

**[Day-12 2211cs020196]Write a Python script to generate a WordCloud from the text: 'data science machine learning artificial intelligence'. Save the WordCloud as an image.**

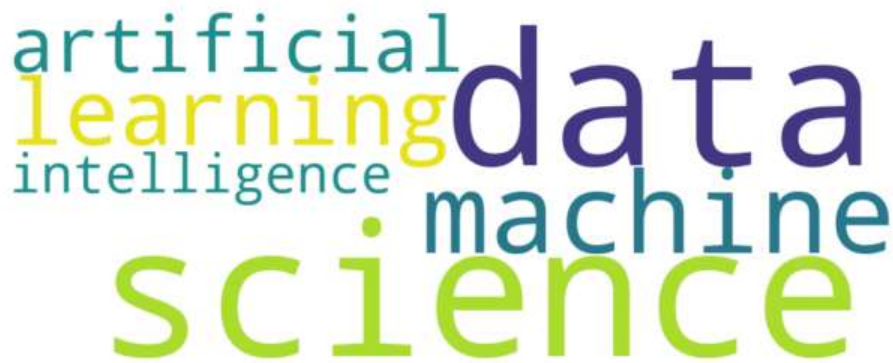
In [1]:

```
1 !pip install wordcloud
2 !pip install matplotlib
3
```

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Requirement already satisfied: wordcloud in d:\python\lib\site-packages (1.9.3)
Requirement already satisfied: numpy>=1.6.1 in d:\python\lib\site-packages (from wordcloud) (1.24.4)
Requirement already satisfied: pillow in d:\python\lib\site-packages (from wordcloud) (9.5.0)
Requirement already satisfied: matplotlib in d:\python\lib\site-packages (from wordcloud) (3.7.1)
Requirement already satisfied: contourpy>=1.0.1 in d:\python\lib\site-packages (from matplotlib->wordcloud) (1.0.5)
Requirement already satisfied: cyclor>=0.10 in d:\python\lib\site-packages (from matplotlib->wordcloud) (0.11.0)
Requirement already satisfied: fonttools>=4.22.0 in d:\python\lib\site-packages (from matplotlib->wordcloud) (4.25.0)
Requirement already satisfied: kiwisolver>=1.0.1 in d:\python\lib\site-packages (from matplotlib->wordcloud) (1.4.4)
Requirement already satisfied: packaging>=20.0 in d:\python\lib\site-packages (from matplotlib->wordcloud) (23.0)
Requirement already satisfied: pyparsing>=2.3.1 in d:\python\lib\site-packages (from matplotlib->wordcloud) (3.0.9)
Requirement already satisfied: python-dateutil>=2.7 in d:\python\lib\site-packages (from matplotlib->wordcloud) (2.8.2)
Requirement already satisfied: six>=1.5 in d:\python\lib\site-packages (from python-dateutil>=2.7->matplotlib->wordcloud) (1.16.0)
Requirement already satisfied: matplotlib in d:\python\lib\site-packages (3.7.1)
Requirement already satisfied: contourpy>=1.0.1 in d:\python\lib\site-packages (from matplotlib) (1.0.5)
Requirement already satisfied: cyclor>=0.10 in d:\python\lib\site-packages (from matplotlib) (0.11.0)
Requirement already satisfied: fonttools>=4.22.0 in d:\python\lib\site-packages (from matplotlib) (4.25.0)
Requirement already satisfied: kiwisolver>=1.0.1 in d:\python\lib\site-packages (from matplotlib) (1.4.4)
Requirement already satisfied: numpy>=1.20 in d:\python\lib\site-packages (from matplotlib) (1.24.4)
Requirement already satisfied: packaging>=20.0 in d:\python\lib\site-packages (from matplotlib) (23.0)
Requirement already satisfied: pillow>=6.2.0 in d:\python\lib\site-packages (from matplotlib) (9.5.0)
Requirement already satisfied: pyparsing>=2.3.1 in d:\python\lib\site-packages (from matplotlib) (3.0.9)
Requirement already satisfied: python-dateutil>=2.7 in d:\python\lib\site-packages (from matplotlib) (2.8.2)
Requirement already satisfied: six>=1.5 in d:\python\lib\site-packages (from python-dateutil>=2.7->matplotlib) (1.16.0)
```

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In [5]: 1 from wordcloud import WordCloud
2 import matplotlib.pyplot as plt
3 def generate_wordcloud(text, output_image):
4     """
5     Generate a WordCloud from the given text and save it as an image.
6
7     Args:
8         text (str): The input text for the WordCloud.
9         output_image (str): The file path to save the WordCloud image.
10    """
11    wordcloud = WordCloud(width=1200, height=400, background_color='white')
12    plt.figure(figsize=(10, 5))
13    plt.imshow(wordcloud, interpolation='bilinear')
14    plt.axis('off')
15    wordcloud.to_file(output_image)
16    text = 'data science machine learning artificial intelligence'
17    output_image = 'wordcloud.png'
18    generate_wordcloud(text, output_image)
19    print(f"WordCloud saved as {output_image}")
20
```

WordCloud saved as wordcloud.png



```
In [ ]: 1
```