

```
#include <stdio.h>
```

```
#include <stdlib.h>
```

```
// A Linked List Node
```

```
struct Node
```

```
{
```

```
    int data;
```

```
    struct Node* next;
```

```
};
```

```
// Helper function to print a given linked list
```

```
void printList(struct Node* head)
```

```
{
```

```
    struct Node* ptr = head;
```

```
    while (ptr)
```

```
    {
```

```
        printf("%d —> ", ptr->data);
```

```
        ptr = ptr->next;
```

```
    }
```

```
    printf("NULL");
```

```
}
```

```
// Helper function to insert a new node at the beginning of the linked list
```

```
void push(struct Node** head, int data)
```

```
{  
  
    struct Node* newNode = (struct Node*)malloc(sizeof(struct Node));  
  
    newNode->data = data;  
  
    newNode->next = *head;  
  
    *head = newNode;  
  
}
```

// Remove duplicates from a sorted list

void removeDuplicates(struct Node* head)

```
{  
  
    // do nothing if the list is empty  
  
    if (head == NULL) {  
  
        return;  
  
    }
```

struct Node* current = head;

// compare the current node with the next node

while (current->next != NULL)

```
{  
  
    if (current->data == current->next->data)  
  
    {  
  
        struct Node* nextNext = current->next->next;  
  
        free(current->next);  
  
        current->next = nextNext;  
  
    }
```

```
    }  
    else {  
        current = current->next; // only advance if no deletion  
    }  
}  
}
```

```
int main(void)  
{  
    // input keys  
    int keys[] = {1, 2, 2, 2, 3, 4, 4, 5};  
    int n = sizeof(keys)/sizeof(keys[0]);  
  
    // points to the head node of the linked list  
    struct Node* head = NULL;  
  
    // construct a linked list  
    for (int i = n-1; i >= 0; i--) {  
        push(&head, keys[i]);  
    }  
  
    removeDuplicates(head);  
  
    // print linked list  
    printList(head);
```

```
return 0;
```

```
}
```