```
In [1]: # !pip install wordcloud pillow matplotlib scikit-learn requests
In [2]: import requests
        import numpy as np
        from PIL import Image
        import matplotlib.pyplot as plt
        from wordcloud import WordCloud
        from sklearn.feature_extraction.text import TfidfVectorizer
        Intel MKL WARNING: Support of Intel(R) Streaming SIMD Extensions 4.2 (Int
        el(R) SSE4.2) enabled only processors has been deprecated. Intel oneAPI M
        ath Kernel Library 2025.0 will require Intel(R) Advanced Vector Extension
        s (Intel(R) AVX) instructions.
        Intel MKL WARNING: Support of Intel(R) Streaming SIMD Extensions 4.2 (Int
        el(R) SSE4.2) enabled only processors has been deprecated. Intel oneAPI M
        ath Kernel Library 2025.0 will require Intel(R) Advanced Vector Extension
        s (Intel(R) AVX) instructions.
In [3]: # Download "The Adventures of Sherlock Holmes" (ID: 1661)
        url = "https://www.gutenberg.org/files/1661/1661-0.txt"
        response = requests.get(url)
        book_text = response.text
In [4]: # Prepare corpus for TF-IDF
        corpus = [book_text]
        vectorizer = TfidfVectorizer(stop words='english')
        tfidf matrix = vectorizer.fit transform(corpus)
        tfidf_scores = tfidf_matrix.toarray()[0]
        words = vectorizer.get_feature_names_out()
        word tfidf = dict(zip(words, tfidf scores))
In [5]: # Load plane silhouette mask
        mask = np.array(Image.open("/Users/kajalchuri/Downloads/plane.jpeg"))
In [6]:
        # Generate the word cloud
        wc = WordCloud(
            background color="white",
            mask=mask,
            max words=300,
            contour width=1,
            contour_color="royalblue"
```

Out[6]: <wordcloud.wordcloud.WordCloud at 0x12c38d220>

wc.generate from frequencies(word tfidf)

```
In [7]: # Plot the word cloud
  plt.figure(figsize=(20, 12))
   plt.imshow(wc, interpolation="bilinear")
  plt.axis("off")
  plt.show()
```



```
In [8]: mask = np.array(Image.open("/Users/kajalchuri/Downloads/owl.jpeg"))

wc = WordCloud(
    background_color="white",
    mask=mask,
    max_words=300,
    contour_width=1,
    contour_color="silver"
)

wc.generate_from_frequencies(word_tfidf)
```

Out[8]: <wordcloud.wordcloud.wordCloud at 0x11358d850>

```
In [9]: plt.figure(figsize=(10, 6))
   plt.imshow(wc, interpolation="bilinear")
   plt.axis("off")
   plt.show()
```



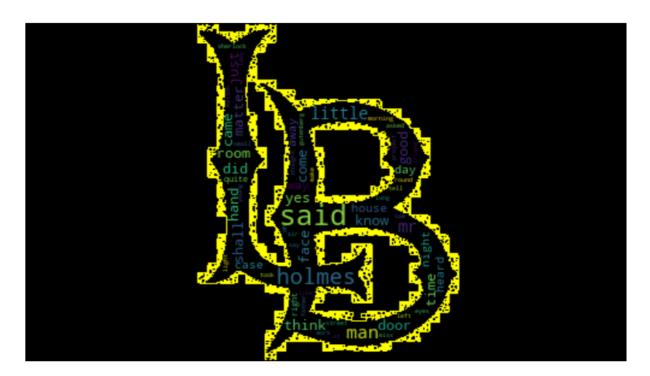
```
In [12]: mask = np.array(Image.open("/Users/kajalchuri/Downloads/LB.jpeg"))

wc = WordCloud(
    background_color="black",
    mask=mask,
    max_words=800,
    contour_width=0.8,
    contour_color="yellow"
)

wc.generate_from_frequencies(word_tfidf)
```

Out[12]: <wordcloud.wordcloud.WordCloud at 0x10de61340>

```
In [13]: plt.figure(figsize=(10, 6))
   plt.imshow(wc, interpolation="bilinear")
   plt.axis("off")
   plt.show()
```



In []: