Overview

In this assignment, you will write a C program to replace strings in a file.

Requirements

Your program will take the following arguments:

1. A search string.
2. A replacement string.
3. Zero or more file names.

It must process its files like normal Unix utilities, such as `cat` or `nl`:

- Read from each file in turn, one after the other.
- If no files are specified, read from standard input.

It must read the data from its input and write it out to its output, with every occurrence of the search string replaced by the replacement string.

Call your program `replcat` (the entire file should live in `replcat.c`). You can compile it with the following:

```
gcc -Wall -o replcat replcat.c
```

Examples

Consider the following file:

```
hello, world
hunt the wumpus
wumpii of the world, unite!
```

The following commands should produce the corresponding output (lines starting with a `$` are command lines entered at the shell, unprefixed lines are output):

```
$ replcat world planet wumpus.txt
hello, planet
hunt the wumpus
wumpii of the planet, unite!
$ replcat apple orange wumpus.txt
hello, world
hunt the wumpus
wumpii of the world, unite!
```

You may use the POSIX APIs (`read`, `write`, `open`) or C stdio APIs (`fopen`, `fread`, `fwrite`, etc.).