#include<stdio.h>

#include<stdlib.h>

#include<malloc.h>

void create();

void display();

void Delete\_beg();

void Delete\_end();

void Delete\_pos();

struct NODE

{

int data;

struct NODE \*link;

};

typedef struct NODE node;

node \*start=NULL;

void create()

{

int c;

node \*new,\*curr;

start=(node \*) malloc(sizeof(node));

curr=start;

printf("Enter element\n");

scanf("%d",&start->data);

while(1)

{

printf("Do you want to add another element(Y/N)\n");

scanf("%d",&c);

if(c==1)

{

new=(node \*) malloc(sizeof(node));

printf("Enter element\n");

scanf("%d",&new->data);

curr->link = new;

curr=new;

}

else

{

curr->link=NULL;

break;

}

}

}

void Delete\_beg()

{

node \*temp;

if (start == NULL)

{

printf("\nLinked lis is empty\n");

return;

}

temp = start;

start = start->link;

free(temp);

}

void Delete\_end()

{

node \*temp, \*prev, \*next;

if (start == NULL)

{

printf("Linked List is empty\n");

return;

}

if (start->link == NULL)

{

free(start);

start = NULL;

return;

}

prev = start;

next = start->link;

while (next->link != NULL)

{

prev = next;

next = next->link;

}

prev->link = NULL;

free(next);

return;

}

void Delete\_pos()

{

int el;

node \*temp, \*prev, \*next;

if (start == NULL)

{

printf("\nLinked list is empty\n");

return;

}

printf("\nEnter element to be deleted\n");

scanf("%d", &el);

if (start->data = el)

{

temp=start;

start=start->link;

free(temp);

printf("\nDeleted is %d\n", start->data);

return;

}

prev = start;

next = start->link;

while (next->data != el && next != NULL)

{

prev = next;

next = next->link;

}

if (next->data == el)

{

printf("\nDeleted is %d\n", next->data);

prev->link = next->link;

free(next);

return;

}

printf("\nElement Not found\n");

}

void display(){

node \*temp;

if(start==NULL){

printf("Linked list is empty\n");

return;

}

temp=start;

printf("\nLIST\n");

while(temp!= NULL)

{

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

temp=temp->link;

}

}

void main()

{

int ch;

while(1)

{

printf("\n1.Create LL\n2.Delete at Beg\n3.Delete at end\n4.Delete at position \n5.Display \n6.Exit\n");

printf("Enter your choice:\n");

scanf("%d",&ch);

switch(ch)

{

case 1:

create();

break;

case 2:

Delete\_beg();

break;

case 3:

Delete\_end();

break;

case 4:

Delete\_pos();

break;

case 5:

display();

break;

case 6:

exit(0);

default:

printf("Invalid choice\n");

}

}

}

