```
import numpy as np
import pandas as pd
import re
import nltk
import spacy
import string
pd.options.mode.chained_assignme

full_df = pd.read_csv("/content/
df = full_df[["text"]]
df["text"] = df["text"].astype(s
full_df.head()
```

<del>}</del>	tweet_id	author_id			
0	119237	105834			
1	119238	ChaseSupport			
2	119239	105835			
3	119240	VirginTrains			
4	119241	105836			



#### **Lower Casing**

df["text\_lower"] = df["text"].:
df.head()

LookupError NameError error X



You

Please explain the error:

```
error: nothing to repeat at position 1
```



Gemini

# Hypothesis

The error "nothing to repeat at position 1" usually arises in regular expressions when a quantifier (+, \*, ?, etc.) is used without a preceding character or group to quantify.

Looking at the code and the error message, the issue seems to be with the emot variable in the for loop. Some of these emojis might be special characters or have special meanings in regex, and when they are directly inserted into the regex pattern, they are interpreted as quantifiers or other regex tokens, leading to the "nothing to repeat" error.

# **Suggested Changes**

```
!pip install emot
import re
from emot.emo_unicode import UNICODE_EMOJI

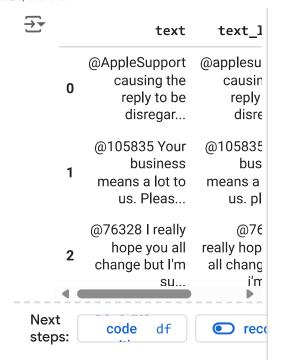
def convert_emojis(text):
    for emot in UNICODE_EMOJI:
        # Escape special characters in emot using re.escap
        text = re.sub(r'(' + re.escape(emot) + ')', "_".jo
    return text

text = "I am    "
convert_emojis(text)

Use code with caution
```

#### Sources

- 1. <u>stackoverflow.com/questions/31386552/nothing-to-repeat-from-python-regex</u>
- 2. <u>stackoverflow.com/questions/3675144/regex-error-nothing-to-repeat</u>



#### **Removal of Punctuations**

PUNCT\_TO\_REMOVE = string.puncto
def remove\_punctuation(text):
 """custom function to remov
 return text.translate(str.r

df["text\_wo\_punct"] = df["text'
df.head()

$\rightarrow$		text	text_l
	0	@AppleSupport causing the reply to be disregar	@applesu causin reply disre
	1	@105835 Your business means a lot to us. Pleas	@105835 bus means a us. pl
	2	@76328 I really hope you all change but I'm su	@76 really hop all chang i'm
Next step	_	code df	• rec

#### Removal of stopwords

import nltk
nltk.download('stopwords')

from nltk.corpus import stopword
", ".join(stopwords.words('engli

[nltk\_data] Downloading pace [nltk\_data] Package stope 'i, me, my, myself, we, our, ours, ourselves, you, you're, you've, you'll, you'd, your, yours, yourself, yourselves, he, him, his, himself, she, she's, her, hers, herself, it, it's, its, itself, they, them, their, theirs, themselves, what, which, who, whom, this, that, that'll, these those am is are w

STOPWORDS = set(stopwords.words

def remove\_stopwords(text):
 """custom function to remove return " ".join([word for vertical for ve

df["text\_wo\_stop"] = df["text\_v
df.head()

text_l	text		<b>→</b> *
	@AppleSupport causing the reply to be disregar	0	
@105835 bus means a us. pl	@105835 Your business means a lot to us. Pleas	1	
	@76328 I really hope you all change but I'm su	2	
@10 livec online a moment	@105836 LiveChat is online at the moment - htt	3	



### **Removal of Frequent words**

```
from collections import Counter
cnt = Counter()
for text in df["text wo stop"].
    for word in text.split():
        cnt[word] += 1
cnt.most_common(10)
→ [('I', 34),
      ('us', 25),
      ('DM', 19),
      ('help', 17),
      ('httpstcoGDrqU22YpT',
     12),
      ('AppleSupport', 11),
      ('Thanks', 11),
      ('phone', 9),
      ('Hi', 8),
      ('get', 8)]
FREQWORDS = set([w for (w, wc)
def remove_freqwords(text):
    """custom function to remov
    return " ".join([word for v
df["text_wo_stopfreq"] = df["te
df.head()
```

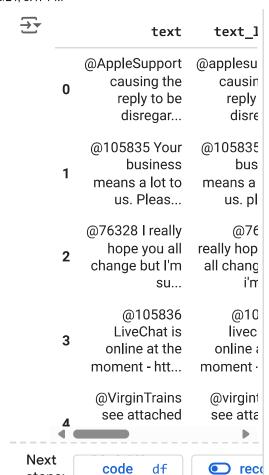


<b>→</b>		text	text_1
	0	@AppleSupport causing the reply to be disregar	@applesu causin reply disre
	1	@105835 Your business means a lot to us. Pleas	@105835 bus means a us. pl
	2	@76328 I really hope you all change but I'm su	@76 really hop all chang i'n
	3	@105836 LiveChat is online at the moment - htt	@10 livec online a moment ·
	4	@VirginTrains see attached error message. I've	@virgint see atta error mes
Next step		code df	• reco

## **Removal of Rare words**

df.drop(columns=["text\_wo\_stop") df.head()





#### Lemmatization

steps:

!pip install nltk # Make sure N
import nltk

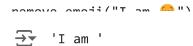
nltk.download('wordnet') # Down
from nltk.stem import WordNetLe

lemmatizer = WordNetLemmatizer(
def lemmatize\_words(text):
 return " ".join([lemmatizer

df["text\_lemmatized"] = df["texted)

```
Requirement already satisf:
\rightarrow
     Requirement already satisf:
     Requirement already satisf:
     Requirement already satisf:
     Requirement already satisf:
      [nltk_data] Downloading page
                    text
                             text 1
          @AppleSupport
                           @applesu
              causing the
                              causin
      0
               reply to be
                               reply
                                disre
               disregar...
           @105835 Your
                           @105835
                business
                                 bus
      1
           means a lot to
                            means a
              us. Pleas...
                               us. pl
          @76328 I really
                                @76
             hope you all
                           really hop
      2
           change but I'm
                            all chang
                     su...
                                  i'm
               @105836
                                @10
              LiveChat is
                               livec
      3
             online at the
                             online a
                           moment ·
           moment - htt...
           @VirginTrains
                             @virgin1
            see attached
                             see atta
      4
           error message.
                           error mes
                    I've...
 Next
                             • reco
             code
 steps:
lemmatizer.lemmatize("swiming";
      'swim'
lemmatizer.lemmatize("swiming";
      'swiming'
Removal of Emojis
def remove_emoji(string):
    emoji_pattern = re.compil
                               u"
                               u"
```

u" u" u" "] return emoji\_pattern.sub(



# Conversion of Emoticon to Words



Responses may display inaccurate or offensive information that doesn't represent Google's views. <u>Learn more</u>