UNIVERSITY OF CALOOCAN CITY
Caloocan, 1400 Metro Manila, Philippines

COLLEGE OF ENGINEERING
Computer Engineering
2nd Semester, School Year 2024-2025

Laboratory Activity No. 2.2	
Literals, Operators, and Variables-Supplementary Activity	
Course Code: CPE103	**Program:** BSCPE
Course Title: Object-Oriented Programming	**Date Performed: 02-01-2025**
Section: 1-A	**Date Submitted: 02-01-2025**
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1. Objective(s):

1. Implement literals and variables in a python program
2. To calculate the final grade in a CpE course and want to write it in a python program.

2. Intended Learning Outcomes (ILOs):

1. To learn the basics of operators and conditional functions.
2. To master and learn the different operations and also the condition functions of python programming.

3. Discussion:

I used different types of variables, like the difference between prelim, midterm, and final grade. I used the basic python input functions and operators. I also used the conditional statements to ensure that the grade that will be inputted is within the given range grade.

4. Materials and Equipment:

1. Google Colab
2. Github

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5. Procedure:

1. I analyzed the given task and ordered the needed for grades to be inputted then proceeded to do the basic float and input function for the user to input example grares.
2. I then did a code line for the computation of the Prelim, Midterm, and Final Class Standing and Grade.
3. I then used the spacing "\n" in order to add spacing especially for the summary og grades where it printed the name and the grades of the student.

6. Supplementary Activity

1. Test 3 students from the program you created.
   Refer to this link: https://colab.research.google.com/drive/1SvGmx8mEeu_NBd-3lpwBSGYcFYFGFKv1#scrollTo=Tc_59pjr5UoN&line=11&uniqifier=1
2. The program should show the name of the student, the PRELIM, MIDTERM and FINAL grades.
   Refer to this link: https://colab.research.google.com/drive/1SvGmx8mEeu_NBd-3lpwBSGYcFYFGFKv1#scrollTo=Tc_59pjr5UoN&line=11&uniqifier=1
3. Convert the final grade into the UCCs numerical grade. Please refer to the grading system.
   Refer to this link: https://colab.research.google.com/drive/1SvGmx8mEeu_NBd-3lpwBSGYcFYFGFKv1#scrollTo=Gd5gVk-GDHfu&line=4&uniqifier=1

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7. Questions

1.How did you ensure that the grades inputted were within the valid range?

By using conditional statements in Python, the program checked if the inputted grades were within the specified range before proceeding with the calculations.

2. How did the program convert the final grades into the UCC numerical grade system?

The program calculated the Prelim, Midterm, and Final grades, and then applied a conversion function to translate these final grades into the corresponding UCC numerical grade.

8. Conclusion
In conclusion, the objective of implementing literals and variables in a Python program was successfully achieved. The program effectively calculated the final grades in a CpE course, utilizing basic operators and conditional statements to ensure valid input ranges. By testing the program with three students, it accurately displayed their Prelim, Midterm, and Final grades, converted to the UCC grading system. Through this activity, the basics of operators and conditional functions in Python were learned and applied effectively.