

Activity No. 1.1

Using Pseudo-code Statements and Flowchart Symbols

Course Code: CPE007

Program: Computer Engineering

Course Title: Data Structures and Algorithms

Date Performed: July 31, 2025

Section: CPE11S1

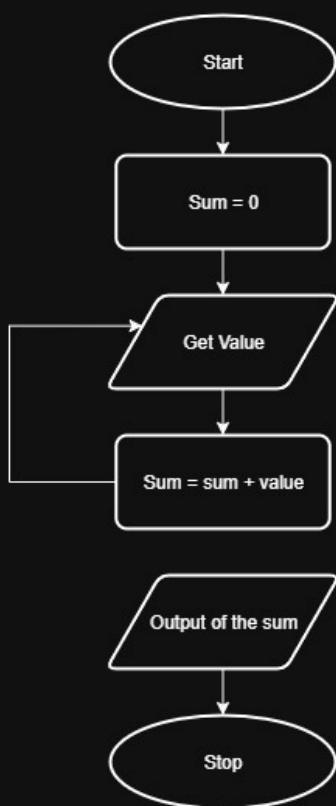
Date Submitted: July 31, 2025

Name(s): Nathaniel B. Mendoza

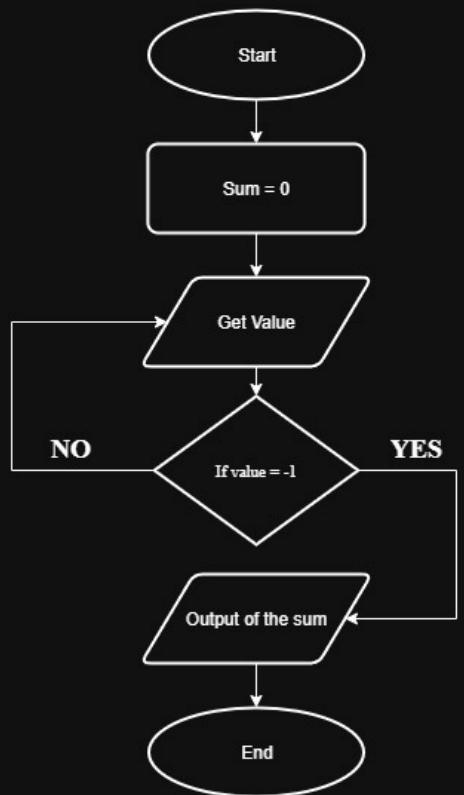
Instructor: Engr. Jimlord Quejado

6. Output (Problem 1 and 2)

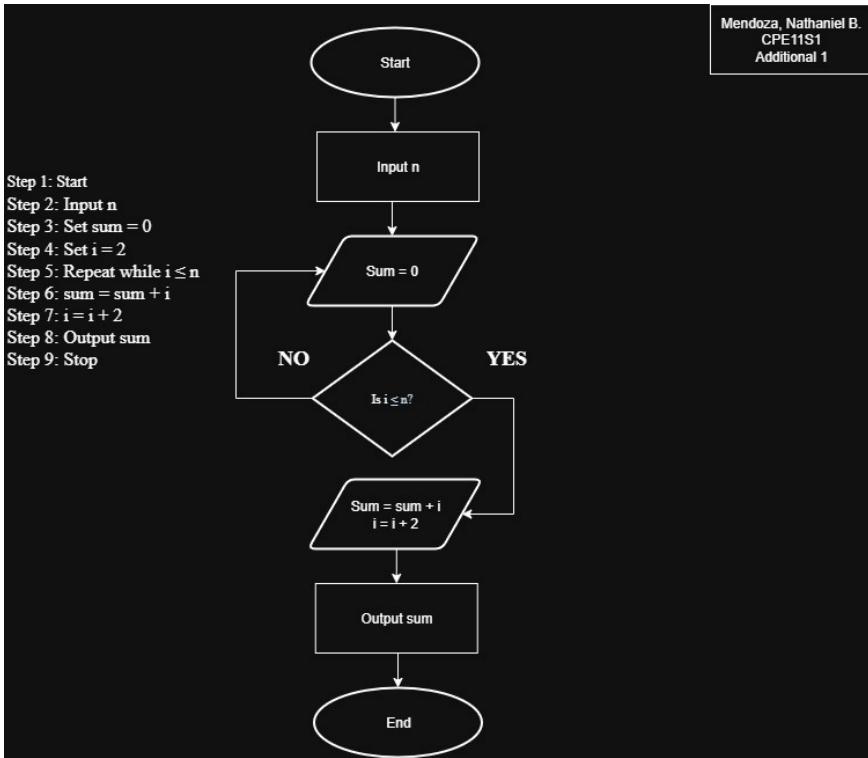
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CPE11S1
Problem 1
Infinite Algorithm



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Problem 2
Finite Algorithm



7. Supplementary Activity (Additional Activities 1 to 6)



2. Write an algorithm to read 100 numbers and then display the sum.

Step 1: Start
Step 2: Set sum = 0
Step 3: Set i = 1
Step 4: Repeat while $i \leq 100$
Step 5: Input first value
Step 6: Sum = sum + value
Step 7: Increment i = $i + 1$
Step 8: Output sum
Step 9: Stop

3. Write an algorithm to read two numbers then display the largest.

Step 1: Start
Step 2: Input first value
Step 3: Input second value
Step 4: If first value > second value, then output first value
Step 4: Else, display second value
Step 5: Stop

4. Write an algorithm to read two numbers then display the smallest

Step 1: Start
Step 2: Input first value
Step 3: Input second value
Step 4: If first value < second value, then output first value
Step 4: Else, output second value
Step 5: Stop

5. Write an algorithm to read three numbers then display the largest.

Step 1: Start

Step 2: Input first value

Step 3: Input second value

Step 4: Input third value

Step 5: If first value \geq second value and first value \geq third value, then output first value

Step 6: If second value \geq first value and second value \geq third value, then output second value

Step 7: Else, output third value

Step 8: Stop

6. Write an algorithm to read 100 numbers then display the largest.

Step 1: Start

Step 2: Input first value and set as "largest"

Step 3: Set $i = 2$

Step 4: Repeat process while $i \leq 100$

Step 5: Input next value of i

Step 6: If value $>$ current largest, then set largest = value

Step 7: Increment $i = i + 1$

Step 8: Output largest

Step 9: Stop

8. Conclusion

Through the lesson, I was able to learn how to create a step-by-step logical solution to a problem given, and this gives me understanding on making a finite and infinite algorithms to process it on multiple inputs. This also improves my decision making on making a flowchart as it requires the correct way on obtaining what is asked. Additionally, this lesson visually clears the connection between the logic and flowchart that this will be useful for coding and future tasks.

9. Assessment Rubric

Rubric for SO 7 (1)

Criteria	Ratings						Pts
SO 7 PI 1 ILO4 Utilize lifelong learning skills in pursuit of personal development and excellence in professional practice. threshold: 4.8 pts	6 pts Excellent Educational interests and pursuits exist and flourish outside classroom requirements, knowledge and/or experiences are pursued independently and applies knowledge learned into practice	5 pts Good Educational interests and pursuits exist and flourish outside classroom requirements, knowledge and/or experiences are pursued independently	4 pts Satisfactory Look beyond classroom requirements, showing interest in pursuing knowledge independently	3 pts Unsatisfactory Begins to look beyond classroom requirements, showing interest in pursuing knowledge independently	2 pts Poor Relies on classroom instruction only	1 pts Very Poor No initiative or interest in acquiring new knowledge	6 pts
SO 7 PI 2 ILO4 Utilize lifelong learning skills in pursuit of personal development and excellence in professional practice. threshold: 4.8 pts	6 pts Excellent Completes an assigned task independently and practices continuous improvement	5 pts Good Completes an assigned task without supervision or guidance	4 pts Satisfactory Requires minimal guidance to complete an assigned task	3 pts Unsatisfactory Requires detailed or step-by-step instructions to complete a task	2 pts Poor Shows little interest to complete a task independently	1 pts Very Poor No interest to complete a task independently	6 pts
SO 7 PI 3 ILO4 Utilize lifelong learning skills in pursuit of personal development and excellence in professional practice. threshold: 4.8 pts	6 pts Excellent Synthesizes and integrates information from a variety of sources; formulates a clear and precise perspective; draws appropriate conclusions	5 pts Good Evaluate information from a variety of sources; formulates a clear and precise perspective.	4 pts Satisfactory Analyze information from a variety of sources; formulates a clear and precise perspective.	3 pts Unsatisfactory Apply the gathered information to formulate the problem	2 pts Poor Gather and summarized the information from a variety of sources but failed to formulate the problem	1 pts Very Poor Gather information from a variety of sources	6 pts
SO 7 PI 4 ILO4 Utilize lifelong learning skills in pursuit of personal development and excellence in professional practice. threshold: 4.8 pts	6 pts Excellent Ideas are combined in original and creative ways in line with the new and emerging technology trends to solve a problem or address an issue.	5 pts Good Ideas are creative and adapt the new knowledge to solve a problem or address an issue	4 pts Satisfactory Ideas are creative in solving a problem, or address an issue	3 pts Unsatisfactory Shows some creative ways to solve the problem	2 pts Poor Shows initiative and attempt to develop creative ideas to solve the problem	1 pts Very Poor Ideas are copied or restated from the sources consulted	6 pts

Total Points: 24