DSA-Assignment -7
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The code:

vim Assign7.c

```c
include<stdio.h>
#define size 15
#include<stdlib.h>
#include<string.h>

struct Node {
        int PRN;
        char Name[size];
        struct Node* next;
};

void add_member(struct Node* prev_member , int new_PRN , char new_Name[]){
        if (prev_member == NULL){
                printf("The Previous node can not be null\n");
                return;
        }

        struct Node* new_member = (struct Node*) malloc(sizeof(struct Node));
        new_member->PRN = new_PRN;
        strcpy(new_member->Name, new_Name);

        new_member->next = prev_member->next;
        prev_member->next = new_member;

}

void total_member(struct Node* pres_ref){
        int n = 0 ;
        while(pres_ref  != NULL){
                n++;
                pres_ref = pres_ref->next;
        }
        printf("The total number of member are %d\n", n);
}
```

vim Assign7.c

```c

void  show_members(struct Node* pres_ref){
        int n = 0 ;
        while(pres_ref != NULL){
                printf("%s \t %d \n", pres_ref->Name, pres_ref->PRN);
                pres_ref = pres_ref->next;
        }
}



void remove_member(struct Node** pres_ref, int position)
{
    struct  Node* temp;
    struct  Node* prev;
    temp = *pres_ref;
    prev = *pres_ref;

    for (int i = 0; i < position; i++) {
        if (i == 0 && position == 1) {
            *pres_ref = (*pres_ref)->next;
            free(temp);
        }
        else {
            if (i == position - 1 && temp) {
                prev->next = temp->next;
                free(temp);
            }
            else {
                prev = temp;

                // Position was greater than
                // number of nodes in the list
                if (prev == NULL)
```

```c
                prev->next = temp->next;
                free(temp);
            }
            else {
                prev = temp;

                // Position was greater than
                // number of nodes in the list
                if (prev == NULL)
                    break;
                temp = temp->next;
            }
        }
    }
}


int main(){
        struct Node* president = NULL;
        president = (struct Node*)malloc(sizeof(struct Node));
        president->PRN = 112103008;
        strcpy(president->Name, "Amaan Jamadar");
        add_member(president,112103084,"Arsh Maknojia");
        add_member(president,112103129,"Bhushan Shah");
        add_member(president,112103127,"Aman Sayyad");

        total_member(president);
        show_members(president);

        printf("Removing the president printing the total members.\n ");
        remove_member(&president, 1);
        total_member(president);
        show_members(president);
}
```

Output:

```
amaan@ubunx:~/Documents/DSA_Assign
(base)  amaan@ubunx  ~/Documents/DSA_Assign  master ±  gcc Assign7.c
(base)  amaan@ubunx  ~/Documents/DSA_Assign  master ±  ./a.out
The total number of member are 4
Amaan Jamadar    112103008
Aman Sayyad      112103127
Bhushan Shah     112103129
Arsh Maknojia    112103084
Removing the president printing the total members.
 The total number of member are 3
Aman Sayyad      112103127
Bhushan Shah     112103129
Arsh Maknojia    112103084
(base)  amaan@ubunx  ~/Documents/DSA_Assign  master ±
```