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// Jorge Rivas
#include <iostream>
using namespace std;
struct LLNode
{
       int data;
       struct LLNode* next;
};
void insertAtBeginning(struct LLNode** head, int dataToBeInserted)
       struct LLNode* curr = new LLNode;
       curr->data = dataToBeInserted;
       curr->next = NULL;
       if (*head == NULL)
              *head = curr;
       else
       {
              curr->next = *head;
              *head = curr;
       }
void display(struct LLNode** node)
       struct LLNode* temp = *node;
       while (temp != NULL)
       {
              if (temp->next != NULL)
                     cout << temp->data << "->";
              else
                     cout << temp->data;
              temp = temp->next;
       }
       cout << endl;</pre>
void deleteNode(struct LLNode** head_ref, int pos)
       if (*head_ref == NULL)
       {
              return;
       }
       struct LLNode* temp = *head_ref;
       if (pos == 0)
       {
              *head ref = temp->next;
              free(temp);
              return;
       }
```

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for (int i = 0; temp != NULL && i < pos - 2; i++)</pre>
       {
              temp = temp->next;
       if (temp == NULL || temp->next == NULL)
       {
              return;
       }
       struct LLNode* next = temp->next->next;
       free(temp->next);
       temp->next = next;
void SortedInsertion(struct LLNode** head, struct LLNode* ToBeInserted)
       struct LLNode* curr;
       if (*head == NULL | (*head)->data >= ToBeInserted->data)
       {
              ToBeInserted->next = *head;
              *head = ToBeInserted;
       }
       else
       {
              curr = *head;
              while (curr->next != NULL && curr->next->data < ToBeInserted->data)
                     curr = curr->next;
              ToBeInserted->next = curr->next;
              curr->next = ToBeInserted;
       }
}
int main()
       struct LLNode* head = NULL;
       insertAtBeginning(&head, 9);
       insertAtBeginning(&head, 8);
       insertAtBeginning(&head, 7);
       insertAtBeginning(&head, 6);
       insertAtBeginning(&head, 5);
       insertAtBeginning(&head, 4);
       insertAtBeginning(&head, 3);
       insertAtBeginning(&head, 2);
       insertAtBeginning(&head, 1);
       int x;
       cout << "Linked list: ";</pre>
       display(&head);
       cout << "What number do you wanna delete? ";</pre>
       cin >> x;
       deleteNode(&head, x);
       display(&head);
       struct LLNode* head1 = NULL;
       insertAtBeginning(&head1, 20);
       cout << "" << endl;</pre>
```

```
cout << "Number to be inserted? ";
display(&head1);
SortedInsertion(&head, head1);

cout << "New Linked list: ";
display(&head);
return 0;
}</pre>
```

