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| **Midterm Skill test** | |
| **Course Code:** CPE 201-L | **Program:** Computer Engineering |
| **Course Title:** Data Structure and Algorithm | **Date Performed:** September 6, 2025 |
| **Section:** BSCPE -2B | **Date Submitted:** September 6, 2025 |
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| 1. **Objectives** | |
| 1. To display all data of linked list 2. To append a node and, 3. To reverse a linked list of integers | |
| **2. Discussion** | |
| This test will check your skills in python programming, especially in linked list data structure. Linked list is a data structure where elements, called "nodes," are connected in a sequence. Unlike a regular Python list or array, where elements are stored next to each other in memory, nodes in a linked list can be scattered throughout memory. To achieve the desired outcome, students should familiarize the functions needed to use in this skill test. | |
| **3. Materials and Equipment** | |
| 1. Google colab  * Use for python programming  1. Desktop/laptop  * Use for making the tasks  1. Windows 10/11  * Use to run necessary programs for python programming  1. Microsoft Word  * Use for writing the details and explanation of the python codes | |
| **4. Procedure** | |
| 1. Create a Node class then initialize self.data and self.next. 2. Create a LinkedLink class: then initialize self.data and self.next. 3. Add a function to print all data. 4. Add a function to add new node with data (append). 5. Add a function to reverse the linked list (reverse\_llist). 6. Create a linked list with 1 to 30 integers manually. 7. With the use of append, append a node of any data . 8. Reverse the linked list with the reverse function 9. Print all the data | |
| **5. Output** | |
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| **6. Conclusion** | |
| This test helped improve my programming skills in Python. I was able to complete all the requirements and manage the test successfully. During the process, I explored Python data structures, especially the linked list. At first, I thought the nodes were just connected directly, but I later understood that we need to link them manually using code like llist.head.next = second. I also learned that the nodes in a linked list can be stored in different parts of memory, not necessarily next to each other. Overall, this test explored the data structure of python programming, | |

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