zipf

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```
In [26]: get_ipython().run_line_magic('matplotlib', 'inline')
         import requests
         from bs4 import BeautifulSoup
         import re
         import matplotlib.pyplot as plt
         import numpy as np
```

```
In [27]: url = 'http://www.uh.edu/~cldue/texts/demeter.html'
         r = requests.get(url)
         r.encoding = 'utf-8'
         html = r.text
         soup = BeautifulSoup(html)
         body = soup.find('div', {'class': 'Section1'})
         body = body.text
```

```
In [28]: body = re.sub('\\n', ' ', body)
         body = re.sub('\\xa0', '', body)
         body = re.sub('[^A-z\s]', '', body)
         body = re.sub('\[', '', body)
         body = re.sub('\]', '', body)
         words = body.split(' ')
```

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In [29]: for word in words:
             if word == '':
                 words.remove(word)
```

```
In [30]: word_index = sorted(list(set(words)))
         indexer = dict(zip(word_index, np.arange(len(word_index))))
         labeler = dict(zip(np.arange(len(word_index)), word_index))
         counter = np.zeros(len(word_index))
```

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In [31]: for word in words:
             counter[indexer[word]] += 1
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In [32]: top_10 = np.argsort(counter)[-10:][::-1]
         labels = [labeler[i] for i in top_10]
         counts = list(counter[top_10])
```

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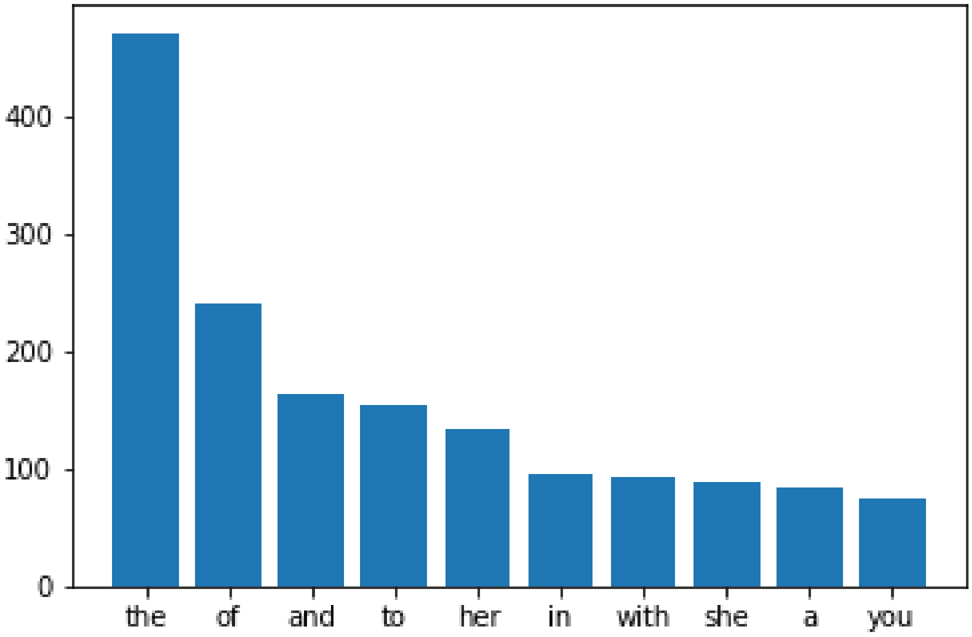
In [33]: plt.bar(labels, counts)
         plt.show()
```



```
In [ ]:
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