

Scenario: You are working on a text analysis project and need to determine the frequency distribution of words in a given text document. You have a text document named "sample_text.txt" containing a paragraph of text. Your task is to develop a Python program that reads the text document, processes the text, and generates a frequency distribution of the words.

Question: How would you develop a Python program to calculate the frequency distribution of words in a text document?

AIM: To read a text document, clean the text, split it into words, and generate the frequency distribution of all words using Python.

PROCEDURE:

1. Open and read the text file into a string.
2. Convert text to lowercase and remove punctuation.
3. Split the cleaned text into individual words.
4. Use Counter() to calculate and display word frequencies.

OUTPUT:

Word Frequency Distribution:

```
Counter({'python': 2, 'is': 2, 'easy': 2, 'powerful': 1, 'and': 1, 'to': 1, 'learn': 1})
```