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1BM19CS202

3-D

Lab internal -2

```c
#include <stdio.h>
#include <stdlib.h>
#include <string.h>
struct node {
        char usn[30];
        char name[30];
        struct node *next;
        struct node *prev;
    };
struct node  *head=NULL;
void insert_end() {
        struct node *new_node, *temp;
new_node = (struct node*) malloc (sizeof(struct node));
printf("Enter the usN \n");
scanf("%s", new_node->usn);
printf(" Enter name \n");
scanf("%s", new_node->name);
    new_node -> next = NULL;
    new_node -> prev = NULL;
    if (head== NULL) {
            head = new_node;
    }
    else {
            temp = head;
            while (temp->next != NULL)
        temp = temp->next;
        temp-> next = new_node;
        new_node -> prev = temp;
    }
}
```

```c
void del() {
    struct node *temp;
    char ele [30];
    if (head == NULL) {
        printf("empty list \n");
        return;
    }
    printf("Enter USN to be deleted \n");
    scanf("%s", ele);
    temp = head;
    while (strcmp(temp->usn, ele) != 0) {
        temp = temp->next;
    }
    if (temp == NULL) {
        printf("Element not in the list \n");
        break;
    }
    if (temp == head) {
        head = head->next;
    }
    else if (temp->next == NULL) {
        temp = temp->prev;
        tem->next = NULL;
    }
    else {
        temp->prev->next = temp->next;
        temp->next->prev = temp->prev;
    }
}

void display() {
    struct node *temp;
    temp = head;
    while (temp! = NULL) {
        printf("usn : %s \n", temp->usn);
        printf("name = %s \n", temp->name);
        temp = temp->next;
    }
    printf("\n");
}
```

```c
int main() {
    int choice;
    while(1) {
        printf("1. insert \n");
        printf(" 2. Delete \n");
        printf(" 3. Display \n");
        printf(" 4. Exit \n");
        printf(" Enter your choice \n");
        scanf("%d", &choice);
        switch (choice) {
            case 1: insert_end();
                break;
            case 2: del(); break;
            case 3: display(); break;
            case 4: exit(0);
        }
    }
}
```