

Summer 2020

## Contacts

### Assignment 1 (Supplemental)

#### Introduction to C Strings

The section of the notes regarding C strings is not completely covered until week 9, however you will need to know some very simple facts about string handling in C for this assignment. If you wish, you can read more about string handling here: <http://scs.senecacollege.ca/~ipc144/pages/content/string.html>

A C string is an array of type `char` with a special terminator character called the null byte. When declaring a C string array it is necessary to always make the array one character larger than the maximum number of characters it needs to be able to store.

If we need to be able to store up to **30 characters**, this is the declaration of the array:

```
char firstName[31]; // the size is 31!
```

To read a C string (user input), code the following:

```
scanf("%30s", firstName);
```

**Note:** *There is no ampersand (&) before firstName, the name of an array is its address. 30 specifies the max number of characters to be read*

To print a C string, code the following:

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

Here is a code sample that reads and writes a C string:

```
#include<stdio.h>

#define NAME_SIZE 30
int main(void)
{
    char firstName[NAME_SIZE + 1];

    printf("Enter the contact's first name, maximum 30 characters: ");
    scanf("%30s", firstName); //user enters: Fred

    printf("You entered: %s.\n", firstName); //outputs: You entered: Fred.

    return 0;
}
```