109590004 呂育瑋 作業系統 HW#2

系統環境：VMware, Linux, Ubuntu 18.04

* Chap.2 Programming problem: 2.15

程式碼：Source code/filecopy.c

#include <stdio.h>

#include <stdlib.h>

#include <string.h>

#include <unistd.h>

#include <sys/types.h>

#include <sys/stat.h>

#include <fcntl.h>

#define BUFF\_MAX 4086

#define FILE\_IN "Source"

#define FILE\_OUT "Destination"

int openFile(char value[], char type[]);

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

    if (argc != 3) {

        printf("[Error] Use: ./fileCopy.o <source file name> <destination file name>\n");

        return 1;

    }

    int fd\_source;

    int fd\_dest;

    char buff[BUFF\_MAX] = { 0 };

    fd\_source = openFile(argv[1], FILE\_IN);

    read(fd\_source, buff, BUFF\_MAX);

    close(fd\_source);

    fd\_dest = openFile(argv[2], FILE\_OUT);

    write(fd\_dest, buff, strlen(buff));

    close(fd\_dest);

    printf("[Success] Copy file content.\n");

    return 0;

}

// Open file with error check

int openFile(char value[], char type[]) {

    int fd = -1;

    if (strcmp(type, FILE\_IN) == 0) {

        fd = open(value, O\_RDONLY);

    } else if (strcmp(type, FILE\_OUT) == 0) {

        fd = open(value, O\_TRUNC | O\_WRONLY);

    }

    if (fd == -1) {

        printf("[Error] %s file does not exist\n", type);

        exit(1);

    }

}