Exercises — Replace Line

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1 Replace Line

Files to submit:

- file_basics_replace_line/replace_line.c

Main function: none

Authorized functions: You are only allowed to use the following functions:

- fclose
- fgetc
- fopen
- fputs
- free
- getline

Authorized headers: You are only allowed to use the functions defined in the following headers:

- err.h
- assert.h
- errno.h
- stddef.h

1.1 Goal

Write a function that writes the content of `file_in` into `file_out`, but replaces the nth line by `content`.

```
int replace_line(const char *file_in, const char *file_out, const char *content,
        int n)
```

The whole n^{th} line - including \n - must be replaced by `content`. The `content` will always have a trailing \n.

If `file_out` already exists, it is not an error, the function will override its content.

If `file_in` contains less than n lines, `file_in` and `file_out` must have the same content and the function must return 1.

If any error occurs, the program have to return –1, otherwise it have to return 1.

> **Tips**
>
> - Line indexes start at 0.
> - For this exercise, `file_out` must be opened in write-only mode and `file_in` in read-only mode.

1.2 Example

```
replace_line("file_in.txt", "file_out.txt", "Replace the 3th\n", 2);
```

```
42sh$ cat file_in.txt
Line 1
Line 2
Line 3
Line 4
Line 5
42sh$ ./replace_line
42sh$ cat file_out.txt
Line 1
Line 2
Replace the 3th
Line 4
Line 5
```

Be careful!

This exercise will be compiled with –D_XOPEN_SOURCE=700

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