



**UNIVERSITY OF CALOOCAN CITY**  
Caloocan, 1400 Metro Manila, Philippines

**COLLEGE OF ENGINEERING**  
**Computer Engineering**  
2<sup>nd</sup> Semester, School Year 2024-2025

<b>Laboratory Activity No. 2.2</b>	
<b>Literals, Operators, and Variables</b>	
<b>Course Code:</b> CPE103	<b>Program:</b> BSCPE
<b>Course Title:</b> Object-Oriented Programming	<b>Date Performed:</b> 01/02/25
<b>Section:</b> 1-A	<b>Date Submitted:</b> 01/02/25
<b>Name:</b> VILLANUEVA, BRYAN O.	<b>Instructor:</b> Engr. Rizette H. Sayo
<b>1. Objective(s):</b>	
1. Implement literals and variables in a python program.	
<b>2. Intended Learning Outcomes (ILOs):</b>	
The students should be able to:	
<ol style="list-style-type: none"> <li>1. Write a simple program implementing literals and variables.</li> <li>2. Use comments and identify keywords from identifiers created by users.</li> </ol>	
<b>3. Discussion:</b>	
1. Discuss the use of variables, constants and literals in a python program.	
<b>4. Tasks:</b>	
<p>A teacher wants to calculate the final grade in a CpE course and want to write it in a python program. The following are the requirements:</p> <ol style="list-style-type: none"> <li>1. PRELIM GRADE = 50% Prelim Exam + 50% Prelim Class Standing (CS)</li> <li>2. PRELIM CS = 50% Hands-on activity + 30% Quiz + 20% Assignment</li> <li>3. MIDTERM GRADE = 1/3 of PRELIM GRADE + 2/3 of (50% Midterm Exam + 50% Midterm Class Standing (CS))</li> <li>4. MIDTERM CS = 50% Hands-on activity + 30% Quiz + 20% Assignment</li> <li>5. FINAL GRADE = 1/3 of MIDTERM GRADE + 2/3 of (50% Final Exam + 50% Final Class Standing (CS))</li> <li>6. FINAL CS = 50% Hands-on activity + 30% Quiz + 20% Assignment</li> <li>7. HOAs, Quizzes and Assignments are inputted as average of all submissions and are out of 100%.</li> <li>8. Major exams are inputted out of 100%.</li> </ol>	



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9. Show the codes that successfully run the program.
10. Provide comments or documentation strings for your program.

**PLEASE REFER TO THIS LINK FOR MY ANSWERS.**

<https://colab.research.google.com/drive/1hgvplLvK3CMuSVKETwK-C38ZgcOjWqNt#scrollTo=9RyMHI-5X5fc&line=1&uniqifier=1>

#### **5. Supplementary Activity:**

1. Test 3 students from the program you created.
2. The program should show the name of the student, the PRELIM, MIDTERM and FINAL grades.
3. Convert the final grade into the UCCs numerical grade. Please refer to the grading system.

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<https://colab.research.google.com/drive/1hgvplLvK3CMuSVKETwK-C38ZgcOjWqNt#scrollTo=kV1PRxyV1dYa&line=2&uniqifier=1>

#### **6. Conclusion**

In conclusion, I was able to implement literals and variables in the Python program as the objective wants. I used variables to store the grades for each student and applied calculation to compute the class standings and final grades. The program also allows multiple students to be processed by using a loop to either continue or exit. By using variables to store user input and applying mathematical operations, I was able to meet the objective of the task.

#### **7. Assessment Rubric:**