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****Sample_Program_for_Dynamic_Memory_Allocation****

#include<stdio.h>
#include<stdlib.h>
void display();
struct Node
{
    int data;
    struct Node* next;
}* start=NULL;

int main()
{
    setbuf(stdout,NULL);
    int data1;
    char ch;
    struct Node *q,*temp;
    do
    {
        printf("Enter the Element:\n");
        scanf("%d",&data1);
        temp =( struct Node *)malloc(sizeof(struct Node));
        temp -> data=data1;
        temp -> next=NULL;
        if(start==NULL)
        {
            start=temp;

        }
        else
        {
            q=start;
            while (q->next!=NULL)
            {
                q=q->next;

            }
            q->next=temp;
        }
        printf("Do you want insert more elements?");

        scanf(" %c",&ch);
    }
}

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    } while(ch=='y' || ch=='Y');

    display(start);

    return 0;
}

void display(struct Node * ptr)
{
    if(start==NULL)
    {
        printf("Empty List");
    }
    else
    {
        printf("***** Elements of Linked List*****\n");
        while(ptr!=NULL)
        {
            printf("%d\t", ptr->data);
            ptr=ptr->next;
        }
    }
}

```

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*****Sample_Program_For_LL_Search*****
#include<stdio.h>
#include<stdlib.h>
void display();
struct Node
{
    int data;
    struct Node* next;
};
struct Node n4 = {40, NULL};
struct Node n3 = {30, &n4};
struct Node n2 = {20, &n3};
struct Node n1 = {10, &n2};
struct Node * start = &n1;

int main()

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{
    int data1;
    int flag=0;
    struct Node *q;
    printf("Linked list Before Deletion of Speccific node\n");
    display(start);
    printf("\n");
    printf("Enter the Element to be Searched\n");
    scanf("%d",&data1);
    q=start;
    while (q->next!=NULL)
    {
        if( q->data==data1);
        {
            flag=1;
            printf("Element Found");
            break;
        }
        q=q->next;
    }

    if(flag==0)
    {
        printf("Element not found");
    }

    return 0;
}

void display(struct Node * ptr)
{
    while(ptr!=NULL)
    {
        printf("%d\t",ptr->data);
        ptr=ptr->next;
    }
}

```

```
***** Sample_program_Linked_List_For_creation_of_Linked_List*****
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```
#include<stdio.h>
#include<stdlib.h>
```

```
void display();
struct Node
{
    int data;
    struct Node* next;
};
```

```
int main()
{
    struct Node* First;
    struct Node* Second;
    struct Node* Third;
    struct Node* Fourth;

    First =(struct Node*)malloc(sizeof(struct Node));
    Second =(struct Node*)malloc(sizeof(struct Node));
    Third=(struct Node*)malloc(sizeof(struct Node));
    Fourth =(struct Node*)malloc(sizeof(struct Node));

    First->data = 10;
    Second->data =20;
    Third->data=30;
    Fourth->data=40;

    First->next=Second;
    Second->next=Third;
    Third->next=Fourth;
    Fourth->next=NULL;

    display(First);
    printf("The count is = %d",count(First));

    return 0;
}
int count(struct Node* ptr1)
{
    int count=0;
    while(ptr1!=NULL)
    {
```

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        ptr1=ptr1->next;
        count++;
    }
    return count;
}
void display(struct Node* ptr)
{
    printf("Elements of Linked List are:");
    while(ptr!=NULL)
    {
        printf(" %d ",ptr->data);
        ptr=ptr->next;
    }
}
```