University of Massachusetts Dartmouth
CIS 370, Fall 2012
Lab 2
09/17/2013 & 09/19/2013

Objective

To know various Linux system calls related to file operations.

Description

1. Copying files
The deliverable of the lab is a **C program** that copies a file from one location to another location.

The Linux system already has one such command `cp` that does the above job. In this lab, we are going to implement a simplified version of the Linux `cp` command. Let's call it `lastname`*`CP`*, which just copies a file from one location to another location; i.e., you don't need to handle copying directories, copying links, recursively copying, etc. But your `lastname`*`CP`* does need to handle this particular case: if the destination file doesn't exist then you should create a new one; if the destination file exists then you should **append** the content of the source file to the end of the destination file.

Let's specify the requirement for this command in the form of a manual:

> **SYNOPSIS**
> `lastnameCP` *path1 path2*
>
> **DESCRIPTION**
> 1. `lastnameCP` takes two paths and copies the content of *path1* to *path2*.
>
> 2. Displays the size of both the original file, as well as the copied file.
>
> 3. Should check whether the copied file already existed.
>
> 4. Modify your program to remove the original file.
>
> **EXAMPLES**
> The following code will copy `file1` under `/tmp to file2 under /tmp`.
> **$** `lastnameCP /tmp/file1 /tmp/file2`

2. Concatenating two files
Given two files *file1* and *file2*, append the content of *file2* to the end of *file1*, and place the results into a new file, *file3*.

Example: `lastnameCat file1 file2 file3`

file1
This is the content of file 1.

file2
This is the content of file 2.

file3
This is the content of file 1.
This is the content of file 2.

Hint: You should be able to modify your `lastnameCP.c` file to perform concatenation.

Deadline

Section 01 (Tuesday) – Tuesday, 9/24/2012
Section 02 (Thursday) – Thursday, 9/26/2012