File Operations and Word Count Program

- Understanding Basic File Handling in Python
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Introduction to File Operations:

- File operations are used to read from or write to a file.
- Python has built-in functions for file handling.

File Modes in Python

- "r" – Read (default)
- "w" – Write (overwrites)
- "a" – Append
- "r+" – Read and Write
- "b" – Binary mode
- "t" – Text mode (default)

Basic File Operations

```python
# Writing to a file
with open("example.txt", "w") as file:
    file.write("Hello, this is a file operation example.\n")
    file.write("Python makes it easy!")

# Reading from a file
with open("example.txt", "r") as file:
    content = file.read()
    print("File Content:\n", content)

# Appending to a file
with open("example.txt", "a") as file:
    file.write("\nThis line was appended later.")

# Reading again to show the updated content
with open("example.txt", "r") as file:
    updated_content = file.read()
    print("\nUpdated File Content:\n", updated_content)
```

Program – Output

🖥 **Program Output:**

kotlin

```
File Content:
 Hello, this is a file operation example.
Python makes it easy!

Updated File Content:
 Hello, this is a file operation example.
Python makes it easy!
This line was appended later.
```

What is Word Count Program?

A word count program is a simple software or script that reads the contents of a text file, processes the text to identify individual words, and then counts the total number of words. It is commonly used to analyze documents, check content length, or assist in text analysis.
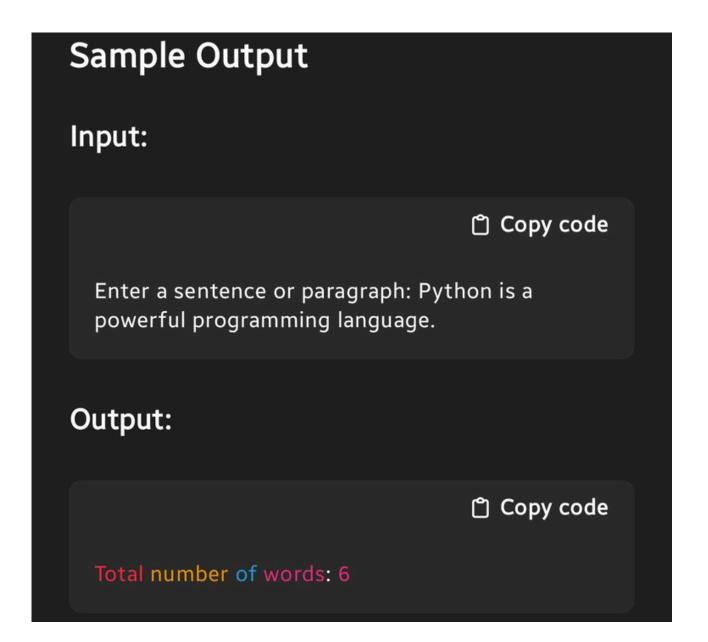In Python, this is typically done using:

- open() to read the file
- read() to get the text
- split() to separate words
- len() to count them

Word Count Program – Code


```python
# Word Count Program in Python

def count_words(text):
    # Split the text into words using whitespace as
separator
    words = text.split()
    return len(words)

# Input from the user
user_input = input("Enter a sentence or
paragraph: ")

# Count words
word_count = count_words(user_input)

# Output the result
print("Total number of words:", word_count)
```

Word Count Program – Output

Sample Output

Input:

Copy code

Enter a sentence or paragraph: Python is a powerful programming language.

Output:

Copy code

Total number of words: 6

Program Output

- Number of words in the file: 6

Conclusion

- File operations are essential for data handling.
- The word count program demonstrates reading and processing text data.
- Practice with different files and edge cases.

Thank You...