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#include<iostream>
#include<string.h>
using namespace std;
struct node
{ int prn,rollno;
  char name[50];
  struct node *next;
};
class info
{ node
*s=NULL,*head1=NULL,*temp1=NULL,*head2=NULL,*temp2=NULL,*head=NULL,*temp=NULL;
  int b,c,i,j,ct;
  char a[20];
public:

  node *create();
  void insertp();
  void insertm();
  void delm();
  void delp();
  void dels();
  void display();
  void count();
  void reverse();
  void rev(node *p);
  void concat();

};

node *info::create()
{ node *p=new(struct node);

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cout<<"enter name of student ";
cin>>a;
strcpy(p->name,a);
cout<<"\n enter prn no. of student \n";
cin>>b;
p->prn=b;
cout<<"enter student rollno";
cin>>c;
p->rollno=c;
p->next=NULL;
return p;
}

void info::insertm()
{
node *p=create();

if(head==NULL)
{ head=p;
}
else
{ temp=head;
while(temp->next!=NULL)
{ temp=temp->next; }
temp->next=p;
}
}

void info::insertp()
{
node *p=create();

if(head==NULL)

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{ head=p;
}
else
{ temp=head;
head=p;
head->next=temp->next;

}
}

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void info::display()
{ if(head==NULL)
{ cout<<"linklist is empty";
}
else
{
temp=head;
cout<<" prn rollno NAME \n";
while(temp->next!=NULL)
{ cout<<" \n"<<temp->prn<<" "<<temp->rollno<<" "<<temp->name;
temp=temp->next;
}
cout<<" "<<temp->prn<<" "<<temp->rollno<<" "<<temp->name;
}
}

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void info::delm()
{ int m,f=0;
cout<<"\n enter the prn no. of student whose data you want to delete";
cin>>m;
temp=head;
while(temp->next!=NULL)

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{
if(temp->prn==m)
{ s->next=temp->next;
delete(temp); f=1;
}
s=temp;
temp=temp->next;
}
if(f==0)
{ cout<<"\n sorry memeber not deleted "; }
}
void info::delp()
{ temp=head;
head=head->next;
delete(temp);
}
void info::dels()
{
temp=head;
while(temp->next!=NULL)
{ s=temp;
temp=temp->next;
} s->next=NULL;
delete(temp);

}
void info::count()
{ temp=head; ct=0;
while(temp->next!=NULL)
{ temp=temp->next; ct++; }
ct++;

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cout<<" Count of members is:"<<ct;
}

void info::reverse()
{ rev(head); }

void info::rev(node *temp)
{ if(temp==NULL)
{ return; }
else
{ rev(temp->next); }

cout<<" "<<temp->prn<<" "<<temp->rollno<<" "<<temp->name;
}

void info::concat()
{ int k,j;

cout<<"enter no. of members in list1";

cin>>k;

head=NULL;

for(i=0;i<k;i++)
{ insertm();

head1=head;

} head=NULL;

cout<<"enter no. of members in list2";

cin>>j;

for(i=0;i<j;i++)
{ insertm();

head2=head;

} head=NULL;

temp1=head1;

while(temp1->next!=NULL)

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{ temp1=temp1->next; }

temp1->next=head2;


temp2=head1;
cout<<" prn rollno NAME \n";
while(temp2->next!=NULL)
{
cout<<"\n "<<temp2->prn<<" "<<temp2->rollno<<" "<<temp2->name<<"\n";;
temp2=temp2->next;
}
cout<<"\n "<<temp2->prn<<" "<<temp2->rollno<<" "<<temp2->name<<"\n";
}

int main()
{ info s;
int i;


char ch;
do{
cout<<"\n choice the options";
cout<<"\n 1. To insert president ";
cout<<"\n 2. To insert member ";
cout<<"\n 3. To insert secretary ";
cout<<"\n 4. To delete president ";
cout<<"\n 5. To delete member ";
cout<<"\n 6. To delete secretary ";
cout<<"\n 7. To display data ";
cout<<"\n 8. Count of members";
cout<<"\n 9. To display reverse of string ";
cout<<"\n 10.To concatenate two strings ";
cin>>i;
switch(i)

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{ case 1: s.insertp();  
break;  
case 2: s.insertm();  
break;  
case 3: s.insertm();  
break;  
case 4: s.delp();  
break;  
case 5: s.delrm();  
break;  
case 6: s.dels();  
break;  
case 7: s.display();  
break;  
case 8: s.count();  
break;  
case 9: s.reverse();  
break;  
case 10: s.concat();  
break;  
default: cout<<"\n unknown choice";  
}  
cout<<"\n do you want to continue enter y/Y \n";  
cin>>ch;  
  
}while(ch=='y' || ch=='Y');  
return 0;  
}
```