OS and Network Lab Assignment-8

Objective: File handling using system calls

(Note: Write only the objective on the index page of the lab file.)

Q.1) Write a C program that:

- Creates a new file named output.txt.

- Writes a user-entered string into the file.

- Closes the file properly.

Q.2) Write a program that:

- Opens an existing text file.

- Reads its content and displays it on the terminal.

- Handles file-not-found errors.

Q.3) Write a program that:

- Takes two filenames as command-line arguments.

- Copies all data from the source file to the destination file.

Q.4) Write a program that reads a text file and counts:

- Number of characters

- Number of words

- Number of lines

Q.5) Write a program that appends user input to the end of an existing file without overwriting it.

Q.6) Write a program that displays file properties such as:

- Size

- Permissions

- Owner ID and Group ID

- Last modification time

System calls used: stat()

Q.7) Write a program that:

- Opens a file and duplicates its file descriptor using dup().

- Writes data using both descriptors and observe behavior.

System calls used: open(), dup(), write(), close()

Q.8) Write a program that deletes a given file using a system call.

System call used: unlink()

Q.9) Write a program that:

- Creates a new directory.

- Changes the current working directory to the new one.

- Displays the current working directory path.

System calls used: mkdir(), chdir(), getcwd()