```
#include<iostream>
#include<stdlib.h>
using namespace std;
class node
{
int data;
node *next;
public:
node *create(node *);
void insert(node *);
void display(node *);
void delete1(node *);
void rev_rec(node *);
void rev1rec(node *);
void count(node *);
};
node *node ::create(node *head)
{
head= new node;
head->data=0;
head->next=NULL;
return head;
}
void node:: insert(node *head)
{
node *temp,*curr;
temp =new node;
cout<<"\nenter data";
cin>>temp->data;
temp->next=NULL;
curr=head;
```

```
int ch1;
cout<<"\n1. Insert Presedent\t 2. Insert Member \t 3. Insert Secretory\n";
cin>>ch1;
if(ch1==1)
{
if(curr->next==NULL)
curr->next=temp;
else
temp->next=curr->next;
curr->next=temp;
}
if(ch1==3)
{
if(curr->next==NULL)
curr->next=temp;
else
while(curr->next!=NULL)
{
curr=curr->next;

}
curr->next=temp;
}
if(ch1==2)
{
if(curr->next==NULL)
curr->next=temp;
else if(curr->next->next!=NULL)
{
int val;
cout<<"Enter value before which you want to insert";
```

```
cin>>val;
while(curr->next->data!=val)
{
curr=curr->next;
}
temp->next=curr->next;
curr->next=temp;
}
else
{
while(curr->next!=NULL)
{
curr=curr->next;
}
curr->next=temp;
}
}
}
void node::delete1(node *head)
{
node *curr,*temp;
curr=head;
int ch;
cout<<"1.Delete president 2.Delete member 3.Delete secretary\n";
cin>>ch;
if(ch==1)
{
curr=head->next;
head->next=curr->next;
delete curr;
}
```

```
if(ch==2)
{
int val;
cout<<"Enter value you want to delete";
cin>>val;
while(curr->next->data!=val)
{
curr=curr->next;
}
temp=curr->next;
curr->next=temp->next;
delete temp;
}

if(ch==3)
{
while(curr->next->next!=NULL)
{
curr=curr->next;
}
temp=curr->next;
curr->next=NULL;
delete temp;
}
}
void node::rev_rec(node *head1)
{
if(head1==NULL)
{
return ;
}
```

```
else if(head1->data==0)
{
cout<<"";
rev_rec(head1->next);
}
else
{
cout<<head1->data<<"\t";
rev_rec(head1->next);
}
}
void node::rev1rec(node* head1)
{
if(head1==NULL)
{
return ;
}
else if(head1->data==0)
{
cout<<"";
rev1rec(head1->next);
}
else
{
rev1rec(head1->next);
cout<<head1->data<<"\t";
}
}
void node::count(node *head)
{
   int count=0;
```

```
   node *curr;
   curr=head->next;
   while(curr!=NULL)
   {
      count++;
      curr=curr->next;
   }
   cout<<"Total no. of nodes"<<count<<endl;
}
void node::display(node *head)
{
node *curr;
curr=head->next;
while(curr!=NULL)
{
cout<<curr->data<<"\t";
curr=curr->next;

}
}
int main()
{
int ch;
node obj;
node *head;
head=obj.create(head);
while(1)
{
cout<<"\n1. Insert\t 2. Display\t 3.Delete 4.Display(recursion)\t 5.Exit\t 6.Reverse display(recursion)
7.Count\n";
cout<<"Enter your choice";
```

```
cin>>ch;
switch(ch)
{
case 1:
obj.insert(head);
break;
case 2:
cout<<"\nThis is display SLL\n";
obj.display(head);
break;
case 3:
obj.delete1(head);
break;
case 4:
obj.rev_rec(head);
break;
case 5:
exit(0);
case 6:
obj.rev1rec(head);
break;
case 7:
obj.count(head);
break;
}
}
}
```