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DS LAB 2 -

Given an unsorted doubly linked list containing 'n' nodes of USN and name. Write a program to remove given USN nodes from given list.

```
#include <stdio.h>
#include <string.h>
#include <stdlib.h>
struct node
{
    char USN[30];
    char name[20];
    struct node *next;
    struct node *prev;
};

struct node *head = NULL;
void insert_end()
{
    struct node *new_node = NULL;
    new_node = (struct node*)malloc(sizeof(struct node));
    printf("Enter 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
    {
        struct node *temp;
        temp = head;
        while (temp->next != NULL)
        {
            temp = temp->next;
        }
        temp->next = new_node;
        new_node->prev = temp;
    }
}
```

head = new_node;

```
    temp = head;
    while (temp > next != NULL)
        temp = temp > next;
    temp > next = new_node;
    new_node > prev = temp;
```

y

```
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 is not in the list. \n");  
        break;  
    }
```

```
y  
if (temp == head)  
{
```

```
    head = head > next;
```

```
y
else if (temp->next == NULL)
{
    temp = temp->prev;
    temp = head=NULL;
}
else
{
    temp->prev->next = temp->next;
    temp->next->prev = temp->prev;
}

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

int main()
{
    int choice;
    while (1)
    {
        printf ("1. Insert \n");
        printf ("2. Delete \n");
        printf ("3. Display \n");
    }
}
```

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

y

y

Q) What is binary?

Ans: A base 2 system

1's and 0's
0's and 1's

Q) What is octal?

A base 8 system
0's, 1's, 2's, 3's, 4's, 5's, 6's, 7's

Q) What is hexadecimal?

A base 16 system
0's, 1's, 2's, 3's, 4's, 5's, 6's, 7's, 8's, 9's, A's, B's, C's, D's, E's, F's

Q) What is binary?

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