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|  | **Assignment No. 1 Semester: Spring 2021**  **CS201 – Introduction to Programming** | | **Total Marks: 20**  **Due Date:20th May 2021** |
| **Instructions**  **Please read the following instructions carefully before submitting assignment:**  **It should be clear that your assignment will not get any credit if:**   * **Assignment is submitted after due date.** * **Submitted assignment does not open or file is corrupt.** * **Assignment is copied (From internet/students).**   **Recommended tool to develop Assignment**   * **Dev C++**   **Objectives:**  To enable students to understand and practice the concepts of:   * Data Types and Variables * Arithmetic and Logical Operators * Expression solving * If-else statements * repetition structure   **Assignment Submission Instructions**  You have to submit only**.cpp** file on the assignments interface of CS201 from your LMS account. ***Assignment submitted in* any other format *will be scaled with* zero mark*.*** *So, check your solution file format before submission.*  For any query related to assignment, please contact [cs201@vu.edu.pk](mailto:cs201@vu.edu.pk).    **Lectures: 1 to 6** | | | |
| **Assignment** | |  | |

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| An expression is given here. You are required to write a C++ program that solves the given mathematical expression.  Z = x2 + 2xy – x/y  set the values of x = 2 and y = 1  Three main tasks are to be done by each student:-   1. Expression solving 2. Decisions making (if-else structure) 3. Repetition structure (while loop).   After evaluation of above expression, you should add the value of **z** to last digit of your vu id. As a result,   1. If you get an odd number, then you should print your VU id using while loop. This while loop should run as many times as odd number you got from (z+ last digit of your vu id).   For example, suppose the value of z is 2 and the student’s id is BC123456781. Then by adding last digit of vu id 1 to value of z, result will be 3 which is an odd number. In this case, program should print your VU ID for 3 times using while loop.  Sample screen shot::     1. If you get an even number, then you should print your Name using while loop. This while loop should run as many times as even number you got from (z+ last digit of your vu id).   For example, suppose the value of z is 2 and the student’s id is BC123456782. Then by adding last digit of vu id 2 to the value of z, result will be 4 which is an even number. In this case, program should print your Name for 4 times using while loop.  Sample screen shot:: |
| NOTE: Values of “z” and “student’s id” are arbitrary (not real). |