Copy Contents of One File to Another Using System Calls

#include <fcntl.h>

#include <unistd.h>

#include <stdio.h>

#include <stdlib.h>

#define BUFFER\_SIZE 1024

int main(int argc, char \*argv[]) {

int src\_fd, dest\_fd;

ssize\_t bytes\_read, bytes\_written;

char buffer[BUFFER\_SIZE];

if (argc != 3) {

write(STDERR\_FILENO, "Usage: ./copy source\_file destination\_file\n", 44);

exit(1);

}

src\_fd = open(argv[1], O\_RDONLY);

if (src\_fd < 0) {

perror("Error opening source file");

exit(1);

}

dest\_fd = open(argv[2], O\_WRONLY | O\_CREAT | O\_TRUNC, 0644);

if (dest\_fd < 0) {

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

close(src\_fd);

exit(1);

}

while ((bytes\_read = read(src\_fd, buffer, BUFFER\_SIZE)) > 0) {

bytes\_written = write(dest\_fd, buffer, bytes\_read);

if (bytes\_written != bytes\_read) {

perror("Error writing to destination file");

close(src\_fd);

close(dest\_fd);

exit(1);

}

}

if (bytes\_read < 0) {

perror("Error reading source file");

}

close(src\_fd);

close(dest\_fd);

return 0;

}

