```
!pip install wordcloud
!pip install matplotlib
from wordcloud import WordCloud
import matplotlib.pyplot as plt
def generate wordcloud(text, output image):
   Generate a \operatorname{WordCloud} from the given text and save it as an image.
   Args:
       text (str): The input text for the WordCloud.
       output_image (str): The file path to save the WordCloud image.
   wordcloud = WordCloud(width=1200, height=400, background_color='white').generate(text)
   plt.figure(figsize=(10, 5))
   plt.imshow(wordcloud, interpolation='bilinear')
   plt.axis('off')
   wordcloud.to_file(output_image)
text = 'data science machine learning artificial intelligence'
output_image = 'wordcloud.png'
generate_wordcloud(text, output_image)
print(f"WordCloud saved as {output_image}")
Requirement already satisfied: wordcloud in /usr/local/lib/python3.11/dist-packages (1.9.4)
    Requirement already satisfied: numpy>=1.6.1 in /usr/local/lib/python3.11/dist-packages (from wordcloud) (1.26.4)
    Requirement already satisfied: pillow in /usr/local/lib/python3.11/dist-packages (from wordcloud) (11.1.0)
    Requirement already satisfied: matplotlib in /usr/local/lib/python3.11/dist-packages (from wordcloud) (3.10.0)
    Requirement already satisfied: contourpy>=1.0.1 in /usr/local/lib/python3.11/dist-packages (from matplotlib->wordcloud) (1.3.1)
    Requirement already satisfied: cycler>=0.10 in /usr/local/lib/python3.11/dist-packages (from matplotlib->wordcloud) (0.12.1)
    Requirement already satisfied: fonttools>=4.22.0 in /usr/local/lib/python3.11/dist-packages (from matplotlib->wordcloud) (4.55.6)
    Requirement already satisfied: kiwisolver>=1.3.1 in /usr/local/lib/python3.11/dist-packages (from matplotlib->wordcloud) (1.4.8)
    Requirement already satisfied: packaging>=20.0 in /usr/local/lib/python3.11/dist-packages (from matplotlib->wordcloud) (24.2)
    Requirement already satisfied: pyparsing>=2.3.1 in /usr/local/lib/python3.11/dist-packages (from matplotlib->wordcloud) (3.2.1)
    Requirement already satisfied: python-dateutil>=2.7 in /usr/local/lib/python3.11/dist-packages (from matplotlib->wordcloud) (2.8.2)
    Requirement already satisfied: six>=1.5 in /usr/local/lib/python3.11/dist-packages (from python-dateutil>=2.7->matplotlib->wordcloud) (1
    Requirement already satisfied: matplotlib in /usr/local/lib/python3.11/dist-packages (3.10.0)
    Requirement already satisfied: contourpy>=1.0.1 in /usr/local/lib/python3.11/dist-packages (from matplotlib) (1.3.1)
    Requirement already satisfied: cycler>=0.10 in /usr/local/lib/python3.11/dist-packages (from matplotlib) (0.12.1)
    Requirement already satisfied: fonttools>=4.22.0 in /usr/local/lib/python3.11/dist-packages (from matplotlib) (4.55.6)
    Requirement already satisfied: kiwisolver>=1.3.1 in /usr/local/lib/python3.11/dist-packages (from matplotlib) (1.4.8)
    Requirement already satisfied: numpy>=1.23 in /usr/local/lib/python3.11/dist-packages (from matplotlib) (1.26.4)
    Requirement already satisfied: packaging>=20.0 in /usr/local/lib/python3.11/dist-packages (from matplotlib) (24.2)
    Requirement already satisfied: pillow>=8 in /usr/local/lib/python3.11/dist-packages (from matplotlib) (11.1.0)
    Requirement already satisfied: pyparsing>=2.3.1 in /usr/local/lib/python3.11/dist-packages (from matplotlib) (3.2.1)
    Requirement already satisfied: python-dateutil>=2.7 in /usr/local/lib/python3.11/dist-packages (from matplotlib) (2.8.2)
    Requirement already satisfied: six>=1.5 in /usr/local/lib/python3.11/dist-packages (from python-dateutil>=2.7->matplotlib) (1.17.0)
    WordCloud saved as wordcloud.png
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