

Task 6: Implement various text file operation.

03/09/25

6a: Student Record file handling.

Aim: - creates a text file and stores student name with their marks

- Reads and displays all student records.

- Appends new student data to the same file.

Algorithm:

1. Start

2. open a text file in write mode

3. input number of students

4. for each student:

• Take name and marks as input

• write the data to the file

5. close the file

Program:

```
def create-student-file(filename):  
    with open(filename, 'w') as file:  
        n = int(input("Enter number of students to add: "))  
        for _ in range(n):  
            name = input("Enter student name: ")  
            marks = input("Enter student marks: ")  
            file.write(f"{name} {marks} \n")  
        print("Student records saved successfully")  
    if choice == '1':  
        create-student-file(filename)  
    elif choice == '2':  
        read-student-file(filename)  
    elif choice == '3':  
        append-student-file(filename)  
    elif choice == '4':  
        print("Exiting program")  
        break  
    else:  
        print("Invalid choice. please try again")
```

Result: - Thus the Student Record file handling program
Executed Successfully.

Sample input:-

Enter your choice (1-4) = 1

enter number of students to add : 2

enter student name: Alice

enter student marks: 85

enter student name: Bob

enter student marks: 92

Output:-

Alice, 85

Bob, 92

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 | 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 | 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 100 |
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- aim:- Read a text file given by the user
- counts the number of lines, words and characters
 - Displays the frequency of each word in the file

Algorithm:-

1. Start
2. prompt the user to enter the filename
3. Try to open the file in read mode
4. initialize counters for lines, words, characters, and addition for word frequency
5. increment line count
6. Display each word with its frequency
7. if the file doesn't exist, handle the error
8. End.

program:-

```
def analyze_text_file(filename):
    try:
        with open(filename, 'r') as file:
            line_count = 0
            word_count = 0
            char_count = 0
            word_freq = defaultdict(int)
            print("\n --- file analysis result ---")
            print(f"total lines : {line_count}")
            print(f"total words : {word_count}")
            print(f"total characters : {char_count}")
            print(" --- word frequency ---")
            print(f"({word}) : {freq}")
            filename = input("enter the filename to analyze")
            analyze_text_file(filename)
```

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|-------------------------|----|
| CSE | |
| EX NO. | 6 |
| PERFORMANCE (5) | 3 |
| RESULT AND ANALYSIS (5) | 3 |
| VIVA VOCE (5) | 5 |
| TOTAL (20) | 14 |
| SIGN WITH DATE | |

Result:- Thus, the Text-File word Analyzer program Executed Successfully.

Sample input:-

Hello world
This is a sample file
Hello again, world.

Sample output:-

Total lines : 3

Total words : 10

Total characters : 60

C:\> echo Hello world
Hello world
C:\> echo This is a sample file
This is a sample file
C:\> echo Hello again, world.
Hello again, world.
C:\>

%1 = C:\>

(cmd /c echo Hello world) 2>&1

%1 = C:\>

(cmd /c echo This is a sample file) 2>&1

%1 = C:\>

(cmd /c echo Hello again, world.) 2>&1

%1 = C:\>

(cmd /c echo Hello again, world.) 2>&1

And

C:\> echo Hello world
Hello world
C:\> echo This is a sample file
This is a sample file
C:\> echo Hello again, world.
Hello again, world.
C:\>

C:\> echo Hello world
Hello world
C:\> echo This is a sample file
This is a sample file
C:\> echo Hello again, world.
Hello again, world.
C:\>

C:\>