

**Lab 10: Pointers and Arrays**

**CSE 4108**

**Structured Programming I Lab**

November 2023

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**Lab Tasks**

1. **Palindrome:**

(a) Write a program that reads a message, then checks whether it’s a palindrome (the letters in the message are the same from left to right as from right to left).

**Sample run:**

Enter a message: A Man, A Plan, A Canal-Panama!

Palindrome

Enter a message: Madam, I am Adam.

Not a palindrome

Ignore all characters that aren’t letters.

**Note: The program should use pointers instead of integers to keep track of positions in the array.**

**Note: You can simplify the program by taking advantage of the fact that an array name can be used as a pointer.**

2. **Position through Pointers:**

Modify the **maxmin.c** (Page 249 - Section 11.4) program so that the **max\_min** function uses a pointer instead of an integer to keep track of the current position in the array. Output the position of the max and min value in the array instead of the values themselves. Positions are calculated from 1 to n.

**Sample Run:**

Enter 10 Numbers: 34 82 49 102 7 94 23 11 50 31

Max Position: 4

Min Position: 5

3. **A Definite Game:**

Login to Codeforces using your handle and submit the solution to the following problem:

<https://codeforces.com/problemset/problem/1081/A>

4. **New Year and Counting Cards:**

Login to Codeforces using your handle and submit the solution to the following problem:

<https://codeforces.com/problemset/problem/908/A>

5. **Get Rid of Em:**

Write a function that takes a string as its parameter and returns a modified string where all vowels have been eliminated. Note that there are 10 vowels: ‘A’, ‘E’, ‘I’, ‘O’, ‘U’, ‘a’, ‘e’, ‘i’, ‘o’ and ‘u’.

**Sample Run:**

Enter a String: Don’t be negative, B positive.

Output: Dn’t b ngtv, B pstv.