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In [ ]: def watson_nlu(text, apikey_nlu, url_nlu):

    """
    text:::::::::: column name we want to process
    apikey_nlu::: authentication apikey
    url_nlu:::::::::: language translator service url
    """

    # dependencies
    import json
    !pip install ibm_watson
    !pip install tqdm
    from ibm_watson import NaturalLanguageUnderstandingV1
    from ibm_cloud_sdk_core.authenticators import IAMAuthenticator
    from ibm_watson.natural_language_understanding_v1 import Features,
    SentimentOptions, Features, EntitiesOptions, RelationsOptions
    from tqdm import tqdm
    import sys

    # API config
    authenticator_nlu = IAMAuthenticator(apikey_nlu)

    natural_language_understanding = NaturalLanguageUnderstandingV1(
        version='2020-08-01',
        authenticator=authenticator_nlu
    )
    natural_language_understanding.set_service_url(url_nlu)

    # NLU API call
    response = natural_language_understanding.analyze(
        text=text, features=Features(sentiment=SentimentOptions(),
                                     entities=EntitiesOptions(sentiment=True, limit=5),
                                     relations=RelationsOptions())).get_result()

    # return sentiment score, and json containing all the information extracted, included entities
    # relevance
    return response["sentiment"]["document"]["score"], json.dumps(response)

```