

LAB 4 — 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 `lab4a.c`
- The input will not be more than 100 characters.
- Use `getchar` and a loop to read a line of characters, and store the input characters into an array. 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 the array.
- Display on the standard output the reversed string using `printf`.

A.3 Sample Inputs/Outputs

```
indigo 352 % lab4a
```

```
Hello, world!
```

```
!dlrow ,olleH
```

```
indigo 353 % lab4a
```

```
Welcome to CSE2031.
```

```
.1302ESC ot emocleW
```

```
indigo 354 % lab4a
```

```
A
```

```
A
```

```
indigo 355 % lab4a
```

```
123
```

321

3. Common Notes

All submitted files should contain the following header:

```
/******  
*      CSE2031 - Lab 4      *  
*      Filename: Name of file      *  
*      Author: Last name, first name      *  
*      Email: Your email address      *  
*      cs_num: Your cs 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).**