**Assignment: Linked List**

1. Write a program to define a linked list node with an integer data field. Include functions to create a new node.
2. Implement a function to insert a new node at the beginning of the linked list.
3. Write a function to print all elements in the linked list.
4. Develop a function to insert a node at the end of the linked list.
5. Create a program to count the number of nodes in a linked list.
6. Write a function that deletes the first node of the linked list.
7. Implement a search function that returns the position of a given integer in the linked list.
8. Develop a function to delete the last node of the linked list.
9. Write a function to insert a new node after a given node in the linked list.
10. Create a function to delete the entire linked list and free up the memory.