Activity: Long Test						
Course Code: CPE 201	Program: BS In Computer Engineering					
Course Title: Data Structure and Algorithm	Date Performed: 08/ 30/ 25					
Section: BSCpE 2-B	Date Submitted: 08/ 30/ 25					
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1. Objectives

An array is a special variable, which can hold more than one value at a time.

This has a built in operations such as:

append() which Adds an element at the end of the list, clear() Removes all the elements from the list,copy() Returns a copy of the list, and etc. (## Author(s). "Title of document," Publisher, Year. [Online]. Available: URL. [Accessed: Date].)

This activity aims to demonstrate the following techniques and principles:

- 1. Insert the underscore (_) symbol within each name types.
- 2. Display the characters each array of names.
- 3. Display the full name with underscore (_) symbol as a single string using the join function.
- 4. Lastly, traverse each characters afterwards.

2. Discussion

Nowadays, people make new accounts everywhere. Although some might be aware of how this simple function works, there are still quite a few people who aren't well educated enough to know these. That is why, as a Computer Engineering student, basics like these are important for us, as this explains how each actions we do on the internet functions. Array explains how variables can hold more than one value at a time. Not many people are aware but they are actually using array on everyday internet life, it is just a matter of how deep a human can recognize and appreciate this function.

3. Materials and Equipment

For this activity, I used Google Colab to write a program about an array function of my full name. With the help of w3school.com to assist me during the procedure. Lastly, I used GitHub to upload my work.

4. Procedure

At first, I tried the "trial and error method", I used different methods to get the best answer I can have. I tried three different methods. One of which is appending each letters of my name which is a little bit redundant and it takes so long to type each of them. That's why I used a better function which is for loop to enumerate each characters which is inside each of my name types. I printed each name types and then display them as a one string. After that, I traverse each characters and display their index.

5. Output

```
## My first name is:

['J', 'E', 'R', 'I', 'C', 'K']

My second name is:

['D', 'A', 'V', 'E']

My middle name is:

['D', '0', 'N', '0']

My last name is:

['A', 'D', '0', 'R', 'A', 'C', 'I', '0', 'N']

My full name is:

['J', 'E', 'R', 'I', 'C', 'K', '_', 'D', 'A', 'V', 'E', '_', 'D', '0', 'N', '0', 'L', 'A', 'D', '0', 'R', 'A', 'C', 'I', '0', 'N']

As single string:

JERICK_DAVE_DONO_ADORACION
```

Figure 1: Output of name types

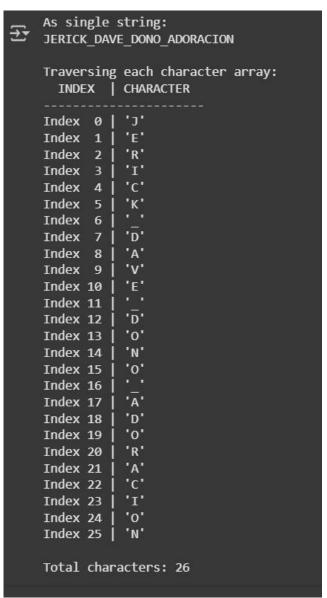


Figure 2: Output of traversed characters and their corresponding indeces

6. Conclusion

This activity really opened my eyes! As a Computer Engineering newbie, I

always thought arrays were some complex, intimidating concept in programming, but now I realize they're everywhere in our digital lives. When I first started, I had no idea that something as simple as storing my name could teach me so much about how computers manage data.

I remember struggling at first—typing each letter individually with append() felt like a slow, repetitive process. But then I discovered the for loop, and it was like magic! Breaking down "JERICK" into the list ['J', 'E', 'R', 'I', 'C', 'K'] made me feel like a real programmer.

The coolest part came when I used the join() function to stitch everything together with underscores. Seeing "JERICK_DAVE_DONO_ADORACION" appear on screen was such a satisfying moment—it actually worked! And when I traversed each character and checked out the 26 positions with their indices, I finally understood how computers track things so accurately.

This activity showed me that even simple tasks we do online, like creating usernames or filling out forms, rely on array concepts. As a CpE student, I'm starting to realize how important these fundamentals are for understanding more complex topics down the road. I'm still a beginner, but now I actually get why arrays are so useful in programming.

References:

[1] *Python Lists, * Python Software Foundation, 2023. [Online]. Available: https://docs.python.org/3/tutorial/datastructures.html. [Accessed: Aug. 30, 2025].

[2] *Python List Methods, * W3Schools, 2023. [Online]. Available: https://www.w3schools.com/python/python_lists.asp. [Accessed: Aug. 30, 2025].

[3] *Array Data Structure, * GeeksforGeeks, 2023. [Online]. Available: https://www.geeksforgeeks.org/array-data-structure/. [Accessed: Aug. 30, 2025].

[4] *Python String join() Method, * Programiz, 2023. [Online]. Available: https://www.programiz.com/python-programming/methods/string/join. [Accessed: Aug. 30, 2025].

Criteria	Ratings									Pts	
Student Outcome 7.1 Acquire and apply new knowledge from outside sources.	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 exist and flourish outside class requirements and/or experiences are pursued independently and applies knowledge learned into practice		l pursuits Lo urish cla croom rec s,knowledge shriences are ependently pu kn		is sfactory k beyond sroom uirements, wing erest in suing wledge ependently	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	Requires deta or step-by-ste instructions to complete a ta		ailed little inte tep complete to independ		est to a task	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	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.	y of	3 pts Unsatisfac Apply the gathered informatic formulate problem	on to	2 pts Poor Gather and summariz the informatic from a variety sources but failed to formulate the problem		information		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 ar creative and adapt the new knowledge to solve a problen or address an issue	Ideas are creative in solving a	or	Shows s creative	3 pts Unsatisfactory Shows some creative ways to solve the problem		initiative and to attempt to		ots ry Poor eas are pied or stated from e sources nsulted	6 pts