

## BASIC PROGRAMMING

### LABWORK 6: Array and String

**Exercise 1:** Write a C program to find the minimum and maximum number in a given series of  $n$  numbers stored in a static or dynamic (from the keyboard) array.

**Exercise 2:** Write a C program to enter a positive integer number  $n$  and calculate the sum of even and odd numbers from 1 to  $n$ .

**Exercise 3:** Write a C program to sort an array of  $n$  elements in an increasing order ( $n$  is constant) by three different methods: bubble sort, insertion sort and selection sort.

**Exercise 4:** Enter an array of size  $n$ , ( $n$  is input from the keyboard), then calculate the sum of all the array elements.

**Exercise 5:** Enter a matrix  $A$  of size  $n$ , ( $n$  is input from the keyboard), let's calculate:

- The sum of all the matrix  $A$ 's elements
- Print the transposed matrix of  $A$
- (option) The Determinant of the matrix  $A$
- (option) The inversed matrix of  $A$

**Exercise 6:** Enter a string from the keyboard, let's print the string in reverse.

**Exercise 7:** Enter a string from the keyboard, let's print out the number of the character 'a' in the string and their orders in the string.

**Exercise 8:** Enter a string and a character  $x$  from the keyboard and delete all the characters  $x$  in the string.

**Note:** To save time, lecturer can tutor the exercises 3, 5 at the end!