**Assignment 2 Sheet**

**[include this sheet in your submission package]**

Name: \_\_\_\_\_\_\_\_

**Due 11:59 PM 10/19 (Wed.) - start working on it now!**

**Important points**

* This is an independent assignment. But you can work in groups to troubleshoot;
* The deadline can be extended. But you must contact me in advance to request an extension. The deadline will NOT be extended unless you show progress in completing the assignment.
* All codes you need to complete this assignment can be found in tutorials and practice scripts.

**How and what to submit**

Submission through Moodle. Your submission package should include your R script and this assignment sheet.

**Task 1: Collect timeline tweets from a Twitter account (set n = 1000. It's okay if the final data frame contains fewer than 1,000 tweets).**

Enter the Twitter account used in your collection: CEO of Tesla Motors, Elon Musk @elonmusk

**Task 2: Use practice scripts to create a ggplot2 plot showing the average daily retweet count for the Twitter account. Change figure title to “Daily retweet count by @screenname” (replace @screenname with the Twitter screen names you choose to collect data from). Copy and Paste the plot below. 👇**

**Chart, histogram

Description automatically generated**

**Task 3: Apply the NRC sentiment dictionary to the tweets and calculate POSITIVE and Negative sentiment scores for each tweet. Create a highcharter plot showing POSITIVE and Negative scores over time. Screen capture the highcharter and paste the screen capture below.**

Chart, histogram

Description automatically generated

**Task 4: Sort tweets by POSITIVE and Negative scores, respectively. In the space below, copy and paste the top five most positive and most negative tweets. In addition, explain briefly why these tweets are rated the most positive and negative, respectively. Also, explain if you think the top sentiment scores reflect the true sentiments expressed in the tweets.**

|  |  |  |
| --- | --- | --- |
| **full\_text** | **variable** | **value** |
| **@SawyerMerritt Also, Starlink is still losing money! It is insanely difficult for a LEO communications constellation to avoid bankruptcy – that was the fate of every company that tried this before. When asked what the goal of Starlink was at a space conference, I said “not go bankrupt”.** | **negative** | **5** |
| **@heydave7 @WSJ As a “public person”, standard to win a defamation lawsuit against a news org is almost impossible. They could say I’m Satan and the “source” is their psychic! Nicole is not a public person, so could win. I hope she sues them. @michaelsiconolf has done so many fake hit pieces.** | **negative** | **5** |
| **@Brian\_J\_Berger That dude is not just a “condition of anonymity” spineless coward, he’s also an ignorant fool. Starlink was directly requested by the Ukraine government, as it was the only thing that worked.** | **negative** | **4** |
| **@ChristopherJM @FT @MehulAtLarge @felschwartz Bad reporting by FT. This article falsely claims that Starlink terminals &amp; service were paid for, when only a small percentage have been. This operation has cost SpaceX $80M &amp; will exceed $100M by end of year. As for what’s happening on the battlefield, that’s classified.** | **negative** | **4** |
| **@DavidSacks SpaceX’s out of pocket cost to enable &amp; support Starlink in Ukraine is ~$80M so far. Our support for Russia is $0. Obviously, we are pro Ukraine. Trying to retake Crimea will cause massive death, probably fail &amp; risk nuclear war. This would be terrible for Ukraine &amp; Earth.** | **negative** | **4** |
| **@CSI\_Starbase Agreed, we recently made this change &amp; many others. An intense effort is underway to achieve robust engine containment in case of RUD to protect booster, other engines &amp; launch ring.** | **positive** | **7** |
| **@rschmied @spideycyp\_155 @SawyerMerritt @SpaceX Big difference between peace comms vs warfront comms. Starlink is only comms system still working at warfront – others all dead. Russia is actively trying to kill Starlink. To safeguard, SpaceX has diverted massive resources towards defense. Even so, Starlink may still die.** | **positive** | **5** |
| **@spideycyp\_155 @SawyerMerritt @SpaceX In addition to terminals, we have to create, launch, maintain &amp; replenish satellites &amp; ground stations &amp; pay telcos for access to Internet via gateways. We’ve also had to defend against cyberattacks &amp; jamming, which are getting harder. Burn is approaching ~$20M/month.** | **positive** | **5** |
| **@enn\_nafnlaus @treygahigh @TaraBull808 @theliamnissan @RBReich Although his methods of instruction very strongly favored stick over carrot, I did learn a tremendous amount of engineering from him &amp; appreciation of art (he is an extremely talented artist)** | **positive** | **5** |
| **@WholeMarsBlog The primary solution to a sustainable energy future is solar/wind with batteries for when sun doesn’t shine or wind doesn’t blow, interconnected with conventional high voltage lines. No unknown technology is needed! Hydro+geothermal+fission will also be non-trivial contributors.** | **positive** | **5** |

**Most of Elon Musk’s top positive and negative comments are related to his companies’ support of Ukraine. The negative tweets are in response to opposers of his actions in Ukraine; the positive tweets, besides defending his companies’ actions in Ukraine, are dedicated to recognizing other people’s contributions and posing a positive outcome for the future of energy. I do not necessarily agree with the algorithm’s classification, especially with some of the most “positive” tweets; however, the negative comments do seem more reasonable as Elon uses “stronger” words such as “defamation”, “spineless coward”, and “falsely claims”.**