**The individual student work 2**

1. **Reading a Text File**: Write a program that reads a text file named sample.txt and prints its content line by line.
2. **Writing to a File**: Create a program that asks the user to enter a string and saves it to a new text file named output.txt.
3. **Counting Lines and Words**: Write a program that reads a text file and counts the number of lines, words, and characters in it.
4. **Searching for a Word**: Create a program that asks the user for a word and checks if it exists in document.txt. Display the lines where the word appears.
5. **Appending to a File**: Write a program that opens log.txt and appends the current date and time to the file each time the program is run.
6. **Removing Blank Lines**: Write a program that removes all blank lines from a file named data.txt and saves the result in a new file named clean\_data.txt.
7. **Finding Most Frequent Words**: Write a program that reads a file, counts the frequency of each word, and prints the five most common words along with their counts.
8. **File Size**: Create a program that checks the size of a file named large\_file.txt and prints its size in bytes, KB, and MB.
9. **Comparing Two Files**: Write a program that compares two text files, line by line, and identifies which lines differ.
10. **Copying File Content**: Create a program that copies the content of one file to another. The target file should be created if it doesn't exist.
11. **Word Replacement**: Write a program that reads a file and replaces a specified word with another word throughout the file, saving the result to a new file.
12. **Counting Specific Words**: Create a program that reads article.txt and counts the occurrences of a specified word.
13. **File Metadata**: Write a program that displays metadata (such as creation time, last modification time, and size) for a file.
14. **Splitting a Large File**: Create a program that splits a large text file into smaller files, each containing 100 lines.
15. **Reading JSON Data**: Write a program that reads data from a data.json file and displays specific information (like name and age) from each object.
16. **Merging Multiple Files**: Write a program that merges all text files in a directory into one file named merged.txt.
17. **Reading CSV Data**: Write a program that reads data from a data.csv file and prints it in a tabular format.
18. **Finding Unique Words**: Write a program that reads essay.txt and finds all unique words, saving them to unique\_words.txt.
19. **File Line Numbering**: Create a program that reads a file and writes a new file with each line prefixed by its line number.
20. **Counting Sentence Lengths**: Write a program that reads a file and counts the number of words in each sentence, displaying the average sentence length.