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**matricula: 2023.04.12744-1**  
**3274 POLO CENTRO - ITAITINGA – CE**

Nível 4: **RPG0034 – Dando inteligência ao software.**

**– DESENVOLVIMENTO FULL STACK – 2025.1**

## **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;

### **Análise de Sentimentos.**

```
!pip install -U pip setuptools wheel
```

```
!pip install -U spacy
```

```
!python -m spacy download en_core_web_sm
```

```
!pip install spacytextblob
```

```
!python -m spacy download en_core_web_sm
```

```
import pkg_resources,imp
```

```
imp.reload(pkg_resources)
```

### **# Passo 2: Importando as bibliotecas para análise de sentimento**

```
import spacy
```

```
from spacytextblob.spacytextblob import SpacyTextBlob
```



### **Passo 3: Definindo o modelo e a pipeline a serem utilizadas na análise**

```
nlp = spacy.load('en_core_web_sm')
```

```
nlp.add_pipe('spacytextblob')
```

### **Passo 4: Definindo o texto inicial a ser analisado para verificação/validação da biblioteca**

```
user_input = 'This is a wonderful campsite. I loved the serenity and the birds chirping in the morning.'
```

```
doc = nlp(user_input)
```

### **Passo 5: Exibindo o resultado da primeira análise (um range entre -1 [avaliação negativa] e 1 [avaliação positiva])**

```
from textblob import TextBlob
```

```
text = "This is a wonderful campsite. I loved the serenity and the birds\nchirping in the morning."
```

```
blob = TextBlob(text)
```

```
sentiment = {  
    'score': blob.sentiment.polarity  
}
```

```
print(sentiment)
```

### **Passo 6: Definindo a lista de tweets a serem analisadas**

```
tweets=["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 broken off. Napoli is not an option. Atletico Madrid and Arsenal are the other strong rumours. #B04 #AFC",
```

```
"Gary Speed v Blackburn at St James in 2001/02 anyone? #NUFC #BEL #JAP#WorldCup",
```

```
"@ChelseaFC Don't make him regret it and start him over Hoofiz",
```

```
"@LiverpoolFF @AnfieldEdition He's a liar, made up. I've unfollowed him as loads of others have. Pure blagger. #LFC",
```

```
"@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?",
```

```
"@hasanshahbaz19 @LFC My knowledge has decreased somewhat in the past few seasons",
```



"Report: Linked with #Everton and #Wolves, Italians set to sign £4.5m rated winger",

"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! @ALANMYERSMEDIA",

"@LFC @officialAL20 @IntChampionsCup @ManUtd Expect loads of excuses after tonight's game",

"@MartinDiamond17 @azryahmad @Baren\_D @MathewLewis1997 @iamheinthu @DiMarzio @Alissonbecker @LFC @SkySportsNews @SkySport @OfficialASRoma I'm just fine I have your fanbase angry over stating facts should ask them hun. Xo",

"What a weekend of football results! @ManUtd @Glentoran @RangersFC & Hearts ????",

"@ChelseaFC For the first time in a long while, my heart was relaxed while watching Chelsea. Really enjoyed it today. Come on, CHELSEA!!!",

"@ChelseaFC @CesarAzpi What a fantastic signing worth every single penny ??",

"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 with Mourinho and so on and so forth #mufc",

"@WestHamUtd we need to keep @CH14\_ and get @HirvingLozano70 to compliment",

"@kevdev9 @Everton Shouldn't be happening! Needs to stay away with his venomous attitude until he is sold!",

"@brfootball @aguerosergiokun @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**

for item in tweets:

```
doc = nlp(item)
```

```
input_polarity = doc._.blob.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 broken off. Napoli is not an option.  
Atletico Madrid and Arsenal are the other strong rumours. #B04 #AFC',  
'score': -0.030555555555555575}  
{'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! @ALANMYERSMEDIA', 'score': 0.3125}  
{'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 fanbase angry over stating facts should ask them hun.  
Xo', 'score': -0.041666666666666666}  
{'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 grudges with Mourinho and so on and so forth  
#mufc', 'score': -0.6499999999999999}  
{'tweet': '@WestHamUtd we need to keep @CH14_ and get @HirvingLozano70 to  
compliment', 'score': 0.0}  
{'tweet': '@kevdev9 @Everton Shouldn't be happening! Needs to stay away with  
his venomous attitude until he is sold!', 'score': 0.0}  
{'tweet': '@brfootball @aguerosergiokun @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}
```