

# Computer Science 112

Computer Science with C++ and Java

Spring, 2019



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## Lab Report – Week [3] - [Children's Math Game]

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[SPRING]

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### Assignment Analysis and Design

*While developing this project I underestimated the benefit of pseudocode. I quickly started to program the GUI and it quickly got overwhelming due to me not being too familiar to the NetBeans GUI creator. So, after one failed attempt I went back to the drawing board and determined a new plan outlined below in the pseudocode.*

When "go" button is selected:

*Generate two random numbers, store them*

*Speak the numbers*

*Wait for user to enter data*

*Add one to the total number of rounds*

When "check" button is selected:

*Figure out if the setting is addition or subtraction*

*Parse the string of user entered data to an integer*

*Add generated numbers together*

*If they are equal:*

*Add 1 to score*

*Say "Correct"*

*Else:*

*Say "incorrect"*

After score reaches 5:

*Voice the score and total of rounds*

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*My code is a bit different because I had it deal with negative numbers and a setting for subtraction. The way I dealt with the negative character was by seeing if it's the first element attempted to be added and adding it. If not the first element being added, you cannot enter a negative after another number. The program also needs the users entry to be negative if the result is.*

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## Assignment Code

*Include the code for your assignment Unless otherwise directed by the assignment or by your instructor, that will be a zipped copy of your NetBeans project attached to the report.*

*You can put the report and the NetBeans project all in one zipped folder. In the report, either tell the reader that it is attached file or include the code.*

*A zipped folder may contain another zipped folder. You can copy the zipped folder for your NetBeans project and your lab report into a folder for your assignment, then zip the assignment folder.*

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## Assignment Testing

*Testing the program was just going through each round and attempting every vulnerability I could find. There was nothing that crashed the game although if I figured out the problem with storing all numbers entered by the user quicker I could've made a display for the user to see what's going on.*

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## Assignment Evaluation

*The project did teach me to better plan out how to set up my code. What things are required by what components, making sure to declare everything rudimentary and building onto the complexity. Although pretty straight forward, I felt as if the new environment NetBeans 10 has created gave me more time than I wanted to complete this task, but the job is done.*