Online 7 : Recursion

**Date: 17/01/2021**

(a) Create a recursive function named void print\_indv\_char(char\* s) that will print the characters of a string individually. See sample input output for explanation.

(b) Create another recursive function named void print\_indv\_char\_rev(char\* s) that will print the characters of a string individually but in reverse sequence. See sample input output for explanation. Hints: This function will be similar to void print\_indv\_char(char\* s), try moving around the printf function.

|  |  |
| --- | --- |
| **Input.txt** | **output.txt** |
| char str[100] = “Hello”; print\_indv\_char(char\* s); | H e l l o |
| char str[100] = “Bye”; print\_indv\_char(char\* s); | B y e |
| char str[100] = “K”; print\_indv\_char(char\* s); | K |
| char str[100] = “”; print\_indv\_char(char\* s); // nothing will be printed in this case |  |
| char str[100] = “Hello”; print\_indv\_char\_rev(char\* s); | o l l e H |
| char str[100] = “Bye”; print\_indv\_char\_rev(char\* s); | e y B |
| char str[100] = “K”; print\_indv\_char\_rev(char\* s); | K |
| char str[100] = “”; print\_indv\_char\_rev(char\* s); // nothing will be printed in this case |  |

Hints:

main() → char str[100] = “Hello”;

↓ ↑

print\_indv\_char(str) /\* prints H\*/

↓ ↑

print\_indv\_char(str+1) /\* prints e\*/

↓ ↑

print\_indv\_char(str+2) /\* prints l\*/

↓ ↑

print\_indv\_char(str+3) /\* prints l\*/

↓ ↑

print\_indv\_char(str+4) /\* prints o\*/

↓ ↑

print\_indv\_char(str+5) /\* terminating condition, prints nothing\*/