Quiz No. 1 Skill Test	
Course Code: 201L	**Program:** BSCPE
Course Title: Data Structures and Algorithms	**Date Performed:** 08/30/2025
Section: 2A	**Date Submitted:** 08/30/2025
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1.Objectives

1. To understand how to implement the Queue data structure in Python.

2. To practice appending and traversing each character of a string using a Queue.

2. Discussion

A Queue is a linear data structure that follows the First-In-First-Out (FIFO) principle. This means that the first element inserted is the first to be removed. In Python, a queue can be implemented using a list and custom methods such as enqueue, dequeue, and traverse.

In this activity, the queue was used to store each character of my full name. By enqueuing every character one by one, the data structure maintained their order. The traversal process allowed me to display all characters in the same sequence they were inserted. This demonstrates how queues work in handling ordered data.

3. Materials and Equipment

- **Laptop or desktop computer**
- **Google Colab**

4. Procedure

1. Create a Queue class with enqueue, dequeue, and traverse methods.

2. Define a string variable containing my full name.

3. Enqueue each character of the string into the queue.

4. Use the traverse() method to display all characters in order.

5. Output

6. Conclusion

In my conclusion, I was able to implement a Queue in Python and use it to append and traverse each character of my full name. I learned how FIFO works and how to manipulate data using enqueue and traverse operations. This exercise strengthened my understanding of data structures and their practical applications.

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