LAB 3 — Types and Operators

Problem Description

A.1 Specification

Write a C program to input a line of characters and store the input characters in an array. Reverse the order of the input characters and display the reversed string on the standard output using **printf**.

A.2 Implementation

- The program is named `lab3a.c`. **Use the given template `lab3.c`** and fill in your code.

- You are given an array of characters of size `MAX_SIZE` where `MAX_SIZE` = 100. The array is named `my_strg`.

- Use `getchar` and a loop to read a line of characters, and store the input characters into array `my_strg`. The loop terminates when a new line character '\n' is entered. The new line character '\n' is NOT part of the line (i.e., discard the new line character '\n').

- Reverse the order of the input characters stored in array `my_strg`.

- Display on the standard output the reversed string using the `printf` statement as follows:

```
printf( "%s\n", my_strg );
```

A.3 Sample Inputs/Outputs

```
indigo 352 % lab3a

Hello, world!

!dlrow ,olleH

indigo 353 % lab3a

Welcome to CSE2031.

.1302ESC ot emocleW

indigo 354 % lab3a

A

A

indigo 355 % lab3a

123
```

```
321
```

```
indigo 356 % lab3a
```

3. Common Notes

All submitted files should contain the following header:

```
/**************************************

*     CSE2031 – Lab 3                 *

*     Filename:  Name of file         *

*     Author: Last name, first name   *

*     Email: Your email address       *

*     cse_num: Your cse number        *

**************************************/
```

In addition, all programs should follow the following guidelines:

- Include the `stdio.h` library in the header of your `.c` files.

- Use `printf` to print text and outputs according to the required formats.

- End each output result with a new line character '\n'.

- Do not use any C library functions except `getchar()`, `putchar()`, `scanf()` and `printf()`.

- **Assume that all inputs are valid (no error checking is required on inputs).**