Modelagem de Letras de Músicas - Top 10 Nacionais

Pré-Processamento de Palavras

Benício Ramos Magalhães

Metragem

Realizar o tratamento de palavras para chegar da ideia de tracinho com inteligência artificial. Pré-processamento realizado para assuntos de mineração de dados e aprendizagem de máquina. Remoção de pontuação, remoção de stopwords, remoção de acentuação, tokenização, tratamento de caracteres, identificação de sequencia, e por fim, normalização dos com stemming e lematização.

Professor Orientador: Prof. Dr. Ricardo Cerqueira de Vasconcelos

Aluno: Benício Ramos Magalhães

01 Pré-Processamento de palavras

```
import pandas
import numpy
import nltk
import unicodedata
import re, string
```

```
[nltk_data] Downloading package punkt to /root/nltk_data...
[nltk_data]   Unzipping tokenizers/punkt.zip.
```

```
True
```

```
from nltk.stem.rslp import RSLPStemmer
from nltk.tokenize.punkt import PunktSentenceTokenizer, PunktParameters
from nltk.tokenize.regexp import RegexpTokenizer
from nltk.corpus.utils import LazyCorpusLoader
from nltk.corpus.reader.plaintext import PlaintextCorpusReader
```

```
[nltk_data] Downloading package stopwords to /root/nltk_data...
[nltk_data]   Unzipping corpus/stopwords.zip.
```

```
True
```

```
from nltk.stem.snowball import SnowballStemmer
from nltk.stem.porter import PorterStemmer
from nltk.stem.lancaster import LancasterStemmer
```

02 Baixando Stopwords e criando variável com todas as stopwords

```
nltk = LazyCorpusLoader('stopwords')
stopwords = nltk.words('portuguese')
```

```
['a', 'ainda', 'alguma', 'algumas', 'algum', 'alguns', 'ao', 'aos', 'aquela', 'aquelas', 'aquele', 'aqueles', 'aquilo', 'as', 'até', 'com', 'como', 'da', 'das', 'de', 'dela', 'delas', 'dele', 'deles', 'delo', 'do', 'dos', 'e', 'ela', 'elas', 'ele', 'eles', 'em', 'entre', 'era', 'eram', 'essa', 'essas', 'esse', 'esses', 'esta', 'estas', 'este', 'estes', 'eu', 'foi', 'fomos', 'for', 'formos', 'fosse', 'fossemos', 'fui', 'fulano', 'fulanos', 'fulana', 'fulanas', 'haja', 'hajamos', 'hajam', 'hão', 'houve', 'houvemos', 'houvera', 'houveram', 'houvermos', 'houvesse', 'houvessemos', 'houvessem', 'houvéramos', 'houver', 'houverem', 'houvermos', 'houvéramos', 'houvera', 'houveram', 'houvera', 'houveram', 'houvera', 'houveram
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Sa 1000 Primzahlen und Primzahlzwillinge Mit Ausnahme weniger kleiner Primzahlen lassen sich sämtliche Primzahlen in Paaren

```
from sympy.ntheory import primerange
```

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