Summarizing

In this lesson, you will summarize text with a focus on specific topics.

Setup

```
In [10]: 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')
```

```
In [11]: def get_completion(prompt, model="gpt-3.5-turbo"): # Andrew mentioned that the prompt/ completion paradigm is pr
             messages = [{"role": "user", "content": prompt}]
             response = openai.ChatCompletion.create(
                 model=model,
                 messages=messages,
                 temperature=0, # this is the degree of randomness of the model's output
             )
             return response.choices[0].message["content"]
```

Text to summarize

```
In [12]: prod_review = """
         Got this panda plush toy for my daughter's birthday, \
         who loves it and takes it everywhere. It's soft and \
         super cute, and its face has a friendly look. It's \
         a bit small for what I paid though. I think there \
         might be other options that are bigger for the \
         same price. It arrived a day earlier than expected, \
         so I got to play with it myself before I gave it \
         to her.
         """
```

Summarize with a word/sentence/character limit

```
In [13]: prompt = f"""
         Your task is to generate a short summary of a product \
         review from an ecommerce site.

         Summarize the review below, delimited by triple
         backticks, in at most 30 words.

         Review: ```{prod_review}```
         """

         response = get_completion(prompt)
         print(response)
```

Soft and cute panda plush toy loved by daughter, but a bit small for the price. Arrived early.

Summarize with a focus on shipping and delivery

```
In [14]: prompt = f"""
Your task is to generate a short summary of a product \
review from an ecommerce site to give feedback to the \
Shipping deparmtment.

Summarize the review below, delimited by triple
backticks, in at most 30 words, and focusing on any aspects \
that mention shipping and delivery of the product.

Review: ```{prod_review}```
"""

response = get_completion(prompt)
print(response)
```

The panda plush toy arrived a day earlier than expected, but the customer felt it was a bit small for the price paid.

Summarize with a focus on price and value

```
In [15]: prompt = f"""
Your task is to generate a short summary of a product \
review from an ecommerce site to give feedback to the \
pricing deparmtment, responsible for determining the \
price of the product.

Summarize the review below, delimited by triple
backticks, in at most 30 words, and focusing on any aspects \
that are relevant to the price and perceived value.

Review: ```{prod_review}```
"""

response = get_completion(prompt)
print(response)
```

The panda plush toy is soft, cute, and loved by the recipient, but the price may be too high for its size.

Comment

- Summaries include topics that are not related to the topic of focus.

Try "extract" instead of "summarize"

```
In [16]: prompt = f"""
Your task is to extract relevant information from \
a product review from an ecommerce site to give \
feedback to the Shipping department.

From the review below, delimited by triple quotes \
extract the information relevant to shipping and \
delivery. Limit to 30 words.

Review: ```{prod_review}```
"""

response = get_completion(prompt)
print(response)
```

The product arrived a day earlier than expected.

Summarize multiple product reviews

```python
In [17]:    review_1 = prod_review

            # review for a standing lamp
            review_2 = """
            Needed a nice lamp for my bedroom, and this one \
            had additional storage and not too high of a price \
            point. Got it fast - arrived in 2 days. The string \
            to the lamp broke during the transit and the company \
            happily sent over a new one. Came within a few days \
            as well. It was easy to put together. Then I had a \
            missing part, so I contacted their support and they \
            very quickly got me the missing piece! Seems to me \
            to be a great company that cares about their customers \
            and products.
            """

            # review for an electric toothbrush
            review_3 = """
            My dental hygienist recommended an electric toothbrush, \
            which is why I got this. The battery life seems to be \
            pretty impressive so far. After initial charging and \
            leaving the charger plugged in for the first week to \
            condition the battery, I've unplugged the charger and \
            been using it for twice daily brushing for the last \
            3 weeks all on the same charge. But the toothbrush head \
            is too small. I've seen baby toothbrushes bigger than \
            this one. I wish the head was bigger with different \
            length bristles to get between teeth better because \
            this one doesn't.  Overall if you can get this one \
            around the $50 mark, it's a good deal. The manufactuer's \
            replacements heads are pretty expensive, but you can \
            get generic ones that're more reasonably priced. This \
            toothbrush makes me feel like I've been to the dentist \
            every day. My teeth feel sparkly clean!
            """

            # review for a blender
            review_4 = """
            So, they still had the 17 piece system on seasonal \
            sale for around $49 in the month of November, about \
            half off, but for some reason (call it price gouging) \
            around the second week of December the prices all went \
            up to about anywhere from between $70-$89 for the same \
            system. And the 11 piece system went up around $10 or \
            so in price also from the earlier sale price of $29. \
            So it looks okay, but if you look at the base, the part \
            where the blade locks into place doesn't look as good \
            as in previous editions from a few years ago, but I \
            plan to be very gentle with it (example, I crush \
            very hard items like beans, ice, rice, etc. in the \
            blender first then pulverize them in the serving size \
            I want in the blender then switch to the whipping \
            blade for a finer flour, and use the cross cutting blade \
            first when making smoothies, then use the flat blade \
            if I need them finer/less pulpy). Special tip when making \
            smoothies, finely cut and freeze the fruits and \
            vegetables (if using spinach-lightly stew soften the \
            spinach then freeze until ready for use-and if making \
            sorbet, use a small to medium sized food processor) \
            that you plan to use that way you can avoid adding so \
            much ice if at all-when making your smoothie. \
            After about a year, the motor was making a funny noise. \
            I called customer service but the warranty expired \
            already, so I had to buy another one. FYI: The overall \
            quality has gone done in these types of products, so \
            they are kind of counting on brand recognition and \
            consumer loyalty to maintain sales. Got it in about \
            two days.
            """

            reviews = [review_1, review_2, review_3, review_4]
```

```
In [18]:  for i in range(len(reviews)):
              prompt = f"""
              Your task is to generate a short summary of a product \
              review from an ecommerce site.

              Summarize the review below, delimited by triple \
              backticks in at most 20 words.

              Review: ```{reviews[i]}```
              """

              response = get_completion(prompt)
              print(i, response, "\n")
```

0 Soft and cute panda plush toy loved by daughter, but a bit small for the price. Arrived early.

1 Affordable lamp with storage, fast shipping, and excellent customer service. Easy to assemble and missing parts were quickly replaced.

2 Good battery life, small toothbrush head, but effective cleaning. Good deal if bought around $50.

3 Mixed review of a blender system with price gouging and decreased quality, but helpful tips for use.

Try experimenting on your own!

In [ ]:
```
```