Lab Assignment 01

2022 – 2023 Spring, CMPE 114 - 211 Fundamentals of Programming II

Question 01

Submission

1. Write the program as directed below:

(a) Declare three String variables named course1 and course 2, course 3.

(b) Read the value of all of them from the user.

(c) Print them in a lexicographically decreasing order.

Note: All the string comparisons should be done in a case-insensitive way.

Sample Case 1:

Please enter a course name:

CMPE114

Please enter a course name:

CMPE113

Please enter a course name:

CMPE223

CMPE223

CMPE114

CMPE113

Question 2

Read a string of mathematical operators from the user (e.g., "++-/*+"). Then, read an integer from the user. The number of digits of the integer should be one more than the length of the string of the operators. Starting from the first digit, apply the max/min operations (a:max, b:min) in order and print the result. The program should print the appropriate warning message if the string contains characters other than mathematical operations or the length of the integer is too big or too small.

Example: "ababab", "2346225"

3 = max(2,3)

3 = min(3,4)

6 = max(3,6)

2 = min(6,2)

2 = max(2,2)

2 = min(2,5)

Sample Case 1:

Enter the string of operations:

ababab

Enter the integer:

2346225

Result: 2,0

Sample Case 2:

Enter the string of operations:

aba!

Invalid string

Sample Case 3:

Enter the string of operations:

abaaabbb

Enter the integer:

999

The length of the integer is inappropriate

Question 3

The program should keep asking for integers to the user until 'q' character is entered. Then, the following equation should be calculated using the minimum and maximum entered integers.

$$\sqrt{max}^{\sqrt{max^{min}}}$$

Sample case 1:

Enter an integer:

1

Enter an integer:

5

Enter an integer:

9

Enter an integer:

q

Result: 27,0