Activity No. <n> <title>	
Course Code: CPE 201L	**Program: CPE**
Course Title: DATA STRUCTURE	**Date Performed: 9/06/2025**
Section: 2-A	**Date Submitted: 9/06/2025**
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1.Objectives

Implement an array of even integers less than 50 but not less than 20 and do the following operations:
a. Display elements
b. Find the maximum element
c. Reverse the array.

And to measure the capability of students.

2. Discussion

In this activity, I implement an array of even integers that are greater than or equal to 20 but less than 50. The task includes displaying each element of the array, finding the maximum element, and finally reversing the array.

3. Materials and Equipment

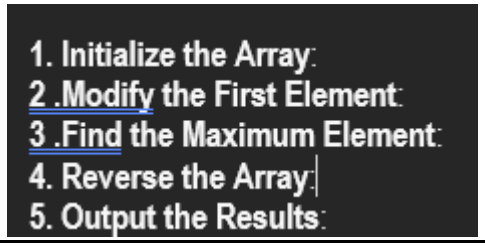
Google Collab and python PyCharm

4. Procedure

I first made my algorithm so I could organize my code so it won't look spaghetti code then I use the PyCharm while I don't have an internet so I could run down my code, and lastly when the internet is back I use the Google Collab to save my work and submit

5. Output

Algorithm



```
arr = [i for i in range(20, 50, 2)]
print("array elements:", arr)
arr[0] = 14
arr[0] = 20
arr[0] = 22
arr[0] = 25
arr[0] = 24
arr[0] = 26
arr[0] = 28
arr[0] = 30
arr[0] = 32
arr[0] = 34
arr[0] = 36
arr[0] = 38
arr[0] = 40
arr[0] = 42
arr[0] = 44
arr[0] = 46
arr[0] = 48
arr[0] = 50
max_element = max(arr)
print("maximum element:", max_element)
reversed_arr = arr[::-1]
print("reversed element:", reversed_arr)
```

```
array elements: [20, 22, 24, 26, 28, 30, 32, 34, 36, 38, 40, 42, 44, 46, 48]
maximum element: 50
reversed element: [48, 46, 44, 42, 40, 38, 36, 34, 32, 30, 28, 26, 24, 22, 50]
```

```
arr = [i for i in range(20, 50, 2)]
print("array elements:", arr)
max_element = max(arr)
print("maximum element:", max_element)
reversed_arr = arr[::-1]
print("reversed element:", reversed_arr)
```

```
array elements: [20, 22, 24, 26, 28, 30, 32, 34, 36, 38, 40, 42, 44, 46, 48]
maximum element: 48
reversed element: [48, 46, 44, 42, 40, 38, 36, 34, 32, 30, 28, 26, 24, 22, 20]
```

6. Conclusion

In conclusion, this activity was designed to assess students' practical coding abilities in the context of data structures. Through the use of arrays, I was able to efficiently implement the required solution, demonstrating an understanding of how to manipulate and manage data within an array. Throughout the process, I made several improvements and fixes to ensure the final implementation was both functional and optimized. This exercise has enhanced my problem-solving skills and reinforced the importance of choosing the right data structure for a given task.

Further, I implemented multiple approaches to fully utilize the array. By first creating an array of even integers between 20 and 50, I showcased the flexibility of Python's list comprehension technique. This allowed for efficient creation of the array while adhering to the given constraints.

Lab Activity Rubric

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,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 **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	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 **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 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 **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 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