

## Faculdade Estácio - Polo Curitiba - Centro

**Curso:** Desenvolvimento Full Stack

**Disciplina:** Dando inteligência ao software

**Número da Turma:** RPG0034

**Semestre Letivo:** 5

**Integrante:** Mariana Lucas Fernandes Onório

**Repositório:** <https://github.com/MariLFO/estacio-mundo5-missao-nivel-4>

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# 1. Título da Prática:

RPG0034

Dando inteligência ao software

## 2. Objetivos da Prática:

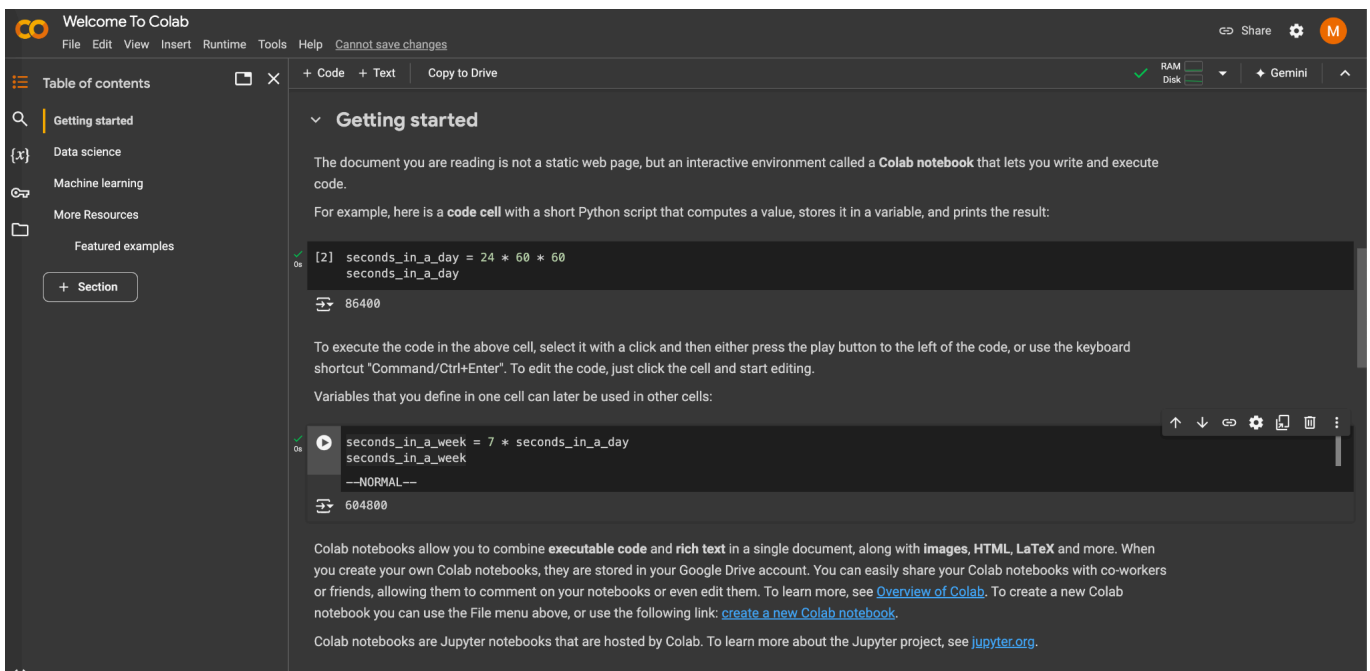
- Configurar o ambiente Google Colab;
- Descrever tarefas diversas relacionadas ao Processamento de Linguagem Natural;
- Descrever o processo de identificação de entidades a partir de textos;
- Descrever o processo de extração de frases-chave a partir de textos;
- Descrever o processo de identificação de linguagem predominante a partir de textos;

## 3. Códigos do roteiro:

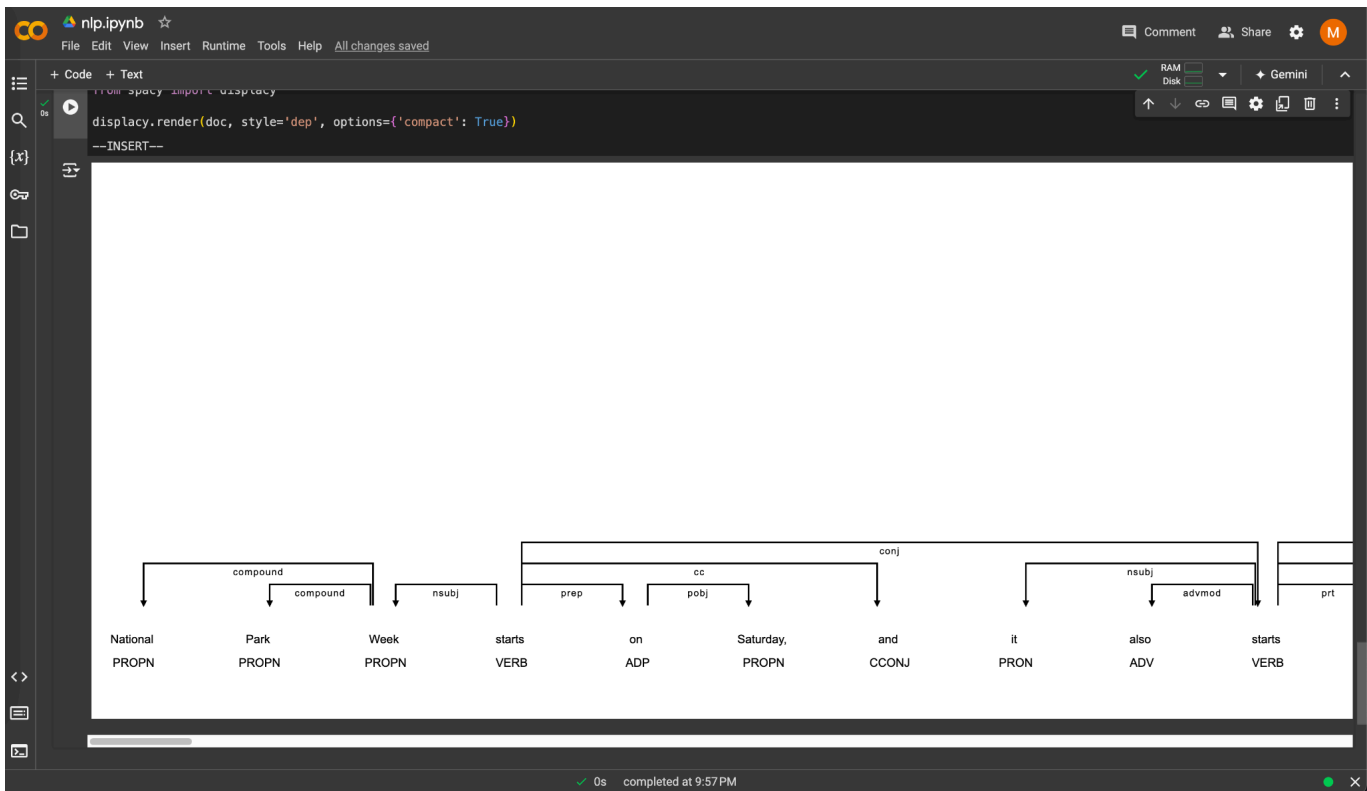
<https://github.com/MariLFO/estacio-mundo5-missao-nivel-4>

## 4. Resultados da execução dos códigos:

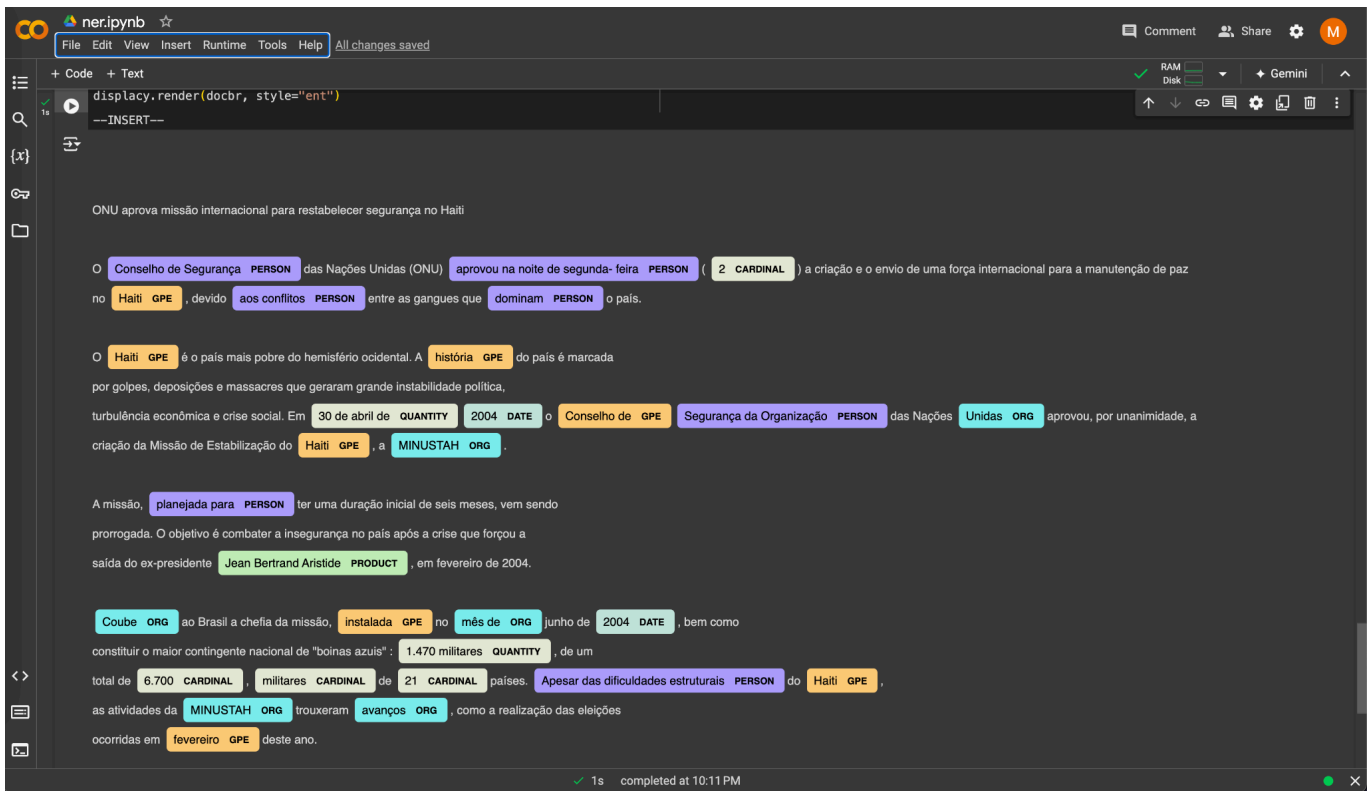
Microatividade 1: Configurar o ambiente Google Colab



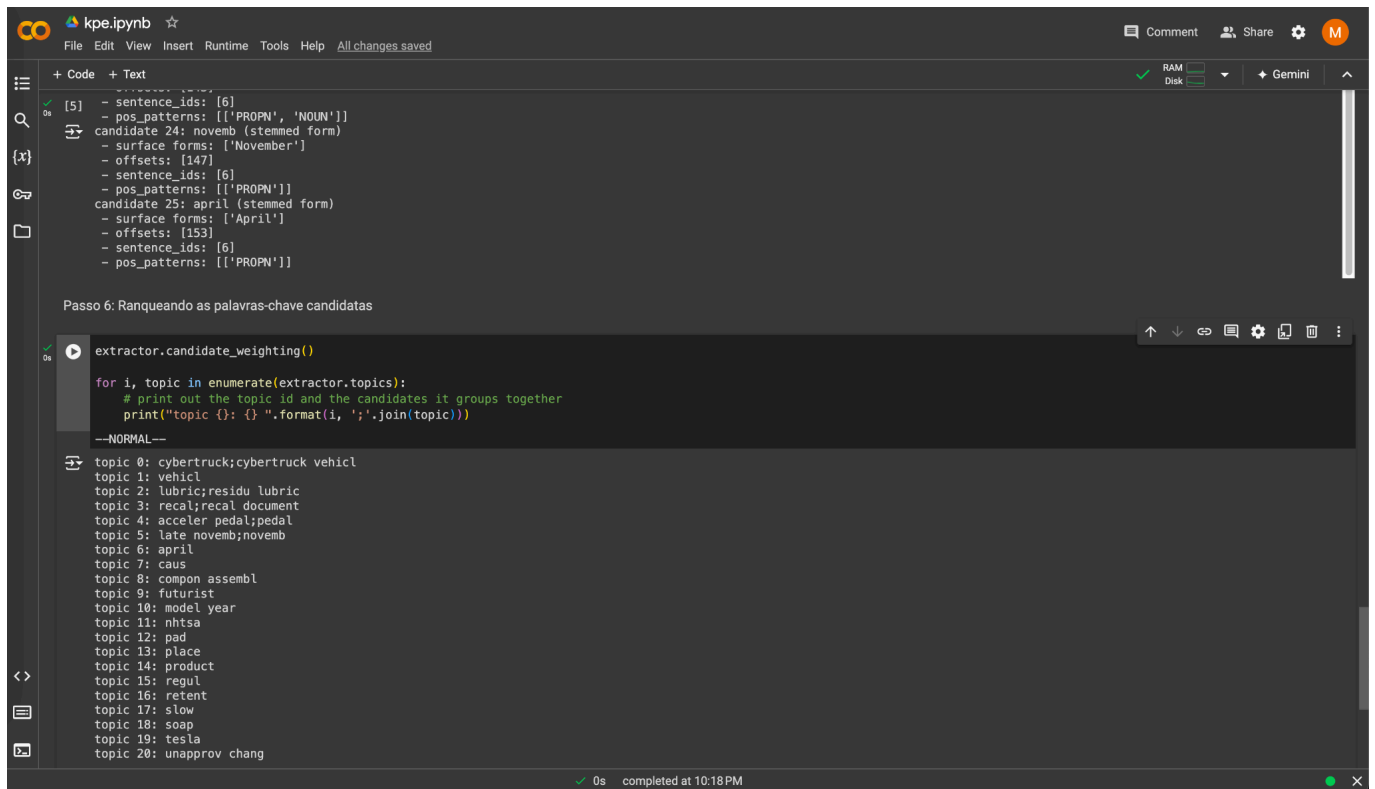
## Microatividade 2: Descrever tarefas diversas relacionadas ao Processamento de Linguagem Natural



## Microatividade 3: Descrever o processo de identificação de entidades a partir de textos



## Microatividade 4: Descrever o processo de extração de frases-chave a partir de textos



The screenshot shows a Jupyter Notebook titled 'kpe.ipynb'. The code defines a function `extractor.candidate_weighting()` that iterates over topics and prints the topic ID and its associated candidates. Below the code, the output shows a list of 21 topics, each with a list of associated keywords.

```
[5] -----
- sentence_ids: [6]
- pos_patterns: [['PROPN', 'NOUN']]
candidate 24: novemb (stemmed form)
- surface forms: ['November']
- offsets: [147]
- sentence_ids: [6]
- pos_patterns: [['PROPN']]
candidate 25: april (stemmed form)
- surface forms: ['April']
- offsets: [153]
- sentence_ids: [6]
- pos_patterns: [['PROPN']]

Passo 6: Ranqueando as palavras-chave candidatas

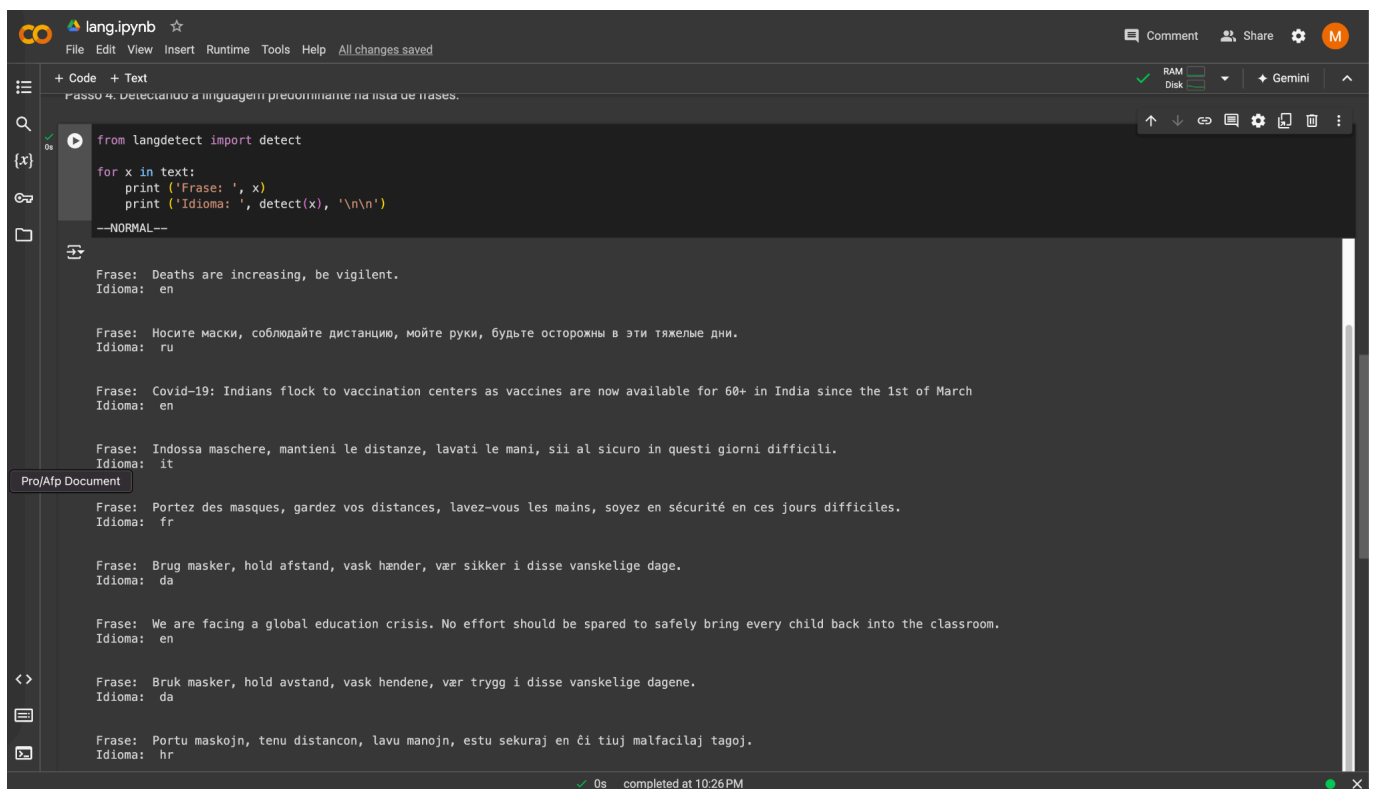
extractor.candidate_weighting()

for i, topic in enumerate(extractor.topics):
    # print out the topic id and the candidates it groups together
    print("topic {}: {}".format(i, ' '.join(topic)))

--NORMAL--

topic 0: cybertruck;cybertruck vehicl
topic 1: vehicl
topic 2: lubric;residu lubric
topic 3: recal;recal document
topic 4: acceler pedal;pedal
topic 5: late novemb;novemb
topic 6: april
topic 7: caus
topic 8: compon assembl
topic 9: futurist
topic 10: model year
topic 11: nhtsa
topic 12: pad
topic 13: place
topic 14: product
topic 15: regul
topic 16: retent
topic 17: slow
topic 18: soap
topic 19: tesla
topic 20: unapprov chang
```

## Microatividade 5: Descrever o processo de identificação de linguagem predominante a partir de textos



The screenshot shows a Jupyter Notebook titled 'lang.ipynb'. The code uses the `langdetect` library to detect the language of a list of phrases. The output shows each phrase followed by its detected language.

```
from langdetect import detect

for x in text:
    print ('Frase: ', x)
    print ('Idioma: ', detect(x), '\n\n')

--NORMAL--

Frase: Deaths are increasing, be vigilant.
Idioma: en

Frase: Носите маски, соблюдайте дистанцию, мойте руки, будьте осторожны в эти тяжелые дни.
Idioma: ru

Frase: Covid-19: Indians flock to vaccination centers as vaccines are now available for 60+ in India since the 1st of March
Idioma: en

Frase: Indossa maschere, mantieni le distanze, lavati le mani, sii al sicuro in questi giorni difficili.
Idioma: it

Frase: Portez des masques, gardez vos distances, lavez-vous les mains, soyez en sécurité en ces jours difficiles.
Idioma: fr

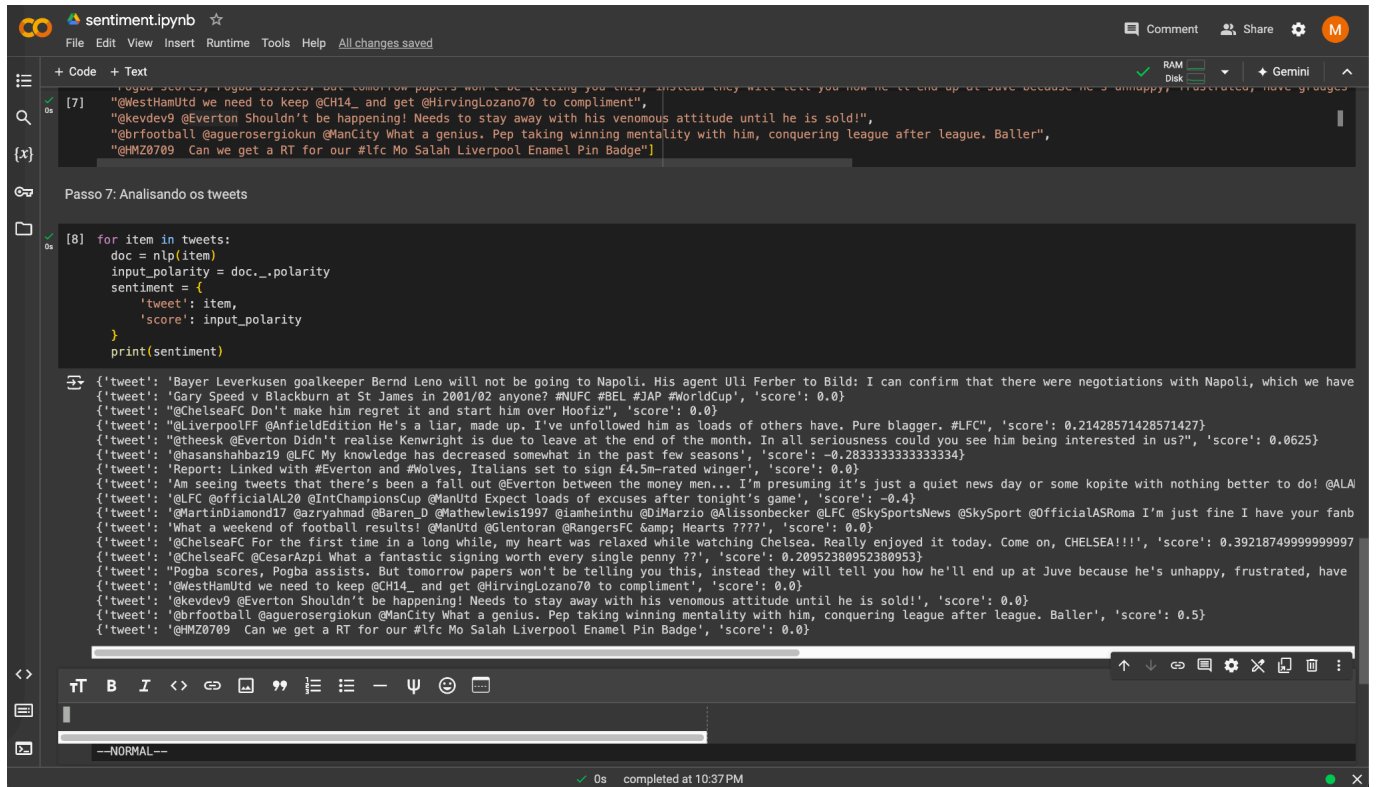
Frase: Brug masker, hold afstand, vask hænder, vær sikker i disse vanskelige dage.
Idioma: da

Frase: We are facing a global education crisis. No effort should be spared to safely bring every child back into the classroom.
Idioma: en

Frase: Bruk masker, hold avstand, vask hendene, vær trygg i disse vanskelige dagene.
Idioma: da

Frase: Portu maskojn, tenu distancon, lavu manojn, estu sekuraj en ĉi tiuj malfacilaj tagoj.
Idioma: hr
```

## Missão Prática | Vamos interligar as coisas com a nuvem!



```
0s [7] "Pogba scores, Pogba assists, but tomorrow papers won't be telling you this, instead they will tell you how he'll end up at Juve because he's unhappy, frustrated, have grudges"
"@WestHamUtd we need to keep @CH14_ and get @HirvingLozano70 to compliment",
"@kevedev9 @Everton Shouldn't be happening! Needs to stay away with his venomous attitude until he is sold!",
"@brfootball @aguerosergiookun @ManCity What a genius. Pep taking winning mentality with him, conquering league after league. Baller",
"@HMZ0709 Can we get a RT for our #lfc Mo Salah Liverpool Enamel Pin Badge"]

Passo 7: Analisando os tweets

0s [8] for item in tweets:
    doc = nlp(item)
    input_polarity = doc._.polarity
    sentiment = {
        'tweet': item,
        'score': input_polarity
    }
    print(sentiment)

{'tweet': 'Bayer Leverkusen goalkeeper Bernd Leno will not be going to Napoli. His agent Uli Ferber to Bild: I can confirm that there were negotiations with Napoli, which we have', 'score': 0.0}
{'tweet': 'Gary Speed v Blackburn at St James in 2001/02 anyone? #NUFC #BEL #JAP #WorldCup', 'score': 0.0}
{'tweet': '@ChelseaFC Don't make him regret it and start him over Hoofiz", 'score': 0.0}
{'tweet': "@LiverpoolFF @AnfieldEdition He's a liar, made up. I've unfollowed him as loads of others have. Pure blagger. #LFC", 'score': 0.21428571428571427}
{'tweet': "@theesk @Everton Didn't realise Kenwright is due to leave at the end of the month. In all seriousness could you see him being interested in us?", 'score': 0.0625}
{'tweet': '@hasanshahbaz19 @LFC My knowledge has decreased somewhat in the past few seasons', 'score': -0.28333333333333334}
{'tweet': 'Report: Linked with @Everton and @Wolves, Italians set to sign £4.5m-rated winger', 'score': 0.0}
{'tweet': 'Am seeing tweets that there's been a fall out @Everton between the money men... I'm presuming it's just a quiet news day or some kopite with nothing better to do! @ALA', 'score': -0.4}
{'tweet': '@LFC @officialAL20 @IntChampionsCup @ManUtd Expect loads of excuses after tonight's game', 'score': -0.4}
{'tweet': '@MartinDiamond17 @azryahmad @Baren_D @MathewLewis1997 @iamheinthu @diMarzio @Alissonbecker @LFC @SkySportsNews @SkySport @OfficialASRoma I'm just fine I have your fanb', 'score': 0.0}
{'tweet': 'What a weekend of football results! @ManUtd @Glentoran @RangersFC & Hearts ?????', 'score': 0.0}
{'tweet': '@ChelseaFC For the first time in a long while, my heart was relaxed while watching Chelsea. Really enjoyed it today. Come on, CHELSEA!!!!', 'score': 0.39218749999999997}
{'tweet': '@ChelseaFC @CesarAzpi What a fantastic signing worth every single penny ??', 'score': 0.20952380952380953}
{'tweet': 'Pogba scores, Pogba assists. But tomorrow papers won't be telling you this, instead they will tell you how he'll end up at Juve because he's unhappy, frustrated, have', 'score': 0.0}
{'tweet': '@WestHamUtd we need to keep @CH14_ and get @HirvingLozano70 to compliment', 'score': 0.0}
{'tweet': '@kevedev9 @Everton Shouldn't be happening! Needs to stay away with his venomous attitude until he is sold!', 'score': 0.0}
{'tweet': '@brfootball @aguerosergiookun @ManCity What a genius. Pep taking winning mentality with him, conquering league after league. Baller', 'score': 0.5}
{'tweet': '@HMZ0709 Can we get a RT for our #lfc Mo Salah Liverpool Enamel Pin Badge', 'score': 0.0}
```