

CS225 Strings: Max Sequence Project

Create a C++ program as instructed below.

- a) Create a program with the project name MaxSequence
- b) Program Description

Write a program that takes as input N lines where each line consists of a list of up to twenty distinct positive integers terminated by a -1 as a special mark for the end of the list. Print out the length and the longest increasing integer subsequence of adjacent numbers (i.e. if "i" is an integer, the subsequence should be of the form i, i+1, i+2, ...). If there is a tie, the first longest subsequence must be displayed.

- You must use at least one array in your code.
- The input is given in a file called infile.txt

Input:

```
2 3 7 8 9 10 11 12 5 -1
3 8 9 2 8 1 3 2 3 4 -1
5 3 9 1 2 3 4 5 9 10 -1
7 8 3 1 2 3 9 -1
3 2 1 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 -1
```

Output:

```
Length = 6; Sequence = 7 8 9 10 11 12
Length = 3; Sequence = 2 3 4
Length = 5; Sequence = 1 2 3 4 5
Length = 3; Sequence = 1 2 3
Length = 15; Sequence = 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15
```

- c) Program Requirements

- ✓ Include your first and last name as a comment on the top of your C++ program.
- ✓ Your object and variable names must be meaningful. Their names must give some indication of their purpose.