

GROUP C-19:--- KAUSTUBH SHRIKANT KABRA SE COMP-1 20

PROGRAM:---

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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);

    cout<<"Enter name of student:-- \n";

    cin>>a;

    strcpy(p->name,a);

    cout<<"\n Enter prn no. of student:-- \n";

    cin>>b;

    p->prn=b;

    cout<<"Enter student rollno:-- \n";

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

}

```

```

void info::display()
{
    if(head==NULL)
    {
        cout<<"linklist is empty \n";
    }
    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;
    }
}

```

```

void info::delm()
{
    int m,f=0;

    cout<<"\n Enter the prn no. of student whose data you want to delete:-- \n";

    cin>>m;

    temp=head;

    while(temp->next!=NULL)
    {

        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 \n"; }

}

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++; }

```

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        ct++;

        cout<<" Count of members is:-- \n"<<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:-- \n";

        cin>>k;

        head=NULL;

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

        {   insertm();

            head1=head;

        } head=NULL;

        cout<<"Enter no. of members in list2:-- \n";

```

```

cin>>j;

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

{ insertm();

    head2=head;


} head=NULL;


temp1=head1;
while(temp1->next!=NULL)
{ temp1=temp1->next; }
    temp1->next=head2;


    temp2=head1;

    cout<<"  PRN  ROLL_NO  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 1. To Insert President ";

    cout<<"\n 2. To Insert Secretary ";

    cout<<"\n 3. To Insert Member";

    cout<<"\n 4. To Delete President ";

    cout<<"\n 5. To Delete Secretary ";

    cout<<"\n 6. To Delete Member";

    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 \n ";

    cout<<"\n Choice the Options ";

    cin>>i;

    switch(i)

    {
        case 1: s.insertp();

                break;

        case 2: s.insertm();

                break;

        case 3: s.insertm();

                break;

        case 4: s.delp();

                break;

        case 5: s.delrm();

```



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        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 \n";

}

cout<<"\n Do you want to continue enter y/n \n";

cin>>ch;

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

return 0;

}

```

OUTPUT:---

1. To Insert President
2. To Insert Secretary

3. To Insert Member
4. To Delete President
5. To Delete Secretary
6. To Delete Member
7. To Display Data
8. Count of Members
9. To display reverse of string
10. To concatenate two strings

Choice the Options 1

Enter name of student:--

Kaustubh

Enter prn no. of student:--

741852963

Enter student rollno:--

20

Do you want to continue enter y/n

y

1. To Insert President
2. To Insert Secretary
3. To Insert Member
4. To Delete President

5. To Delete Secretary
6. To Delete Member
7. To Display Data
8. Count of Members
9. To display reverse of string
10. To concatenate two strings

Choice the Options 1

Enter name of student:--

Harsh

Enter prn no. of student:--

741852369

Enter student rollno:--

25

Do you want to continue enter y/n

y

1. To Insert President
2. To Insert Secretary
3. To Insert Member
4. To Delete President
5. To Delete Secretary
6. To Delete Member

7. To Display Data

8. Count of Members

9. To display reverse of string

10.To concatenate two strings

Choice the Options 2

Enter name of student:--

Onasvee

Enter prn no. of student:--

741258963

Enter student rollno:--

16

Do you want to continue enter y/n

y

1. To Insert President

2. To Insert Secretary

3. To Insert Member

4. To Delete President

5. To Delete Secretary

6. To Delete Member

7. To Display Data

8. Count of Members

9. To display reverse of string

10.To concatenate two strings

Choice the Options 3

Enter name of student:--

Unnati

Enter prn no. of student:--

147852963

Enter student rollno:--

18

Do you want to continue enter y/n

y

1. To Insert President

2. To Insert Secretary

3. To Insert Member

4. To Delete President

5. To Delete Secretary

6. To Delete Member

7. To Display Data

8. Count of Members

9. To display reverse of string

10.To concatenate two strings

Choice the Options 3

Enter name of student:--

Akash

Enter prn no. of student:--

852147963

Enter student rollno:--

78

Do you want to continue enter y/n

y

1. To Insert President
2. To Insert Secretary
3. To Insert Member
4. To Delete President
5. To Delete Secretary
6. To Delete Member
7. To Display Data
8. Count of Members
9. To display reverse of string
- 10.To concatenate two strings

Choice the Options 7

Prn rollNo NAME

741852369 25 Harsh

741258963 16 Onasvee

147852963 18 Unnati 852147963 78 Akash

Do you want to continue enter y/n

y

1. To Insert President
2. To Insert Secretary
3. To Insert Member
4. To Delete President
5. To Delete Secretary
6. To Delete Member
7. To Display Data
8. Count of Members
9. To display reverse of string
- 10.To concatenate two strings

Choice the Options 4

Do you want to continue enter y/n

y

1. To Insert President

2. To Insert Secretary
3. To Insert Member
4. To Delete President
5. To Delete Secretary
6. To Delete Member
7. To Display Data
8. Count of Members
9. To display reverse of string
10. To concatenate two strings

Choice the Options 7

Prn	rolln0	NAME
-----	--------	------

741258963	16	Onasvee
-----------	----	---------

147852963	18	Unnati	852147963	78	Akash
-----------	----	--------	-----------	----	-------

Do you want to continue enter y/n

y

1. To Insert President
2. To Insert Secretary
3. To Insert Member
4. To Delete President
5. To Delete Secretary
6. To Delete Member
7. To Display Data

8. Count of Members

9. To display reverse of string

10.To concatenate two strings

Choice the Options 5

Enter the prn no. of student whose data you want to delete:--

852147963

Sorry memeber not deleted

Do you want to continue enter y/n

y

1. To Insert President

2. To Insert Secretary

3. To Insert Member

4. To Delete President

5. To Delete Secretary

6. To Delete Member

7. To Display Data

8. Count of Members

9. To display reverse of string

10.To concatenate two strings

Choice the Options 8

Count of members is:--

3

Do you want to continue enter y/n

y

1. To Insert President
2. To Insert Secretary
3. To Insert Member
4. To Delete President
5. To Delete Secretary
6. To Delete Member
7. To Display Data
8. Count of Members
9. To display reverse of string
- 10.To concatenate two strings

Choice the Options 9

852147963 78 Akash 147852963 18 Unnati 741258963 16 Onasvee

Do you want to continue enter y/n

y

1. To Insert President
2. To Insert Secretary
3. To Insert Member

4. To Delete President
5. To Delete Secretary
6. To Delete Member
7. To Display Data
8. Count of Members
9. To display reverse of string
- 10.To concatenate two strings

Choice the Options 10

Enter no. of members in list1;--

2

Enter name of student:--

Onasvee

Enter prn no. of student:--

741258963

Enter student rollno:--

78

Enter name of student:--

Akash

Enter prn no. of student:--

963852741

Enter student rollno:--

78

Enter no. of members in list2:--

1

Enter name of student:--

Unnati

Enter prn no. of student:--

741258963

Enter student rollno:--

18

PRN	ROLL_NO	NAME
-----	---------	------

741258963	78	Onasvee
-----------	----	---------

963852741	78	Akash
-----------	----	-------

741258963	18	Unnati
-----------	----	--------

Do you want to continue enter y/n

n