PROGRAM 10:

#include<stdio.h>

#include<stdlib.h>

int c=0;

struct node

{

int data;

struct node \*next;

};

struct node \*temp,\*head=NULL,\*newnode,\*new1;

void insert()

{

int x;

newnode=(struct node\*) malloc(sizeof(struct node));

printf ("\nENTER THE VALUE: ");

scanf ( "%d",&x);

printf("%d",x);

if(head==NULL)

{

newnode->data=x;

head=newnode;

new1= head;

temp=newnode;

}

else

{

newnode->data=x;

temp->next=newnode;

temp=newnode;

newnode->next=NULL;

}

c++;

}

void delet()

{

if(head==0)

{

printf("EMPTY");

}

else

{

printf("\nNO DELETE IS %d\n",head->data);

head=head->next;

new1=head;

c--;

}

}

void display ()

{

printf("\nLINKED LIST\n");

while(new1!=NULL)

{

printf ("%d\n",new1->data);

new1=new1->next;

}

new1=head;

}

void insertF()

{

struct node\*newnode;

newnode=(struct node\*) malloc(sizeof(struct node));

printf("ENTER THE VALUE: ");

int a;

scanf("%d",&a);

printf("%d\n",a);

newnode->data=a;

newnode->next=head;

new1=head=newnode;

c++;

}

void insertS()

{

if(head==0)

{

printf("EMPTY");

}

else

{

struct node\*newnode;

newnode=(struct node\*) malloc(sizeof(struct node));

struct node\*temp3=head;

printf("\nENTER THE POSITION : ");

int i;

scanf("%d",&i);

printf("%d",i);

int j=1;

for(j=1;j<i-1;j++)

{

temp3=temp3->next;

}

printf("ENTER THE VAL: ");

int a;

scanf("%d",&a);

printf("%d\n",a);

newnode->data=a;

newnode->next=temp3->next;

temp3->next=newnode;

c++;

}

}

void deletel()

{

if(head==0)

{

printf("\nEMPTY\n");

}

else{

struct node\*temp4=head;

int i;

for(i=1;i<c-1;i++)

{

temp4=temp4->next;

}

temp4->next=0;

free(temp);

temp=temp4;

new1=head;

c--;

}

}

void delsp()

{

struct node \*temp5=head,\*temp6=head;

if(head==0)

{

printf("\nEMPTY\n");

}

else {

printf("\nENTER THE POSITION: ");

int pos;

scanf("%d",&pos);

printf ("%d\n",pos);

int i;

for(i=1;i<pos;i++)

{

temp6=temp6->next;

}

for( i=1;i<pos-1;i++)

{

temp5=temp5->next;

}

temp5->next=temp6->next;

c--;

}

}

int ex()

{

printf(" \nI M EXITING ");

return 1;

}

int main()

{

int ch,i=0;

while(i<1)

{

printf("\nMAIN MENU\n\n1.INSERT\n2.DELETE\n3.DISPLAY\n4.INSERT FIRST\n5.INSERT SPECFIC\n6.DELETE LAST\n7.DELETE SPECIFIC\n8.EXIT\n");

scanf("%d",&ch);

printf("YOUR CHOICE IS: %d",ch);

switch (ch)

{

case 1:

insert();

break;

case 2:

delet();

break;

case 3:

display();

break;

case 4:

insertF();

break;

case 5:

insertS();

break;

case 6:

deletel();

break;

case 7:

delsp();

break;

case 8:

i=ex();

break;

}

}

return 0;

}

OUTPUT:

