Iterative Prompt using Chat-GPT

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Iterative Prompt

We will iteratively analyse and refine our prompt to generate a classification of Spanish sentences by their associated sentiment.

The OpenAI Chat-GPT conversational API will be used for this purpose.

Setup

[ ]:
```
!pip install openai
```

[ ]:
```
!pip install python-dotenv
```

Read the secrect

[3]:
```
import openai
import os

from dotenv import load_dotenv, find_dotenv
_ = load_dotenv(find_dotenv()) # read local .env file

openai.api_key  = os.getenv('OPENAI_API_KEY')
```

Define function for Chat-GPT interaction

[4]:
```
def get_chat_completion(prompt, model="gpt-3.5-turbo"):
    messages = [{"role": "user", "content": prompt}]
    response = openai.ChatCompletion.create(
        model=model,
        messages=messages,
        temperature=0
    )
    return response.choices[0].message["content"]
```

Sentiment (positive/neutral/negative)

[5]:
```
spanish_sentences = [
    'Quizá el secreto de la vida tan solo consista En tener un lugar al que␣
 ↪regresar',
    'Entre tu cuerpo y el mío solo cabe un verso',
    'El hombre es un ser irracional que se pasa toda la vida disimulándolo'
```

```
]
```

[6]:
```
prompt = f"""
What is the sentiment of the following Spanish sentence,
which is delimited with triple backticks?

Review text: '''{spanish_sentences[0]}'''
"""
response = get_chat_completion(prompt)
print(response)
```

```
The sentiment of the following Spanish sentence is positive.
```

[7]:
```
prompt = f"""
What is the sentiment of the following Spanish sentence,
which is delimited with triple backticks?

Give your answer as a single word, either "positive" or "netural" \
or "negative".

Review text: '''{spanish_sentences[0]}'''
"""
response = get_chat_completion(prompt)
print(response)
```

```
positive
```

[ ]:
```
prompt = f"""
What is the sentiment of the following Spanish sentences,
which is delimited with triple backticks?

Give your answer as a map of sentences grouped by their sentiment as a single␣
 ↪word, \
either "positive" or "neutral" or "negative".

Review text: '''{spanish_sentences}'''
"""
response = get_chat_completion(prompt)
print(response)
```

[‘Quizá el secreto de la vida tan solo consista En tener un lugar al que regresar’, ‘positive’ ‘Entre tu cuerpo y el mío solo cabe un verso’, ‘positive’ ‘El hombre es un ser irracional que se pasa toda la vida disimulándolo’, ‘neutral’]

[11]:
```
prompt = f"""
What is the sentiment of the following Spanish sentences,
which is delimited with triple backticks?
```

```
Classify sentences according to their sentiment.

The sentiment will be as a single word, \
either "positive" or "neutral" or "negative".

Give your answer as JSON, where the key is the sentiment and the value is the␣
 ↪list.

Review text: '''{spanish_sentences}'''
"""
response = get_chat_completion(prompt)
print(response)
```

```
{
  "positive": [
    "Quizá el secreto de la vida tan solo consista En tener un lugar al que
regresar",
    "Entre tu cuerpo y el mío solo cabe un verso"
  ],
  "neutral": [
    "El hombre es un ser irracional que se pasa toda la vida disimulándolo"
  ]
}
```

Using Completions instead of ChatCompletion

The Completion API does not support the 'gpt-3.5-turbo' conversational model. The '**text-davinci-003**' model will be used instead.

Let's do a test

[12]:
```
def get_completion(prompt, model="text-davinci-003"):
    response = openai.Completion.create(
        model=model,
        prompt=prompt,
        temperature=0,
        max_tokens=2000
    )
    return response.choices[0].text
```

[13]:
```
prompt = f"""
What is the sentiment of the following Spanish sentences,
which is delimited with triple backticks?

Classify sentences according to their sentiment.

The sentiment will be as a single word, \
either "positive" or "neutral" or "negative".
```

```
Give your answer as JSON, where the key is the sentiment and the value is the␣
 ↪list.

Review text: '''{spanish_sentences}'''
"""
response = get_completion(prompt)
print(response)
```

```
{"positive": ["Quizá el secreto de la vida tan solo consista En tener un lugar
al que regresar", "Entre tu cuerpo y el mío solo cabe un verso"], "neutral":
["El hombre es un ser irracional que se pasa toda la vida disimulándolo"]}
```

Inspired by the one hourly course ChatGPT Prompt Engineering for Developers by DeepLearning.AI