Experiment No: 10 - Title: Word Frequency and Numeric Sum Analysis from a Text File

Aim

To design and implement a Python program that reads paragraphs from a text file, generates the frequency of each word, and calculates the total sum of all numeric values present in the text.

Problem Statement

Write a Python program that:
1. Reads data from a text file containing paragraphs
2. Counts the frequency of each word (case-insensitive)
3. Identifies all numbers present in the text
4. Calculates the total sum of those numbers
5. Displays:
   - Word frequency dictionary
   - Total sum of numbers

Sample Text File (data.txt)

Success comes with 100 percent effort. If you try 3 times daily, you improve 5 times faster. Believe in yourself 2026 and work hard 7 days a week.

Concepts Used
- File handling (open(), read())
- Dictionaries
- String methods (lower(), split())
- isdigit() method
- Looping constructs
- Conditional statements

Result

Thus, a Python program to read paragraphs from a text file, generate word frequency, and calculate the total sum of numeric values present in the text was successfully designed and executed.

Word Frequency Dictionary:

{'success': 1, 'comes': 1, 'with': 1, 'percent': 1, 'effort': 1, 'if': 1, 'you': 2, 'try': 1, 'times': 2, 'daily': 1, 'improve': 1, 'faster': 1, 'believe': 1, 'in': 1, 'yourself': 1, 'and': 1, 'work': 1, 'hard': 1, 'days': 1, 'a': 1, 'week': 1}

Total Sum of Numbers in Text: 2141