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| DS 3001  Homework 4 | Carlos Barcelos  April 22, 2018 |

# Task 1

When running this code, many one letter words came up as palindromes. In descending order of frequency those palindromes (including single letters but not including numbers/special characters) are:

|  |  |
| --- | --- |
| Word | Frequency |
| “a” | 10,408 |
| “I” | 3,208 |
| … | … |
| “did” | 1414 |
| “eye” | 35 |

However, practically it does not make sense to consider single letters as words. Therefore, **“did” was the multi-letter palindrome that occurred most often.**

# Task 2

1. According to the data, the voting information is as follows:

|  |  |
| --- | --- |
| PartyID | Votes |
| 1 | 9,408 |
| 2 | 10,112 |
| 3 | **12,071** |

According to the voter data **party 3 won the election** by receiving the most number of votes.

1. By performing mapreduce on the string “countryID partyID” I was able to find how many votes a particular country submitted for a particular party. Then in excel, I was able to perform a conditional sum which found the total number of votes submitted by a country based on their party voting data. Then, with the votes per country per party data and total votes per country data I was able to calculate which country voted in the most monolithic manner. Below is a snapshot of the spreadsheet used to discover this information:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| countryID | partyID | vote | total\_votes | percent\_votes |
| 277 | 3 | 32 | 62 | 51.61% |
| 283 | 2 | 39 | 80 | 48.75% |
| 158 | 2 | 37 | 77 | 48.05% |
| 333 | 2 | 45 | 95 | 47.37% |
| 388 | 3 | 35 | 74 | 47.30% |

According to the data, **country 277 voted in the most monolithic manner** with 51.62% of the country voting for party 3.