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| **Midterm Skill test** | |
| **Course Code:** 201-L | **Program:** CPE |
| **Course Title:** Data Structure | **Date Performed:** 06/09/2025 |
| **Section:** 2-B | **Date Submitted:** 06/09/2025 |
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| 1. **Objectives** | |
| We are implementing a singly linked list of integers from 1 to 30. After that, follow the operation using the given function, like display all data, append a node, and reverse a linked list of integers. | |
| **2. Discussion** | |
| In the code, the node class represents an individual node, and the linked list class manages the list. We use 3 functions, which are: Display the original linked list. Next is the append. Appending means adding a new element at the end of the list. Lastly, Reverse, this reverse function reverses the direction of the links from head to tail. | |
| **3. Materials and Equipment** | |
| Google Collab Computer | |
| **4. Procedure** | |
| I chose the linked list, so my procedures are. First, we need to define a linked list object and 3 functions: display, append, and reverse. I used the display method to print out the range from 1-31 because if I put 1-30, the 30 will not be included, so I put 31 so the 30 will be included. Next is the append method. This function is the one searching for the last node of the list, which is 30. After appending the value of 30, I used the display method again to print the updated linked list to show the new structure with 30 added to the end of the list. Last is the Reverse, which reverses the order of the linked list using the reverse method, changing the next pointer to the previous node instead of the next one. | |
| **5. Output** | |
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| **6. Conclusion**  This code is to implement how to create or use the append and reverse in a singly linked list in Python, where each node is defined by a class and contains data. Example of Display: it displays the entire list, and even in different ways, like reversing the order of the nodes to show how the linked list can be. | |
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