Updated Software Development Report
for
CSC 121: Programming I: Fall 2022
First Demonstration
by
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Problem Summary
The program is to output three numbers inputted by the user in decreasing order.

Problem Requirements
★   Allow for equality
★   Numbers are to be inputted on a separate line each.
★   Output is to display the numbers as shown in this example: 3 >= 2 >= 1

System Design
1.   Get three numbers
2.   Determine the order using selection
3.   Output the result

Testing Report

Case	Input (separate lines for each number)	Expected Output	Generated Output	Pass?
S1	5 10 15	15 >= 10 >= 5	15 >= 10 >= 5	yes
S2	5 15 10	15 >= 10 >= 5	15 >= 10 >= 5	yes
S3	10 5 15	15 >= 10 >= 5	15 >= 10 >= 5	yes
S4	10 15 5	15 >= 10 >= 5	15 >= 10 >= 5	yes
S5	15 5 10	15 >= 10 >= 5	15 >= 10 >= 5	yes
S6	15 10 5	15 >= 10 >= 5	15 >= 10 >= 5	yes
Eq1	5 5 15	15 >= 5 >= 5	15 >= 5 >= 5	yes
Eq2	5 15 5	15 >= 5 >= 5	15 >= 5 >= 5	yes
Eq3	5 10 10	10 >= 10 >= 5	10 >= 10 >= 5	yes
Eq4	5 5 5	5 >= 5 >= 5	5 >= 5 >= 5	yes
Eq5	20 10 10	20 >= 10 >= 10	20 >= 10 >= 10	yes
Eq6	20 20 10	20 >= 20 >= 10	20 >= 20 >= 10	yes
Er1	a b c	bad data, please try again	system crashed	no

Er2	10 20 30 (all on one line)	bad data, please try again	system crashed	no
Sp1	-4 0 10000	10000 >= 0 >= -4	10000 >= 0 >= -4	yes
Sp2	657487 0 -874757	657487 >= 0 >= -874757	657487 >= 0 >= -874757	yes

S1 - S6 are **S**tandard cases
Eq1 - Eq6 are cases testing for **Eq**uality
Er1 - Er2 are testing for **Er**ror cases
Sp1 - Sp2 are testing **Sp**ecial cases

Time Spent
This program and development report took one hour.

Outside resources used
Examples from the textbook were used to confirm correct syntax of how to get input from the keyboard.

Security report
• Only possible security problem is the failure to validate correct input. The system crashes.

Ethical report
• There does not appear to be any way to improve any aspect of society with this software since it only output the values in order.
• There does not appear to be any way to harm any aspect of society with this software for the same reason.

Future Improvements
• Fix the program so that when bad data is inputted, it will be handled gracefully

Lessons learned
• Proper syntax for commenting
• Proper syntax of if/else statement

Improvements of Work
• System design was made more explicit
• Layout of the table for the testing report was made nicer and an explanation of its case naming was added