Agenda / Learning Objectives:

1. Run the following command and extract lab04.tar in your venus account (note the dot):
   
   cp ~ctse/cs211/lab04.tar . ; tar xvf lab04.tar

2. Highlight two key review points from yesterday’s lecture:
   - Function Overloading
   - Arrays as parameters

3. Review chapter 9 on strings and string manipulations.
   - console input and output, cin and cout
   - difference between a c-string and a regular string (#include <string>) from the library.
   - get and getline functions from cin.
   - cstring string

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   strcpy = operator
   strcat + operator
   strlen length function
   strcmp ==, <, >, <=, >=, != operators

   • strlcpy is prefered over strcpy
   • Go over some library functions from the cctype library:
     toupper
tolower
isupper
islower
isalpha
isdigit
Lab Exercise: Strings vs. C-Strings

Part A:

1. Declare a c-string of size 50.
2. Ask the user for a line of text of length 10 or more. Recall to maintain the proper length in order to not destroy the c-str.
3. Insert it into the c-str created in step 1. Print out the c-str and its length.
4. Extract the middle 5 or 6 characters of the c-str. 5 if the c-string is of an odd length, 6 if it’s of even length. Ex: “Hello New York” -> “o New”, “Goodbye Bob” -> “dbye”
5. Insert these characters into another c-str. Print the c-str substituting spaces with asterisks (*).

Part B:

1. Do all the above using strings and the methods available in the string class. (Hint: substrings)
2. Which one is easier? Part A / B?