

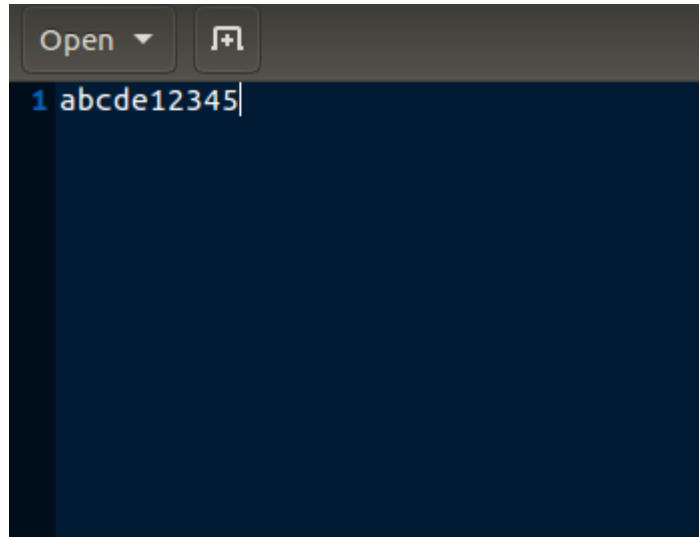
3. What will be the output for the program with following operation?
- Create a new file "f1" and write "abcde" in it and close
  - Open the file "f1" for writing with O\_APPEND flag
  - lseek to the beginning of the file
  - Replace the existing data in the file with "12345"

Justify your answer.

**Program:-**

```
1 #include <stdio.h>
2 #include <sys/types.h>
3 #include <sys/stat.h>
4 #include <fcntl.h>
5 #include <errno.h>
6 #include <unistd.h>
7 int main() {
8     int fd;
9     fd = open("f1", O_WRONLY | O_CREAT, 777);
10    if(fd == -1) {
11        perror("error opening file");
12        return 0;
13    }
14
15    if(write(fd, "abcde", 5) != 5) {
16        printf("hi\n");
17        perror("error writing to file");
18        return 0;
19    }
20    close(fd);
21
22    fd = open("f1", O_WRONLY | O_APPEND);
23    lseek(fd, 0, SEEK_SET);
24    if(write(fd, "12345", 5) != 5) {
25        printf("hi\n");
26        perror("error writing to file");
27        return 0;
28    }
29    close(fd);
30    return 0;
31 }
```

**File “f1” :-**

A screenshot of a code editor window. The window has a dark theme with a dark blue background. At the top, there is a toolbar with an 'Open' button and a file icon. Below the toolbar, the first line of code is visible, starting with a blue line number '1' followed by the text 'abcde12345'. The cursor is positioned at the end of the text.

**Justification:**

As given in `open(2)` documentation,

“The file is opened in append mode. Before each `write(2)`, the file offset is positioned at the end of the file, as if with `lseek(2)`. “

So even though if we `lseek` to start of file and try to overwrite existing content it will still write new content to end of file.