Project Assignment 1
CS590-01 Summer 2016

Due: June 28, 2016
Assignment will be submitted through Canvas.
More details will be given about submission requirements.

Goal: In this assignment you will write a C program to copy files (`mycp`) using the file I/O routines on Linux.

Your `mycp` program must allow the user to:
1. Copy one file to another file
2. Copy multiple files to a directory

Assignment Details

1. Copy one file (`sourceFile`) to another (`targetFile`)

Usage: **`./mycp sourceFile targetFile`**

- If `targetFile` is an existing file, then it is overwritten
- If `targetFile` is a directory, then `sourceFile` is copied to `targetFile/sourceFile`

- Your program must be able to handle the following errors gracefully:
  - sourceFile does not exist (output error message)
  - targetFile exists (warn the user since it will be overwritten)
  - fail with an error message if the sourceFile and targetFile are the same (can't copy a file to itself)

2. Copy multiple files (`file1`, `file2`, …) to the target directory (`targetDir`)

Usage: **`./mycp file1 file2 file3 targetDir`**

- Your program must be able to handle the following errors gracefully
  - any one of the input files does not exist
  - `targetDir` does not exist

In both cases, when copying to a directory, check to see if the user has permissions to write to the target directory.

Your program must be able to be compiled using `gcc` under Linux.