Midterm Exam: Skill Test							
Course Code: CPE 201L	Program: BS CpE						
Course Title: Data Structures and Algorithm	Date Performed: September 6, 2025						
Section: 2-B	Date Submitted: September 6, 2025						
Name: Justine Poliño	Instructor: Engr. Maria Rizette Sayo						

1.Objectives

- 1. To implement an array of integer using python
- 2. To perform basic operations like display, count all the number inside the element, and count the odd and even integers inside the element.

2. Discussion

This Skill test really gave me a good practical experience dealing with array, which is simple but really usefull data structure for managing multiple elements, By placing numbers less than 50 but not less than 20 is also equal to 20-49 and putting them in into the array, I could easily keep them organized and work with as a group. The array lets me allow to count all the numbers and quickly check whether each number was even or odd.

3. Materials and Equipment

Python Programming Language

Python was used to implement the array data structure and perform the required operations.

Integrated Development Environment (IDE)

Google Colab

4. Procedure

- Step 1: Create an array containing numbers from 20 to 49
- Step 2: Display all elements in the array
- Step 3: Count the total number of elements in the array
- Step 4: Count how many even numbers are in the array
- Step 5: Count how many odd numbers are in the array
- Step 6: Display the total count, even count, and odd count
- Step 7: End the procedure

5. Output

Elements in the array: [20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49]
Number of elements: 30

Number of odd integers: 15 Number of even integers: 15

6. Conclusion

We got to practice handling a bunch of numbers with arrays thanks to this exercise. In an array, that works similarly to a container that keeps things in order, we enter the numbers 20 to 49. The sum of numbers in the container was then counted. We then determined if each number was odd or even and noted how many of it we could find. Dealing with all the integers simultaneously rather than one at a time became easy by the use of arrays.

Criteria	Ratings								Pts		
SO 7 PI 1 Student Outcome 7.1 Acquire and apply new knowledge from outside sources. threshold: 4.8 pts	6 pts Excellent Educational interests and pursuits exist and flourish outside classroom requirements, knowled and/or experiences are pursued independent and applies knowledg learned into practice	and pursuits interests and pursuit exist and flourish outside classroom ents,knowledge requirements,knowledge and/or experiences are ndependently es knowledge		ursuits Look beyond sh classroom om requirements, nowledge showing nces are interest in		3 pts Unsatisfactory J Begins to look beyond classroom requirements, showing interest in pursuing knowledge independently		Relies on classroom instruction only		1 pts Very Poor No initiative or interest in acquiring new knowledge	6 pts
Student Outcome 7.2 Learn independently 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		y iled ep	complete a task		1 pts Very Poor No interest to complete a task independently		6 pts
Student Outcome 7.3 Critical thinking in the broadest context of technological change 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 variet sources; formulates a clear and precise perspective.		3 pts Unsatisfac Apply the gathered informatic formulate problem	and sumn the inform on to from a va		ummarized formation a variety of es but to late the	information		6 pts
Student Outcome 7.4 Creativity and adaptability to new and emerging technologies 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 ar creative and adapt the new knowledge to solve a probler or address an issue	Ideas are creative in solving a	or	3 pts Unsatisfactor Shows some creative ways solve the prob		ini att em de cre	ots or Shows tiative and empt to velop eative ideas solve the oblem	V lo	pts fery Poor deas are opied or estated from he sources onsulted	6 pts