1. Write a program that reads data from a text file named "input.txt" and prints its contents to the console. Also display the total number of characters in the text file.
2. Create a program that writes user input (names, email addresses) to a file named "output.txt". Ensure that each piece of information is stored on a new line.
3. Write a program that appends a specific message at the end of an existing file named "output.txt" without deleting its original contents.
4. Implement a C program that copies the contents of one file, e.g., "source.txt", into another file, e.g., "destination.txt". Handles all potential errors during file opening, reading, writing, or closing operations in a robust manner by checking the return values of functions like **`fopen`**, **`fread`**, and **`fwrite`**.
5. Create a program that allows users to read from and write to specific positions within a text file named "input.txt". Users should be able to specify a line number or byte offset.
6. Develop a C program to write all the data stored in a linked list into a file named "data.bin" (Binary write).
7. Develop another C program with which read the above binary file data.bin and prints it to the console.
8. Implement a program that compares two text files named "file1.txt" and "file2.txt" line by line to determine if they are identical.