

9 Text Analysis Tool: Build a tool that analyses a paragraph: frequency of each word, longest word, number of sentences, etc.

```
# Text Analysis Tool
```

```
text = input("Enter a paragraph: ")
```

```
# Convert text to lowercase
```

```
text = text.lower()
```

```
# Find number of sentences
```

```
sentences = text.count(".") + text.count("?") + text.count("!")
```

```
# Remove punctuation
```

```
for ch in ",.!?;:"
```

```
    text = text.replace(ch, "")
```

```
# Convert paragraph into words
```

```
words = text.split()
```

```
# Find frequency of each word
```

```
frequency = {}
```

```
for word in words:
```

```
    if word in frequency:
```

```
        frequency[word] = frequency[word] + 1
```

```
    else:
```

```
frequency[word] = 1
```

```
# Find longest word
```

```
longest_word = max(words, key=len)
```

```
# Display results
```

```
print("\n--- Text Analysis Report ---")
```

```
print("Number of words:", len(words))
```

```
print("Number of sentences:", sentences)
```

```
print("Longest word:", longest_word)
```

```
print("Length of longest word:", len(longest_word))
```

```
print("\nFrequency of each word:")
```

```
for word, count in frequency.items():
```

```
    print(word, ":", count)
```

```
Text Analysis Tool.py - C:/Users/066/Desktop/Jones/Python pgm/Text Analysis Tool.py (3.13.7)
File Edit Format Run Options Window Help

# Text Analysis Tool

text = input("Enter a paragraph: ")

# Convert text to lowercase
text = text.lower()

# Find number of sentences
sentences = text.count(".") + text.count("?") + text.count("!")

# Remove punctuation
for ch in ",.!?;:":
    text = text.replace(ch, "")

# Convert paragraph into words
words = text.split()

# Find frequency of each word
frequency = {}

for word in words:
    if word in frequency:
        frequency[word] = frequency[word] + 1
    else:
        frequency[word] = 1

# Find longest word
longest_word = max(words, key=len)

# Display results
print("\n--- Text Analysis Report ---")

print("Number of words:", len(words))
print("Number of sentences:", sentences)
print("Longest word:", longest_word)
print("Length of longest word:", len(longest_word))

print("\nFrequency of each word:")

for word, count in frequency.items():
    print(word, ":", count)
```

```
IDLE Shell 3.13.7
File Edit Shell Debug Options Window Help

Python 3.13.7 (tags/v3.13.7:bceelc3, Aug 14 2021;
AMD64) on win32
Enter "help" below or click "Help" above for mo:

>>>
===== RESTART: C:/Users/066/Desktop/Jones/Pytho
Enter a paragraph: Mr Jones Daniel T says Pytho
Python is popular!

--- Text Analysis Report ---
Number of words: 15
Number of sentences: 2
Longest word: powerful
Length of longest word: 8

Frequency of each word:
mr : 1
jones : 1
daniel : 1
t : 1
says : 1
python : 3
is : 3
easy : 1
powerful : 1
and : 1
popular : 1

>>>
```

Output