Quiz No. 1 (Skill Test)						
Course Code: 201L	Program: BS CpE					
Course Title: Data Structure and Algorithm	Date Performed: Aug 30, 2025					
Section: 2A	Date Submitted: Aug 30, 2025					
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# 1. Objectives

- Choose only one data structure: Array, Linked List (singly, doubly), Stack, and Queue
- Create a program that appends each character of my name and traverses each.
- To learn independently by developing a program that demonstrates the append and traverse process.
- To apply critical thinking in structuring a program that clearly represents the logic of appending and traversing.

#### 2. Discussion

- An array is a collection of items that can be accessed through their index. In Python, the list data type works like an array where we can append elements and traverse them.
- In this activity, I explored how arrays (lists in Python) can be used to store and organize information. An array is a data structure that holds multiple values in a single variable. Using Python's list, I appended each character of my full name into the array. Traversal was then done by looping through the list and printing each element one by one.
- This process helped me understand how data is stored in sequence and how it can be accessed efficiently. It also shows how programming concepts connect with data structures. By writing the code independently, I practiced both problem-solving and logical reasoning.

### 3. Materials and Equipment

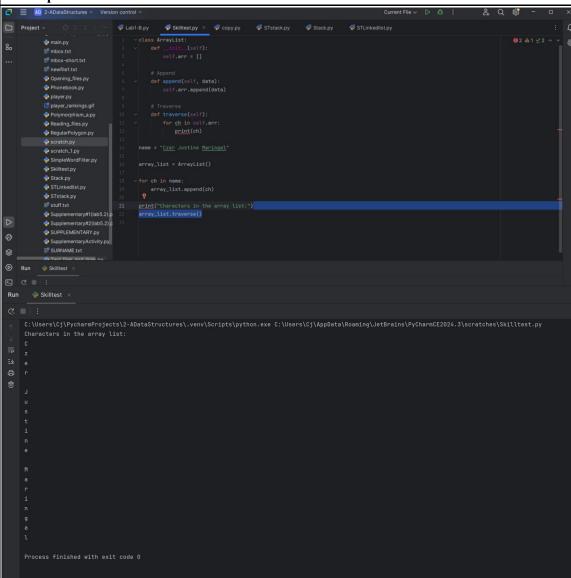
- Computer/Laptop used to run the Python program.
- Python (Pycharm and Google Colab) software environment where I wrote and executed the program.
- Text Editor/Word for coding and saving the program.

## 4. Procedure

- 1. Declare a string variable containing my full name.
- 2. Initialize an empty array (list) to store characters.

- 3. Write a loop that iterates through the string, appending each character to the array.
- 4. Define a traverse() function that prints each element in the array sequentially.
- **5.** Run the program and observe the output.

# 5. Output



### 6. Conclusion

• Through this activity, I learned how to append and traverse characters using arrays (lists in Python). I gained a deeper understanding of how arrays store data sequentially and how loops allow access to each element. This activity also enhanced my independent learning and problem-solving skills since I applied programming knowledge to design a working solution.

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	interests and pursuits exist and flourish outside classroom requirements,knowledg are and/or experiences are ty pursued independently ge		ursuits Look beyond classroom requirements, nowledge interest in		3 pts Unsatisfactory J 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
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	Poor   Shows little interest to 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	on to	and so the in from source failed	late the	V G ir	pts fery Poor   sather information rom a variety f sources	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 prol		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