import pdfplumber  
import jieba  
import matplotlib.pyplot as plt  
from wordcloud import WordCloud  
  
# 打开PDF文件  
with pdfplumber.open("2.pdf") as pdf:  
 full\_text = ""  
 for page in pdf.pages:  
 # 提取每一页的文本  
 text = page.extract\_text()  
 if text:  
 full\_text += text  
  
# 分词  
words = jieba.lcut(full\_text)  
counts = {}  
excludes = set()  
  
# 读取停用词  
with open("stop.txt", "r", encoding="utf-8") as fobj:  
 for i in fobj:  
 i = i.strip()  
 excludes.add(i)  
  
# 统计词频  
for word in words:  
 if len(word) == 1:  
 continue  
 elif word in excludes:  
 continue  
 else:  
 counts[word] = counts.get(word, 0) + 1  
  
wordcloud = WordCloud(font\_path='simhei.ttf',  
 width=800,  
 height=400,  
 background\_color='white',  
 max\_words=200)  
# 生成词云  
wc = wordcloud.generate\_from\_frequencies(counts)  
  
# 显示词云  
plt.imshow(wc, interpolation='bilinear')  
plt.axis('off') # 不显示坐标轴  
plt.rcParams['font.sans-serif'] = ['SimHei'] # 用来正常显示中文标签  
plt.title("徐昊博21013134")  
plt.show()  
  
# 排序并选取前10个单词  
items = list(counts.items())  
items.sort(key=lambda x: x[1], reverse=True)  
plt.rcParams['font.sans-serif'] = ['SimHei'] # 用来正常显示中文标签  
for i in range(10):  
 word, count = items[i]  
 plt.bar(word, count)  
plt.title("徐昊博21013134")  
plt.show()

def fib(n):  
 if n <= 2:  
 return 1  
 else:  
 return fib(n-1)+fib(n-2)  
print("徐昊博21013134")  
for i in range(1,31):  
 print(fib(i))