

Northern Michigan University (Marquette Co, MI)

CS426-01-26F: Operating Systems (Andrew A. Poe)
Quiz 3

Name: _____
Friday 18 September 2026 3:00 P.M. EDT

Time: 15 minutes.

Write a complete program in C. The program should open two files "input1.txt" and "input2.txt" for reading and "output.txt" for writing. Your program should copy input1 to the output file until the character "@" is found. The @ is not copied to the output file. Instead, input2 is copied to the output file until "@" is found over there, and then the program switches back to input1. And so forth, and so on. When EOF is found on the file currently being copied, the program ends.

For example, if input1.txt is AB@CDE@FG and input2.txt is zyx@wv@u

the output file should be ABzyxCDEwvFG Notice that the u never gets copied over because input1 ran out of stuff.

```
#include <stdio.h>
#include <string.h>
#include <stdlib.h>
#include <unistd.h>
#include <fcntl.h>

int main (int argc, char **argv) {

    int i1 = open ("input1.txt",O_RDONLY);
    int i2 = open ("input2.txt",O_RDONLY);
    int o1 = open ("output.txt",O_WRONLY|O_CREAT|O_TRUNC,0700);
    int fd = i1;
    char buf;
    while (read(fd,&buf,1) > 0)
        if (buf == '@') fd = i1+i2-fd;
        else write (o1,&buf,1);
    fclose (i1); fclose (i2); fclose (o1);
    return 0;
}
```