

main.c

```
1 #include <stdio.h>
2 #include <stdlib.h>
3 #include <string.h>
4 struct node
5 {
6     int sem;
7     char name[50];
8     char usn[50];
9     struct node *next;
10 };
11 struct node *head= NULL;
12 int ch=0;
13 void Insertbegining()
14 {
15     struct node *newnode;
16     int s;
17     char a[50],b[50];
18     printf("Enter your name : ");
19     scanf("%s",a);
20     printf("Enter your usn : ");
21     scanf("%s",b);
22     printf("Enter your semester : ");
23     scanf("%d",&s);
24
25     newnode=(struct node*)malloc(sizeof(struct node));
26     newnode->sem =s;
27     strcpy(newnode->name,a);
28     strcpy(newnode->usn,b);
29
30     newnode->next=head;
31     head=newnode;
32     ch++;
33     printf("Node created\n");
34 }
35
36
37 void Insertend()
38 {
39     struct node *newnode;
40     struct node *temp;
41     int s;
42     char n[30],u[30];
43     printf("Enter your name : ");
44     scanf("%s",n);
45     printf("Enter your semester : ");
```

Press ENTER to exit console.



main.c

```

44     scanf("%s",n);
45     printf("Enter your semester : ");
46     scanf("%d",&s);
47     printf("Enter your usn : ");
48     scanf("%s",u);
49     newnode=(struct node*)malloc(sizeof(struct node));
50     newnode->sem =s;
51     strcpy(newnode->name,n);
52     strcpy(newnode->usn,u);
53     if (head==NULL)
54     {
55         newnode->next=NULL;
56         head=newnode;
57         printf("first node of linked list created\n");
58         ch++;
59     }
60     else
61     {
62         temp=head;
63         while(temp->next!=NULL)
64         {
65             temp=temp->next;
66         }
67         temp->next=newnode;
68         newnode->next=NULL;
69         ch++;
70         printf("Node created\n");
71     }
72 }
73 void display()
74 {
75     struct node *ptr;
76     ptr=head;
77     int i=1;
78
79     if(ptr==NULL)
80     {
81         printf("Linked list is empty!\n");
82     }
83     else
84     {
85         while(ptr!= NULL)
86         {
87             printf("----NODE %d----\n",i);
88             printf("Name: %s\n",ptr->name);

```

Press ENTER to exit console.

```
main.c
88     printf("Name: %s\n",ptr->name);
89     printf("USN: %s\n",ptr->usn);
90     printf("Sem: %d\n",ptr->sem);
91     printf("\n");
92     i++;
93     ptr=ptr->next;
94 }
95 }
96 }
97 }
98 }
99 }
100
101 int main()
102 {
103     int choice,pos;
104     do
105     {
106
107         printf("\n1. Insert node at beginning of the list\n2.Insert at the end of list\n3. Display list\n4.Exit\n");
108         printf("\nEnter your choice : ");
109         scanf("%d",&choice);
110         if(choice==4)
111             break;
112         switch(choice)
113         {
114             case 1:
115                 Insertbegining();
116                 break;
117
118             case 2:
119                 Insertend();
120                 break;
121
122             case 3:
123                 display();
124                 break;
125
126             default:
127                 printf("Wrong choice!\n");
128                 break;
129         }
130     }while(choice!=4);
131     return 0;
132 }
```

input
Press ENTER to exit console.

1. Insert node at beginning of the list
2. Insert at the end of list
3. Display list
4. Exit

Enter your choice : 1

Enter your name : ANANTH

Enter your usn : 18M19CS0917

Enter your semester : 3

Node created

1. Insert node at beginning of the list
2. Insert at the end of list
3. Display list
4. Exit

Enter your choice : 2

Enter your name : RAJESH

Enter your semester : 5

Enter your usn : 18M19CS114

Node created

1. Insert node at beginning of the list
2. Insert at the end of list
3. Display list
4. Exit

Enter your choice : 1

Enter your name : SHWETHA

Enter your usn : 18M18MC100

Enter your semester : 7

Node created

1. Insert node at beginning of the list
2. Insert at the end of list
3. Display list
4. Exit

Enter your choice : 3

----MODE 1----

Name: SHWETHA

USN: 18M18MC100

Sem: 7

----MODE 2----

Name: ANANTH

USN: 18M19CS0917

Sem: 3

Enter your choice : 2
Enter your name : RAJESH
Enter your semester : 5
Enter your usn : 1BM19CS114
Node created

1. Insert node at beginning of the list
2. Insert at the end of list
3. Display list
4. Exit

Enter your choice : 1
Enter your name : SHWETHA
Enter your usn : 1BM19SC100
Enter your semester : 7
Node created

1. Insert node at beginning of the list
2. Insert at the end of list
3. Display list
4. Exit

Enter your choice : 3

----NODE 1----
Name: SHWETHA
USN: 1BM19SC100
Sem: 7

----NODE 2----
Name: ANANTH
USN: 1BM19CS0917
Sem: 3

----NODE 3----
Name: RAJESH
USN: 1BM19CS114
Sem: 5

1. Insert node at beginning of the list
2. Insert at the end of list
3. Display list
4. Exit

Enter your choice : 4

...Program finished with exit code 0
Press ENTER to exit console.

