

//Aim 9: Write a program to insert a node in the beginning and end of singly linked list.
Code:

```
#include<stdio.h>
#include<conio.h>
typedef struct Linkedlist
{
int data;
struct Linkedlist *next;
}node;
node *temp,*ttemp,*first;
void AddNode(int i)
{
    if(i==1)
    {
        first=(node*)malloc(sizeof(node));
        printf("Enter value of node %d: ",i);
        scanf("%d",&first->data);
        first->next=NULL;
    }
    else
    {
        temp=first;
        while (temp->next!=NULL)
            temp=temp->next;
        ttemp=(node*)malloc(sizeof(node));
        printf("Enter value of node %d: ",i);
        scanf("%d",&ttemp->data);
        ttemp->next=NULL;
        temp->next=ttemp;
    }
}
void display()
{
    temp=first;
    printf("\nElements of Linked List are: ");
    while(temp!=NULL)
    {
        printf("%d,",temp->data);
        temp=temp->next;
    }
}
void Add_Begining(int val)
{
    ttemp=(node*)malloc(sizeof(node));
    ttemp->data=val;
    temp=first;
    ttemp->next=temp;
}
```

```

    first=ttemp;
}
void Add_End(int val)
{
    ttemp=(node*)malloc(sizeof(node));
    ttemp->data=val;
    temp=first;
    while(temp->next!=NULL)
        temp=temp->next;
    temp->next=ttemp;
    ttemp->next=NULL;
}
void main()
{
    int i,n,beg,e;
    clrscr();
    printf("Enter total number of nodes in a Linked List: ");
    scanf("%d",&n);
    for(i=1;i<=n;i++)
        AddNode(i);
    display();
    printf("\nEnter value of node to be added at the beginning:");
    scanf("%d",&beg);
    Add_Begining(beg);
    display();
    printf("\nEnter value of node to be added at the end:");
    scanf("%d",&e);
    Add_End(e);
    display();
    getch();
}

```

OUTPUT :

Enter total number of nodes in a Linked List: 5

Enter value of node 1: 10

Enter value of node 2: 20

Enter value of node 3: 30

Enter value of node 4: 40

Enter value of node 5: 50

Elements of Linked List are: 10,20,30,40,50,

Enter value of node to be added at the begining:100

Elements of Linked List are: 100,10,20,30,40,50,

Enter value of node to be added at the end:200

Elements of Linked List are: 100,10,20,30,40,50,200,_