

HW1- Part I - Dataset creation:

(100 points + 40 bonus points)

Due Sunday April 23, 11:59 pm PST

In this class, we will collaboratively create a dataset that will be used for text classification (emotion detection and sentiment analysis) as well as text generation in the later parts of the big assignments/projects.

NRC Emotion Lexicon (outlined in the colab notebook):

https://colab.research.google.com/drive/1uuQ5nvel5SpD-9-t1PiOUTpDYXJ0Btl_?usp=sharing

You will be asked to identify emotion lexicon words and compose sentences that effectively convey the intended emotions.

Once you choose a lexicon word, it is acceptable to modify it to the correct tense or format to fit within the sentence. For example, if the lexicon word is "excite," you can modify it to "excited" or "exciting" as needed in your sentence.

Please note that the marks are awarded based on the quality of the sentences you compose. Here are some criteria to consider when creating your sentences:

1. Clarity: clear and easy to understand, with no ambiguity or confusion
2. Grammar and syntax: proper grammar and syntax
3. Vocabulary: appropriate emotion words from the lexicon and any necessary modifiers
4. Creativity: Craft sentences that are engaging and unique, showcasing your ability to express emotions in different contexts or scenarios.
5. Emotion portrayal: The sentences should effectively convey the intended emotions, whether they are single emotions or combinations of emotions.

1. **(10 points) Sadness:** Write a sentence that expresses the feeling of sadness. Use at least one of the emotion words listed under the sadness category in the lexicon.
 - (3 points) Emotion words from lexicon: **abuse, accident, agony,**
 - (7 points) Sentence(s): **“After the car **accident**, he experienced both physical **agony** from his injuries and emotional **abuse** from the blame and accusations.”**
2. **(10 points) Joy:** Create a sentence that conveys the emotion of joy. Include at least one of the emotion words listed under the joy category in the lexicon.
 - (3 points) Emotion words from lexicon: **amour, amusing, award,**
 - (7 points) Sentence(s): **“Her **amusing** and witty acceptance speech for the **award** melted everyone's hearts as she expressed her deep **amour** for the art of storytelling.”**
3. **(10 points) Fear:** Write a sentence that expresses the feeling of fear. Use at least one of the emotion words listed under the fear category in the lexicon.
 - (3 points) Emotion words from lexicon: **abandonment, abyss, assault,**
 - (7 points) Sentence(s): **“The victim felt a sense of **abandonment** as they stood at the edge of the **abyss**, contemplating the emotional **assault** they had experienced.”**
4. **(10 points) Anger:** Create a sentence that conveys the emotion of anger. Include at least one of the emotion words listed under the anger category in the lexicon.
 - (3 points) Emotion words from lexicon: **aggressive, anxiety, bark,**
 - (7 points) Sentence(s): **“The **aggressive** dog's incessant **bark** filled the neighborhood with **anxiety**.”**
5. **(10 points) Surprise:** Write a sentence that expresses the feeling of surprise. Use at least one of the emotion words listed under the surprise category in the lexicon.
 - (3 points) Emotion words from lexicon: **frontal, beautified, sane,**

- (7 points) Sentence(s): “The **frontal** view of the newly **beautified** building was a sight to behold, and it gave me a sense of calm that helped me feel more **sane**.”
6. **(10 points) Disgust:** Create a sentence that conveys the emotion of disgust. Include at least one of the emotion words listed under the disgust category in the lexicon.
- (3 points) Emotion words from lexicon: **accusation, rifles, mislead,**
 - (7 points) Sentence(s): “The **accusation** of using **rifles** to **mislead** the enemy was vigorously denied by the military spokesperson.”
7. **(20 points) Combined Emotions 1 (Sadness + Joy):** Write a sentence that captures a mix of sadness and joy. Use at least one emotion word from each category (sadness and joy) in the lexicon.
- (6 points) Emotion words from lexicon:
`emolex_words[(emolex_words.sadness == 1) & (emolex_words.joy == 1)].word.head(10)`
art, endless, heartfelt
 - (14 points) Sentence(s): “After days of creating and pouring her **heartfelt** emotions into her **art**, she found herself lost in an **endless** sea of creativity.”
8. **(20 points) Combined Emotions 2 (Fear + Anger):** Create a sentence that conveys both fear and anger. Include at least one emotion word from each category (fear and anger) in the lexicon.
- (6 points) Emotion words from lexicon: `emolex_words[(emolex_words.fear == 1) & (emolex_words.anger == 1)].word.head(10)`
witchcraft, wrath, yelp
 - (14 points) Sentence(s): “In the midst of the **witchcraft** trial, the accused let out a **yelp** of **wrath** as they proclaimed their innocence.”

Bonus: (40 points)

9. **(20 points)** Combined Emotions 3 (Surprise + Disgust): Write a sentence that expresses a mix of surprise and disgust. Use at least one emotion word from each category (surprise and disgust) in the lexicon.

- (6 points) Emotion words from lexicon:

```
emolex_words[(emolex_words.surprise == 1) &  
(emolex_words.disgust == 1)].word.tail(10)
```

treat, weight, winning

- (14 points) Sentence(s): “**After losing weight, she rewarded herself with a delicious treat, celebrating her winning achievement.**”

10. **(20 points)** Combined Emotions 4 (Sadness + Joy + Fear): Create a sentence that captures a mix of sadness, joy, and fear. Include at least one emotion word from each category (sadness, joy, and fear) in the lexicon.

- (6 points) Emotion words from lexicon:

```
emolex_words[(emolex_words.sadness == 1) & (emolex_words.joy  
== 1) & (emolex_words.fear == 1)].word.head(10)
```

destination, feeling, romance

- (14 points) Sentence(s): “**The couple traveled to a dreamy destination, captivated by the feeling of romance in the air.**”