Experiment-2

#include <stdio.h>

#include <stdlib.h>

#include <unistd.h> // for read(), write(), close()

#include <fcntl.h> // for open()

#define BUFFER\_SIZE 1024 // size of data chunk to copy

int main() {

int source\_fd, dest\_fd;

char buffer[BUFFER\_SIZE];

ssize\_t bytesRead;

// Open source file (read-only)

source\_fd = open("source.txt", O\_RDONLY);

if (source\_fd < 0) {

perror("Error opening source file");

exit(1);

}

// Open/Create destination file (write-only, truncate if exists, create with 0644 permissions)

dest\_fd = open("destination.txt", O\_WRONLY | O\_CREAT | O\_TRUNC, 0644);

if (dest\_fd < 0) {

perror("Error opening/creating destination file");

close(source\_fd);

exit(1);

}

// Copy loop

while ((bytesRead = read(source\_fd, buffer, BUFFER\_SIZE)) > 0) {

if (write(dest\_fd, buffer, bytesRead) != bytesRead) {

perror("Error writing to destination file");

close(source\_fd);

close(dest\_fd);

exit(1);

}

}

if (bytesRead < 0) {

perror("Error reading source file");

}

printf("File copied successfully!\n");

// Close files

close(source\_fd);

close(dest\_fd);

return 0;

}