS	22	22	22	21	22
AENEAS	153	153	153	145	153
AEdile	16	16	16	16	16
AGAMEMNON	210	210	210	196	210
AGRIPPA	65	65	65	61	65
AJAX	94	94	94	84	94
ALBANY	187	187	187	160	187
ALCIBIADES	175	175	175	163	175
ALENCON	50	50	50	49	50
ALEXANDER	34	34	34	33	34
ALEXAS	32	32	32	31	32
ALICE	27	27	27	27	27
ALL	58	58	58	49	58
ALONSO	113	113	113	110	113
AMIENS	40	40	40	37	40
ANDROMACHE	16	16	16	15	16
...	...	...	...	...	...
VIOLA	359	359	359	337	359
VIRGILIA	35	35	35	35	35
VOLTIMAND	23	23	23	22	23
VOLUMNIA	323	323	323	314	323
VOLUMNIUS	4	4	4	3	4
Vintner	5	5	5	4	5
Volsc	20	20	20	20	20
WARWICK	690	690	690	648	690
WESTMORELAND	82	82	82	79	82
WHITMORE	21	21	21	19	21
WILLIAM	13	13	13	11	13
WILLIAM PAGE	12	12	12	12	12

WILLIAM STAFFORD	7	7	7	7	7
WILLIAMS	73	73	73	70	73
WOODVILE	5	5	5	5	5
WORCESTER	1	1	1	1	1
Wall	13	13	13	12	13
Watch	2	2	2	2	2
Watchman	15	15	15	15	15
Widow	81	81	81	76	81
Wife	8	8	8	8	8
YORK	740	740	740	694	740
YOUNG CLIFFORD	52	52	52	46	52
YOUNG SIWARD	8	8	8	7	8
Young LUCIUS	49	49	49	45	49
Young MARCIUS	2	2	2	2	2
of BUCKINGHAM	14	14	14	11	14
of King Henry VI	10	10	10	8	10
of Prince Edward	10	10	10	8	10
of young Princes	11	11	11	9	11

## 5 Data cleansing, tokenizing, stemming and stop words

enter king henry lord john of lancaster the earl of westmoreland sir walter blunt and others

```
['enter', 'king', 'henry', 'lord', 'john', 'of', 'lancaster', 'the', 'earl', 'of', 'westmoreland']
```

```

        stopped_doc_tokens.append([word for word in doc if not word in stop_en])
    print(stopped_doc_tokens[2:20])
    data_sh['PlayerLine']=stopped_doc_tokens

[['king', 'henri', 'john', 'lancast', 'earl', 'westmoreland', 'walter', 'blunt'], ['shaken', 'v

In [147]: print(stopped_doc_tokens[2:20])

[['king', 'henri', 'john', 'lancast', 'earl', 'westmoreland', 'walter', 'blunt'], ['shaken', 'v

In [148]: stopstem_doc_tokens = []
        for doc in data_sh['PlayerLine']:
            stopstem_doc_tokens.append([PorterStemmer().stem(word) for word in doc])

        print(len(stopstem_doc_tokens))
        print(stopstem_doc_tokens[2])
        data_sh['PlayerLine']=stopstem_doc_tokens

111396
[['king', 'henri', 'john', 'lancast', 'earl', 'westmoreland', 'walter', 'blunt']

In [149]: # Plot using wordcloud to visualize relative significance of words
        from wordcloud import WordCloud
        train_qs = pd.Series(data_sh["PlayerLine"].tolist()).astype(str)
        qs_text = " ".join(train_qs)
        cloud = WordCloud(width=1440, height=1080).generate(qs_text)
        plt.figure(figsize=(15, 10))
        plt.imshow(cloud);
        plt.axis('off');
```





```

'shaken wan care',
'find time fright peac pant',
'breath shortwind accent new broil',
'commenc strand afar remot',
'thirsti entranc soil',
'daub lip children blood',
'trench war channel field',
'bruis floweret arm hoof',
'hostil pace oppos eye',
'like meteor troubl heaven',
'one natur one substanc bred',
'late meet intestin shock',
'furiou close civil butcheri',
'mutual wellbeseem rank',
'march one way oppos',
'acquaint kindr alli',
'edg war like illsheath knife',
'cut master therefor friend',
'far sepulchr christ',
'whose soldier whose bless cross',
'impress engag fight',
'forthwith power english levi']

```

```

In [23]: es=pd.Series(clean_player_lines)
         data_sh['PlayerLine_clean'] = es.values

```

## 7 Creating a DictVectorizer

```

In [97]: #create unique list of names
         UniqueNames = data_sh.Play.unique()
         for x in UniqueNames:
             DataFrameDict.update({'Play':x})

         DataFrameDict

```

```

Out[97]: {'Play': (35, 'A Winters Tale')}

```

```

In [72]: DataFrameDict = {elem : data_sh['PlayerLine_clean'] for elem in UniqueNames}

```

```

In [73]: DataFrameDict

```

```

Out[73]: {'Henry IV': 0
          1
          2
          3
          4
          5
          6
          scene london palac
          king henri john lancast earl westmoreland walt...
          shaken wan care
          find time fright peac pant
          breath shortwind accent new broil
          commenc strand afar remot
          act

```

7                               thirsti entranc soil  
 8                               daub lip children blood  
 9                               trench war channel field  
 10                              bruis floweret arm hoof  
 11                              hostil pace oppos eye  
 12                              like meteor troubl heaven  
 13                              one natur one substanc bred  
 14                              late meet intestin shock  
 15                              furiou close civil butcheri  
 16                              mutual wellbeseem rank  
 17                              march one way oppos  
 18                              acquaint kindr alli  
 19                              edg war like illsheath knife  
 20                              cut master therefor friend  
 21                              far sepulchr christ  
 22                              whose soldier whose bless cross  
 23                              impress engag fight  
 24                              forthwith power english levi  
 25                              whose arm mould mother womb  
 26                              chase pagan holi field  
 27                              whose acr walk bless feet  
 28                              fourteen hundr year ago nail  
 29                              advantag bitter cross

...

111366                           time enough  
 111367                           lest desir upon push troubl  
 111368                           joy like relat go togeth  
 111369                           preciou winner exult  
 111370                           partak everi one old turtl  
 111371                           wing wither bough  
 111372                           mate never found  
 111373                           lament till lost  
 111374                           peac paulina  
 111375                           shouldst husband take consent  
 111376                           wife match  
 111377                           made vow found mine  
 111378                           question saw  
 111379                           thought dead vain said mani  
 111380                           prayer upon grave seek far  
 111381                           partli know mindto find  
 111382                           honour husband camillo  
 111383                           take hand whose worth honesti  
 111384                           richli note justifi  
 111385                           pair king place  
 111386                           look upon brother pardon  
 111387                           e er put holi look  
 111388                           ill suspicion soninlaw  
 111389                           son unto king heaven direct

111390 trothplight daughter paulina  
 111391 lead henc may leisur  
 111392 one demand answer part  
 111393 perform wide gap time sinc first  
 111394 dissev hastili lead away  
 111395 exeunt

Name: PlayerLine\_clean, Length: 111396, dtype: object,  
 'Henry VI Part 1': 0

act

1 scene london palac  
 2 king henri john lancast earl westmoreland walt...  
 3 shaken wan care  
 4 find time fright peac pant  
 5 breath shortwind accent new broil  
 6 commenc strand afar remot  
 7 thirsti entranc soil  
 8 daub lip children blood  
 9 trench war channel field  
 10 bruis floweret arm hoof  
 11 hostil pace oppos eye  
 12 like meteor troubl heaven  
 13 one natur one substanc bred  
 14 late meet intestin shock  
 15 furiou close civil butcheri  
 16 mutual wellbeseem rank  
 17 march one way oppos  
 18 acquaint kindr alli  
 19 edg war like illsheath knife  
 20 cut master therefor friend  
 21 far sepulchr christ  
 22 whose soldier whose bless cross  
 23 impress engag fight  
 24 forthwith power english levi  
 25 whose arm mould mother womb  
 26 chase pagan holi field  
 27 whose acr walk bless feet  
 28 fourteen hundr year ago nail  
 29 advantag bitter cross

...

111366 time enough  
 111367 lest desir upon push troubl  
 111368 joy like relat go togeth  
 111369 preciou winner exult  
 111370 partak everi one old turtl  
 111371 wing wither bough  
 111372 mate never found  
 111373 lament till lost  
 111374 peac paulina  
 111375 shouldst husband take consent

111376 wife match  
 111377 made vow found mine  
 111378 question saw  
 111379 thought dead vain said mani  
 111380 prayer upon grave seek far  
 111381 partli know mindto find  
 111382 honour husband camillo  
 111383 take hand whose worth honesti  
 111384 richli note justifi  
 111385 pair king place  
 111386 look upon brother pardon  
 111387 e er put holi look  
 111388 ill suspicion soninlaw  
 111389 son unto king heaven direct  
 111390 trothplight daughter paulina  
 111391 lead henc may leisur  
 111392 one demand answer part  
 111393 perform wide gap time sinc first  
 111394 dissev hastili lead away  
 111395 exeunt

Name: PlayerLine\_clean, Length: 111396, dtype: object,  
 'Henry VI Part 2': 0

act

1 scene london palac  
 2 king henri john lancast earl westmoreland walt...  
 3 shaken wan care  
 4 find time fright peac pant  
 5 breath shortwind accent new broil  
 6 commenc strand afar remot  
 7 thirsti entranc soil  
 8 daub lip children blood  
 9 trench war channel field  
 10 bruis floweret arm hoof  
 11 hostil pace oppos eye  
 12 like meteor troubl heaven  
 13 one natur one substanc bred  
 14 late meet intestin shock  
 15 furiou close civil butcheri  
 16 mutual wellbeseem rank  
 17 march one way oppos  
 18 acquaint kindr alli  
 19 edg war like illsheath knife  
 20 cut master therefor friend  
 21 far sepulchr christ  
 22 whose soldier whose bless cross  
 23 impress engag fight  
 24 forthwith power english levi  
 25 whose arm mould mother womb  
 26 chase pagan holi field

27                   whose acr walk bless feet  
 28                   fourteen hundr year ago nail  
 29                   advantag bitter cross

...

111366                   time enough  
 111367                   lest desir upon push troubl  
 111368                   joy like relat go togeth  
 111369                   preciou winner exult  
 111370                   partak everi one old turtl  
 111371                   wing wither bough  
 111372                   mate never found  
 111373                   lament till lost  
 111374                   peac paulina  
 111375                   shouldst husband take consent  
 111376                   wife match  
 111377                   made vow found mine  
 111378                   question saw  
 111379                   thought dead vain said mani  
 111380                   prayer upon grave seek far  
 111381                   partli know mindto find  
 111382                   honour husband camillo  
 111383                   take hand whose worth honesti  
 111384                   richli note justifi  
 111385                   pair king place  
 111386                   look upon brother pardon  
 111387                   e er put holi look  
 111388                   ill suspicion soninlaw  
 111389                   son unto king heaven direct  
 111390                   trothplight daughter paulina  
 111391                   lead henc may leisur  
 111392                   one demand answer part  
 111393                   perform wide gap time sinc first  
 111394                   dissev hastili lead away  
 111395                   exeunt

Name: PlayerLine\_clean, Length: 111396, dtype: object,  
 'Henry VI Part 3': 0

act

1                   scene london palac  
 2                   king henri john lancast earl westmoreland walt...  
 3                   shaken wan care  
 4                   find time fright peac pant  
 5                   breath shortwind accent new broil  
 6                   commenc strand afar remot  
 7                   thirsti entranc soil  
 8                   daub lip children blood  
 9                   trench war channel field  
 10                   bruis floweret arm hoof  
 11                   hostil pace oppos eye  
 12                   like meteor troubl heaven

13 one natur one substanc bred  
 14 late meet intestin shock  
 15 furioe close civil butcheri  
 16 mutual wellbeseem rank  
 17 march one way oppos  
 18 acquaint kindr alli  
 19 edg war like illsheath knife  
 20 cut master therefor friend  
 21 far sepulchr christ  
 22 whose soldier whose bless cross  
 23 impress engag fight  
 24 forthwith power english levi  
 25 whose arm mould mother womb  
 26 chase pagan holi field  
 27 whose acr walk bless feet  
 28 fourteen hundr year ago nail  
 29 advantag bitter cross

...

111366 time enough  
 111367 lest desir upon push troubl  
 111368 joy like relat go togeth  
 111369 preciou winner exult  
 111370 partak everi one old turtl  
 111371 wing wither bough  
 111372 mate never found  
 111373 lament till lost  
 111374 peac paulina  
 111375 shouldst husband take consent  
 111376 wife match  
 111377 made vow found mine  
 111378 question saw  
 111379 thought dead vain said mani  
 111380 prayer upon grave seek far  
 111381 partli know mindto find  
 111382 honour husband camillo  
 111383 take hand whose worth honesti  
 111384 richli note justifi  
 111385 pair king place  
 111386 look upon brother pardon  
 111387 e er put holi look  
 111388 ill suspicion soninlaw  
 111389 son unto king heaven direct  
 111390 trothplight daughter paulina  
 111391 lead henc may leisur  
 111392 one demand answer part  
 111393 perform wide gap time sinc first  
 111394 dissev hastili lead away  
 111395 exeunt

Name: PlayerLine\_clean, Length: 111396, dtype: object,  
'Alls well that ends well': 0

```
1 scene london palac
2 king henri john lancast earl westmoreland walt...
3 shaken wan care
4 find time fright peac pant
5 breath shortwind accent new broil
6 commenc strand afar remot
7 thirsti entranc soil
8 daub lip children blood
9 trench war channel field
10 bruis floweret arm hoof
11 hostil pace oppos eye
12 like meteor troubl heaven
13 one natur one substanc bred
14 late meet intestin shock
15 furiou close civil butcheri
16 mutual wellbeseem rank
17 march one way oppos
18 acquaint kindr alli
19 edg war like illsheath knife
20 cut master therefor friend
21 far sepulchr christ
22 whose soldier whose bless cross
23 impress engag fight
24 forthwith power english levi
25 whose arm mould mother womb
26 chase pagan holi field
27 whose acr walk bless feet
28 fourteen hundr year ago nail
29 advantag bitter cross
...
111366 time enough
111367 lest desir upon push troubl
111368 joy like relat go togeth
111369 preciou winner exult
111370 partak everi one old turtl
111371 wing wither bough
111372 mate never found
111373 lament till lost
111374 peac paulina
111375 shouldst husband take consent
111376 wife match
111377 made vow found mine
111378 question saw
111379 thought dead vain said mani
111380 prayer upon grave seek far
111381 partli know mindto find
```

111382 honour husband camillo  
 111383 take hand whose worth honesti  
 111384 richli note justifi  
 111385 pair king place  
 111386 look upon brother pardon  
 111387 e er put holi look  
 111388 ill suspicion soninlaw  
 111389 son unto king heaven direct  
 111390 trothplight daughter paulina  
 111391 lead henc may leisur  
 111392 one demand answer part  
 111393 perform wide gap time sinc first  
 111394 dissev hastili lead away  
 111395 exeunt

Name: PlayerLine\_clean, Length: 111396, dtype: object,

'As you like it': 0

act

1 scene london palac  
 2 king henri john lancast earl westmoreland walt...  
 3 shaken wan care  
 4 find time fright peac pant  
 5 breath shortwind accent new broil  
 6 commenc strand afar remot  
 7 thirsti entranc soil  
 8 daub lip children blood  
 9 trench war channel field  
 10 bruis floweret arm hoof  
 11 hostil pace oppos eye  
 12 like meteor troubl heaven  
 13 one natur one substanc bred  
 14 late meet intestin shock  
 15 furiou close civil butcheri  
 16 mutual wellbeseem rank  
 17 march one way oppos  
 18 acquaint kindr alli  
 19 edg war like illsheath knife  
 20 cut master therefor friend  
 21 far sepulchr christ  
 22 whose soldier whose bless cross  
 23 impress engag fight  
 24 forthwith power english levi  
 25 whose arm mould mother womb  
 26 chase pagan holi field  
 27 whose acr walk bless feet  
 28 fourteen hundr year ago nail  
 29 advantag bitter cross

...

111366 time enough  
 111367 lest desir upon push troubl



111368 joy like relat go togeth  
 111369preciou winner exult  
 111370partak everi one old turtl  
 111371wing wither bough  
 111372mate never found  
 111373lament till lost  
 111374peac paulina  
 111375shouldst husband take consent  
 111376wife match  
 111377made vow found mine  
 111378question saw  
 111379thought dead vain said mani  
 111380prayer upon grave seek far  
 111381partli know mindto find  
 111382honour husband camillo  
 111383take hand whose worth honesti  
 111384richli note justifi  
 111385pair king place  
 111386look upon brother pardon  
 111387e er put holi look  
 111388ill suspicion soninlaw  
 111389son unto king heaven direct  
 111390trothplight daughter paulina  
 111391lead henc may leisur  
 111392one demand answer part  
 111393perform wide gap time sinc first  
 111394dissev hastili lead away  
 111395exeunt

Name: PlayerLine\_clean, Length: 111396, dtype: object,

'Antony and Cleopatra': 0

act

1 scene london palac  
 2 king henri john lancast earl westmoreland walt...  
 3 shaken wan care  
 4 find time fright peac pant  
 5 breath shortwind accent new broil  
 6 commenc strand afar remot  
 7 thirsti entranc soil  
 8 daub lip children blood  
 9 trench war channel field  
 10 bruis floweret arm hoof  
 11 hostil pace oppos eye  
 12 like meteor troubl heaven  
 13 one natur one substanc bred  
 14 late meet intestin shock  
 15 furiou close civil butcheri  
 16 mutual wellbeseem rank  
 17 march one way oppos  
 18 acquaint kindr alli

19 edg war like illsheath knife  
 20 cut master therefor friend  
 21 far sepulchr christ  
 22 whose soldier whose bless cross  
 23 impress engag fight  
 24 forthwith power english levi  
 25 whose arm mould mother womb  
 26 chase pagan holi field  
 27 whose acr walk bless feet  
 28 fourteen hundr year ago nail  
 29 advantag bitter cross

...

111366 time enough  
 111367 lest desir upon push troubl  
 111368 joy like relat go togeth  
 111369 preciou winner exult  
 111370 partak everi one old turtl  
 111371 wing wither bough  
 111372 mate never found  
 111373 lament till lost  
 111374 peac paulina  
 111375 shouldst husband take consent  
 111376 wife match  
 111377 made vow found mine  
 111378 question saw  
 111379 thought dead vain said mani  
 111380 prayer upon grave seek far  
 111381 partli know mindto find  
 111382 honour husband camillo  
 111383 take hand whose worth honesti  
 111384 richli note justifi  
 111385 pair king place  
 111386 look upon brother pardon  
 111387 e er put holi look  
 111388 ill suspicion soninlaw  
 111389 son unto king heaven direct  
 111390 trothplight daughter paulina  
 111391 lead henc may leisur  
 111392 one demand answer part  
 111393 perform wide gap time sinc first  
 111394 dissev hastili lead away  
 111395 exeunt

Name: PlayerLine\_clean, Length: 111396, dtype: object,

'A Comedy of Errors': 0

act

1 scene london palac  
 2 king henri john lancast earl westmoreland walt...  
 3 shaken wan care  
 4 find time fright peac pant

5                   breath shortwind accent new broil  
 6                   commenc strand afar remot  
 7                   thirsti entranc soil  
 8                   daub lip children blood  
 9                   trench war channel field  
 10                  bruis floweret arm hoof  
 11                  hostil pace oppos eye  
 12                  like meteor troubl heaven  
 13                  one natur one substanc bred  
 14                  late meet intestin shock  
 15                  furiou close civil butcheri  
 16                  mutual wellbeseem rank  
 17                  march one way oppos  
 18                  acquaint kindr alli  
 19                  edg war like illsheath knife  
 20                  cut master therefor friend  
 21                  far sepulchr christ  
 22                  whose soldier whose bless cross  
 23                  impress engag fight  
 24                  forthwith power english levi  
 25                  whose arm mould mother womb  
 26                  chase pagan holi field  
 27                  whose acr walk bless feet  
 28                  fourteen hundr year ago nail  
 29                  advantag bitter cross  
  
 ...  
 111366                   time enough  
 111367                  lest desir upon push troubl  
 111368                  joy like relat go togeth  
 111369                  preciou winner exult  
 111370                  partak everi one old turtl  
 111371                  wing wither bough  
 111372                  mate never found  
 111373                  lament till lost  
 111374                  peac paulina  
 111375                  shouldst husband take consent  
 111376                  wife match  
 111377                  made vow found mine  
 111378                  question saw  
 111379                  thought dead vain said mani  
 111380                  prayer upon grave seek far  
 111381                  partli know mindto find  
 111382                  honour husband camillo  
 111383                  take hand whose worth honesti  
 111384                  richli note justifi  
 111385                  pair king place  
 111386                  look upon brother pardon  
 111387                  e er put holi look

111388                   ill suspicion soninlaw  
 111389                   son unto king heaven direct  
 111390                   trothplight daughter paulina  
 111391                   lead henc may leisur  
 111392                   one demand answer part  
 111393                   perform wide gap time sinc first  
 111394                   dissev hastili lead away  
 111395                   exeunt

Name: PlayerLine\_clean, Length: 111396, dtype: object,  
 'Coriolanus': 0

act

1                               scene london palac  
 2           king henri john lancast earl westmoreland walt...  
 3                               shaken wan care  
 4                   find time fright peac pant  
 5                   breath shortwind accent new broil  
 6                   commenc strand afar remot  
 7                   thirsti entranc soil  
 8                   daub lip children blood  
 9                   trench war channel field  
 10                   bruis floweret arm hoof  
 11                   hostil pace oppos eye  
 12                   like meteor troubl heaven  
 13                   one natur one substanc bred  
 14                   late meet intestin shock  
 15                   furiou close civil butcheri  
 16                   mutual wellbeseem rank  
 17                   march one way oppos  
 18                   acquaint kindr alli  
 19                   edg war like illsheath knife  
 20                   cut master therefor friend  
 21                   far sepulchr christ  
 22                   whose soldier whose bless cross  
 23                   impress engag fight  
 24                   forthwith power english levi  
 25                   whose arm mould mother womb  
 26                   chase pagan holi field  
 27                   whose acr walk bless feet  
 28                   fourteen hundr year ago nail  
 29                   advantag bitter cross

...

111366                   time enough  
 111367                   lest desir upon push troubl  
 111368                   joy like relat go togeth  
 111369                   preciou winner exult  
 111370                   partak everi one old turtl  
 111371                   wing wither bough  
 111372                   mate never found  
 111373                   lament till lost

111374 peac paulina  
 111375 shouldst husband take consent  
 111376 wife match  
 111377 made vow found mine  
 111378 question saw  
 111379 thought dead vain said mani  
 111380 prayer upon grave seek far  
 111381 partli know mindto find  
 111382 honour husband camillo  
 111383 take hand whose worth honesti  
 111384 richli note justifi  
 111385 pair king place  
 111386 look upon brother pardon  
 111387 e er put holi look  
 111388 ill suspicion soninlaw  
 111389 son unto king heaven direct  
 111390 trothplight daughter paulina  
 111391 lead henc may leisur  
 111392 one demand answer part  
 111393 perform wide gap time sinc first  
 111394 dissev hastili lead away  
 111395 exeunt

Name: PlayerLine\_clean, Length: 111396, dtype: object,

'Cymbeline': 0

act

1 scene london palac  
 2 king henri john lancast earl westmoreland walt...  
 3 shaken wan care  
 4 find time fright peac pant  
 5 breath shortwind accent new broil  
 6 commenc strand afar remot  
 7 thirsti entranc soil  
 8 daub lip children blood  
 9 trench war channel field  
 10 bruis floweret arm hoof  
 11 hostil pace oppos eye  
 12 like meteor troubl heaven  
 13 one natur one substanc bred  
 14 late meet intestin shock  
 15 furiou close civil butcheri  
 16 mutual wellbeseem rank  
 17 march one way oppos  
 18 acquaint kindr alli  
 19 edg war like illsheath knife  
 20 cut master therefor friend  
 21 far sepulchr christ  
 22 whose soldier whose bless cross  
 23 impress engag fight  
 24 forthwith power english levi

25                   whose arm mould mother womb  
 26                   chase pagan holi field  
 27                   whose acr walk bless feet  
 28                   fourteen hundr year ago nail  
 29                   advantag bitter cross

...

111366                   time enough  
 111367                   lest desir upon push troubl  
 111368                   joy like relat go togeth  
 111369                   preciou winner exult  
 111370                   partak everi one old turtl  
 111371                   wing wither bough  
 111372                   mate never found  
 111373                   lament till lost  
 111374                   peac paulina  
 111375                   shouldst husband take consent  
 111376                   wife match  
 111377                   made vow found mine  
 111378                   question saw  
 111379                   thought dead vain said mani  
 111380                   prayer upon grave seek far  
 111381                   partli know mindto find  
 111382                   honour husband camillo  
 111383                   take hand whose worth honesti  
 111384                   richli note justifi  
 111385                   pair king place  
 111386                   look upon brother pardon  
 111387                   e er put holi look  
 111388                   ill suspicion soninlaw  
 111389                   son unto king heaven direct  
 111390                   trothplight daughter paulina  
 111391                   lead henc may leisur  
 111392                   one demand answer part  
 111393                   perform wide gap time sinc first  
 111394                   dissev hastili lead away  
 111395                   exeunt

Name: PlayerLine\_clean, Length: 111396, dtype: object,  
 'Hamlet': 0

act

1                   scene london palac  
 2                   king henri john lancast earl westmoreland walt...  
 3                   shaken wan care  
 4                   find time fright peac pant  
 5                   breath shortwind accent new broil  
 6                   commenc strand afar remot  
 7                   thirsti entranc soil  
 8                   daub lip children blood  
 9                   trench war channel field  
 10                   bruis floweret arm hoof

11                   hostil pace oppos eye  
 12                   like meteor troubl heaven  
 13                   one natur one substanc bred  
 14                   late meet intestin shock  
 15                   furiou close civil butcheri  
 16                   mutual wellbeseem rank  
 17                   march one way oppos  
 18                   acquaint kindr alli  
 19                   edg war like illsheath knife  
 20                   cut master therefor friend  
 21                   far sepulchr christ  
 22                   whose soldier whose bless cross  
 23                   impress engag fight  
 24                   forthwith power english levi  
 25                   whose arm mould mother womb  
 26                   chase pagan holi field  
 27                   whose acr walk bless feet  
 28                   fourteen hundr year ago nail  
 29                   advantag bitter cross

...

111366                   time enough  
 111367                   lest desir upon push troubl  
 111368                   joy like relat go togeth  
 111369                   preciou winner exult  
 111370                   partak everi one old turtl  
 111371                   wing wither bough  
 111372                   mate never found  
 111373                   lament till lost  
 111374                   peac paulina  
 111375                   shouldst husband take consent  
 111376                   wife match  
 111377                   made vow found mine  
 111378                   question saw  
 111379                   thought dead vain said mani  
 111380                   prayer upon grave seek far  
 111381                   partli know mindto find  
 111382                   honour husband camillo  
 111383                   take hand whose worth honesti  
 111384                   richli note justifi  
 111385                   pair king place  
 111386                   look upon brother pardon  
 111387                   e er put holi look  
 111388                   ill suspicion soninlaw  
 111389                   son unto king heaven direct  
 111390                   trothplight daughter paulina  
 111391                   lead henc may leisur  
 111392                   one demand answer part  
 111393                   perform wide gap time sinc first

111394                               dissev hastili lead away  
 111395   exeunt  
 Name: PlayerLine\_clean, Length: 111396, dtype: object,  
 'Henry V': 0   act

1   scene london palac  
 2               king henri john lancast earl westmoreland walt...  
 3   shaken wan care  
 4                               find time fright peac pant  
 5                               breath shortwind accent new broil  
 6                               commenc strand afar remot  
 7                               thirsti entranc soil  
 8                               daub lip children blood  
 9                               trench war channel field  
 10                               bruis floweret arm hoof  
 11                               hostil pace oppos eye  
 12                               like meteor troubl heaven  
 13                               one natur one substanc bred  
 14                               late meet intestin shock  
 15                               furiou close civil butcheri  
 16                               mutual wellbeseem rank  
 17                               march one way oppos  
 18                               acquaint kindr alli  
 19                               edg war like illsheath knife  
 20                               cut master therefor friend  
 21                               far sepulchr christ  
 22                               whose soldier whose bless cross  
 23                               impress engag fight  
 24                               forthwith power english levi  
 25                               whose arm mould mother womb  
 26                               chase pagan holi field  
 27                               whose acr walk bless feet  
 28                               fourteen hundr year ago nail  
 29                               advantag bitter cross

...

111366   time enough  
 111367                               lest desir upon push troubl  
 111368                               joy like relat go togeth  
 111369                               preciou winner exult  
 111370                               partak everi one old turtl  
 111371                               wing wither bough  
 111372                               mate never found  
 111373                               lament till lost  
 111374                               peac paulina  
 111375                               shouldst husband take consent  
 111376   wife match  
 111377                               made vow found mine  
 111378   question saw  
 111379                               thought dead vain said mani



111380 prayer upon grave seek far  
 111381 partli know mindto find  
 111382 honour husband camillo  
 111383 take hand whose worth honesti  
 111384 richli note justifi  
 111385 pair king place  
 111386 look upon brother pardon  
 111387 e er put holi look  
 111388 ill suspicion soninlaw  
 111389 son unto king heaven direct  
 111390 trothplight daughter paulina  
 111391 lead henc may leisur  
 111392 one demand answer part  
 111393 perform wide gap time sinc first  
 111394 dissev hastili lead away  
 111395 exeunt

Name: PlayerLine\_clean, Length: 111396, dtype: object,  
 'Henry VIII': 0

act

1 scene london palac  
 2 king henri john lancast earl westmoreland walt...  
 3 shaken wan care  
 4 find time fright peac pant  
 5 breath shortwind accent new broil  
 6 commenc strand afar remot  
 7 thirsti entranc soil  
 8 daub lip children blood  
 9 trench war channel field  
 10 bruis floweret arm hoof  
 11 hostil pace oppos eye  
 12 like meteor troubl heaven  
 13 one natur one substanc bred  
 14 late meet intestin shock  
 15 furiou close civil butcheri  
 16 mutual wellbeseem rank  
 17 march one way oppos  
 18 acquaint kindr alli  
 19 edg war like illsheath knife  
 20 cut master therefor friend  
 21 far sepulchr christ  
 22 whose soldier whose bless cross  
 23 impress engag fight  
 24 forthwith power english levi  
 25 whose arm mould mother womb  
 26 chase pagan holi field  
 27 whose acr walk bless feet  
 28 fourteen hundr year ago nail  
 29 advantag bitter cross

...

111366 time enough  
 111367 lest desir upon push troubl  
 111368 joy like relat go togeth  
 111369 preciou winner exult  
 111370 partak everi one old turtl  
 111371 wing wither bough  
 111372 mate never found  
 111373 lament till lost  
 111374 peac paulina  
 111375 shouldst husband take consent  
 111376 wife match  
 111377 made vow found mine  
 111378 question saw  
 111379 thought dead vain said mani  
 111380 prayer upon grave seek far  
 111381 partli know mindto find  
 111382 honour husband camillo  
 111383 take hand whose worth honesti  
 111384 richli note justifi  
 111385 pair king place  
 111386 look upon brother pardon  
 111387 e er put holi look  
 111388 ill suspicion soninlaw  
 111389 son unto king heaven direct  
 111390 trothplight daughter paulina  
 111391 lead henc may leisur  
 111392 one demand answer part  
 111393 perform wide gap time sinc first  
 111394 dissev hastili lead away  
 111395 exeunt

Name: PlayerLine\_clean, Length: 111396, dtype: object,  
 'King John': 0

act

1 scene london palac  
 2 king henri john lancast earl westmoreland walt...  
 3 shaken wan care  
 4 find time fright peac pant  
 5 breath shortwind accent new broil  
 6 commenc strand afar remot  
 7 thirsti entranc soil  
 8 daub lip children blood  
 9 trench war channel field  
 10 bruis floweret arm hoof  
 11 hostil pace oppos eye  
 12 like meteor troubl heaven  
 13 one natur one substanc bred  
 14 late meet intestin shock  
 15 furiou close civil butcheri  
 16 mutual wellbeseem rank

17 march one way oppos  
 18 acquaint kindr alli  
 19 edg war like illsheath knife  
 20 cut master therefor friend  
 21 far sepulchr christ  
 22 whose soldier whose bless cross  
 23 impress engag fight  
 24 forthwith power english levi  
 25 whose arm mould mother womb  
 26 chase pagan holi field  
 27 whose acr walk bless feet  
 28 fourteen hundr year ago nail  
 29 advantag bitter cross

...

111366 time enough  
 111367 lest desir upon push troubl  
 111368 joy like relat go togeth  
 111369 preciou winner exult  
 111370 partak everi one old turtl  
 111371 wing wither bough  
 111372 mate never found  
 111373 lament till lost  
 111374 peac paulina  
 111375 shouldst husband take consent  
 111376 wife match  
 111377 made vow found mine  
 111378 question saw  
 111379 thought dead vain said mani  
 111380 prayer upon grave seek far  
 111381 partli know mindto find  
 111382 honour husband camillo  
 111383 take hand whose worth honesti  
 111384 richli note justifi  
 111385 pair king place  
 111386 look upon brother pardon  
 111387 e er put holi look  
 111388 ill suspicion soninlaw  
 111389 son unto king heaven direct  
 111390 trothplight daughter paulina  
 111391 lead henc may leisur  
 111392 one demand answer part  
 111393 perform wide gap time sinc first  
 111394 dissev hastili lead away  
 111395 exeunt

Name: PlayerLine\_clean, Length: 111396, dtype: object,  
 'Julius Caesar': 0

act

1 scene london palac  
 2 king henri john lancast earl westmoreland walt...

3                                   shaken wan care  
 4                           find time fright peac pant  
 5           breath shortwind accent new broil  
 6                           commenc strand afar remot  
 7                           thirsti entranc soil  
 8                           daub lip children blood  
 9                           trench war channel field  
 10                           bruis floweret arm hoof  
 11                           hostil pace oppos eye  
 12                           like meteor troubl heaven  
 13                   one natur one substanc bred  
 14                           late meet intestin shock  
 15                   furiou close civil butcheri  
 16                           mutual wellbeseem rank  
 17                           march one way oppos  
 18                           acquaint kindr alli  
 19           edg war like illsheath knife  
 20                           cut master therefor friend  
 21                           far sepulchr christ  
 22           whose soldier whose bless cross  
 23                           impress engag fight  
 24                   forthwith power english levi  
 25                           whose arm mould mother womb  
 26                           chase pagan holi field  
 27                           whose acr walk bless feet  
 28           fourteen hundr year ago nail  
 29                           advantag bitter cross  
  
 ...  
 111366                           time enough  
 111367                   lest desir upon push troubl  
 111368                           joy like relat go togeth  
 111369                           preciou winner exult  
 111370                   partak everi one old turtl  
 111371                           wing wither bough  
 111372                           mate never found  
 111373                           lament till lost  
 111374                           peac paulina  
 111375           shouldst husband take consent  
 111376                           wife match  
 111377                           made vow found mine  
 111378                           question saw  
 111379                   thought dead vain said mani  
 111380                   prayer upon grave seek far  
 111381                           partli know mindto find  
 111382                           honour husband camillo  
 111383           take hand whose worth honesti  
 111384                           richli note justifi  
 111385                           pair king place

111386 look upon brother pardon  
 111387 e er put holi look  
 111388 ill suspicion soninlaw  
 111389 son unto king heaven direct  
 111390 trothplight daughter paulina  
 111391 lead henc may leisur  
 111392 one demand answer part  
 111393 perform wide gap time sinc first  
 111394 dissev hastili lead away  
 111395 exeunt

Name: PlayerLine\_clean, Length: 111396, dtype: object,  
 'King Lear': 0

act

1 scene london palac  
 2 king henri john lancast earl westmoreland walt...  
 3 shaken wan care  
 4 find time fright peac pant  
 5 breath shortwind accent new broil  
 6 commenc strand afar remot  
 7 thirsti entranc soil  
 8 daub lip children blood  
 9 trench war channel field  
 10 bruis floweret arm hoof  
 11 hostil pace oppos eye  
 12 like meteor troubl heaven  
 13 one natur one substanc bred  
 14 late meet intestin shock  
 15 furiou close civil butcheri  
 16 mutual wellbeseem rank  
 17 march one way oppos  
 18 acquaint kindr alli  
 19 edg war like illsheath knife  
 20 cut master therefor friend  
 21 far sepulchr christ  
 22 whose soldier whose bless cross  
 23 impress engag fight  
 24 forthwith power english levi  
 25 whose arm mould mother womb  
 26 chase pagan holi field  
 27 whose acr walk bless feet  
 28 fourteen hundr year ago nail  
 29 advantag bitter cross

...

111366 time enough  
 111367 lest desir upon push troubl  
 111368 joy like relat go togeth  
 111369 preciou winner exult  
 111370 partak everi one old turtl  
 111371 wing wither bough

111372 mate never found  
 111373 lament till lost  
 111374 peac paulina  
 111375 shouldst husband take consent  
 111376 wife match  
 111377 made vow found mine  
 111378 question saw  
 111379 thought dead vain said mani  
 111380 prayer upon grave seek far  
 111381 partli know mindto find  
 111382 honour husband camillo  
 111383 take hand whose worth honesti  
 111384 richli note justifi  
 111385 pair king place  
 111386 look upon brother pardon  
 111387 e er put holi look  
 111388 ill suspicion soninlaw  
 111389 son unto king heaven direct  
 111390 trothplight daughter paulina  
 111391 lead henc may leisur  
 111392 one demand answer part  
 111393 perform wide gap time sinc first  
 111394 dissev hastili lead away  
 111395 exeunt

Name: PlayerLine\_clean, Length: 111396, dtype: object,  
 'Loves Labours Lost': 0

act

1 scene london palac  
 2 king henri john lancast earl westmoreland walt...  
 3 shaken wan care  
 4 find time fright peac pant  
 5 breath shortwind accent new broil  
 6 commenc strand afar remot  
 7 thirsti entranc soil  
 8 daub lip children blood  
 9 trench war channel field  
 10 bruis floweret arm hoof  
 11 hostil pace oppos eye  
 12 like meteor troubl heaven  
 13 one natur one substanc bred  
 14 late meet intestin shock  
 15 furiou close civil butcheri  
 16 mutual wellbeseem rank  
 17 march one way oppos  
 18 acquaint kindr alli  
 19 edg war like illsheath knife  
 20 cut master therefor friend  
 21 far sepulchr christ  
 22 whose soldier whose bless cross

23                   impress engag fight  
 24           forthwith power english levi  
 25           whose arm mould mother womb  
 26                   chase pagan holi field  
 27           whose acr walk bless feet  
 28           fourteen hundr year ago nail  
 29                   advantag bitter cross

...

111366                   time enough  
 111367           lest desir upon push troubl  
 111368                   joy like relat go togeth  
 111369                   preciou winner exult  
 111370           partak everi one old turtl  
 111371                   wing wither bough  
 111372                   mate never found  
 111373                   lament till lost  
 111374                   peac paulina  
 111375           shouldst husband take consent  
 111376                   wife match  
 111377                   made vow found mine  
 111378                   question saw  
 111379           thought dead vain said mani  
 111380           prayer upon grave seek far  
 111381                   partli know mindto find  
 111382                   honour husband camillo  
 111383           take hand whose worth honesti  
 111384                   richli note justifi  
 111385                   pair king place  
 111386           look upon brother pardon  
 111387                   e er put holi look  
 111388                   ill suspicion soninlaw  
 111389           son unto king heaven direct  
 111390           trothplight daughter paulina  
 111391                   lead henc may leisur  
 111392                   one demand answer part  
 111393           perform wide gap time sinc first  
 111394                   dissev hastili lead away  
 111395                   exeunt

Name: PlayerLine\_clean, Length: 111396, dtype: object,  
 'macbeth': 0

act

1                   scene london palac  
 2           king henri john lancast earl westmoreland walt...  
 3                   shaken wan care  
 4           find time fright peac pant  
 5           breath shortwind accent new broil  
 6                   commenc strand afar remot  
 7                   thirsti entranc soil  
 8           daub lip children blood

9 trench war channel field  
 10 bruis floweret arm hoof  
 11 hostil pace oppos eye  
 12 like meteor troubl heaven  
 13 one natur one substanc bred  
 14 late meet intestin shock  
 15 furiou close civil butcheri  
 16 mutual wellbeseem rank  
 17 march one way oppos  
 18 acquaint kindr alli  
 19 edg war like illsheath knife  
 20 cut master therefor friend  
 21 far sepulchr christ  
 22 whose soldier whose bless cross  
 23 impress engag fight  
 24 forthwith power english levi  
 25 whose arm mould mother womb  
 26 chase pagan holi field  
 27 whose acr walk bless feet  
 28 fourteen hundr year ago nail  
 29 advantag bitter cross

...

111366 time enough  
 111367 lest desir upon push troubl  
 111368 joy like relat go togeth  
 111369 preciou winner exult  
 111370 partak everi one old turtl  
 111371 wing wither bough  
 111372 mate never found  
 111373 lament till lost  
 111374 peac paulina  
 111375 shouldst husband take consent  
 111376 wife match  
 111377 made vow found mine  
 111378 question saw  
 111379 thought dead vain said mani  
 111380 prayer upon grave seek far  
 111381 partli know mindto find  
 111382 honour husband camillo  
 111383 take hand whose worth honesti  
 111384 richli note justifi  
 111385 pair king place  
 111386 look upon brother pardon  
 111387 e er put holi look  
 111388 ill suspicion soninlaw  
 111389 son unto king heaven direct  
 111390 trothplight daughter paulina  
 111391 lead henc may leisur



111392                           one demand answer part  
 111393                   perform wide gap time sinc first  
 111394                           dissev hastili lead away  
 111395   exeunt

Name: PlayerLine\_clean, Length: 111396, dtype: object,  
 'Measure for measure': 0

act

1                                   scene london palac  
 2           king henri john lancast earl westmoreland walt...  
 3                                   shaken wan care  
 4                   find time fright peac pant  
 5                   breath shortwind accent new broil  
 6                           commenc strand afar remot  
 7                           thirsti entranc soil  
 8                           daub lip children blood  
 9                           trench war channel field  
 10                           bruis floweret arm hoof  
 11                           hostil pace oppos eye  
 12                           like meteor troubl heaven  
 13                   one natur one substanc bred  
 14                           late meet intestin shock  
 15                   furiou close civil butcheri  
 16                           mutual wellbeseem rank  
 17                           march one way oppos  
 18                           acquaint kindr alli  
 19                   edg war like illsheath knife  
 20                           cut master therefor friend  
 21                           far sepulchr christ  
 22                   whose soldier whose bless cross  
 23                           impress engag fight  
 24                   forthwith power english levi  
 25                           whose arm mould mother womb  
 26                           chase pagan holi field  
 27                           whose acr walk bless feet  
 28                   fourteen hundr year ago nail  
 29                           advantag bitter cross

...

111366                           time enough  
 111367                   lest desir upon push troubl  
 111368                           joy like relat go togeth  
 111369                           preciou winner exult  
 111370                   partak everi one old turtl  
 111371                           wing wither bough  
 111372                           mate never found  
 111373                           lament till lost  
 111374                           peac paulina  
 111375                   shouldst husband take consent  
 111376                           wife match  
 111377                           made vow found mine

111378 question saw  
 111379 thought dead vain said mani  
 111380 prayer upon grave seek far  
 111381 partli know mindto find  
 111382 honour husband camillo  
 111383 take hand whose worth honesti  
 111384 richli note justifi  
 111385 pair king place  
 111386 look upon brother pardon  
 111387 e er put holi look  
 111388 ill suspicion soninlaw  
 111389 son unto king heaven direct  
 111390 trothplight daughter paulina  
 111391 lead henc may leisur  
 111392 one demand answer part  
 111393 perform wide gap time sinc first  
 111394 dissev hastili lead away  
 111395 exeunt

Name: PlayerLine\_clean, Length: 111396, dtype: object,  
 'Merchant of Venice': 0

act

1 scene london palac  
 2 king henri john lancast earl westmoreland walt...  
 3 shaken wan care  
 4 find time fright peac pant  
 5 breath shortwind accent new broil  
 6 commenc strand afar remot  
 7 thirsti entranc soil  
 8 daub lip children blood  
 9 trench war channel field  
 10 bruis floweret arm hoof  
 11 hostil pace oppos eye  
 12 like meteor troubl heaven  
 13 one natur one substanc bred  
 14 late meet intestin shock  
 15 furiou close civil butcheri  
 16 mutual wellbeseem rank  
 17 march one way oppos  
 18 acquaint kindr alli  
 19 edg war like illsheath knife  
 20 cut master therefor friend  
 21 far sepulchr christ  
 22 whose soldier whose bless cross  
 23 impress engag fight  
 24 forthwith power english levi  
 25 whose arm mould mother womb  
 26 chase pagan holi field  
 27 whose acr walk bless feet  
 28 fourteen hundr year ago nail



15                   furiou close civil butcheri  
 16                   mutual wellbeseem rank  
 17                   march one way oppos  
 18                   acquaint kindr alli  
 19           edg war like illsheath knife  
 20           cut master therefor friend  
 21                   far sepulchr christ  
 22       whose soldier whose bless cross  
 23                   impress engag fight  
 24       forthwith power english levi  
 25       whose arm mould mother womb  
 26                   chase pagan holi field  
 27       whose acr walk bless feet  
 28       fourteen hundr year ago nail  
 29                   advantag bitter cross  
  
      ...  
 111366                   time enough  
 111367       lest desir upon push troubl  
 111368           joy like relat go togeth  
 111369           preciou winner exult  
 111370       partak everi one old turtl  
 111371                   wing wither bough  
 111372                   mate never found  
 111373                   lament till lost  
 111374                   peac paulina  
 111375       shouldst husband take consent  
 111376                   wife match  
 111377                   made vow found mine  
 111378                   question saw  
 111379       thought dead vain said mani  
 111380       prayer upon grave seek far  
 111381           partli know mindto find  
 111382           honour husband camillo  
 111383       take hand whose worth honesti  
 111384           richli note justifi  
 111385           pair king place  
 111386       look upon brother pardon  
 111387           e er put holi look  
 111388           ill suspicion soninlaw  
 111389       son unto king heaven direct  
 111390       trothplight daughter paulina  
 111391           lead henc may leisur  
 111392           one demand answer part  
 111393       perform wide gap time sinc first  
 111394           dissev hastili lead away  
 111395                   exeunt

Name: PlayerLine\_clean, Length: 111396, dtype: object,  
 'A Midsummer nights dream': 0

1 scene london palac  
2 king henri john lancast earl westmoreland walt...  
3 shaken wan care  
4 find time fright peac pant  
5 breath shortwind accent new broil  
6 commenc strand afar remot  
7 thirsti entranc soil  
8 daub lip children blood  
9 trench war channel field  
10 bruis floweret arm hoof  
11 hostil pace oppos eye  
12 like meteor troubl heaven  
13 one natur one substanc bred  
14 late meet intestin shock  
15 furiou close civil butcheri  
16 mutual wellbeseem rank  
17 march one way oppos  
18 acquaint kindr alli  
19 edg war like illsheath knife  
20 cut master therefor friend  
21 far sepulchr christ  
22 whose soldier whose bless cross  
23 impress engag fight  
24 forthwith power english levi  
25 whose arm mould mother womb  
26 chase pagan holi field  
27 whose acr walk bless feet  
28 fourteen hundr year ago nail  
29 advantag bitter cross  
  
...  
111366 time enough  
111367 lest desir upon push troubl  
111368 joy like relat go togeth  
111369 preciou winner exult  
111370 partak everi one old turtl  
111371 wing wither bough  
111372 mate never found  
111373 lament till lost  
111374 peac paulina  
111375 shouldst husband take consent  
111376 wife match  
111377 made vow found mine  
111378 question saw  
111379 thought dead vain said mani  
111380 prayer upon grave seek far  
111381 partli know mindto find  
111382 honour husband camillo  
111383 take hand whose worth honesti

111384 richli note justifi  
 111385 pair king place  
 111386 look upon brother pardon  
 111387 e er put holi look  
 111388 ill suspicion soninlaw  
 111389 son unto king heaven direct  
 111390 trothplight daughter paulina  
 111391 lead henc may leisur  
 111392 one demand answer part  
 111393 perform wide gap time sinc first  
 111394 dissev hastili lead away  
 111395 exeunt

Name: PlayerLine\_clean, Length: 111396, dtype: object,

'Much Ado about nothing': 0

1 scene london palac  
 2 king henri john lancast earl westmoreland walt...  
 3 shaken wan care  
 4 find time fright peac pant  
 5 breath shortwind accent new broil  
 6 commenc strand afar remot  
 7 thirsti entranc soil  
 8 daub lip children blood  
 9 trench war channel field  
 10 bruis floweret arm hoof  
 11 hostil pace oppos eye  
 12 like meteor troubl heaven  
 13 one natur one substanc bred  
 14 late meet intestin shock  
 15 furiou close civil butcheri  
 16 mutual wellbeseem rank  
 17 march one way oppos  
 18 acquaint kindr alli  
 19 edg war like illsheath knife  
 20 cut master therefor friend  
 21 far sepulchr christ  
 22 whose soldier whose bless cross  
 23 impress engag fight  
 24 forthwith power english levi  
 25 whose arm mould mother womb  
 26 chase pagan holi field  
 27 whose acr walk bless feet  
 28 fourteen hundr year ago nail  
 29 advantag bitter cross

...

111366 time enough  
 111367 lest desir upon push troubl  
 111368 joy like relat go togeth  
 111369 preciou winner exult

111370 partak everi one old turtl  
 111371 wing wither bough  
 111372 mate never found  
 111373 lament till lost  
 111374 peac paulina  
 111375 shouldst husband take consent  
 111376 wife match  
 111377 made vow found mine  
 111378 question saw  
 111379 thought dead vain said mani  
 111380 prayer upon grave seek far  
 111381 partli know mindto find  
 111382 honour husband camillo  
 111383 take hand whose worth honesti  
 111384 richli note justifi  
 111385 pair king place  
 111386 look upon brother pardon  
 111387 e er put holi look  
 111388 ill suspicion soninlaw  
 111389 son unto king heaven direct  
 111390 trothplight daughter paulina  
 111391 lead henc may leisur  
 111392 one demand answer part  
 111393 perform wide gap time sinc first  
 111394 dissev hastili lead away  
 111395 exeunt

Name: PlayerLine\_clean, Length: 111396, dtype: object,  
 'Othello': 0

act

1 scene london palac  
 2 king henri john lancast earl westmoreland walt...  
 3 shaken wan care  
 4 find time fright peac pant  
 5 breath shortwind accent new broil  
 6 commenc strand afar remot  
 7 thirsti entranc soil  
 8 daub lip children blood  
 9 trench war channel field  
 10 bruis floweret arm hoof  
 11 hostil pace oppos eye  
 12 like meteor troubl heaven  
 13 one natur one substanc bred  
 14 late meet intestin shock  
 15 furiou close civil butcheri  
 16 mutual wellbeseem rank  
 17 march one way oppos  
 18 acquaint kindr alli  
 19 edg war like illsheath knife  
 20 cut master therefor friend

21 far sepulchr christ  
 22 whose soldier whose bless cross  
 23 impress engag fight  
 24 forthwith power english levi  
 25 whose arm mould mother womb  
 26 chase pagan holi field  
 27 whose acr walk bless feet  
 28 fourteen hundr year ago nail  
 29 advantag bitter cross

...

111366 time enough  
 111367 lest desir upon push troubl  
 111368 joy like relat go togeth  
 111369 preciou winner exult  
 111370 partak everi one old turtl  
 111371 wing wither bough  
 111372 mate never found  
 111373 lament till lost  
 111374 peac paulina  
 111375 shouldst husband take consent  
 111376 wife match  
 111377 made vow found mine  
 111378 question saw  
 111379 thought dead vain said mani  
 111380 prayer upon grave seek far  
 111381 partli know mindto find  
 111382 honour husband camillo  
 111383 take hand whose worth honesti  
 111384 richli note justifi  
 111385 pair king place  
 111386 look upon brother pardon  
 111387 e er put holi look  
 111388 ill suspicion soninlaw  
 111389 son unto king heaven direct  
 111390 trothplight daughter paulina  
 111391 lead henc may leisur  
 111392 one demand answer part  
 111393 perform wide gap time sinc first  
 111394 dissev hastili lead away  
 111395 exeunt

Name: PlayerLine\_clean, Length: 111396, dtype: object,  
 'Pericles': 0

act

1 scene london palac  
 2 king henri john lancast earl westmoreland walt...  
 3 shaken wan care  
 4 find time fright peac pant  
 5 breath shortwind accent new broil  
 6 commenc strand afar remot



7                               thirsti entranc soil  
 8                               daub lip children blood  
 9                               trench war channel field  
 10                              bruis floweret arm hoof  
 11                              hostil pace oppos eye  
 12                              like meteor troubl heaven  
 13                              one natur one substanc bred  
 14                              late meet intestin shock  
 15                              furiou close civil butcheri  
 16                              mutual wellbeseem rank  
 17                              march one way oppos  
 18                              acquaint kindr alli  
 19                              edg war like illsheath knife  
 20                              cut master therefor friend  
 21                              far sepulchr christ  
 22                              whose soldier whose bless cross  
 23                              impress engag fight  
 24                              forthwith power english levi  
 25                              whose arm mould mother womb  
 26                              chase pagan holi field  
 27                              whose acr walk bless feet  
 28                              fourteen hundr year ago nail  
 29                              advantag bitter cross

...

111366                           time enough  
 111367                           lest desir upon push troubl  
 111368                           joy like relat go togeth  
 111369                           preciou winner exult  
 111370                           partak everi one old turtl  
 111371                           wing wither bough  
 111372                           mate never found  
 111373                           lament till lost  
 111374                           peac paulina  
 111375                           shouldst husband take consent  
 111376                           wife match  
 111377                           made vow found mine  
 111378                           question saw  
 111379                           thought dead vain said mani  
 111380                           prayer upon grave seek far  
 111381                           partli know mindto find  
 111382                           honour husband camillo  
 111383                           take hand whose worth honesti  
 111384                           richli note justifi  
 111385                           pair king place  
 111386                           look upon brother pardon  
 111387                           e er put holi look  
 111388                           ill suspicion soninlaw  
 111389                           son unto king heaven direct

111390 trothplight daughter paulina  
 111391 lead henc may leisur  
 111392 one demand answer part  
 111393 perform wide gap time sinc first  
 111394 dissev hastili lead away  
 111395 exeunt

Name: PlayerLine\_clean, Length: 111396, dtype: object,  
 'Richard II': 0

act

1 scene london palac  
 2 king henri john lancast earl westmoreland walt...  
 3 shaken wan care  
 4 find time fright peac pant  
 5 breath shortwind accent new broil  
 6 commenc strand afar remot  
 7 thirsti entranc soil  
 8 daub lip children blood  
 9 trench war channel field  
 10 bruis floweret arm hoof  
 11 hostil pace oppos eye  
 12 like meteor troubl heaven  
 13 one natur one substanc bred  
 14 late meet intestin shock  
 15 furiou close civil butcheri  
 16 mutual wellbeseem rank  
 17 march one way oppos  
 18 acquaint kindr alli  
 19 edg war like illsheath knife  
 20 cut master therefor friend  
 21 far sepulchr christ  
 22 whose soldier whose bless cross  
 23 impress engag fight  
 24 forthwith power english levi  
 25 whose arm mould mother womb  
 26 chase pagan holi field  
 27 whose acr walk bless feet  
 28 fourteen hundr year ago nail  
 29 advantag bitter cross

...

111366 time enough  
 111367 lest desir upon push troubl  
 111368 joy like relat go togeth  
 111369 preciou winner exult  
 111370 partak everi one old turtl  
 111371 wing wither bough  
 111372 mate never found  
 111373 lament till lost  
 111374 peac paulina  
 111375 shouldst husband take consent

111376 wife match  
 111377 made vow found mine  
 111378 question saw  
 111379 thought dead vain said mani  
 111380 prayer upon grave seek far  
 111381 partli know mindto find  
 111382 honour husband camillo  
 111383 take hand whose worth honesti  
 111384 richli note justifi  
 111385 pair king place  
 111386 look upon brother pardon  
 111387 e er put holi look  
 111388 ill suspicion soninlaw  
 111389 son unto king heaven direct  
 111390 trothplight daughter paulina  
 111391 lead henc may leisur  
 111392 one demand answer part  
 111393 perform wide gap time sinc first  
 111394 dissev hastili lead away  
 111395 exeunt

Name: PlayerLine\_clean, Length: 111396, dtype: object,  
 'Richard III': 0

act

1 scene london palac  
 2 king henri john lancast earl westmoreland walt...  
 3 shaken wan care  
 4 find time fright peac pant  
 5 breath shortwind accent new broil  
 6 commenc strand afar remot  
 7 thirsti entranc soil  
 8 daub lip children blood  
 9 trench war channel field  
 10 bruis floweret arm hoof  
 11 hostil pace oppos eye  
 12 like meteor troubl heaven  
 13 one natur one substanc bred  
 14 late meet intestin shock  
 15 furiou close civil butcheri  
 16 mutual wellbeseem rank  
 17 march one way oppos  
 18 acquaint kindr alli  
 19 edg war like illsheath knife  
 20 cut master therefor friend  
 21 far sepulchr christ  
 22 whose soldier whose bless cross  
 23 impress engag fight  
 24 forthwith power english levi  
 25 whose arm mould mother womb  
 26 chase pagan holi field

27                   whose acr walk bless feet  
 28                   fourteen hundr year ago nail  
 29                   advantag bitter cross

...

111366                   time enough  
 111367                   lest desir upon push troubl  
 111368                   joy like relat go togeth  
 111369                   preciou winner exult  
 111370                   partak everi one old turtl  
 111371                   wing wither bough  
 111372                   mate never found  
 111373                   lament till lost  
 111374                   peac paulina  
 111375                   shouldst husband take consent  
 111376                   wife match  
 111377                   made vow found mine  
 111378                   question saw  
 111379                   thought dead vain said mani  
 111380                   prayer upon grave seek far  
 111381                   partli know mindto find  
 111382                   honour husband camillo  
 111383                   take hand whose worth honesti  
 111384                   richli note justifi  
 111385                   pair king place  
 111386                   look upon brother pardon  
 111387                   e er put holi look  
 111388                   ill suspicion soninlaw  
 111389                   son unto king heaven direct  
 111390                   trothplight daughter paulina  
 111391                   lead henc may leisur  
 111392                   one demand answer part  
 111393                   perform wide gap time sinc first  
 111394                   dissev hastili lead away  
 111395                   exeunt

Name: PlayerLine\_clean, Length: 111396, dtype: object,  
 'Romeo and Juliet': 0

act

1                   scene london palac  
 2                   king henri john lancast earl westmoreland walt...  
 3                   shaken wan care  
 4                   find time fright peac pant  
 5                   breath shortwind accent new broil  
 6                   commenc strand afar remot  
 7                   thirsti entranc soil  
 8                   daub lip children blood  
 9                   trench war channel field  
 10                   bruis floweret arm hoof  
 11                   hostil pace oppos eye  
 12                   like meteor troubl heaven

13 one natur one substanc bred  
 14 late meet intestin shock  
 15 furiou close civil butcheri  
 16 mutual wellbeseem rank  
 17 march one way oppos  
 18 acquaint kindr alli  
 19 edg war like illsheath knife  
 20 cut master therefor friend  
 21 far sepulchr christ  
 22 whose soldier whose bless cross  
 23 impress engag fight  
 24 forthwith power english levi  
 25 whose arm mould mother womb  
 26 chase pagan holi field  
 27 whose acr walk bless feet  
 28 fourteen hundr year ago nail  
 29 advantag bitter cross  
 ...  
 111366 time enough  
 111367 lest desir upon push troubl  
 111368 joy like relat go togeth  
 111369 preciou winner exult  
 111370 partak everi one old turtl  
 111371 wing wither bough  
 111372 mate never found  
 111373 lament till lost  
 111374 peac paulina  
 111375 shouldst husband take consent  
 111376 wife match  
 111377 made vow found mine  
 111378 question saw  
 111379 thought dead vain said mani  
 111380 prayer upon grave seek far  
 111381 partli know mindto find  
 111382 honour husband camillo  
 111383 take hand whose worth honesti  
 111384 richli note justifi  
 111385 pair king place  
 111386 look upon brother pardon  
 111387 e er put holi look  
 111388 ill suspicion soninlaw  
 111389 son unto king heaven direct  
 111390 trothplight daughter paulina  
 111391 lead henc may leisur  
 111392 one demand answer part  
 111393 perform wide gap time sinc first  
 111394 dissev hastili lead away  
 111395 exeunt

Name: PlayerLine\_clean, Length: 111396, dtype: object,  
'Taming of the Shrew': 0

act

```
1 scene london palac
2 king henri john lancast earl westmoreland walt...
3 shaken wan care
4 find time fright peac pant
5 breath shortwind accent new broil
6 commenc strand afar remot
7 thirsti entranc soil
8 daub lip children blood
9 trench war channel field
10 bruis floweret arm hoof
11 hostil pace oppos eye
12 like meteor troubl heaven
13 one natur one substanc bred
14 late meet intestin shock
15 furiou close civil butcheri
16 mutual wellbeseem rank
17 march one way oppos
18 acquaint kindr alli
19 edg war like illsheath knife
20 cut master therefor friend
21 far sepulchr christ
22 whose soldier whose bless cross
23 impress engag fight
24 forthwith power english levi
25 whose arm mould mother womb
26 chase pagan holi field
27 whose acr walk bless feet
28 fourteen hundr year ago nail
29 advantag bitter cross
...
111366 time enough
111367 lest desir upon push troubl
111368 joy like relat go togeth
111369 preciou winner exult
111370 partak everi one old turtl
111371 wing wither bough
111372 mate never found
111373 lament till lost
111374 peac paulina
111375 shouldst husband take consent
111376 wife match
111377 made vow found mine
111378 question saw
111379 thought dead vain said mani
111380 prayer upon grave seek far
111381 partli know mindto find
```

111382 honour husband camillo  
 111383 take hand whose worth honesti  
 111384 richli note justifi  
 111385 pair king place  
 111386 look upon brother pardon  
 111387 e er put holi look  
 111388 ill suspicion soninlaw  
 111389 son unto king heaven direct  
 111390 trothplight daughter paulina  
 111391 lead henc may leisur  
 111392 one demand answer part  
 111393 perform wide gap time sinc first  
 111394 dissev hastili lead away  
 111395 exeunt

Name: PlayerLine\_clean, Length: 111396, dtype: object,  
 'The Tempest': 0

act

1 scene london palac  
 2 king henri john lancast earl westmoreland walt...  
 3 shaken wan care  
 4 find time fright peac pant  
 5 breath shortwind accent new broil  
 6 commenc strand afar remot  
 7 thirsti entranc soil  
 8 daub lip children blood  
 9 trench war channel field  
 10 bruis floweret arm hoof  
 11 hostil pace oppos eye  
 12 like meteor troubl heaven  
 13 one natur one substanc bred  
 14 late meet intestin shock  
 15 furiou close civil butcheri  
 16 mutual wellbeseem rank  
 17 march one way oppos  
 18 acquaint kindr alli  
 19 edg war like illsheath knife  
 20 cut master therefor friend  
 21 far sepulchr christ  
 22 whose soldier whose bless cross  
 23 impress engag fight  
 24 forthwith power english levi  
 25 whose arm mould mother womb  
 26 chase pagan holi field  
 27 whose acr walk bless feet  
 28 fourteen hundr year ago nail  
 29 advantag bitter cross  
 ...  
 111366 time enough  
 111367 lest desir upon push troubl

111368 joy like relat go togeth  
 111369preciou winner exult  
 111370partak everi one old turtl  
 111371wing wither bough  
 111372mate never found  
 111373lament till lost  
 111374peac paulina  
 111375shouldst husband take consent  
 111376wife match  
 111377made vow found mine  
 111378question saw  
 111379thought dead vain said mani  
 111380prayer upon grave seek far  
 111381partli know mindto find  
 111382honour husband camillo  
 111383take hand whose worth honesti  
 111384richli note justifi  
 111385pair king place  
 111386look upon brother pardon  
 111387e er put holi look  
 111388ill suspicion soninlaw  
 111389son unto king heaven direct  
 111390trothplight daughter paulina  
 111391lead henc may leisur  
 111392one demand answer part  
 111393perform wide gap time sinc first  
 111394dissev hastili lead away  
 111395exeunt

Name: PlayerLine\_clean, Length: 111396, dtype: object,

'Timon of Athens': 0

act

1 scene london palac  
 2 king henri john lancast earl westmoreland walt...  
 3 shaken wan care  
 4 find time fright peac pant  
 5 breath shortwind accent new broil  
 6 commenc strand afar remot  
 7 thirsti entranc soil  
 8 daub lip children blood  
 9 trench war channel field  
 10 bruis floweret arm hoof  
 11 hostil pace oppos eye  
 12 like meteor troubl heaven  
 13 one natur one substanc bred  
 14 late meet intestin shock  
 15 furiou close civil butcheri  
 16 mutual wellbeseem rank  
 17 march one way oppos  
 18 acquaint kindr alli



19 edg war like illsheath knife  
 20 cut master therefor friend  
 21 far sepulchr christ  
 22 whose soldier whose bless cross  
 23 impress engag fight  
 24 forthwith power english levi  
 25 whose arm mould mother womb  
 26 chase pagan holi field  
 27 whose acr walk bless feet  
 28 fourteen hundr year ago nail  
 29 advantag bitter cross

...

111366 time enough  
 111367 lest desir upon push troubl  
 111368 joy like relat go togeth  
 111369 preciou winner exult  
 111370 partak everi one old turtl  
 111371 wing wither bough  
 111372 mate never found  
 111373 lament till lost  
 111374 peac paulina  
 111375 shouldst husband take consent  
 111376 wife match  
 111377 made vow found mine  
 111378 question saw  
 111379 thought dead vain said mani  
 111380 prayer upon grave seek far  
 111381 partli know mindto find  
 111382 honour husband camillo  
 111383 take hand whose worth honesti  
 111384 richli note justifi  
 111385 pair king place  
 111386 look upon brother pardon  
 111387 e er put holi look  
 111388 ill suspicion soninlaw  
 111389 son unto king heaven direct  
 111390 trothplight daughter paulina  
 111391 lead henc may leisur  
 111392 one demand answer part  
 111393 perform wide gap time sinc first  
 111394 dissev hastili lead away  
 111395 exeunt

Name: PlayerLine\_clean, Length: 111396, dtype: object,  
 'Titus Andronicus': 0

act

1 scene london palac  
 2 king henri john lancast earl westmoreland walt...  
 3 shaken wan care  
 4 find time fright peac pant

5                   breath shortwind accent new broil  
 6                   commenc strand afar remot  
 7                   thirsti entranc soil  
 8                   daub lip children blood  
 9                   trench war channel field  
 10                  bruis floweret arm hoof  
 11                  hostil pace oppos eye  
 12                  like meteor troubl heaven  
 13                  one natur one substanc bred  
 14                  late meet intestin shock  
 15                  furiou close civil butcheri  
 16                  mutual wellbeseem rank  
 17                  march one way oppos  
 18                  acquaint kindr alli  
 19                  edg war like illsheath knife  
 20                  cut master therefor friend  
 21                  far sepulchr christ  
 22                  whose soldier whose bless cross  
 23                  impress engag fight  
 24                  forthwith power english levi  
 25                  whose arm mould mother womb  
 26                  chase pagan holi field  
 27                  whose acr walk bless feet  
 28                  fourteen hundr year ago nail  
 29                  advantag bitter cross  
  
 ...  
 111366                   time enough  
 111367                  lest desir upon push troubl  
 111368                  joy like relat go togeth  
 111369                  preciou winner exult  
 111370                  partak everi one old turtl  
 111371                  wing wither bough  
 111372                  mate never found  
 111373                  lament till lost  
 111374                  peac paulina  
 111375                  shouldst husband take consent  
 111376                  wife match  
 111377                  made vow found mine  
 111378                  question saw  
 111379                  thought dead vain said mani  
 111380                  prayer upon grave seek far  
 111381                  partli know mindto find  
 111382                  honour husband camillo  
 111383                  take hand whose worth honesti  
 111384                  richli note justifi  
 111385                  pair king place  
 111386                  look upon brother pardon  
 111387                  e er put holi look

111388                   ill suspicion soninlaw  
 111389                   son unto king heaven direct  
 111390                   trothplight daughter paulina  
 111391                   lead henc may leisur  
 111392                   one demand answer part  
 111393                   perform wide gap time sinc first  
 111394                   dissev hastili lead away  
 111395                   exeunt

Name: PlayerLine\_clean, Length: 111396, dtype: object,  
 'Troilus and Cressida': 0

act

1                               scene london palac  
 2           king henri john lancast earl westmoreland walt...  
 3                               shaken wan care  
 4                   find time fright peac pant  
 5                   breath shortwind accent new broil  
 6                   commenc strand afar remot  
 7                   thirsti entranc soil  
 8                   daub lip children blood  
 9                   trench war channel field  
 10                   bruis floweret arm hoof  
 11                   hostil pace oppos eye  
 12                   like meteor troubl heaven  
 13                   one natur one substanc bred  
 14                   late meet intestin shock  
 15                   furiou close civil butcheri  
 16                   mutual wellbeseem rank  
 17                   march one way oppos  
 18                   acquaint kindr alli  
 19                   edg war like illsheath knife  
 20                   cut master therefor friend  
 21                   far sepulchr christ  
 22                   whose soldier whose bless cross  
 23                   impress engag fight  
 24                   forthwith power english levi  
 25                   whose arm mould mother womb  
 26                   chase pagan holi field  
 27                   whose acr walk bless feet  
 28                   fourteen hundr year ago nail  
 29                   advantag bitter cross

...

111366                   time enough  
 111367                   lest desir upon push troubl  
 111368                   joy like relat go togeth  
 111369                   preciou winner exult  
 111370                   partak everi one old turtl  
 111371                   wing wither bough  
 111372                   mate never found  
 111373                   lament till lost

111374 peac paulina  
 111375 shouldst husband take consent  
 111376 wife match  
 111377 made vow found mine  
 111378 question saw  
 111379 thought dead vain said mani  
 111380 prayer upon grave seek far  
 111381 partli know mindto find  
 111382 honour husband camillo  
 111383 take hand whose worth honesti  
 111384 richli note justifi  
 111385 pair king place  
 111386 look upon brother pardon  
 111387 e er put holi look  
 111388 ill suspicion soninlaw  
 111389 son unto king heaven direct  
 111390 trothplight daughter paulina  
 111391 lead henc may leisur  
 111392 one demand answer part  
 111393 perform wide gap time sinc first  
 111394 dissev hastili lead away  
 111395 exeunt

Name: PlayerLine\_clean, Length: 111396, dtype: object,  
 'Twelfth Night': 0

act

1 scene london palac  
 2 king henri john lancast earl westmoreland walt...  
 3 shaken wan care  
 4 find time fright peac pant  
 5 breath shortwind accent new broil  
 6 commenc strand afar remot  
 7 thirsti entranc soil  
 8 daub lip children blood  
 9 trench war channel field  
 10 bruis floweret arm hoof  
 11 hostil pace oppos eye  
 12 like meteor troubl heaven  
 13 one natur one substanc bred  
 14 late meet intestin shock  
 15 furiou close civil butcheri  
 16 mutual wellbeseem rank  
 17 march one way oppos  
 18 acquaint kindr alli  
 19 edg war like illsheath knife  
 20 cut master therefor friend  
 21 far sepulchr christ  
 22 whose soldier whose bless cross  
 23 impress engag fight  
 24 forthwith power english levi

25                   whose arm mould mother womb  
 26                   chase pagan holi field  
 27                   whose acr walk bless feet  
 28                   fourteen hundr year ago nail  
 29                   advantag bitter cross

...

111366                   time enough  
 111367                   lest desir upon push troubl  
 111368                   joy like relat go togeth  
 111369                   preciou winner exult  
 111370                   partak everi one old turtl  
 111371                   wing wither bough  
 111372                   mate never found  
 111373                   lament till lost  
 111374                   peac paulina  
 111375                   shouldst husband take consent  
 111376                   wife match  
 111377                   made vow found mine  
 111378                   question saw  
 111379                   thought dead vain said mani  
 111380                   prayer upon grave seek far  
 111381                   partli know mindto find  
 111382                   honour husband camillo  
 111383                   take hand whose worth honesti  
 111384                   richli note justifi  
 111385                   pair king place  
 111386                   look upon brother pardon  
 111387                   e er put holi look  
 111388                   ill suspicion soninlaw  
 111389                   son unto king heaven direct  
 111390                   trothplight daughter paulina  
 111391                   lead henc may leisur  
 111392                   one demand answer part  
 111393                   perform wide gap time sinc first  
 111394                   dissev hastili lead away  
 111395                   exeunt

Name: PlayerLine\_clean, Length: 111396, dtype: object,  
 'Two Gentlemen of Verona': 0

1                   scene london palac  
 2                   king henri john lancast earl westmoreland walt...  
 3                   shaken wan care  
 4                   find time fright peac pant  
 5                   breath shortwind accent new broil  
 6                   commenc strand afar remot  
 7                   thirsti entranc soil  
 8                   daub lip children blood  
 9                   trench war channel field  
 10                   bruis floweret arm hoof

11                   hostil pace oppos eye  
 12                   like meteor troubl heaven  
 13                   one natur one substanc bred  
 14                   late meet intestin shock  
 15                   furiou close civil butcheri  
 16                   mutual wellbeseem rank  
 17                   march one way oppos  
 18                   acquaint kindr alli  
 19                   edg war like illsheath knife  
 20                   cut master therefor friend  
 21                   far sepulchr christ  
 22                   whose soldier whose bless cross  
 23                   impress engag fight  
 24                   forthwith power english levi  
 25                   whose arm mould mother womb  
 26                   chase pagan holi field  
 27                   whose acr walk bless feet  
 28                   fourteen hundr year ago nail  
 29                   advantag bitter cross

...

111366                   time enough  
 111367                   lest desir upon push troubl  
 111368                   joy like relat go togeth  
 111369                   preciou winner exult  
 111370                   partak everi one old turtl  
 111371                   wing wither bough  
 111372                   mate never found  
 111373                   lament till lost  
 111374                   peac paulina  
 111375                   shouldst husband take consent  
 111376                   wife match  
 111377                   made vow found mine  
 111378                   question saw  
 111379                   thought dead vain said mani  
 111380                   prayer upon grave seek far  
 111381                   partli know mindto find  
 111382                   honour husband camillo  
 111383                   take hand whose worth honesti  
 111384                   richli note justifi  
 111385                   pair king place  
 111386                   look upon brother pardon  
 111387                   e er put holi look  
 111388                   ill suspicion soninlaw  
 111389                   son unto king heaven direct  
 111390                   trothplight daughter paulina  
 111391                   lead henc may leisur  
 111392                   one demand answer part  
 111393                   perform wide gap time sinc first

111394                   disseve hastili lead away  
 111395   exeunt  
 Name: PlayerLine\_clean, Length: 111396, dtype: object,  
 'A Winters Tale': 0  
 1                                   scene london palac  
 2           king henri john lancast earl westmoreland walt...  
 3                                   shaken wan care  
 4                           find time fright peac pant  
 5                   breath shortwind accent new broil  
 6                           commenc strand afar remot  
 7                           thirsti entranc soil  
 8                           daub lip children blood  
 9                           trench war channel field  
 10                           bruis floweret arm hoof  
 11                           hostil pace oppos eye  
 12                           like meteor troubl heaven  
 13                   one natur one substanc bred  
 14                           late meet intestin shock  
 15                   furiou close civil butcheri  
 16                           mutual wellbeseem rank  
 17                           march one way oppos  
 18                           acquaint kindr alli  
 19                   edg war like illsheath knife  
 20                           cut master therefor friend  
 21                           far sepulchr christ  
 22           whose soldier whose bless cross  
 23                           impress engag fight  
 24                   forthwith power english levi  
 25                           whose arm mould mother womb  
 26                           chase pagan holi field  
 27                           whose acr walk bless feet  
 28                   fourteen hundr year ago nail  
 29                           advantag bitter cross  
 ...  
 111366                           time enough  
 111367           lest desir upon push troubl  
 111368                           joy like relat go togeth  
 111369                           preciou winner exult  
 111370           partak everi one old turtl  
 111371                           wing wither bough  
 111372                           mate never found  
 111373                           lament till lost  
 111374                           peac paulina  
 111375           shouldst husband take consent  
 111376                           wife match  
 111377                           made vow found mine  
 111378                           question saw  
 111379           thought dead vain said mani

act

```

111380                prayer upon grave seek far
111381                partli know mindto find
111382                honour husband camillo
111383                take hand whose worth honesti
111384                richli note justifi
111385                pair king place
111386                look upon brother pardon
111387                e er put holi look
111388                ill suspicion soninlaw
111389                son unto king heaven direct
111390                trothplight daughter paulina
111391                lead henc may leisur
111392                one demand answer part
111393                perform wide gap time sinc first
111394                dissev hastili lead away
111395                exeunt
Name: PlayerLine_clean, Length: 111396, dtype: object}

```

```
In [36]: for key in DataFrameDict.keys(): DataFrameDict[key] = data_sh[:,data_sh.Play == key]
```

```
In [24]: #d1=data_sh.set_index('Play').T.to_dict('List')
d= dict(data_sh.groupby('Play')['PlayerLine_clean'].apply(list))
```

```
In [65]: d['Henry IV']
```

```
Out[65]: ['act',
'scene london palac',
'king henri john lancast earl westmoreland walter blunt other',
'shaken wan care',
'find time fright peac pant',
'breath shortwind accent new broil',
'commenc strand afar remot',
'thirsti entranc soil',
'daub lip children blood',
'trench war channel field',
'bruis floweret arm hoof',
'hostil pace oppos eye',
'like meteor troubl heaven',
'one natur one substanc bred',
'late meet intestin shock',
'furiou close civil butcheri',
'mutual wellbeseem rank',
'march one way oppos',
'acquaint kindr alli',
'edg war like illsheath knife',
'cut master therefor friend',
'far sepulchr christ',
'whose soldier whose bless cross',
'impress engag fight',
```



'forthwith power english levi',  
'whose arm mould mother womb',  
'chase pagan holi field',  
'whose acr walk bless feet',  
'fourteen hundr year ago nail',  
'advantag bitter cross',  
'purpos twelv month old',  
'bootless tell go',  
'therefor meet hear',  
'gentl cousin westmoreland',  
'yesternight council decre',  
'forward dear expedi',  
'lieg hast hot question',  
'mani limit charg set',  
'yesternight athwart came',  
'post wale loaden heavi news',  
'whose worst nobl mortim',  
'lead men herefordshir fight',  
'irregular wild glendow',  
'rude hand welshman taken',  
'thousand peopl butcher',  
'upon whose dead corps misus',  
'beastli shameless transform',  
'welshwomen done may',  
'without much shame retold spoken',  
'seem tide broil',  
'brake busi holi land',  
'match graciou',  
'uneven unwelcom news',  
'came north thu import',  
'holyrood day gallant hotspur',  
'young harri perci brave archibald',  
'evervali approv scot',  
'holmedon met',  
'spend sad bloodi hour',  
'discharg artilleri',  
'shape likelihood news told',  
'brought heat',  
'pride content take hors',  
'uncertain issu way',  
'dear true industri friend',  
'walter blunt new light hors',  
'stain variat soil',  
'betwixt holmedon seat',  
'hath brought smooth welcom news',  
'earl dougla discomfit',  
'ten thousand bold scot two twenti knight',  
'balk blood walter see',

'holmedon plain prison hotspur took',  
 'mordak earl fife eldest son',  
 'beaten dougla earl athol',  
 'murray angu menteith',  
 'honour spoil',  
 'gallant prize ha cousin',  
 'faith',  
 'conquest princ boast',  
 'yea makest sad makest sin',  
 'envi northumberland',  
 'father blest son',  
 'son theme honour tongu',  
 'amongst grove straightest plant',  
 'sweet fortun minion pride',  
 'whilst look prais',  
 'see riot dishonour stain brow',  
 'young harri prove',  
 'nighttrip fairi exchang',  
 'cradlecloth children lay',  
 'call mine perci plantagenet',  
 'harri mine',  
 'thought think coz',  
 'young perci pride prison',  
 'adventur hath surpris',  
 'use keep send word',  
 'none mordak earl fife',  
 'uncl teach worcest',  
 'malevol aspect',  
 'make prune bristl',  
 'crest youth digniti',  
 'sent answer',  
 'caus awhile must neglect',  
 'holi purpos jerusalem',  
 'cousin wednesday next council',  
 'hold windsor inform lord',  
 'speed',  
 'said done',  
 'anger utter',  
 'lieg',  
 'exeunt',  
 'scene ii london apart princ',  
 'princ wale falstaff',  
 'hal time day lad',  
 'fatwit drink old sack',  
 'unbutton supper sleep upon',  
 'bench noon forgotten',  
 'demand truli wouldst truli know',  
 'devil time',

'day unless hour cup sack minut',  
 'capon clock tongu bawd dial',  
 'sign leapinghous bless sun',  
 'fair hot wench flamecolour taffeta see',  
 'reason shouldst superflu demand',  
 'time day',  
 'inde near hal take',  
 'purs go moon seven star',  
 'phoebu wander knight fair',  
 'prithe sweet wag king god',  
 'save gracemajesti say grace',  
 'wilt none',  
 'none',  
 'troth much serv',  
 'prologu egg butter',  
 'roundli roundli',  
 'marri sweet wag king',  
 'squir night bodi call',  
 'thiev day beauti diana',  
 'forest gentlemen shade minion',  
 'moon men say men govern',  
 'govern sea nobl',  
 'chast mistress moon whose counten steal',  
 'sayest hold',  
 'fortun moon men doth ebb',  
 'flow like sea govern sea',  
 'moon proof purs gold',  
 'resolut snatch monday night',  
 'dissolut spent tuesday morn got',  
 'swear lay spent cri bring',  
 'low ebb foot ladder',  
 'high flow ridg gallow',  
 'sayest true lad',  
 'hostess tavern sweet wench',  
 'honey hybla old lad castl',  
 'buff jerkin sweet robe duranc',  
 'mad wag quip',  
 'quidditi plagu',  
 'buff jerkin',  
 'pox hostess tavern',  
 'call reckon mani',  
 'time oft',  
 'ever call pay part',  
 'give due paid',  
 'yea elsewher far coin stretch',  
 'use credit',  
 'yea use appar',  
 'heir apparentbut prithe sweet',

'wag gallow stand england',  
 'king resolut thu fob',  
 'rusti curb old father antic law',  
 'king hang thief',  
 'shalt',  
 'rare brave judg',  
 'judgest fals already mean shalt',  
 'hang thiev becom rare hangman',  
 'hal sort jump',  
 'humour wait court tell',  
 '',  
 'obtain suit',  
 'yea obtain suit whereof hangman',  
 'hath lean wardrob sblood melancholi',  
 'gib cat lug bear',  
 'old lion lover lute',  
 'yea drone lincolnshir bagpip',  
 'sayest hare melancholi',  
 'moorditch',  
 'unsavouri simil inde',  
 'compar rascalliest sweet young',  
 'princ hal prithe troubl',  
 'vaniti god knew',  
 'commod name bought old',  
 'council rate day',  
 'street mark',  
 'talk wise regard',  
 'talk wise street',  
 'didst wisdom cri',  
 'street man regard',  
 'damnabl iter inde abl',  
 'corrupt saint done much harm upon',  
 'hal god forgiv knew',  
 'hal knew noth man',  
 'speak truli littl better one',  
 'wick must give life give',  
 'villain',  
 'damn never king son',  
 'christendom',  
 'take purs tomorrow jack',  
 'zound wilt lad one',  
 'call villain baffl',  
 'see amend life pray',  
 'pursetak',  
 'hal vocat hal sin',  
 'man labour vocat',  
 'poin',  
 'poin know gadshil set',

'match men save merit',  
'hole hell hot enough',  
'omnipot villain ever cri stand',  
'true man',  
'morrow ned',  
'morrow sweet hal say monsieur remors',  
'say john sack sugar jack',  
'agre devil soul',  
'soldest goodfriday last cup madeira',  
'cold capon leg',  
'john stand word devil',  
'bargain never breaker',  
'proverb give devil due',  
'damn keep word devil',  
'els damn cozen devil',  
'lad lad tomorrow morn four',  
'clock earli gadshil pilgrim go',  
'canterburi rich offer trader',  
'ride london fat purs vizard',  
'hors',  
'gadshil lie tonight rochest bespok',  
'supper tomorrow night eastcheap may',  
'secur sleep go stuff',  
'purs full crown tarri',  
'home hang',  
'hear yedward tarri home go',  
'hang go',  
'chop',  
'hal wilt one',  
'rob thief faith',  
'honesti manhood',  
'fellowship camest blood',  
'royal darest stand ten shill',  
'day madcap',  
'said',  
'tarri home',  
'traitor king',  
'care',  
'john prithe leav princ alon',  
'lay reason adventur',  
'go',  
'god give spirit persuas',  
'ear profit speakest may',  
'move hear may believ',  
'true princ may recreat sake prove fals',  
'thief poor abus time want',  
'counten farewel find eastcheap',  
'farewel latter spring farewel allhallown summer',

'exit falstaff',  
 'sweet honey ride',  
 'tomorrow jest execut',  
 'manag alon falstaff bardolph peto gadshil',  
 'rob men already waylaid',  
 '',  
 'booti rob cut',  
 'head shoulder',  
 'part set forth',  
 'set forth',  
 'appoint place meet wherein',  
 'pleasur fail adventur',  
 'upon exploit',  
 'sooner achiev set upon',  
 'yea like know',  
 'hors habit everi',  
 'appoint',  
 'tut hors see tie',  
 'wood vizard chang',  
 'leav sirrah case buckram',  
 'nonc immask note outward garment',  
 'yea doubt hard',  
 'two know',  
 'truebr coward ever turn back',  
 'third fight longer see reason',  
 'forswear arm virtu jest',  
 'incomprehens lie fat rogu',  
 'tell meet supper thirti',  
 'least fought ward blow',  
 'extrem endur reproof',  
 'lie jest',  
 'go provid thing',  
 'necessari meet tomorrow night eastcheap',  
 'sup farewell',  
 'farewel',  
 'exit poin',  
 'know awhile uphold',  
 'unyok humour idl',  
 'herein imit sun',  
 'doth permit base contagi cloud',  
 'smother beauti world',  
 'pleas',  
 'want may wonder',  
 'break foul ugly mist',  
 'vapour seem strangl',  
 'year play holiday',  
 'sport tediou work',  
 'seldom wish',

'noth pleaseth rare accid',  
 'loos behavior throw',  
 'pay debt never promis',  
 'much better word',  
 'much falsifi men hope',  
 'like bright metal sullen ground',  
 'reform glitter er fault',  
 'show goodli attract eye',  
 'hath foil set',  
 'offend offenc skill',  
 'redeem time men think least',  
 'exit',  
 'scene iii london palac',  
 'king northumberland worcest hotspur walter blunt other',  
 'blood hath cold temper',  
 'unapt stir indign',  
 'found accordingli',  
 'tread upon patienc sure',  
 'henceforth rather',  
 'mighti fear condit',  
 'hath smooth oil soft young',  
 'therefor lost titl respect',  
 'proud soul er pay proud',  
 'hous sovereign lieg littl deserv',  
 'scourg great use',  
 'great hand',  
 'help portli',  
 '',  
 'worcest get gone see',  
 'danger disobedi eye',  
 'presenc bold peremptori',  
 'majesti might never endur',  
 'moodi frontier servant brow',  
 'leav leav need',  
 'use counsel send',  
 'exit worcest',  
 'speak',  
 'north',  
 'yea',  
 'prison high name demand',  
 'harri perci holmedon took',  
 'say strength deni',  
 'deliv majesti',  
 'envi therefor misprison',  
 'guilti fault son',  
 'lieg deni prison',  
 'rememb fight done',  
 'dri rage extrem toil',

'breathless faint lean upon sword',  
'came certain neat trimli dress',  
'fresh bridegroom chin new reap',  
'show like stubbleland harvesthom',  
'perfum like millin',  
'twixt finger thumb held',  
'pouncetbox ever anon',  
'gave nose took away',  
'therewith angri next came',  
'took snuff still smile talk',  
'soldier bore dead bodi',  
'call untaught knave unmannerli',  
'bring slovenli unhandsom cors',  
'betwixt wind nobil',  
'mani holiday ladi term',  
'question amongst rest demand',  
'prison majesti behalf',  
'smart wound cold',  
'pester popinjay',  
'grief impati',  
'answer neglectingli know',  
'made mad',  
'see shine brisk smell sweet',  
'talk like waitinggentlewoman',  
'gun drum woundsgod save mark',  
'tell sovereign st thing earth',  
'parmaceti inward bruis',  
'great piti',  
'villan saltpetr digg',  
'bowel harmless earth',  
'mani tall fellow destroy',  
'cowardli vile gun',  
'soldier',  
'bald unjoint chat',  
'answer indirectli said',  
'beseech report',  
'current accus',  
'betwixt love high majesti',  
'circumst consid',  
'whate er harri perci said',  
'person place',  
'time rest retold',  
'may reason die never rise',  
'wrong way impeach',  
'said unsay',  
'doth deni prison',  
'proviso except',  
'charg ransom straight',



'brotherinlaw foolish mortim',  
 'soul hath wil betray',  
 'live lead fight',  
 'great magician damn glendow',  
 'whose daughter hear earl march',  
 'hath late marri coffer',  
 'empti redeem traitor home',  
 'treason indent fear',  
 'lost forfeit',  
 'barren mountain starv',  
 'never hold man friend',  
 'whose tongu ask one penni cost',  
 'ransom home revolt mortim',  
 'revolt mortim',  
 'never fall sovereign lieg',  
 'chanc war prove true',  
 'need one tongu wound',  
 'mouth wound valiantli took',  
 'gentl severn sedgi bank',  
 'singl opposit hand hand',  
 'confound best part hour',  
 'chang hardiment great glendow',  
 'three time breath three time',  
 'drink',  
 'upon agreement swift severn flood',  
 'affright bloodi look',  
 'ran fear trembl reed',  
 'hid crisp head hollow bank',  
 'bloodstain valiant combat',  
 'never base rotten polici',  
 'colour work deadli wound',  
 'nobl mortim',  
 'receiv mani willingli',  
 'slander revolt',  
 'dost beli perci dost beli',  
 'never encount glendow',  
 'tell',  
 'durst met devil alon',  
 'owen glendow enemi',  
 'asham sirrah henceforth',  
 'hear speak mortim',  
 'send prison speediest mean',  
 'hear kind',  
 'displeas northumberland',  
 'licenc departur son',  
 'send prison hear',  
 'exeunt king henri blunt train',  
 'devil roar',

'send straight',  
'tell eas heart',  
'albeit hazard head',  
'drunk choler stay paus awhile',  
'come uncl',  
'reenter worcest',  
'speak mortim',  
'zound speak soul',  
'want merci join',  
'yea part empti vein',  
'shed dear blood drop drop dust',  
'lift downtrod mortim',  
'high air unthank king',  
'ingrat canker bolingbrok',  
'brother king hath made nephew mad',  
'struck heat gone',  
'forsooth prison',  
'urg ransom',  
'wife brother cheek look pale',  
'face turn eye death',  
'trembl even name mortim',  
'blame proclaim',  
'richard dead next blood',  
'heard proclam',  
'unhappi king',  
'whose wrong god pardon set forth',  
'upon irish expedit',  
'whenc intercept return',  
'depos shortli murder',  
'whose death world wide mouth',  
'live scandal foulli spoken',  
'soft pray king richard',  
'proclaim brother edmund mortim',  
'heir crown',  
'hear',  
'nay blame cousin king',  
'wish barren mountain starv',  
'set crown',  
'upon head forget man',  
'sake wear detest blot',  
'murder suborn',  
'world curs undergo',  
'agent base second mean',  
'cord ladder hangman rather',  
'pardon descend low',  
'show line predica',  
'wherein rang subtl king',  
'shame spoken day',

'fill chronicl time',  
'men nobil power',  
'gage unjust behalf',  
'yougod pardon done',  
'put richard sweet love rose',  
'plant thorn canker bolingbrok',  
'shame spoken',  
'fool discard shook',  
'shame underw',  
'time serv wherein may redeem',  
'banish honour restor',  
'thought world',  
'reveng jeer disdain contempt',  
'proud king studi day night',  
'answer debt owe',  
'even bloodi payment death',  
'therefor say',  
'peac cousin say',  
'unclasp secret book',  
'quickconceiv discount',  
'read matter deep danger',  
'full peril adventur spirit',  
'erwalk current roar loud',  
'unsteadfast foot spear',  
'fall night sink swim',  
'send danger east unto west',  
'honour cross north south',  
'grappl blood stir',  
'rous lion start hare',  
'imagin great exploit',  
'drive beyond bound patienc',  
'heaven methink easi leap',  
'pluck bright honour palefac moon',  
'dive bottom deep',  
'fathomlin never touch ground',  
'pluck drown honour lock',  
'doth redeem thenc might wear',  
'without corriv digniti',  
'upon halffac fellowship',  
'apprehend world figur',  
'form attend',  
'cousin give audienc',  
'cri merci',  
'nobl scot',  
'prison',  
'keep',  
'god scot',  
'scot save soul',

'keep hand',  
'start away',  
'lend ear unto purpos',  
'prison keep',  
'nay flat',  
'said ransom mortim',  
'forbad tongu speak mortim',  
'find lie asleep',  
'ear holla mortim',  
'nay',  
'starl taught speak',  
'noth mortim give',  
'keep anger still motion',  
'hear cousin word',  
'studi solemnli defi',  
'save gall pinch bolingbrok',  
'swordandbuckl princ wale',  
'think father love',  
'glad met mischanc',  
'poison pot ale',  
'farewel kinsman talk',  
'better temper attend',  
'waspstung impati fool',  
'break woman mood',  
'tie ear tongu',  
'look whipp scourg rod',  
'nettl stung pismir hear',  
'vile politician bolingbrok',  
'richard timewhat call place',  
'plagu upon gloucestershir',  
'madcap duke uncl kept',  
'uncl york first bow knee',  
'unto king smile bolingbrok',  
'sblood',  
'came back ravenspurgh',  
'berkley castl',  
'say true',  
'candi deal courtesi',  
'fawn greyhound proffer',  
'look infant fortun came age',  
'gentl harri perci kind cousin',  
'devil take cozen god forgiv',  
'uncl tell tale done',  
'nay',  
'stay leisur',  
'done faith',  
'scottish prison',  
'deliv without ransom straight',

'dou gla son mean',  
'power scotland diver reason',  
'send written assur',  
'easili grant',  
'northumberland',  
'son scotland thu employ',  
'secretli bosom creep',  
'nobl prelat belov',  
'archbishop',  
'york',  
'true bear hard',  
'brother death bristol scroop',  
'speak estim',  
'think might know',  
'rumin plot set',  
'stay behold face',  
'occas bring',  
'smell upon life',  
'game afoot still st slip',  
'choos nobl plot',  
'power scotland york',  
'join mortim ha',  
'',  
'faith exceedingli aim',  
'littl reason bid speed',  
'save head rais head',  
'bear even',  
'king alway think debt',  
'think think unsatisfi',  
'till hath found time pay home',  
'see already doth begin',  
'stranger look love',  
'reveng',  
'cousin farewell go',  
'letter direct cours',  
'time ripe suddenli',  
'steal glendow mortim',  
'dou gla power',  
'fashion happili meet',  
'bear fortun strong arm',  
'hold much uncertainti',  
'farewel brother thrive trust',  
'uncl adieu hour short',  
'till field blow groan applaud sport',  
'exeunt',  
'act ii',  
'scene rochest inn yard',  
'carrier lantern hand',

'heighho four day',  
'hang charl wain new chimney',  
'hors pack ostler',  
'within anon anon',  
'prithe tom beat cut saddl put flock',  
'point poor jade wrung wither',  
'cess',  
'anoth carrier',  
'pea bean dank dog',  
'next way give poor jade bot',  
'hous turn upsid sinc robin ostler die',  
'poor fellow never joy sinc price oat',  
'rose death',  
'think villan hous',  
'london road flea stung like tench',  
'like tench mass er king',  
'christen better bit sinc',  
'first cock',  
'allow er jordan',  
'leak chimney chamberli breed',  
'flea like loach',  
'ostler away hang',  
'gammon bacon two razor ginger',  
'deliv far charingcross',  
'god bodi turkey pannier quit',  
'starv ostler plagu',  
'never eye head canst hear',  
'twere deed drink break pate',  
'villain hang',  
'faith',  
'gadshil',  
'morrow carrier clock',  
'think two clock',  
'pray lend lantern see geld',  
'stabl',  
'nay god soft know trick worth two faith',  
'pray lend',  
'ay st tell lend lantern quoth',  
'marri see hang first',  
'sirrah carrier time mean london',  
'time enough go bed candl warrant',  
'neighbour mug call',  
'gentleman along compani',  
'great charg',  
'exeunt carrier',  
'ho chamberlain',  
'within hand quoth pickpurs',  
'even fair asat hand quoth',

'chamberlain variest pick',  
 'purs give direct doth labour',  
 'layest plot',  
 'chamberlain',  
 'morrow master gadshil hold current',  
 'told yesternight franklin',  
 'wild kent hath brought three hundr mark',  
 'gold heard tell one',  
 'compani last night supper kind auditor one',  
 'hath abund charg god know',  
 'alreadi call egg butter',  
 'away present',  
 'sirrah meet saint nichola',  
 'clerk give neck',  
 'none pray keep',  
 'hangman know worshippest st nichola',  
 'truli man falsehood may',  
 'talkest hangman hang',  
 'fat pair gallow hang old',  
 'john hang knowest',  
 'starvel tut trojan',  
 'dreamest sport sake',  
 'content profess grace',  
 'matter look',  
 'credit sake whole join',  
 'footland raker longstaff sixpenni striker',  
 'none mad mustachio purplehu maltworm',  
 'nobil tranquil burgomast',  
 'great oney hold',  
 'strike sooner speak speak sooner',  
 'drink drink sooner pray zound',  
 'lie pray continu saint',  
 'commonwealth rather pray prey',  
 'ride',  
 'boot',  
 'commonwealth boot hold',  
 'water foul way',  
 'justic hath liquor',  
 'steal castl cocksur receipt',  
 'fernse walk invis',  
 'nay faith think behold',  
 'night fernse walk invis',  
 'give hand shalt share',  
 'purchas true man',  
 'nay rather fals thief',  
 'go homo common name men bid',  
 'ostler bring geld stabl farewel',  
 'muddi knave',

'exeunt',  
'scene ii highway near gadshil',  
'princ henri poin',  
'shelter shelter remov falstaff',  
'hors fret like gum velvet',  
'stand close',  
'falstaff',  
'poin poin hang poin',  
'peac fatkidney rascal brawl dost',  
'keep',  
'poin hal',  
'walk top hill go seek',  
'accurs rob thief compani',  
'rascal hath remov hors tie know',  
'travel four foot squier',  
'afoot break wind doubt',  
'die fair death',  
'scape hang kill rogu',  
'forsworn compani hourli time two',  
'twenti year bewitch',  
'rogu compani rascal hath given',  
'medicin love hang',  
'els drunk medicin poin',  
'hal plagu upon bardolph peto',  
'starv ere rob foot twere',  
'deed drink turn true man',  
'leav rogu veriest varlet',  
'ever chew tooth eight yard uneven',  
'ground threescor ten mile afoot',  
'stonyheart villain know enough',  
'plagu upon thiev true one anoth',  
'whistl',  
'whew plagu upon give hors',  
'rogu give hors hang',  
'peac fatgut lie lay ear close',  
'ground list canst hear tread',  
'travel',  
'lever lift',  
'sblood bear mine flesh far afoot',  
'coin father exchequ',  
'plagu mean colt thu',  
'liest colt uncolt',  
'prithe princ hal help hors',  
'king son',  
'rogu ostler',  
'go hang thyself heirappar',  
'garter ta en peach',  
'ballad made sung filthi',



'tune cup sack poison jest',  
 'forward afoot hate',  
 'gadshil bardolph peto',  
 'stand',  
 '',  
 'setter know voic bardolph',  
 'news',  
 'case case vizard',  
 'money king come hill go',  
 'king exchequ',  
 'lie rogu go king tavern',  
 'enough',  
 'hang',  
 'sir four front narrow lane',  
 'ned poin walk lower scape',  
 'encount light',  
 'mani',  
 'eight ten',  
 'zound rob',  
 'coward john paunch',  
 'inde john gaunt grandfath',  
 'coward hal',  
 'leav proof',  
 'sirrah jack hors stand behind hedg',  
 'needest shalt find',  
 'farewel stand fast',  
 'strike hang',  
 'ned disguis',  
 'hard stand close',  
 'exeunt princ henri poin',  
 'master happi man dole say',  
 'everi man busi',  
 'travel',  
 'neighbour boy lead hors',  
 'hill walk afoot awhile eas leg',  
 'stand',  
 'jesu bless',  
 'strike cut villain throat',  
 'ah whoreson caterpillar baconf knave',  
 'hate youth fleec',  
 'undon ever',  
 'hang gorbelli knave undon',  
 'fat chuff store',  
 'bacon knave young men must live',  
 'grandjuror jure faith',  
 'rob bind exeunt',  
 'reenter princ henri poin',  
 'thiev bound true men',

'rob thiev go merrili london',  
 'argument week laughter month',  
 'jest ever',  
 'stand close hear come',  
 'thiev',  
 'master share hors',  
 'day princ poin two',  
 'arrant coward equiti stir',  
 'valour poin wildduck',  
 'money',  
 'villain',  
 'share princ poin set upon run away falstaff blow two run away leav booti behind',  
 'got much eas merrili hors',  
 'thiev scatter possess fear',  
 'strongli dare meet',  
 'take fellow offic',  
 'away ned falstaff sweat death',  
 'lard lean earth walk along',  
 'laugh piti',  
 'rogu roar',  
 'exeunt',  
 'scene iii warkworth castl',  
 'hotspur solu read letter',  
 'mine part',  
 'content respect love bear',  
 'hous content',  
 'respect love bear hous',  
 'show love barn better',  
 'love hous see',  
 'purpos undertak danger',  
 'certain danger take cold sleep',  
 'drink tell fool',  
 'nettl danger pluck flower safeti',  
 'purpos undertak danger friend',  
 'name uncertain time unsort',  
 'whole plot light counterpois',  
 'great opposit say say say',  
 'unto shallow cowardli hind',  
 'lie lackbrain',  
 'plot plot ever laid',  
 'friend true constant plot',  
 'friend full expect excel plot',  
 'friend frostyspirit rogu',  
 'york commend plot',  
 'gener cours action zound',  
 'rascal brain ladi fan',  
 'father uncl',  
 'edmund mortim york owen glendow',

'besid dougla',  
'letter meet arm ninth',  
'next month set',  
'forward already pagan rascal',  
'infidel ha see sincer',  
'fear cold heart king lay',  
'open proceed divid',  
'go buffet move dish',  
'skim milk honour action hang',  
'tell king prepar set',  
'forward tonight',  
'ladi perci',  
'kate must leav within two hour',  
'thu alon',  
'offenc fortnight',  
'banish woman harri bed',  
'tell sweet take',  
'stomach pleasur golden sleep',  
'dost bend eye upon earth',  
'start often sit st alon',  
'lost fresh blood cheek',  
'given treasur right',  
'thickey muse curs melancholi',  
'faint slumber watch',  
'heard murmur tale iron war',  
'speak term manag bound steed',  
'cri courag field talk',  
'salli retir trench tent',  
'palisado frontier parapet',  
'basilisk cannon culverin',  
'prison ransom soldier slain',  
'current headi fight',  
'spirit within hath war',  
'thu hath bestirr sleep',  
'bead sweat stood upon brow',  
'like bubbl latedisturb stream',  
'face strang motion appear',  
'see men restrain breath',  
'great sudden hest portent',  
'heavi busi hath hand',  
'must know els love',  
'ho',  
'servant',  
'gilliam packet gone',  
'hour ago',  
'hath butler brought hors sheriff',  
'one hors brought even',  
'hors roan cropear',

'',  
 'roan throne',  
 'back straight esper',  
 'bid butler lead forth park',  
 'exit servant',  
 'hear',  
 'say st ladi',  
 'carri away',  
 'hors love hors',  
 'madhead ape',  
 'weasel hath deal spleen',  
 'toss faith',  
 'know busi harri',  
 'fear brother mortim doth stir',  
 'titl hath sent',  
 'line enterpris go',  
 'far afoot weari love',  
 'paraquito answer',  
 'directli unto question ask',  
 'faith break littl finger harri',  
 'wilt tell thing true',  
 'away',  
 'away trifler love love',  
 'care kate world',  
 'play mammet tilt lip',  
 'must bloodi nose crack crown',  
 'pass current god hors',  
 'say st kate st',  
 '',  
 'love inde',  
 'sinc love',  
 'love love',  
 'nay tell speak jest',  
 'wilt see ride',  
 'horseback swear',  
 'love infinit hark kate',  
 'must henceforth question',  
 'whither go reason whereabout',  
 'whither must must conclud',  
 'even must leav gentl kate',  
 'know wise farther wise',  
 'harri perci wife constant',  
 'woman secreci',  
 'ladi closer believ',  
 'wilt utter dost know',  
 'far trust gentl kate',  
 'far',  
 'inch hark kate',

```

'whither go thither go',
'today set forth tomorrow',
'content kate',
'must forc',
'exeunt',
'scene iv boar shead tavern eastcheap',
'princ henri poin',
'ned prithe fat room lend',
'hand laugh littl',
'hal',
'three four loggerhead amongst three four',
'score hogshead sound',
'basestr humil sirrah sworn brother',
'leash drawer call',
'christen name tom dick franci',
'take already upon salvat',
...]

```

```

In [27]: from sklearn.feature_extraction import DictVectorizer
vec = DictVectorizer()

```

```

pos_vectorized = vec.fit_transform(d)
pos_vectorized

```

---

```

ValueError                                Traceback (most recent call last)

```

```

<ipython-input-27-848b3ee4deb7> in <module>()
      2 vec = DictVectorizer()
      3
----> 4 pos_vectorized = vec.fit_transform(d)
      5 pos_vectorized

```

```

~\Anaconda3\lib\site-packages\sklearn\feature_extraction\dict_vectorizer.py in fit_transform
229         Feature vectors; always 2-d.
230         """
--> 231         return self._transform(X, fitting=True)
232
233     def inverse_transform(self, X, dict_type=dict):

~\Anaconda3\lib\site-packages\sklearn\feature_extraction\dict_vectorizer.py in _transform
177         vocab[f] = len(vocab)
178         indices.append(vocab[f])
--> 179         values.append(dtype(v))

```

```

180
181             indptr.append(len(indices))

```

ValueError: could not convert string to float: 'act'

## 8 Trying a countVectorizer (instead)

```

In [155]: # Initialize the "CountVectorizer" object, which is scikit-learn's
          # bag of words tool.
          vectorizer = CountVectorizer(analyzer = "word",
                                      tokenizer = None,
                                      preprocessor = None,
                                      stop_words = None,
                                      max_features = 5000)

          ##since passing the entire dict object is not giving the correct feature vector
          #trying to pass one dict key (Play) at a time

          # Play 1
          train_data_features = vectorizer.fit_transform(d['Julius Caesar'])
          vocab = vectorizer.get_feature_names()
          # Play 2
          train_data_features1 = vectorizer.fit_transform(d['Henry IV'])
          vocab1 = vectorizer.get_feature_names()
          # Play 3
          train_data_features2 = vectorizer.fit_transform(d['Hamlet'])
          vocab1 = vectorizer.get_feature_names()

          # Numpy arrays are easy to work with, so convert the result to an
          # array
          train_data_features = train_data_features2.toarray()

In [157]: train_data_features2.shape

Out[157]: (4244, 3548)

In [158]: # Take a look at the words in the vocabulary
          vocab = vectorizer.get_feature_names()
          print(vocab)

['abat', 'abhor', 'abil', 'abl', 'aboard', 'abomin', 'abridg', 'abroad', 'absent', 'absolut',

```

```
In [161]: # Sum up the counts of each vocabulary word
dist = np.sum(train_data_features, axis=0)

# For each, print the vocabulary word and the number of times it
# appears in the training set
for tag, count in zip(vocab, dist):
    if count>50:
        print(count, tag)
```

71 father  
69 give  
72 go  
111 hamlet  
62 hath  
53 heaven  
98 king  
82 know  
86 like  
84 love  
57 man  
70 may  
60 must  
65 say  
52 see  
69 speak  
53 think  
51 time  
57 upon

## 9 Using Tf-IDF on the corpus

```
In [61]: from sklearn.feature_extraction.text import TfidfVectorizer

tf_corpus=data_sh.iloc[:,[1,6]]

tf = TfidfVectorizer(analyzer='word', ngram_range=(1,4), min_df = 0)
#tfidf_matrix = tf.fit_transform(tf_corpus)
#tfidf_matrix = tf.fit_transform(d['Julius Caesar'])
tfidf_matrix = tf.fit_transform(vocab)
```

In [63]: tfidf\_matrix.shape

Out[63]: <2126x2126 sparse matrix of type '<class 'numpy.float64'>'  
with 2126 stored elements in Compressed Sparse Row format>

```
In [54]: from sklearn.metrics.pairwise import linear_kernel
```

```
def find_similar(tfidf_matrix, index, top_n = 5):
    cosine_similarities = linear_kernel(tfidf_matrix[index:index+1], tfidf_matrix).flatten()
    related_docs_indices = [i for i in cosine_similarities.argsort()[::-1] if i != index]
    return [(index, cosine_similarities[index]) for index in related_docs_indices][0:top_n]
```

```
In [64]: find_similar(tfidf_matrix,2)
```

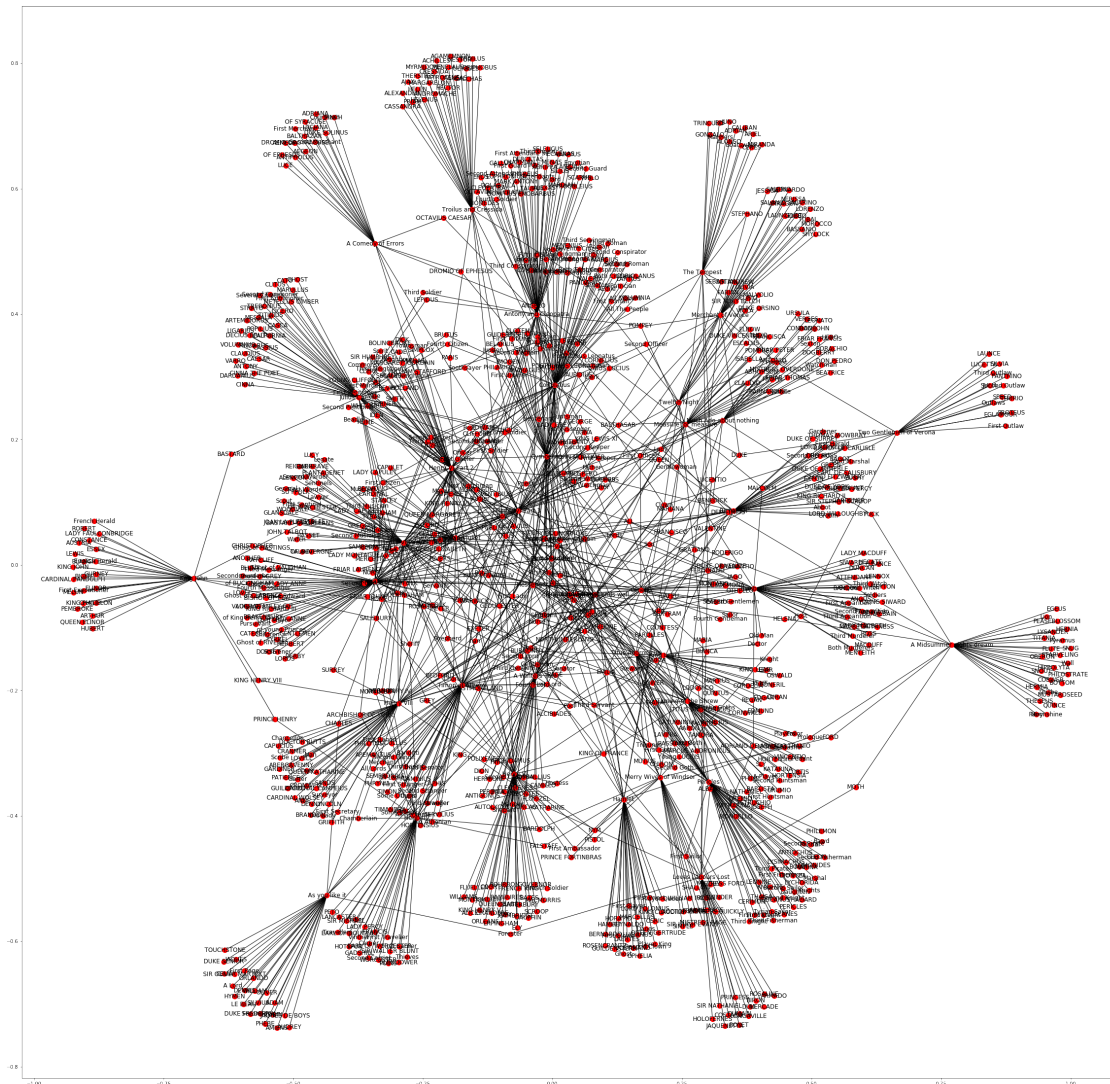
```
Out[64]: [(2125, 0.0), (705, 0.0), (711, 0.0), (710, 0.0), (709, 0.0)]
```

## 10 Switching to trying graphs (instead of NLP vectorizers)

```
In [102]: ## Play vs player graph
          ## for all plays

          g = nx.from_pandas_edgelist(data_sh,source='Play',target='Player')
          plt.figure(figsize=(40,40))
          nx.draw_networkx(g,with_labels=True,node_size=100)
          plt.show()
```





```
In [117]: ## removing NaaN as it throws errors with centrality
data_sh['Player'].replace(np.nan, 'Other', inplace = True)
data_sh['ActSceneLine'].replace(np.nan, '0', inplace = True)
```

## 11 Graph of Player vs Player

```
In [118]: from itertools import combinations
#create unique list of names
UniqueNames = data_sh.Play.unique()
```

```
In [119]: DataFrameDict = {elem : pd.DataFrame for elem in UniqueNames}
```

```
In [120]: for key in DataFrameDict.keys():
    DataFrameDict[key] = data_sh[:][data_sh.Play == key]
```

```

In [121]: f = lambda x : pd.DataFrame(list(combinations(x.values,2)), columns=['Player1','Player2'])

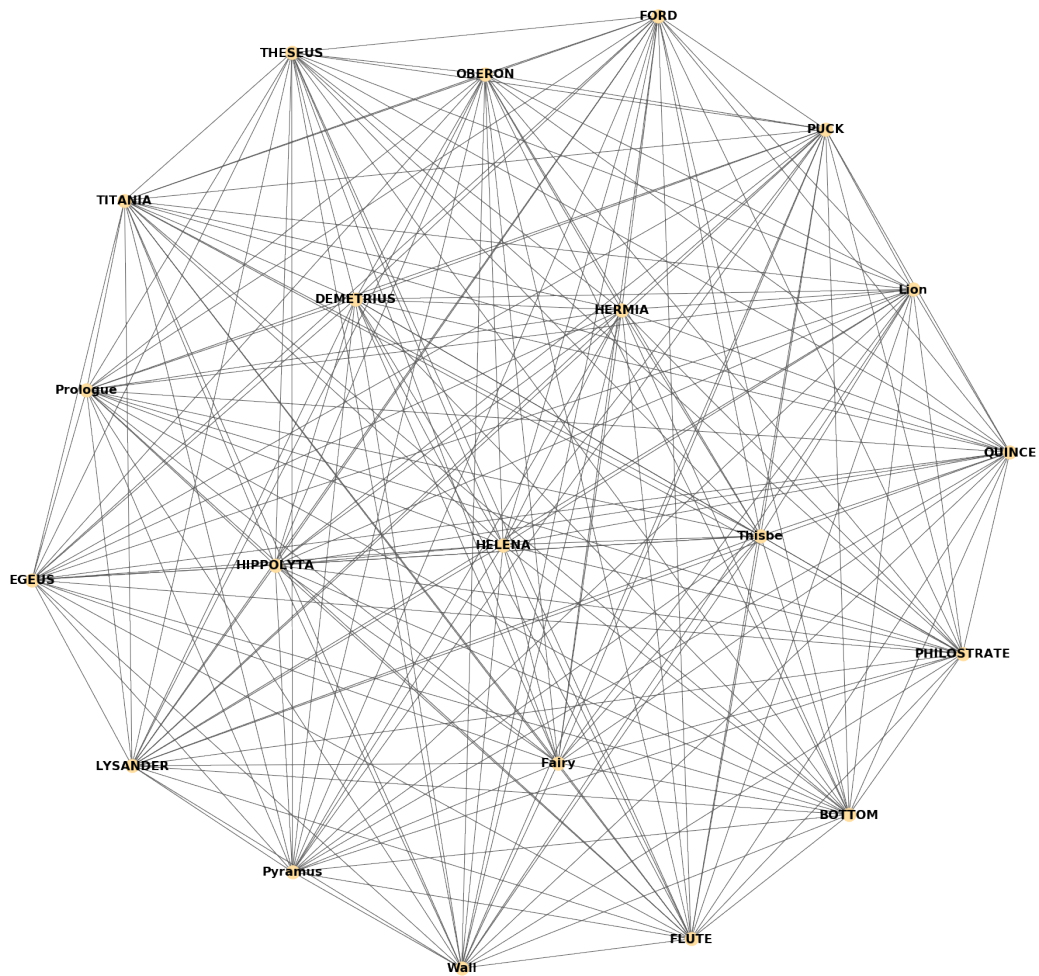
In [122]: pairs = (DataFrameDict['A Midsummer nights dream']).groupby('ActSceneLine')['Player']

In [123]: pairs_clean = pairs
          for x in range(pairs_clean.Player1.count()):
              if (pairs_clean.Player1[x]== pairs_clean.Player2[x]):
                  pairs_clean.drop(x,inplace=True)

In [126]: g1= nx.from_pandas_edgelist(pairs_clean,source='Player1',target='Player2')

In [127]: plt.figure(figsize=(25,25))
          options = {
              'edge_color': '#555555',
              'width': 1,
              'with_labels': True,
              'node_color': '#FFDEA2',
              'font_weight': 'bold',
              'font_size':16
          }
          nx.draw_networkx(g1, pos=nx.spring_layout(g1, k=0.5, iterations=50), **options)
          ax = plt.gca()
          ax.set_axis_off()
          plt.show()

```



## 12 Checking centrality and other measures

```
In [125]: centralMeasures = pd.DataFrame(nx.degree centrality(g1), index=[0]).T
centralMeasures.columns=['Degree Centrality']
centralMeasures['Closeness centrality']= pd.DataFrame(nx.closeness centrality(g1), index=[0]).T
centralMeasures['Betweenness centrality']= pd.DataFrame(nx.betweenness centrality(g1), index=[0]).T
centralMeasures['Eigenvector centrality']= pd.DataFrame(nx.eigenvector centrality(g1), index=[0]).T
centralMeasures['Page Rank']= pd.DataFrame(nx.pagerank(g1), index=[0]).T
centralMeasures['Name']= centralMeasures.index.tolist()
centralMeasures.index = np.arange(0, len(centralMeasures))
centralMeasures.sort_values(by=['Degree Centrality'], ascending=False).head(25)
```

```
Out[125]:
```

	Degree Centrality	Closeness centrality	Betweenness centrality	\
0	1.0	1.0	0.0	

11	1.0	1.0	0.0
19	1.0	1.0	0.0
18	1.0	1.0	0.0
17	1.0	1.0	0.0
16	1.0	1.0	0.0
15	1.0	1.0	0.0
14	1.0	1.0	0.0
13	1.0	1.0	0.0
12	1.0	1.0	0.0
10	1.0	1.0	0.0
1	1.0	1.0	0.0
9	1.0	1.0	0.0
8	1.0	1.0	0.0
7	1.0	1.0	0.0
6	1.0	1.0	0.0
5	1.0	1.0	0.0
4	1.0	1.0	0.0
3	1.0	1.0	0.0
2	1.0	1.0	0.0
20	1.0	1.0	0.0

	Eigenvector centrality	Page Rank	Name
0	0.218218	0.047619	FORD
11	0.218218	0.047619	DEMETRIUS
19	0.218218	0.047619	Lion
18	0.218218	0.047619	Wall
17	0.218218	0.047619	Thisbe
16	0.218218	0.047619	Pyramus
15	0.218218	0.047619	Prologue
14	0.218218	0.047619	PHILOSTRATE
13	0.218218	0.047619	FLUTE
12	0.218218	0.047619	QUINCE
10	0.218218	0.047619	HERMIA
1	0.218218	0.047619	THESEUS
9	0.218218	0.047619	Fairy
8	0.218218	0.047619	OBERON
7	0.218218	0.047619	PUCK
6	0.218218	0.047619	TITANIA
5	0.218218	0.047619	BOTTOM
4	0.218218	0.047619	HELENA
3	0.218218	0.047619	LYSANDER
2	0.218218	0.047619	EGEUS
20	0.218218	0.047619	HIPPOLYTA