Final_Project

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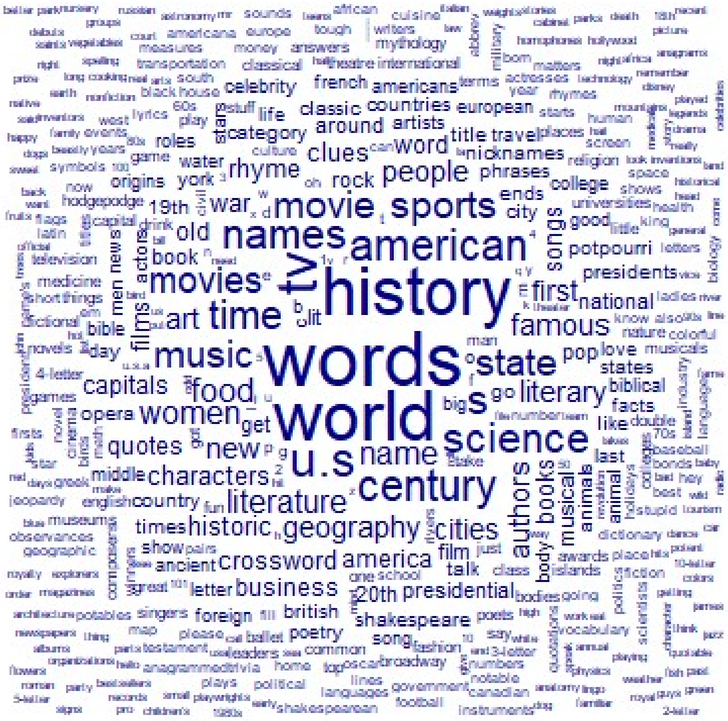
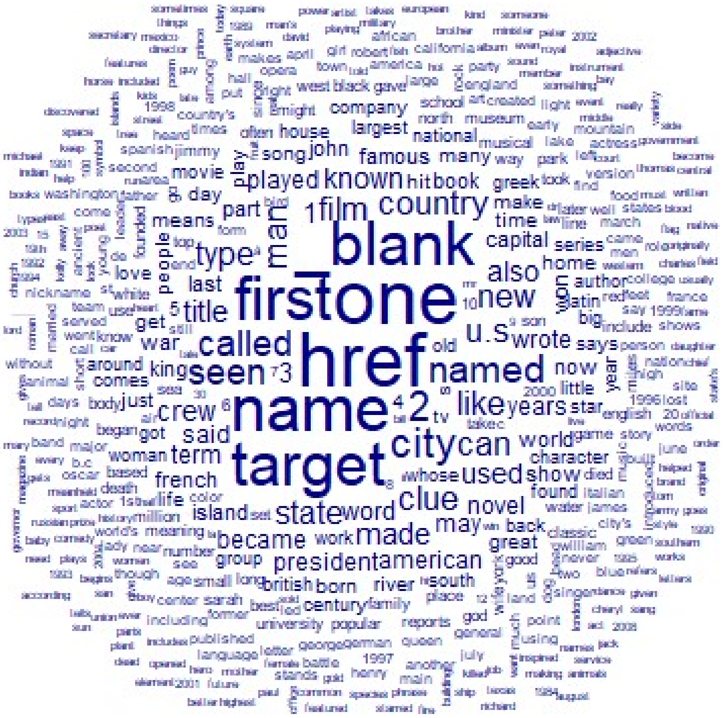
3/26/2022

```
#read in the original dataset
jpDf = read.csv('JEOPARDY_CSV.csv')

#cleaning the columns in jpDf

#cleaning category
library(quanteda)

## Warning: package 'quanteda' was built under R version 4.1.3

## Package version: 3.2.1
## Unicode version: 13.0
## ICU version: 69.1

## Parallel computing: 16 of 16 threads used.

## See https://quanteda.io for tutorials and examples.

jpDf$charCategory = as.character(jpDf$Category)
categoryCorp = corpus(jpDf$charCategory)
categoryTokens = tokens(categoryCorp, remove_punct = TRUE, remove_symbols =
TRUE)
categoryLower = tokens_tolower(categoryTokens)
categoryCleaned = dfm(categoryLower, remove = stopwords())

## Warning: 'remove' is deprecated; use dfm_remove() instead

#Cleaning Question
jpDf$charQuestion = as.character(jpDf$Question)
questionCorp = corpus(jpDf$charQuestion)
questionTokens = tokens(questionCorp, remove_punct = TRUE, remove_symbols =
TRUE,
                        remove_url = TRUE)
questionLower = tokens_tolower(questionTokens)
questionCleaned = dfm(questionLower, remove = stopwords())

## Warning: 'remove' is deprecated; use dfm_remove() instead

library(quanteda.textplots)

## Warning: package 'quanteda.textplots' was built under R version 4.1.3

#word cloud for overall top recurring words in Category
textplot_wordcloud(categoryCleaned, min_count =10)
```



```
#word cloud for overall top recurring words in Question
textplot_wordcloud(questionCleaned, min_count =10)
```



```r
library(quanteda.textstats)

## Warning: package 'quanteda.textstats' was built under R version 4.1.3

#Frequency of Words in Category
fiftyFreqWordsCategory = textstat_frequency(categoryCleaned, n=50)

#Frequency of Words in Question
fiftyFreqWordsQuestion = textstat_frequency(questionCleaned, n=70)

library(dplyr)

##
## Attaching package: 'dplyr'

## The following objects are masked from 'package:stats':
##
##     filter, lag

## The following objects are masked from 'package:base':
##
##     intersect, setdiff, setequal, union

#Grouping by: Round (Jeopardy!/Double Jeopardy!/Final Jeopardy!)
grpRoundJ <- jpDf[jpDf$Round == 'Jeopardy!',]
grpRoundDJ <- jpDf[jpDf$Round == 'Double Jeopardy!',]
grpRoundFJ <- jpDf[jpDf$Round == 'Final Jeopardy!',]

#Grouping by: Values -  Values (400/600/800/1000/1200/1600/2000/None)
# Where None is represented as final Jeopardy
grpValue400 <- jpDf[jpDf$Value == '$400',]
grpValue600 <- jpDf[jpDf$Value == '$600',]
grpValue800 <- jpDf[jpDf$Value == '$800',]
grpValue1000 <- jpDf[jpDf$Value == '$1000',]
grpValue1200 <- jpDf[jpDf$Value == '$1200',]
grpValue1600 <- jpDf[jpDf$Value == '$1600',]
grpValue2000 <- jpDf[jpDf$Value == '$2000',]
grpValueNone <- jpDf[jpDf$Value == 'None',]

#cleaning the grouped by Round dataframes
#Jeopardy! (Question)
grpRoundJ$charQuestion = as.character(grpRoundJ$Question)
questionCorp = corpus(grpRoundJ$charQuestion)
questionTokens = tokens(questionCorp, remove_punct = TRUE, remove_symbols =
TRUE,
                        remove_url = TRUE)
questionLower = tokens_tolower(questionTokens)
questionCleanedJ = dfm(questionLower, remove = stopwords())

## Warning: 'remove' is deprecated; use dfm_remove() instead
```

```
#Double Jeopardy!
grpRoundDJ$charQuestion = as.character(grpRoundDJ$Question)
questionCorpDJ = corpus(grpRoundDJ$charQuestion)
questionTokensDJ = tokens(questionCorpDJ, remove_punct = TRUE, remove_symbols
= TRUE,
                        remove_url = TRUE)
questionLowerDJ = tokens_tolower(questionTokensDJ)
questionCleanedDJ = dfm(questionLowerDJ, remove = stopwords())
```

```
## Warning: 'remove' is deprecated; use dfm_remove() instead
```

```
#Final Jeopardy!
grpRoundFJ$charQuestion = as.character(grpRoundFJ$Question)
questionCorpFJ = corpus(grpRoundFJ$charQuestion)
questionTokensFJ = tokens(questionCorpFJ, remove_punct = TRUE, remove_symbols
= TRUE,
                        remove_url = TRUE)
questionLowerFJ = tokens_tolower(questionTokensFJ)
questionCleanedFJ = dfm(questionLowerFJ, remove = stopwords())
```

```
## Warning: 'remove' is deprecated; use dfm_remove() instead
```

```
#Jeopardy! (Category)
grpRoundJ$charCategory = as.character(grpRoundJ$Category)
categoryCorpJ = corpus(grpRoundJ$charCategory)
categoryTokensJ = tokens(categoryCorpJ, remove_punct = TRUE, remove_symbols =
TRUE)
categoryLowerJ = tokens_tolower(categoryTokensJ)
categoryCleanedJ = dfm(categoryLowerJ, remove = stopwords())
```

```
## Warning: 'remove' is deprecated; use dfm_remove() instead
```

```
#Double Jeopardy! (Category)
grpRoundDJ$charCategory = as.character(grpRoundDJ$Category)
categoryCorpDJ = corpus(grpRoundDJ$charCategory)
categoryTokensDJ = tokens(categoryCorpDJ, remove_punct = TRUE, remove_symbols
= TRUE)
categoryLowerDJ = tokens_tolower(categoryTokensDJ)
categoryCleanedDJ = dfm(categoryLowerDJ, remove = stopwords())
```

```
## Warning: 'remove' is deprecated; use dfm_remove() instead
```

```
#Double Jeopardy! (Category)
grpRoundFJ$charCategory = as.character(grpRoundFJ$Category)
categoryCorpFJ = corpus(grpRoundFJ$charCategory)
categoryTokensFJ = tokens(categoryCorpFJ, remove_punct = TRUE, remove_symbols
= TRUE)
categoryLowerFJ = tokens_tolower(categoryTokensFJ)
categoryCleanedFJ = dfm(categoryLowerFJ, remove = stopwords())
```

```
## Warning: 'remove' is deprecated; use dfm_remove() instead
```

```
#cleaning the grouped by Value dataframes
#400 (Question)
grpValue400$charQuestion = as.character(grpValue400$Question)
questionCorp400 = corpus(grpValue400$charQuestion)
questionTokens400 = tokens(questionCorp400, remove_punct = TRUE,
remove_symbols = TRUE,
                        remove_url = TRUE)
questionLower400 = tokens_tolower(questionTokens400)
questionCleaned400 = dfm(questionLower400, remove = stopwords())

## Warning: 'remove' is deprecated; use dfm_remove() instead

#600
grpValue600$charQuestion = as.character(grpValue600$Question)
questionCorp600 = corpus(grpValue600$charQuestion)
questionTokens600 = tokens(questionCorp600, remove_punct = TRUE,
remove_symbols = TRUE,
                        remove_url = TRUE)
questionLower600 = tokens_tolower(questionTokens600)
questionCleaned600 = dfm(questionLower600, remove = stopwords())

## Warning: 'remove' is deprecated; use dfm_remove() instead

#800
grpValue800$charQuestion = as.character(grpValue800$Question)
questionCorp800 = corpus(grpValue800$charQuestion)
questionTokens800 = tokens(questionCorp800, remove_punct = TRUE,
remove_symbols = TRUE,
                        remove_url = TRUE)
questionLower800 = tokens_tolower(questionTokens800)
questionCleaned800 = dfm(questionLower800, remove = stopwords())

## Warning: 'remove' is deprecated; use dfm_remove() instead

#1000
grpValue1000$charQuestion = as.character(grpValue1000$Question)
questionCorp1000 = corpus(grpValue1000$charQuestion)
questionTokens1000 = tokens(questionCorp1000, remove_punct = TRUE,
remove_symbols = TRUE,
                        remove_url = TRUE)
questionLower1000 = tokens_tolower(questionTokens1000)
questionCleaned1000 = dfm(questionLower1000, remove = stopwords())

## Warning: 'remove' is deprecated; use dfm_remove() instead

#1200
grpValue1200$charQuestion = as.character(grpValue1200$Question)
questionCorp1200 = corpus(grpValue1200$charQuestion)
questionTokens1200 = tokens(questionCorp1200, remove_punct = TRUE,
remove_symbols = TRUE,
                        remove_url = TRUE)
```

```
questionLower1200 = tokens_tolower(questionTokens1200)
questionCleaned1200 = dfm(questionLower1200, re200move = stopwords())

## Warning: re200move argument is not used.

#1600
grpValue1600$charQuestion = as.character(grpValue1600$Question)
questionCorp1600 = corpus(grpValue1600$charQuestion)
questionTokens1600 = tokens(questionCorp1600, remove_punct = TRUE,
remove_symbols = TRUE,
                        remove_url = TRUE)
questionLower1600 = tokens_tolower(questionTokens1600)
questionCleaned1600 = dfm(questionLower1600, remove = stopwords())

## Warning: 'remove' is deprecated; use dfm_remove() instead

#2000
grpValue2000$charQuestion = as.character(grpValue2000$Question)
questionCorp2000 = corpus(grpValue2000$charQuestion)
questionTokens2000 = tokens(questionCorp2000, remove_punct = TRUE,
remove_symbols = TRUE,
                        remove_url = TRUE)
questionLower2000 = tokens_tolower(questionTokens2000)
questionCleaned2000 = dfm(questionLower2000, remove = stopwords())

## Warning: 'remove' is deprecated; use dfm_remove() instead

#None
grpValueNone$charQuestion = as.character(grpValueNone$Question)
questionCorpNone = corpus(grpValueNone$charQuestion)
questionTokensNone = tokens(questionCorpNone, remove_punct = TRUE,
remove_symbols = TRUE,
                        remove_url = TRUE)
questionLowerNone = tokens_tolower(questionTokensNone)
questionCleanedNone = dfm(questionLowerNone, remove = stopwords())

## Warning: 'remove' is deprecated; use dfm_remove() instead

#freq for grouped by Round
twentyFreqWordsQuestionJ = textstat_frequency(questionCleanedJ, n=50)
twentyFreqWordsQuestionJ

##      feature frequency rank docfreq group
## 1        one      6684    1    6406   all
## 2       href      5976    2    4962   all
## 3       name      5419    3    5277   all
## 4      first      4877    4    4744   all
## 5     target      4798    5    3894   all
## 6     _blank      4762    6    3860   all
## 7       city      3181    7    3086   all
## 8          2      3082    8    2952   all
## 9        can      2731    9    2641   all
## 10     named      2676   10    2644   all
## 11      seen      2629   11    2620   all
## 12    called      2589   12    2560   all
## 13      like      2568   13    2476   all
## 14     state      2535   14    2409   all
## 15       u.s      2523   15    2496   all
## 16       new      2421   16    2341   all
## 17      type      2399   17    2343   all
## 18       man      2280   18    2232   all
## 19   country      2226   19    2209   all
## 20      clue      2131   20    1951   all
## 21      made      2118   21    2086   all
## 22      film      2048   22    2018   all
## 23      used      1969   23    1942   all
## 24      also      1810   24    1808   all
## 25     known      1776   25    1760   all
## 26         1      1725   26    1622   all
## 27     title      1716   27    1708   all
## 28       may      1692   28    1668   all
## 29      crew      1654   29    1651   all
## 30         3      1599   30    1546   all
## 31      said      1505   31    1493   all
## 32      word      1473   32    1412   all
## 33      term      1460   33    1456   all
## 34    became      1421   34    1406   all
## 35     years      1416   35    1396   all
## 36    played      1409   36    1380   all
## 37 president      1372   37    1329   all
## 38     world      1336   38    1320   all
## 39  american      1330   39    1311   all
## 40      show      1287   40    1256   all
## 41      part      1278   41    1249   all
## 42   capital      1245   42    1209   all
## 43      last      1226   43    1206   all
## 44      song      1225   44    1211   all
## 45       hit      1222   45    1194   all
## 46      home      1212   46    1183   all
## 47       now      1183   47    1175   all
## 48       won      1170   48    1133   all
## 49      make      1163   49    1143   all
## 50       get      1159   50    1130   all
```

```
twentyFreqWordsQuestionDJ = textstat_frequency(questionCleanedDJ, n=50)
twentyFreqWordsQuestionDJ
```

```
##      feature frequency rank docfreq group
## 1       href      6954    1    5526   all
## 2        one      5958    2    5696   all
## 3     target      5882    3    4570   all
## 4     _blank      5852    4    4541   all
## 5         name      5581    5    5468   all
## 6        first      4980    6    4862   all
## 7         city      3287    7    3190   all
## 8            2      2906    8    2798   all
## 9         clue      2848    9    2609   all
## 10       named      2833   10    2790   all
## 11      called      2772   11    2737   all
## 12        film      2597   12    2550   all
## 13        seen      2593   13    2590   all
## 14        like      2519   14    2442   all
## 15     country      2519   14    2491   all
## 16         new      2421   16    2348   all
## 17         man      2418   17    2354   all
## 18        crew      2328   18    2321   all
## 19        type      2270   19    2229   all
## 20       title      2269   20    2246   all
## 21         u.s      2241   21    2213   all
## 22         can      2178   22    2131   all
## 23       state      2060   23    1956   all
## 24       known      2013   24    1984   all
## 25        used      1973   25    1943   all
## 26        made      1923   26    1894   all
## 27        also      1877   27    1876   all
## 28       novel      1857   28    1850   all
## 29       wrote      1838   29    1804   all
## 30        word      1744   30    1671   all
## 31      became      1652   31    1635   all
## 32      played      1567   32    1514   all
## 33        king      1548   33    1484   all
## 34        said      1548   33    1532   all
## 35       years      1538   35    1520   all
## 36           3      1523   36    1490   all
## 37   president      1502   37    1455   all
## 38     capital      1467   38    1415   all
## 39           1      1455   39    1347   all
## 40    american      1443   40    1423   all
## 41        last      1436   41    1414   all
## 42         may      1410   42    1394   all
## 43        term      1404   43    1396   all
## 44         war      1401   44    1331   all
## 45      french      1400   45    1380   all
## 46      island      1391   46    1334   all
## 47        part      1375   47    1339   all
## 48        book      1342   48    1316   all
## 49        play      1302   49    1278   all
## 50       world      1301   50    1282   all

twentyFreqWordsQuestionFJ = textstat_frequency(questionCleanedFJ, n=50)
twentyFreqWordsQuestionFJ
```

```
##      feature frequency rank docfreq group
## 1          2       360    1     344   all
## 2      first       351    2     338   all
## 3       name       311    3     295   all
## 4        one       308    4     285   all
## 5        u.s       228    5     226   all
## 6        man       207    6     200   all
## 7      named       169    7     164   all
## 8      state       155    8     141   all
## 9  president       153    9     139   all
## 10         1       144   10     133   all
## 11      last       137   11     136   all
## 12   country       132   12     123   all
## 13      city       131   13     125   all
## 14         3       124   14     120   all
## 15     years       119   15     114   all
## 16      said       117   16     117   all
## 17     title       111   17     110   all
## 18      film       111   17     109   all
## 19       new       104   19     101   all
## 20    called       101   20      99   all
## 21      word       100   21      95   all
## 22     wrote        96   22      96   all
## 23     novel        93   23      92   all
## 24    became        92   24      92   all
## 25     whose        92   24      91   all
## 26     world        87   26      85   all
## 27   century        86   27      85   all
## 28 character        83   28      82   all
## 29      made        82   29      81   all
## 30      book        76   30      74   all
## 31    famous        73   31      72   all
## 32      used        73   31      70   all
## 33     known        71   33      71   all
## 34      time        70   34      69   all
## 35      born        69   35      66   all
## 36         4        69   35      68   all
## 37      work        69   35      69   all
## 38  american        68   38      67   all
## 39    people        67   39      66   all
## 40     names        67   39      63   all
## 41      best        66   41      61   all
## 42       won        65   42      62   all
## 43       war        64   43      60   all
## 44      died        62   44      61   all
## 45       may        62   44      59   all
## 46       men        62   44      62   all
## 47     since        61   47      60   all
## 48   capital        61   47      56   all
## 49    states        61   47      60   all
## 50      year        61   47      57   all
```

```
twentyFreqWordsCategoryJ = textstat_frequency(categoryCleanedJ, n=50)
twentyFreqWordsCategoryJ
```

```
##          feature frequency rank docfreq group
## 1          words      2093    1    2068   all
## 2             tv      1735    2    1695   all
## 3          world      1681    3    1681   all
## 4        history      1566    4    1566   all
## 5            u.s      1344    5    1344   all
## 6          state      1266    6    1241   all
## 7           time      1098    7    1098   all
## 8         sports      1074    8    1074   all
## 9           food      1030    9    1005   all
## 10             s      1009   10     956   all
## 11         names      1003   11    1003   all
## 12      american       936   12     936   all
## 13           new       839   13     824   all
## 14       science       834   14     834   all
## 15          name       822   15     822   all
## 16         music       807   16     807   all
## 17         movie       799   17     799   all
## 18       century       792   18     792   all
## 19         first       740   19     725   all
## 20        movies       731   20     726   all
## 21         songs       687   21     682   all
## 22         rhyme       678   22     678   all
## 23        people       656   23     651   all
## 24        cities       607   24     607   all
## 25     geography       599   25     599   all
## 26          rock       586   26     586   all
## 27      business       538   27     523   all
## 28     crossword       537   28     537   all
## 29         clues       537   28     537   all
## 30        famous       514   30     514   all
## 31           old       511   31     511   all
## 32  presidential       495   32     495   all
## 33           pop       489   33     489   all
## 34         women       488   34     488   all
## 35        quotes       479   35     479   all
## 36       classic       473   36     473   all
## 37       america       469   37     469   all
## 38       animals       465   38     465   all
## 39           war       454   39     454   all
## 40          word       452   40     452   all
## 41          ends       449   41     449   all
## 42      capitals       448   42     448   all
## 43      literary       440   43     440   all
## 44     category       432   44     432   all
## 45       around       430   45     430   all
## 46      college       427   46     427   all
## 47      phrases       425   47     425   all
## 48         york       425   47     410   all
## 49          get       424   49     424   all
## 50   literature       423   50     423   all
```

```
twentyFreqWordsCategoryDJ = textstat_frequency(categoryCleanedDJ, n=50)
twentyFreqWordsCategoryDJ
```

```
##        feature frequency rank docfreq group
## 1        world      2290    1    2290   all
## 2        words      2154    2    2121   all
## 3      history      2029    3    2029   all
## 4      century      1332    4    1332   all
## 5      science      1325    5    1325   all
## 6     american      1306    6    1306   all
## 7           tv      1257    7    1252   all
## 8            s      1155    8    1075   all
## 9        names      1103    9    1103   all
## 10       movie      1066   10    1066   all
## 11         u.s      1053   11    1053   all
## 12  literature      1051   12    1051   all
## 13         art      1043   13    1043   all
## 14       music      1022   14    1022   all
## 15      movies      1003   15     993   all
## 16     authors       950   16     925   all
## 17    literary       935   17     930   all
## 18        time       928   18     923   all
## 19       women       920   19     915   all
## 20      sports       807   20     807   all
## 21   geography       787   21     787   all
## 22      famous       738   22     738   all
## 23        name       691   23     691   all
## 24      cities       666   24     666   all
## 25         war       663   25     663   all
## 26      people       661   26     656   all
## 27  characters       654   27     654   all
## 28       state       638   28     623   all
## 29       clues       627   29     627   all
## 30       books       609   30     609   all
## 31         new       603   31     598   all
## 32        film       594   32     594   all
## 33    historic       594   32     594   all
## 34   crossword       574   34     574   all
## 35     artists       562   35     562   all
## 36         lit       561   36     561   all
## 37       opera       561   36     561   all
## 38       films       545   38     540   all
## 39     america       540   39     540   all
## 40       first       539   40     515   all
## 41     musical       492   41     492   all
## 42        word       475   42     475   all
## 43       rhyme       475   42     475   all
## 44        20th       468   44     468   all
## 45         old       465   45     446   all
## 46 shakespeare       462   46     462   all
## 47       title       450   47     445   all
## 48      quotes       446   48     446   all
## 49        book       444   49     444   all
## 50    capitals       442   50     442   all
```

```
twentyFreqWordsCategoryFJ = textstat_frequency(categoryCleanedFJ, n=50)
twentyFreqWordsCategoryFJ
```

```
##           feature frequency rank docfreq group
## 1             u.s       203    1     203   all
## 2         century       194    2     194   all
## 3         history       178    3     178   all
## 4           world       160    4     160   all
## 5          famous       131    5     131   all
## 6        american       124    6     124   all
## 7           names       117    7     117   all
## 8        historic       111    8     111   all
## 9            20th        94    9      94   all
## 10     presidents        94    9      93   all
## 11        authors        92   11      91   all
## 12     literature        82   12      82   all
## 13           19th        67   13      67   all
## 14     characters        65   14      65   all
## 15          women        63   15      63   all
## 16       business        62   16      62   all
## 17         sports        59   17      59   all
## 18      geography        58   18      58   all
## 19       capitals        58   18      58   all
## 20      americans        58   18      58   all
## 21        origins        56   21      56   all
## 22          state        55   22      55   all
## 23           word        49   23      49   all
## 24         cities        49   23      49   all
## 25         movies        45   25      45   all
## 26       literary        44   26      44   all
## 27        british        43   27      43   all
## 28   presidential        40   28      40   all
## 29        leaders        40   28      40   all
## 30          music        37   30      37   all
## 31          words        37   30      37   all
## 32         people        35   32      35   all
## 33        science        35   32      35   all
## 34        novels        33   34      33   all
## 35          news        33   34      33   all
## 36        states        32   36      32   all
## 37         movie        31   37      31   all
## 38         films        31   37      31   all
## 39         books        29   39      28   all
## 40    government        29   39      29   all
## 41    television        28   41      28   all
## 42     landmarks        28   41      28   all
## 43       royalty        27   43      27   all
## 44       ancient        27   43      27   all
## 45     countries        26   45      26   all
## 46      industry        26   45      26   all
## 47       phrases        25   47      25   all
## 48        awards        25   47      25   all
## 49 organizations        25   47      25   all
## 50      european        24   50      24   all
```

```
#freq for grouped by Round
twentyFreqWordsQuestion400 = textstat_frequency(questionCleaned400, n=50)
twentyFreqWordsQuestion400
```

```
##       feature frequency rank docfreq group
## 1        one      2651    1    2534   all
## 2       href      2196    2    1798   all
## 3      first      1997    3    1950   all
## 4       name      1912    4    1872   all
## 5     target      1809    5    1447   all
## 6     _blank      1798    6    1437   all
## 7       city      1268    7    1236   all
## 8          2      1165    8    1122   all
## 9     called      1014    9    1003   all
## 10       can       994   10     970   all
## 11     named       992   11     977   all
## 12   country       969   12     964   all
## 13     state       958   13     911   all
## 14      seen       955   14     948   all
## 15       u.s       948   15     934   all
## 16      like       947   16     927   all
## 17       new       914   17     884   all
## 18      type       912   18     894   all
## 19       man       861   19     838   all
## 20      clue       857   20     786   all
## 21      film       822   21     805   all
## 22      made       804   22     794   all
## 23      used       757   23     747   all
## 24     title       712   24     706   all
## 25      also       670   25     669   all
## 26      said       668   26     665   all
## 27      crew       668   26     666   all
## 28     known       667   28     659   all
## 29       may       629   29     621   all
## 30         1       625   30     583   all
## 31     years       611   31     606   all
## 32         3       607   32     593   all
## 33    became       601   33     599   all
## 34      word       576   34     553   all
## 35    played       575   35     557   all
## 36     novel       548   36     545   all
## 37     wrote       544   37     532   all
## 38      term       535   38     534   all
## 39 president       534   39     522   all
## 40  american       513   40     509   all
## 41      show       506   41     491   all
## 42   capital       506   41     490   all
## 43     world       489   43     477   all
## 44      part       487   44     481   all
## 45       war       478   45     466   all
## 46      book       475   46     465   all
## 47      home       474   47     467   all
## 48      last       472   48     466   all
## 49      king       469   49     452   all
## 50      john       468   50     456   all
```

```
twentyFreqWordsQuestion600 = textstat_frequency(questionCleaned600, n=51)
twentyFreqWordsQuestion600
```

```
##      feature frequency rank docfreq group
## 1       href      1253    1    1042   all
## 2        one      1238    2    1189   all
## 3       name      1053    3    1031   all
## 4     target      1032    4     839   all
## 5     _blank      1027    5     834   all
## 6      first       977    6     948   all
## 7       seen       555    7     552   all
## 8       city       547    8     531   all
## 9          2       537    9     515   all
## 10    called       497   10     491   all
## 11       can       479   11     463   all
## 12      film       479   11     474   all
## 13      like       478   13     459   all
## 14       new       472   14     462   all
## 15       man       450   15     439   all
## 16       u.s       448   16     444   all
## 17   country       443   17     439   all
## 18      clue       443   17     404   all
## 19     named       441   19     433   all
## 20     state       423   20     400   all
## 21      type       414   21     406   all
## 22     title       381   22     379   all
## 23      made       360   23      356   all
## 24      used       351   24      345   all
## 25      crew       346   25      346   all
## 26     known       345   26      342   all
## 27      also       340   27      340   all
## 28         3       299   28      290   all
## 29      term       298   29      298   all
## 30      said       291   30      288   all
## 31       may       291   30      287   all
## 32      word       284   32      273   all
## 33     novel       284   32      283   all
## 34     years       276   34      270   all
## 35 president       275   35      263   all
## 36    became       271   36      267   all
## 37         1       268   37      255   all
## 38    played       263   38      254   all
## 39  american       261   39      258   all
## 40     world       260   40      255   all
## 41      john       258   41      252   all
## 42      king       256   42      250   all
## 43    famous       256   42      255   all
## 44     wrote       250   44      246   all
## 45      last       247   45      244   all
## 46      show       244   46      241   all
## 47      part       238   47      234   all
## 48    island       237   48      230   all
## 49      book       236   49      229   all
## 50       won       235   50      226   all
## 51      song       234   51      230   all
```

```
twentyFreqWordsQuestion800 = textstat_frequency(questionCleaned800, n=58)
twentyFreqWordsQuestion800
```

```
##      feature frequency rank docfreq group
## 1       href      2376    1    1909   all
## 2     target      1969    2    1550   all
## 3     _blank      1960    3    1541   all
## 4        one      1944    4    1865   all
## 5       name      1636    5    1603   all
## 6      first      1412    6    1384   all
## 7       city       914    7     895   all
## 8          2       912    8     880   all
## 9       clue       880    9     807   all
## 10     named       869   10     859   all
## 11      seen       823   11     822   all
## 12      like       814   12     785   all
## 13    called       781   13     769   all
## 14       can       744   14     724   all
## 15       man       732   15     714   all
## 16      type       732   15     716   all
## 17       new       719   17     695   all
## 18      crew       717   18     715   all
## 19   country       711   19     705   all
## 20      film       699   20     691   all
## 21       u.s       691   21     681   all
## 22     title       655   22     651   all
## 23     state       637   23     598   all
## 24      made       619   24     606   all
## 25      also       616   25     615   all
## 26      used       611   26     601   all
## 27     known       586   27     581   all
## 28      word       505   28     479   all
## 29     wrote       480   29     475   all
## 30         1       456   30     428   all
## 31    became       456   30     450   all
## 32         3       450   32     437   all
## 33     novel       446   33     445   all
## 34    played       445   34     436   all
## 35       may       441   35     433   all
## 36      part       437   36     423   all
## 37      said       435   37     428   all
## 38      king       435   37     416   all
## 39      term       431   39     429   all
## 40  american       429   40     419   all
## 41     years       417   41     414   all
## 42 president       414   42     400   all
## 43      book       413   43     401   all
## 44     world       408   44     404   all
## 45      last       402   45     396   all
## 46       now       389   46     381   all
## 47    island       387   47     370   all
## 48      show       383   48     376   all
## 49    french       381   49     377   all
## 50       won       378   50     370   all
## 51   capital       371   51     359   all
## 52       get       361   52     356   all
## 53       war       358   53     339   all
## 54      just       343   54     342   all
## 55      john       339   55     332   all
## 56      play       335   56     329   all
## 57      time       334   57     322   all
## 58    famous       333   58     332   all
```

```
twentyFreqWordsQuestion1000 = textstat_frequency(questionCleaned1000, n=60)
twentyFreqWordsQuestion1000
```

```
##      feature frequency rank docfreq group
## 1       href      1363    1    1111   all
## 2       name      1230    2    1204   all
## 3     target      1131    3     900   all
## 4     _blank      1122    4     893   all
## 5        one      1002    5     955   all
## 6      first       826    6     810   all
## 7       city       618    7     597   all
## 8      named       579    8     567   all
## 9          2       541    9     511   all
## 10      seen       533   10     533   all
## 11    called       529   11     523   all
## 12   country       481   12     477   all
## 13      like       476   13     465   all
## 14      clue       472   14     433   all
## 15      type       459   15     447   all
## 16      film       450   16     443   all
## 17       u.s       445   17     438   all
## 18       new       437   18     426   all
## 19       man       426   19     420   all
## 20     state       393   20     371   all
## 21      used       390   21     383   all
## 22      crew       385   22     385   all
## 23       can       378   23     364   all
## 24     known       376   24     375   all
## 25     title       371   25     370   all
## 26      made       366   26     362   all
## 27      also       325   27     325   all
## 28  american       319   28     317   all
## 29      word       314   29     304   all
## 30     novel       306   30     304   all
## 31     wrote       303   31     295   all
## 32    french       297   32     294   all
## 33      term       293   33     292   all
## 34    became       287   34     283   all
## 35         3       279   35     268   all
## 36      last       278   36     274   all
## 37      king       276   37     271   all
## 38     years       275   38     270   all
## 39     world       275   38     273   all
## 40         1       270   40     253   all
## 41 president       265   41     253   all
## 42    played       256   42     248   all
## 43       may       256   42     253   all
## 44   capital       253   44     246   all
## 45     means       250   45     240   all
## 46    famous       248   46     248   all
## 47      said       245   47     243   all
## 48     whose       242   48     240   all
## 49       war       241   49     230   all
## 50       won       241   49     231   all
## 51      part       240   51     235   all
## 52       now       236   52     234   all
## 53     great       236   52     227   all
## 54      book       235   54     232   all
## 55      play       235   54     231   all
## 56    author       228   56     225   all
## 57      john       227   57     223   all
## 58     south       225   58     222   all
## 59    island       223   59     214   all
## 60      home       219   60     216   all
```

```
twentyFreqWordsQuestion1200 = textstat_frequency(questionCleaned1200, n=60)
twentyFreqWordsQuestion1200
```

```
##    feature frequency rank docfreq group
## 1      the     10158    1    6473   all
## 2        a      8029    2    4611   all
## 3     this      6968    3    6897   all
## 4       of      6567    4    4991   all
## 5       in      5677    5    4546   all
## 6       to      2830    6    2455   all
## 7      for      2099    7    1903   all
## 8       is      1868    8    1763   all
## 9      was      1491    9    1395   all
## 10    href      1377   10    1083   all
## 11      on      1375   11    1275   all
## 12    from      1260   12    1183   all
## 13  target      1177   13     904   all
## 14  _blank      1173   14     900   all
## 15    with       973   15     931   all
## 16      as       960   16     868   all
## 17     his       941   17     848   all
## 18      by       889   18     841   all
## 19    that       852   19     830   all
## 20      it       818   20     757   all
## 21      an       781   21     746   all
## 22      at       740   22     699   all
## 23   these       732   23     731   all
## 24     one       712   24     676   all
## 25      he       711   25     647   all
## 26     you       665   26     565   all
## 27    it's       635   27     610   all
## 28    clue       613   28     559   all
## 29    name       603   29     594   all
## 30      or       561   30     537   all
## 31    crew       504   31     503   all
## 32       i       492   32     370   all
## 33   first       486   33     474   all
## 34     are       451   34     426   all
## 35    here       429   35     423   all
## 36     its       420   36     403   all
## 37     who       395   37     389   all
## 38     and       369   38     338   all
## 39    when       366   39     358   all
## 40      be       361   40     350   all
## 41    like       351   41     335   all
## 42     has       333   42     328   all
## 43     her       330   43     293   all
## 44    city       328   44     307   all
## 45   about       327   45     318   all
## 46       2       323   46     311   all
## 47  called       304   47     303   all
## 48    type       302   48     300   all
## 49    seen       297   49     297   all
## 50     but       297   49     295   all
## 51   named       296   51     292   all
## 52     man       296   51     286   all
## 53     can       288   53     281   all
## 54    have       285   54     278   all
## 55     not       278   55     264   all
## 56    film       265   56     258   all
## 57     new       264   57     255   all
## 58 country       260   58     256   all
## 59   after       249   59     247   all
## 60     she       248   60     222   all
```

```
twentyFreqWordsQuestion1600 = textstat_frequency(questionCleaned1600, n=60)
twentyFreqWordsQuestion1600
```

```
##     feature frequency rank docfreq group
## 1      href      1077    1     859   all
## 2    target       904    2     706   all
## 3    _blank       902    3     704   all
## 4       one       615    4     590   all
## 5      name       588    5     578   all
## 6     first       466    6     458   all
## 7      clue       393    7     361   all
## 8      city       341    8     329   all
## 9      crew       321    9     319   all
## 10     like       300   10     291   all
## 11     type       297   11     294   all
## 12    named       294   12     292   all
## 13        2       291   13     278   all
## 14   called       287   14     280   all
## 15      man       268   15     260   all
## 16     seen       263   16     262   all
## 17      new       249   17     240   all
## 18     film       244   18     240   all
## 19     also       238   19     238   all
## 20      can       236   20     232   all
## 21    title       228   21     228   all
## 22     word       227   22     217   all
## 23     used       226   23     224   all
## 24    known       219   24     218   all
## 25  country       208   25     206   all
## 26      u.s       193   26     192   all
## 27     made       190   27     188   all
## 28    state       185   28     181   all
## 29    novel       174   29     173   all
## 30   played       168   30     162   all
## 31   french       164   31     163   all
## 32     term       163   32     163   all
## 33     part       160   33     157   all
## 34     king       159   34     151   all
## 35    wrote       158   35     156   all
## 36    years       155   36     154   all
## 37   became       150   37     148   all
## 38     said       150   37     147   all
## 39    means       149   39     147   all
## 40        3       148   40     146   all
## 41   island       147   41     136   all
## 42      war       140   42     127   all
## 43     play       138   43     136   all
## 44      now       134   44     133   all
## 45      won       129   45     127   all
## 46     last       127   46     126   all
## 47    world       127   46     125   all
## 48 american       127   46     127   all
## 49        1       127   46     120   all
## 50        s       126   50     122   all
## 51    greek       122   51     121   all
## 52    latin       122   51     122   all
## 53     john       121   53     118   all
## 54    movie       121   53     120   all
## 55      get       121   53     118   all
## 56     show       120   56     119   all
## 57  meaning       119   57     117   all
## 58     born       119   57     118   all
## 59     work       119   57     117   all
## 60    south       117   60     114   all
```

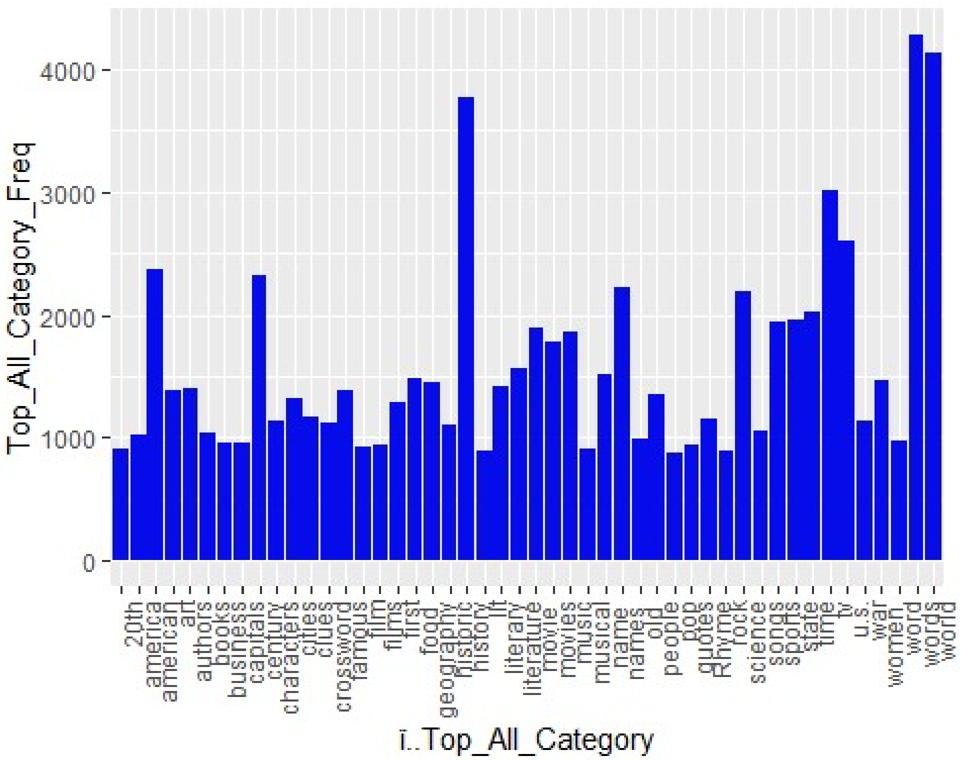
```
twentyFreqWordsQuestion2000 = textstat_frequency(questionCleaned2000, n=60)
twentyFreqWordsQuestion2000
```

```
##      feature frequency rank docfreq group
## 1       href      1593    1    1228   all
## 2     target      1375    2    1040   all
## 3     _blank      1371    3    1036   all
## 4       name       735    4     717   all
## 5       clue       649    5     586   all
## 6        one       613    6     588   all
## 7       crew       542    7     540   all
## 8      first       515    8     500   all
## 9       seen       376    9     376   all
## 10    called       361   10     356   all
## 11      like       326   11     313   all
## 12     named       315   12     311   all
## 13      type       301   13     294   all
## 14      city       299   14     289   all
## 15      film       276   15     271   all
## 16     title       275   16     273   all
## 17         2       268   17     252   all
## 18       new       268   17     260   all
## 19      also       268   17     268   all
## 20     known       267   20     265   all
## 21      used       261   21     253   all
## 22      word       255   22     245   all
## 23       man       252   23     244   all
## 24       can       230   24     226   all
## 25       u.s       221   25     217   all
## 26      made       221   25     218   all
## 27     state       204   27     189   all
## 28     wrote       204   27     201   all
## 29    french       201   29     199   all
## 30     novel       200   30     200   all
## 31   country       197   31     195   all
## 32     jimmy       181   32     181   all
## 33      last       177   33     174   all
## 34      term       168   34     166   all
## 35  american       166   35     164   all
## 36   reports       164   36     161   all
## 37      king       160   37     154   all
## 38    became       160   37     160   all
## 39       won       156   39     152   all
## 40      said       155   40     155   all
## 41       war       153   41     146   all
## 42    island       152   42     145   all
## 43   capital       152   42     146   all
## 44     years       150   44     149   all
## 45      part       147   45     142   all
## 46     latin       145   46     145   all
## 47     means       145   46     140   all
## 48      play       145   46     141   all
## 49     sarah       145   46     145   all
## 50         3       144   50     139   all
## 51     greek       142   51     140   all
## 52     world       141   52     137   all
## 53      work       140   53     140   all
## 54   british       140   53     139   all
## 55       get       138   55     134   all
## 56 president       138   55     133   all
## 57     great       136   57     131   all
## 58   century       135   58     131   all
## 59    author       133   59     132   all
## 60       may       132   60     132   all
```

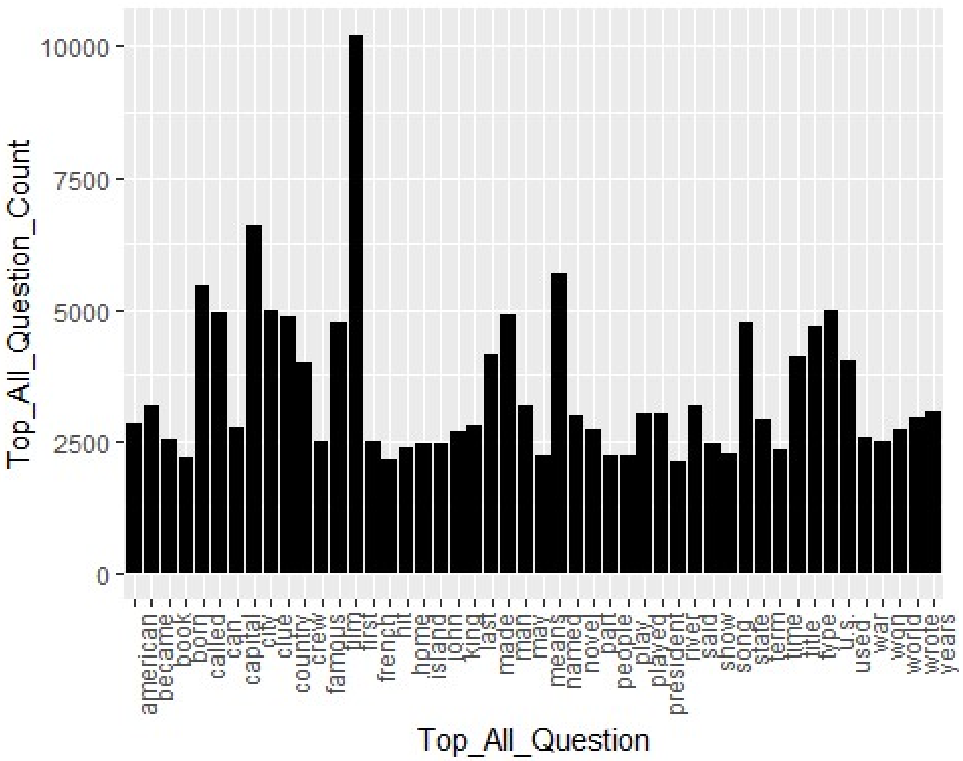
```
twentyFreqWordsQuestionNone = textstat_frequency(questionCleanedNone, n=60)
twentyFreqWordsQuestionNone
```

```
##      feature frequency rank docfreq group
## 1          2       360    1     344   all
## 2      first       351    2     338   all
## 3       name       311    3     295   all
## 4        one       308    4     285   all
## 5        u.s       228    5     226   all
## 6        man       207    6     200   all
## 7      named       169    7     164   all
## 8      state       155    8     141   all
## 9  president       153    9     139   all
## 10         1       145   10     134   all
## 11      last       137   11     136   all
## 12   country       132   12     123   all
## 13      city       131   13     125   all
## 14         3       124   14     120   all
## 15     years       119   15     114   all
## 16      said       117   16     117   all
## 17     title       112   17     111   all
## 18      film       111   18     109   all
## 19       new       104   19     101   all
## 20    called       101   20      99   all
## 21      word       100   21      95   all
## 22     wrote        96   22      96   all
## 23     novel        93   23      92   all
## 24    became        92   24      92   all
## 25     whose        92   24      91   all
## 26     world        87   26      85   all
## 27   century        86   27      85   all
## 28 character        83   28      82   all
## 29      made        82   29      81   all
## 30      book        76   30      74   all
## 31    famous        73   31      72   all
## 32      used        73   31      70   all
## 33     known        71   33      71   all
## 34      time        70   34      69   all
## 35      born        69   35      66   all
## 36         4        69   35      68   all
## 37      work        69   35      69   all
## 38  american        68   38      67   all
## 39    people        67   39      66   all
## 40     names        67   39      63   all
## 41      best        66   41      61   all
## 42       won        65   42      62   all
## 43       war        64   43      60   all
## 44      died        62   44      61   all
## 45       may        62   44      59   all
## 46    states        62   44      61   all
## 47       men        62   44      62   all
## 48      play        61   48      60   all
## 49     since        61   48      60   all
## 50   capital        61   48      56   all
## 51      year        61   48      57   all
## 52       now        60   52      60   all
## 53  national        58   53      57   all
## 54   largest        57   54      55   all
## 55      term        55   55      53   all
## 56   million        53   56      50   all
## 57      part        53   56      52   all
## 58   world's        52   58      52   all
## 59 countries        52   58      52   all
## 60    island        52   58      51   all
```

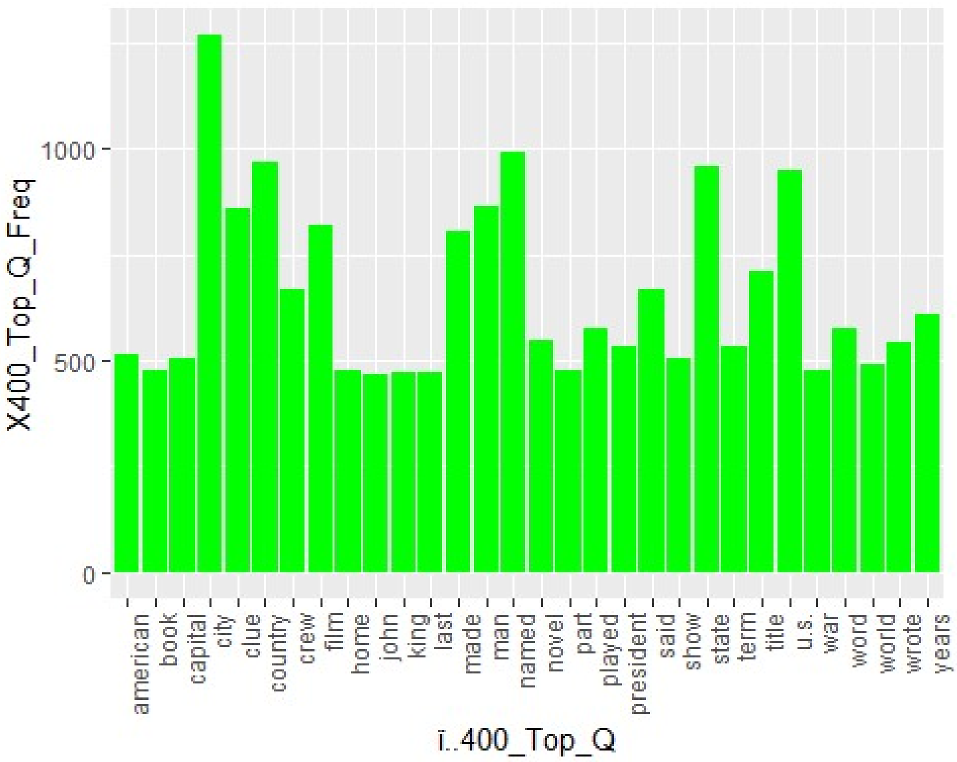
```
#import cleaned csv's
allTopWords = read.csv('All_Top_Words_Jeopardy.csv')
valueTopWords = read.csv("Value_Question_Top_Words_Jeopardy.csv")
roundQuestionTopWords = read.csv("Round_Question_Top_Words_Jeopardy.csv")
roundCategoryTopWords = read.csv("Round_Category_Top_Words_Jeopardy.csv")

library(ggplot2)
library(dplyr)

#bar graph of all category top words
bar1 =ggplot(allTopWords, aes(ï..Top_All_Category, Top_All_Category_Freq)) +
  geom_bar(stat="identity", fill="#060CE9") +
  theme(axis.text.x=element_text(angle = 90, hjust = 1.0))

#bar graph of all question top words
bar2 =ggplot(allTopWords, aes(Top_All_Question, Top_All_Question_Count)) +
  geom_bar(stat="identity", fill="black") +
  theme(axis.text.x=element_text(angle = 90, hjust = 1.0))

bar1
```


Top_All_Category_Freq
0
1000
2000
3000
4000
20th
america
american
art
authors
books
business
capitals
century
characters
cities
clues
crossword
famous
film
films
first
food
geography
historic
history
lit
literary
literature
movie
movies
music
musical
name
names
old
people
pop
quotes
Rhyme
rock
science
songs
sports
state
time
tv
u.s.
war
women
word
words
world
ï..Top_All_Category

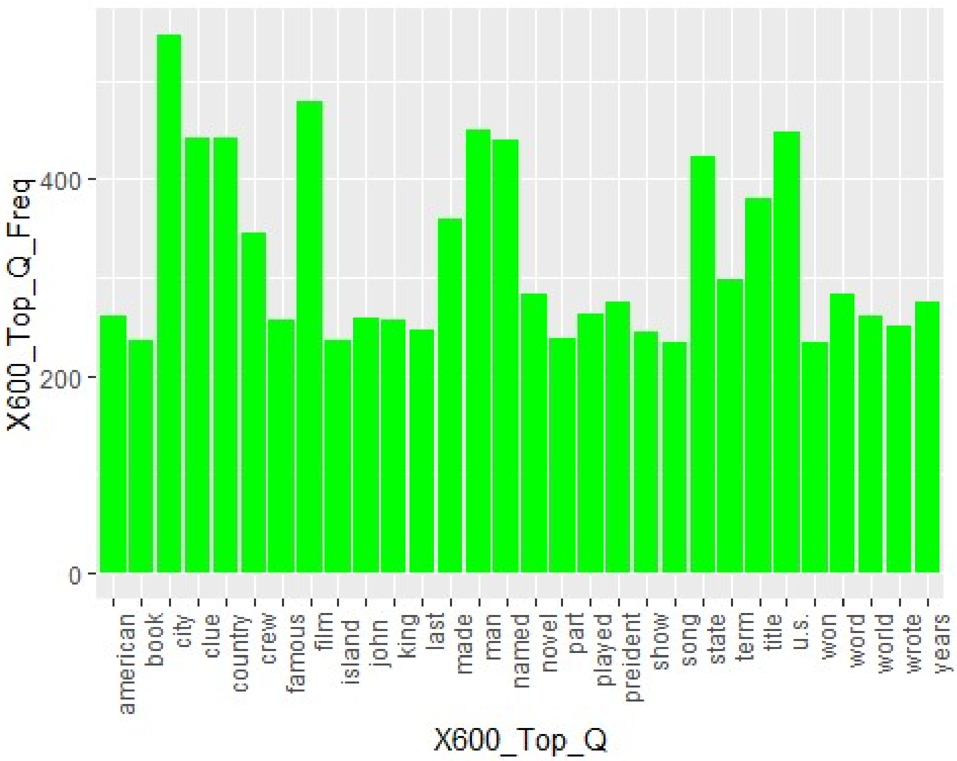
```
bar2
```


Top_All_Question_Count
0
2500
5000
7500
10000
american
became
book
born
called
can
capital
city
clue
country
crew
famous
film
first
french
hit
home
island
john
king
last
made
man
may
means
named
novel
part
people
play
played
president
river
said
show
song
state
term
time
title
type
u.s.
used
war
won
world
wrote
years
Top_All_Question

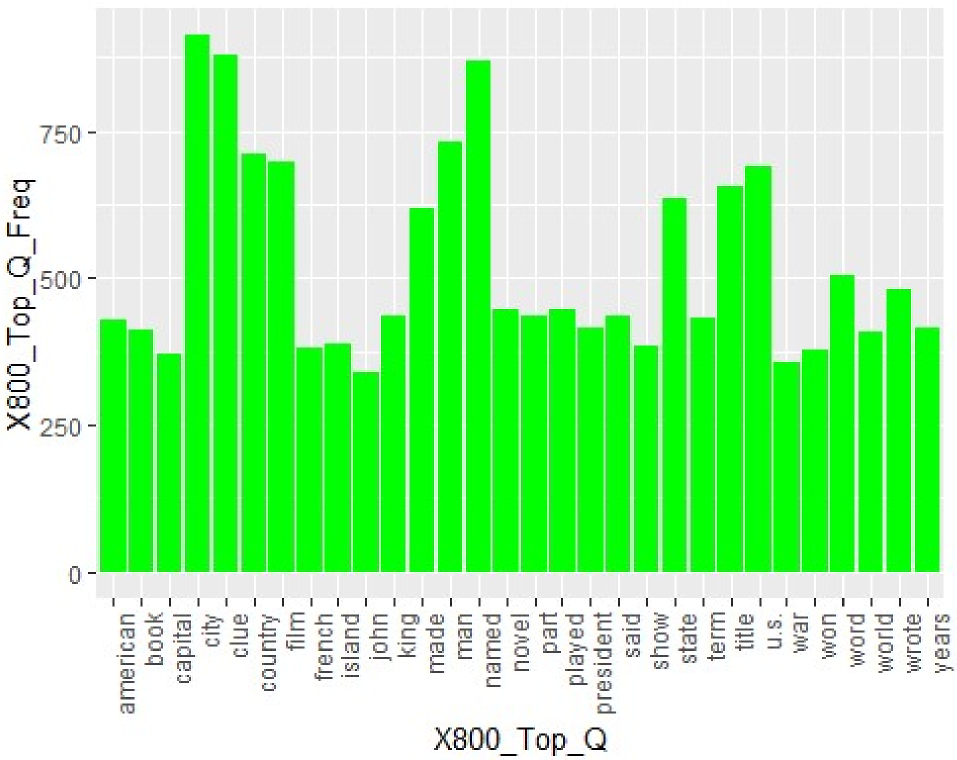
```r
library(ggplot2)
library(dplyr)

#bar graph of all value 400 Question top words
bar3 =ggplot(valueTopWords, aes(ï..400_Top_Q, X400_Top_Q_Freq)) +
  geom_bar(stat="identity", fill="green") +
  theme(axis.text.x=element_text(angle = 90, hjust = 1.0))

#bar graph of all value 600 Question top words
bar4 =ggplot(valueTopWords, aes(X600_Top_Q, X600_Top_Q_Freq)) +
  geom_bar(stat="identity", fill="green") +
  theme(axis.text.x=element_text(angle = 90, hjust = 1.0))

#bar graph of all value 800 Question top words
bar5 =ggplot(valueTopWords, aes(X800_Top_Q, X800_Top_Q_Freq)) +
  geom_bar(stat="identity", fill="green") +
  theme(axis.text.x=element_text(angle = 90, hjust = 1.0))

#bar graph of all value 1000 Question top words
bar6 =ggplot(valueTopWords, aes(X1000_Top_Q, X1000_Top_Q_Freq)) +
  geom_bar(stat="identity", fill="green") +
  theme(axis.text.x=element_text(angle = 90, hjust = 1.0))

#bar graph of all value 1200 Question top words
bar7 =ggplot(valueTopWords, aes(X1200_Top_Q, X1200_Top_Q_Freq)) +
  geom_bar(stat="identity", fill="green") +
  theme(axis.text.x=element_text(angle = 90, hjust = 1.0))

#bar graph of all value 1600 Question top words
bar8 =ggplot(valueTopWords, aes(X1600_Top_Q, X1600_Top_Q_Freq)) +
  geom_bar(stat="identity", fill="green") +
  theme(axis.text.x=element_text(angle = 90, hjust = 1.0))

#bar graph of all value 2000 Question top words
bar9 =ggplot(valueTopWords, aes(X2000_Top_Q, X2000_Top_Q_Freq)) +
  geom_bar(stat="identity", fill="green") +
  theme(axis.text.x=element_text(angle = 90, hjust = 1.0))

#bar graph of all value Final Jeopardy (None) Question top words
bar10 =ggplot(valueTopWords, aes(None_Top_Q, None_Top_Q_Freq)) +
  geom_bar(stat="identity", fill="green") +
  theme(axis.text.x=element_text(angle = 90, hjust = 1.0))

bar3
```


X400_Top_Q_Freq
0
500
1000
american
book
capital
city
clue
country
crew
film
home
john
king
last
made
man
named
novel
part
played
president
said
show
state
term
title
u.s.
war
word
world
wrote
years
ï..400_Top_Q

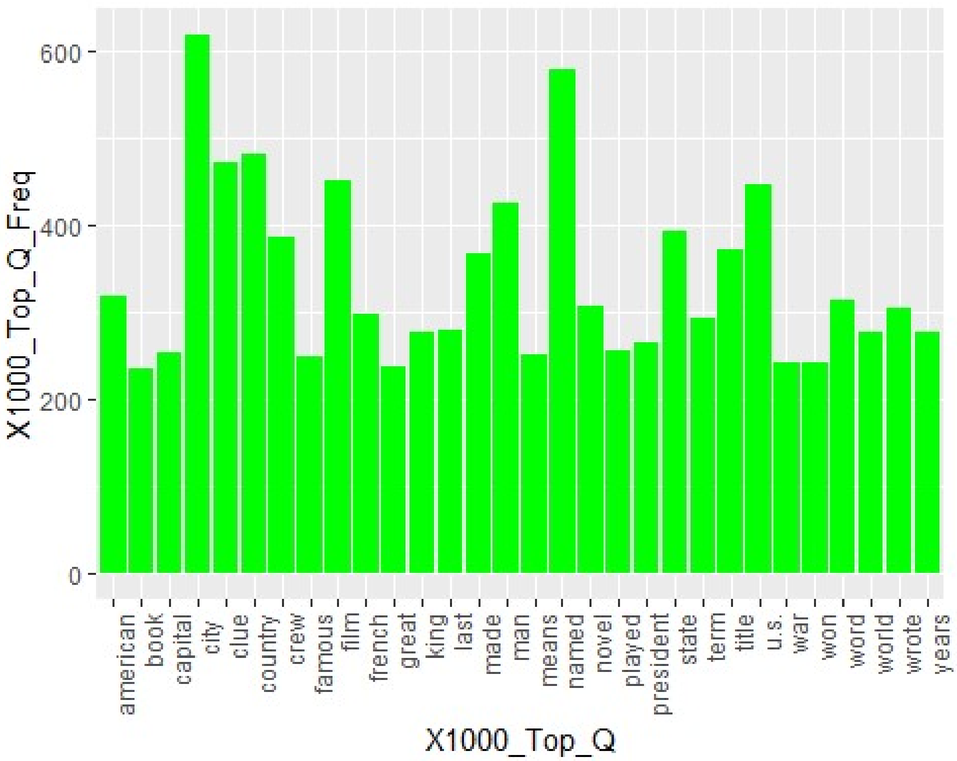
```
bar4
```


X600_Top_Q_Freq
0
200
400
american
book
city
clue
country
crew
famous
film
island
john
king
last
made
man
named
novel
part
played
preident
show
song
state
term
title
u.s.
won
word
world
wrote
years
X600_Top_Q

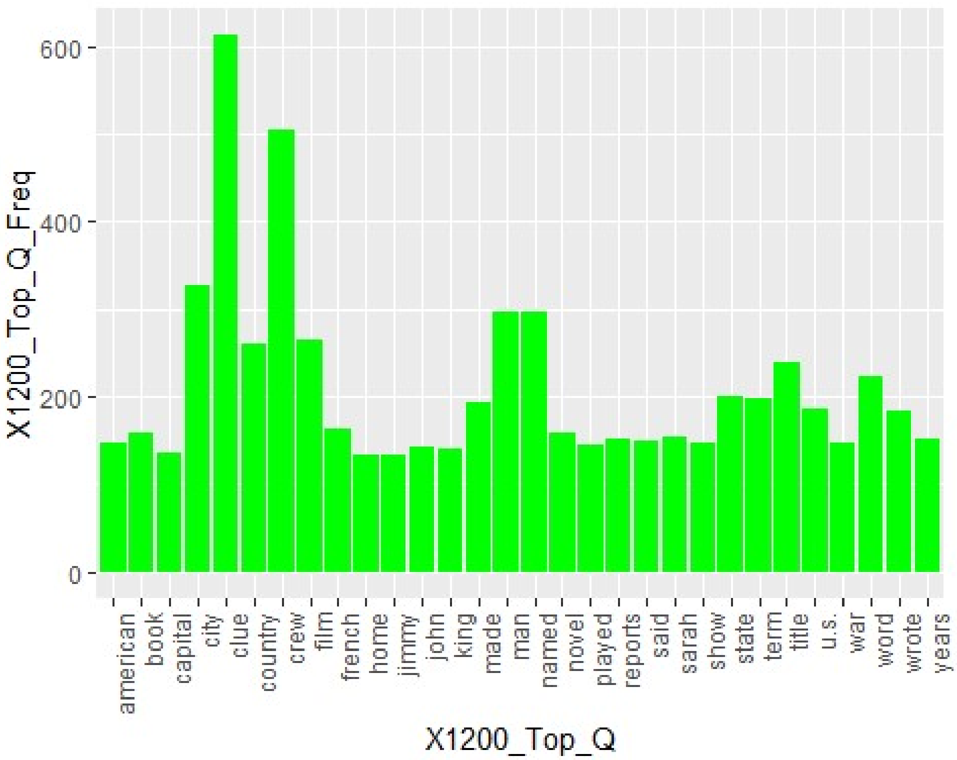
```
bar5
```


X800_Top_Q_Freq
0
250
500
750
american
book
capital
city
clue
country
film
french
island
john
king
made
man
named
novel
part
played
president
said
show
state
term
title
u.s.
war
won
word
world
wrote
years
X800_Top_Q

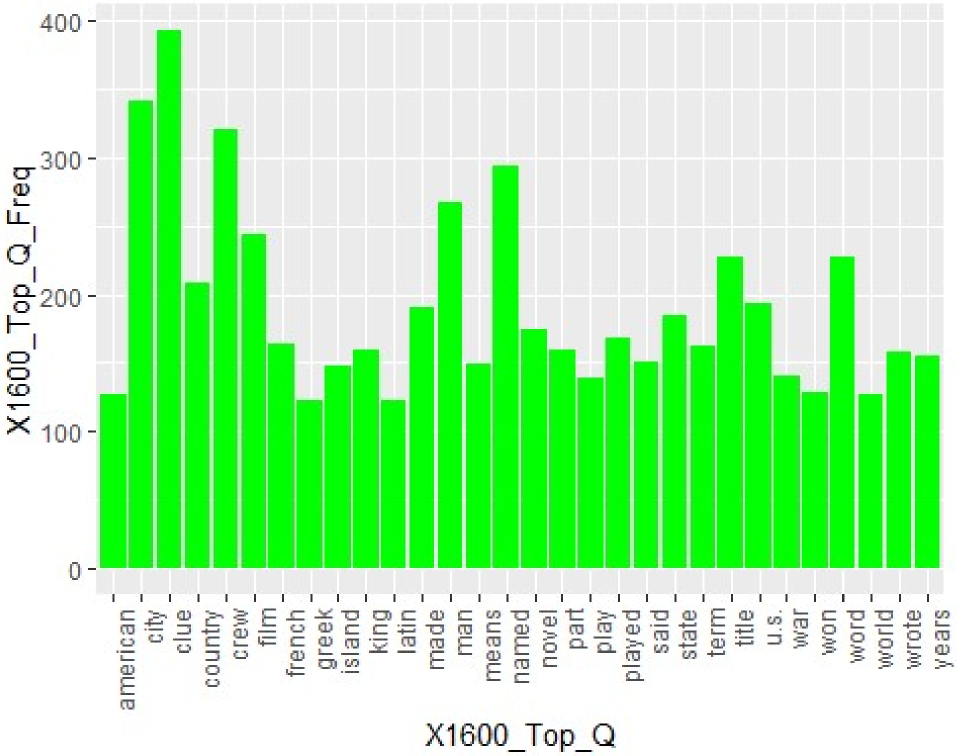
```
bar6
```


X1000_Top_Q_Freq
0
200
400
600
american
book
capital
city
clue
country
crew
famous
film
french
great
king
last
made
man
means
named
novel
played
president
state
term
title
u.s.
war
won
word
world
wrote
years
X1000_Top_Q

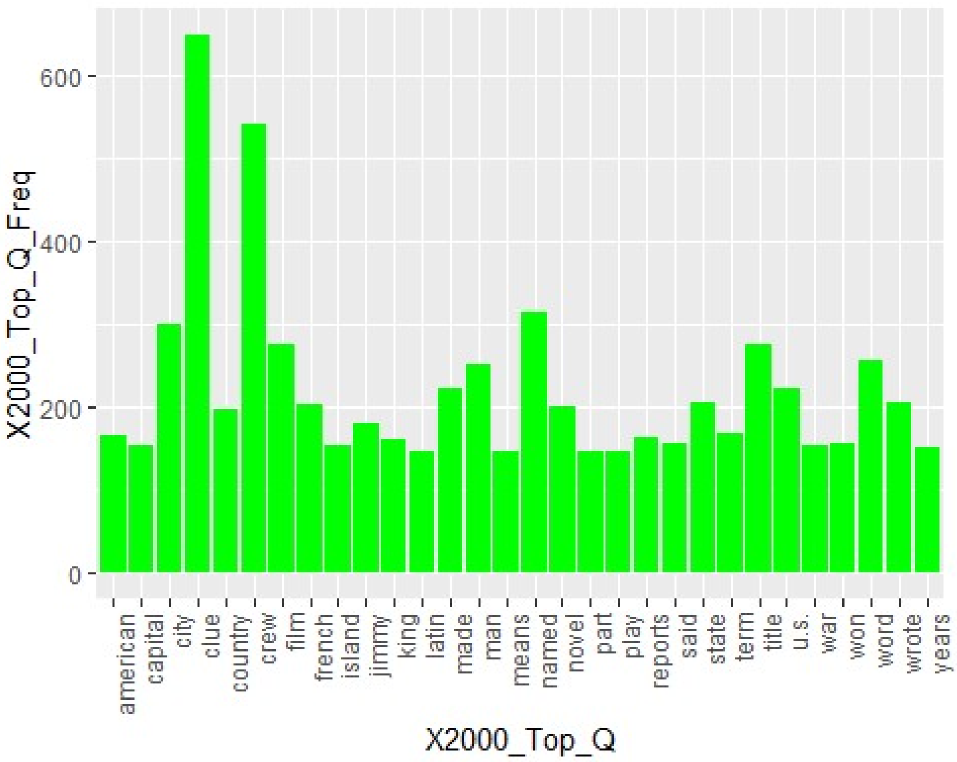
```
bar7
```


X1200_Top_Q_Freq
600
400
200
0
american
book
capital
city
clue
country
crew
film
french
home
jimmy
john
king
made
man
named
novel
played
reports
said
sarah
show
state
term
title
u.s.
war
word
wrote
years
X1200_Top_Q

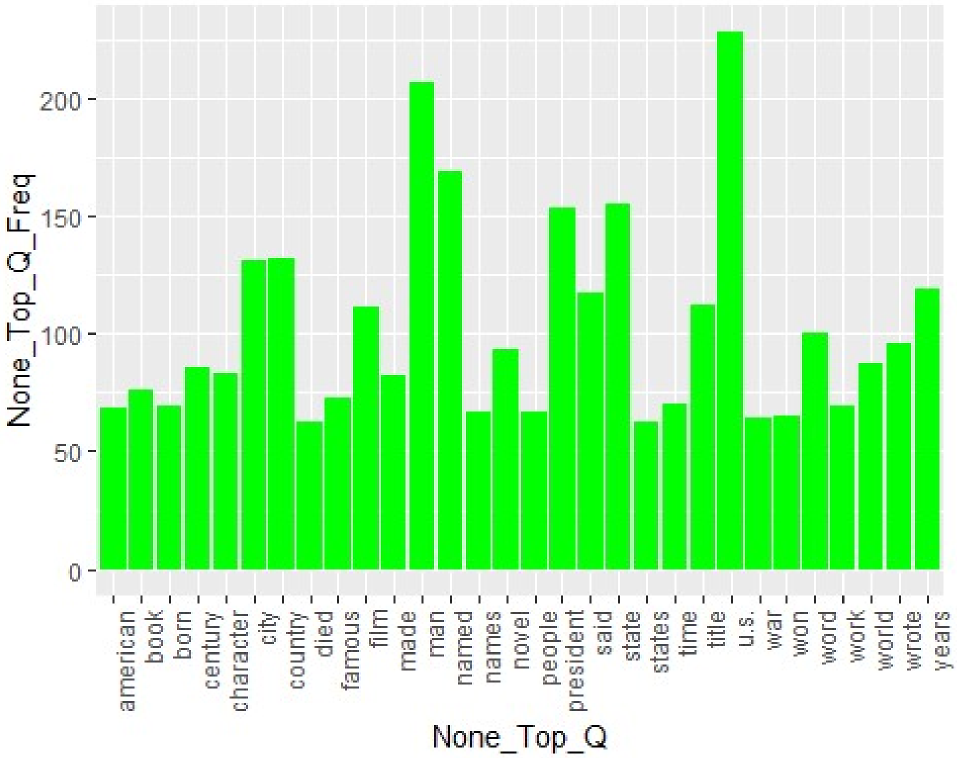
```
bar8
```


X1600_Top_Q_Freq
400
300
200
100
0
american
city
clue
country
crew
film
french
greek
island
king
latin
made
man
means
named
novel
part
play
played
said
state
term
title
u.s.
war
won
word
world
wrote
years
X1600_Top_Q

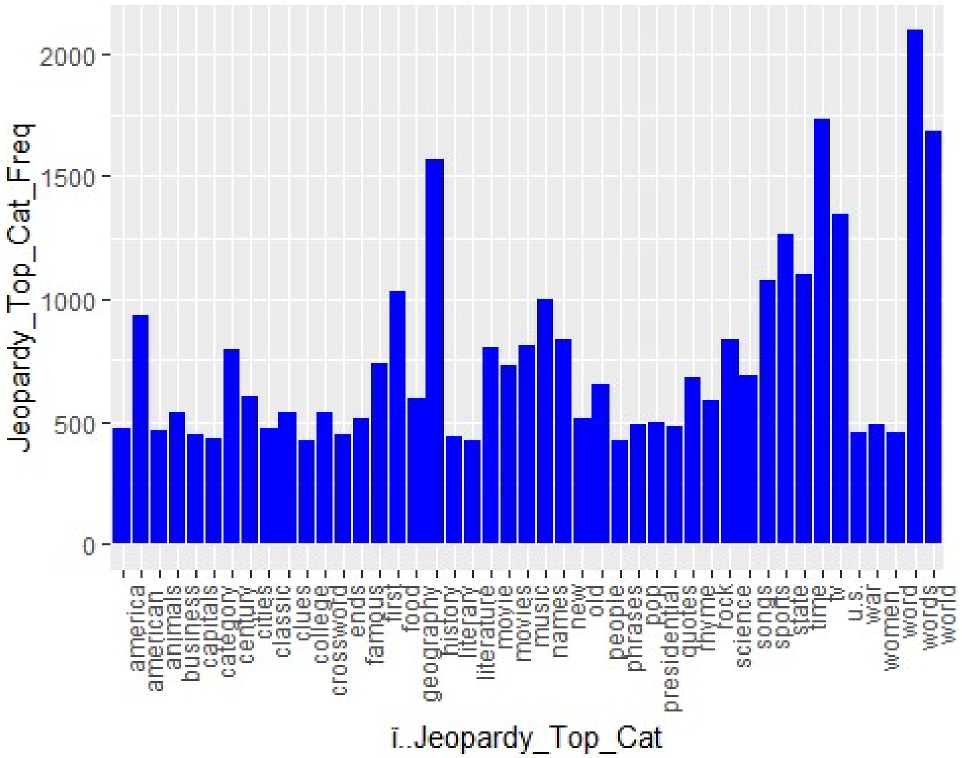
```
bar9
```


X2000_Top_Q_Freq
600
400
200
0
american
capital
city
clue
country
crew
film
french
island
jimmy
king
latin
made
man
means
named
novel
part
play
reports
said
state
term
title
u.s.
war
won
word
wrote
years
X2000_Top_Q

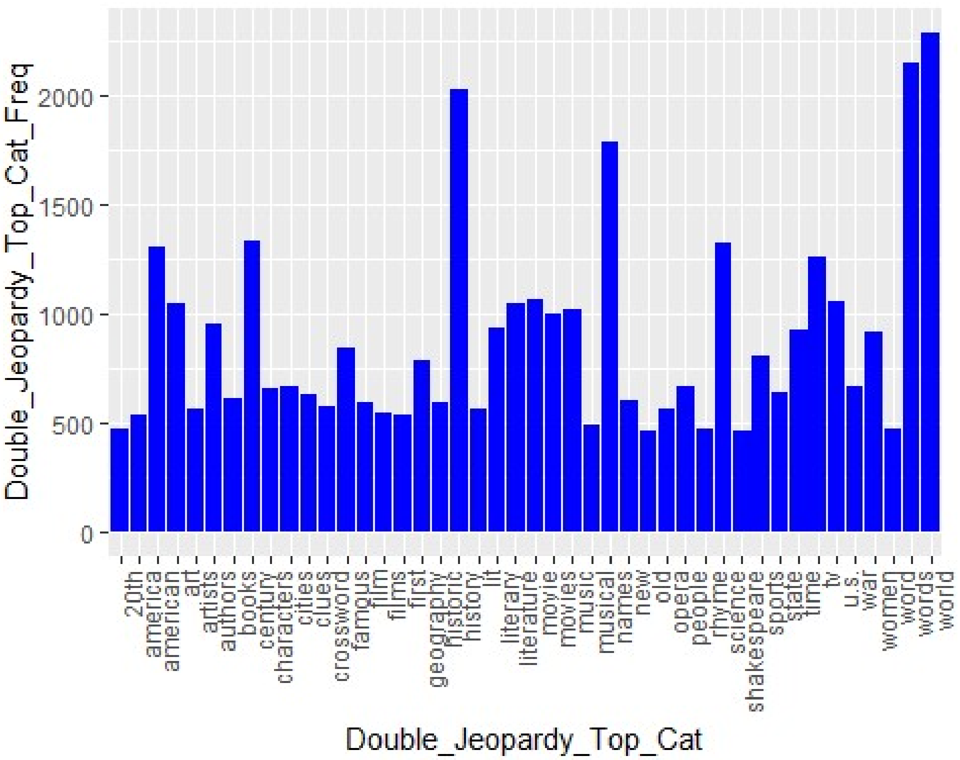
```
bar10
```


None_Top_Q_Freq
200
150
100
50
0
american
book
born
century
character
city
country
died
famous
film
made
man
named
names
novel
people
president
said
state
states
time
title
u.s.
war
won
word
work
world
wrote
years
None_Top_Q

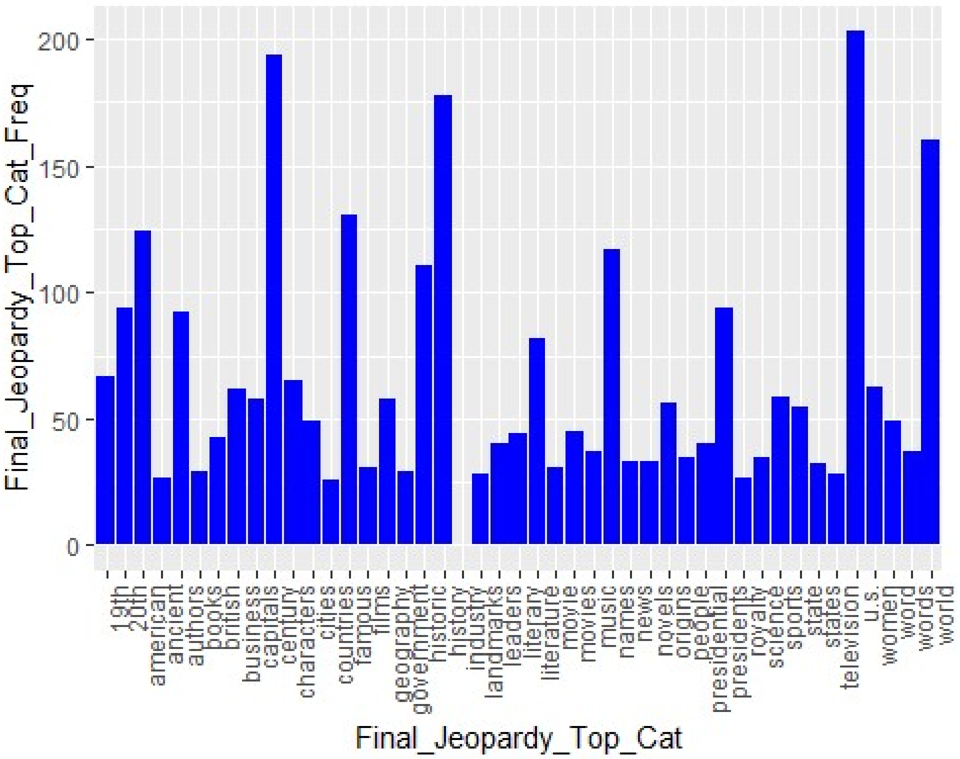
```
#bar graph of all round top category words (Jeopardy)
bar11 =ggplot(roundCategoryTopWords, aes(ï..Jeopardy_Top_Cat,
Jeopardy_Top_Cat_Freq)) +
  geom_bar(stat="identity", fill="blue") +
  theme(axis.text.x=element_text(angle = 90, hjust = 1.0))

#bar graph of all round top category words (Double Jeopardy)
bar12 =ggplot(roundCategoryTopWords, aes(Double_Jeopardy_Top_Cat,
Double_Jeopardy_Top_Cat_Freq)) +
  geom_bar(stat="identity", fill="blue") +
  theme(axis.text.x=element_text(angle = 90, hjust = 1.0))

#bar graph of all round top category words (Final Jeopardy)
bar13 =ggplot(roundCategoryTopWords, aes(Final_Jeopardy_Top_Cat,
Final_Jeopardy_Top_Cat_Freq)) +
  geom_bar(stat="identity", fill="blue") +
  theme(axis.text.x=element_text(angle = 90, hjust = 1.0))

bar11
```



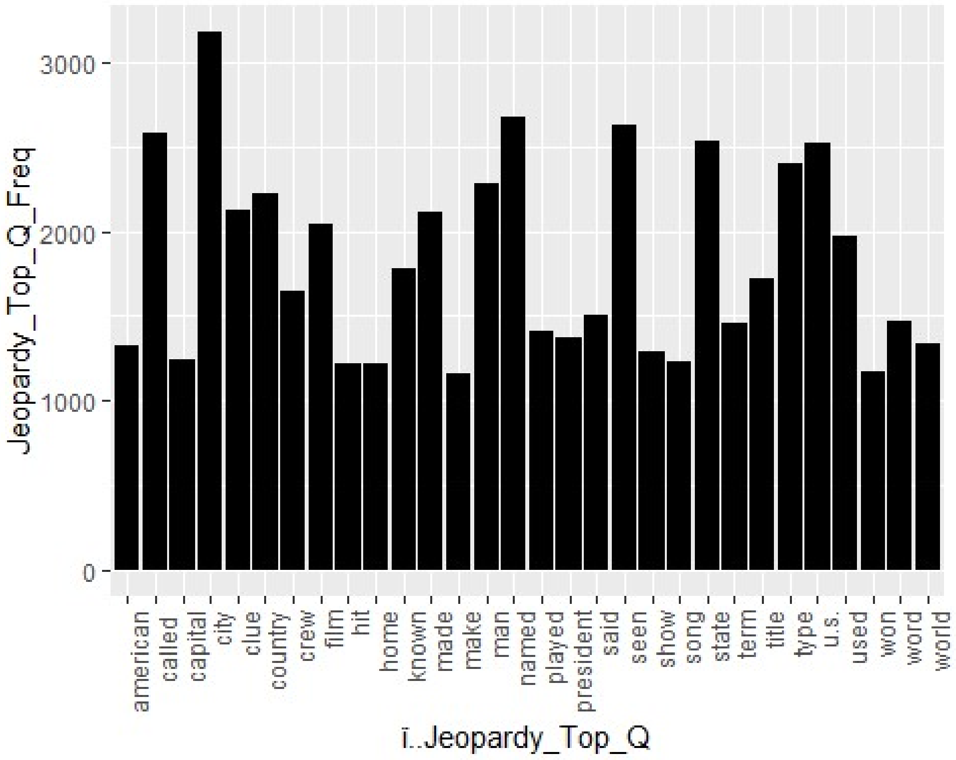
```
bar12
```



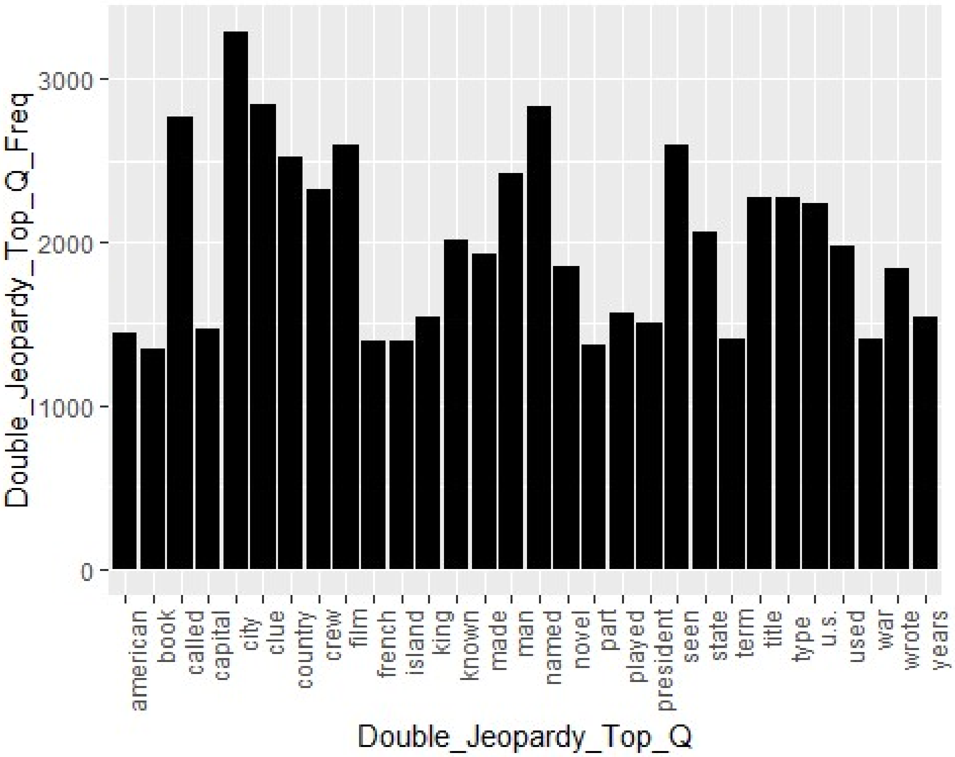
```
bar13

## Warning: Removed 1 rows containing missing values (position_stack).
```



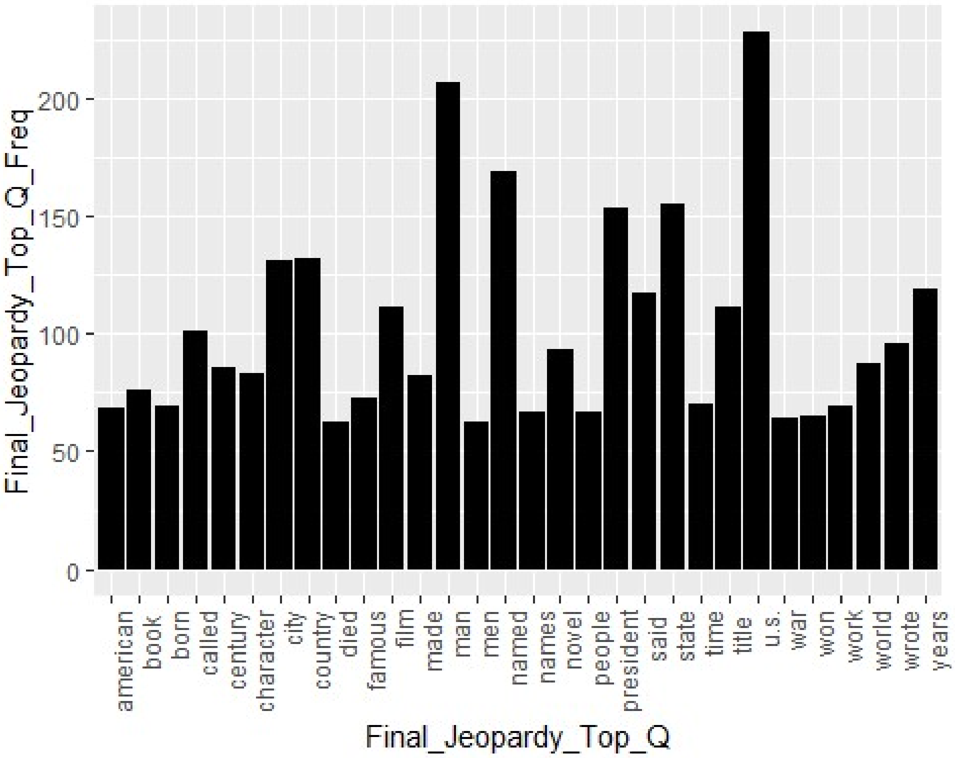
```
#bar graph of all round top question words (Jeopardy)
bar14 =ggplot(roundQuestionTopWords, aes(ï..Jeopardy_Top_Q,
Jeopardy_Top_Q_Freq)) +
  geom_bar(stat="identity", fill="black") +
  theme(axis.text.x=element_text(angle = 90, hjust = 1.0))

#bar graph of all round top question words (Double Jeopardy)
bar15 =ggplot(roundQuestionTopWords, aes(Double_Jeopardy_Top_Q,
Double_Jeopardy_Top_Q_Freq)) +
  geom_bar(stat="identity", fill="black") +
  theme(axis.text.x=element_text(angle = 90, hjust = 1.0))

#bar graph of all round top question words (Final Jeopardy)
bar16 =ggplot(roundQuestionTopWords, aes(Final_Jeopardy_Top_Q,
Final_Jeopardy_Top_Q_Freq)) +
  geom_bar(stat="identity", fill="black") +
  theme(axis.text.x=element_text(angle = 90, hjust = 1.0))

bar14
```



```
bar15
```


Double_Jeopardy_Top_Q_Freq
0
1000
2000
3000
american
book
called
capital
city
clue
country
crew
film
french
island
king
known
made
man
named
novel
part
played
president
seen
state
term
title
type
u.s.
used
war
wrote
years
Double_Jeopardy_Top_Q

```
bar16
```


Final_Jeopardy_Top_Q_Freq
0
50
100
150
200
american
book
born
called
century
character
city
country
died
famous
film
made
man
men
named
names
novel
people
president
said
state
time
title
u.s.
war
won
work
world
wrote
years
Final_Jeopardy_Top_Q

```
#combining word columns from cleaned dataframes
  allTopWordsList = c(allTopWords$ï..Top_All_Category)
  roundCategoryTopWordsList = c(roundCategoryTopWords$ï..Jeopardy_Top_Cat)
  roundDJCategoryTopWordsList =
c(roundCategoryTopWords$Double_Jeopardy_Top_Cat)
  roundFJCategoryTopWordsList =
c(roundCategoryTopWords$Final_Jeopardy_Top_Cat)

  everythingList = c(allTopWordsList, roundCategoryTopWordsList,
roundDJCategoryTopWordsList, roundFJCategoryTopWordsList)
  allCatDf = data.frame(words = everythingList)
  write.csv(allCatDf, "test.csv")
```