

PROGRAM CODE:

#include<stdio.h>

#include<stdlib.h>

#include<conio.h>

#include<malloc.h>

struct node

{

int data;

struct node \*next;

};

struct node \*start = NULL;

struct node \*create(struct node\*);

struct node \*insert\_beg(struct node\*);

struct node \*insert\_end(struct node\*);

struct node \*delete\_beg(struct node\*);

struct node \*delete\_end(struct node\*);

struct node \*display(struct node\*);

int main(int argc,char\*argv[]){

int option;

do

{

printf("\n\n####\_OPTION TO WORK\_####");

printf("\n 1:Create a list");

printf("\n 2:Insert\_beg");

printf("\n 3:Insert\_end");

printf("\n 4:Delete\_beg");

printf("\n 5:Delete\_end");

printf("\n 6:Display");

printf("\n 7:EXIT");

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

scanf("%d",&option);

switch(option)

{

case 1: start = create(start);

printf("\n LIST CREATED");

break;

case 2: start =insert\_beg(start);

break;

case 3: start =insert\_end(start);

break;

case 4: start =delete\_beg(start);

break;

case 5: start =delete\_end(start);

break;

case 6: start =display(start);

break;

}

}while(option !=7);

getch();

return 0;

}

struct node\*create(struct node\*start)

{

struct node \*new\_node,\*ptr;

int num;

printf("\n Enter -1 to end");

printf("\n Enter the data :");

scanf("%d", &num);

while(num!=-1)

{

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

new\_node-> data=num;

if(start==NULL)

{

new\_node->next=NULL;

start=new\_node;

}

else

{

ptr=start;

while(ptr->next!=NULL)

ptr=ptr->next;

ptr->next=new\_node;

new\_node->next=NULL;

}

printf("\n Enter the data : ");

scanf("%d", &num);

}

return start;

}

struct node \*insert\_beg(struct node\*start)

{

struct node\*new\_node;

int num;

printf("\n Enter the data :");

scanf("%d", &num);

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

new\_node-> data =num;

new\_node-> next =start;

start = new\_node;

return start;

}

struct node \*insert\_end(struct node\*start)

{

struct node\*ptr, \*new\_node;

int num;

printf("\n Enter the data :");

scanf("%d", &num);

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

new\_node-> data =num;

new\_node-> next =NULL;

ptr=start;

while(ptr->next!=NULL)

ptr=ptr->next;

ptr->next=new\_node;

return start;

}

struct node \*delete\_beg(struct node\*start)

{

struct node\*ptr;

ptr=start;

start=start->next;

free(ptr);

return start;

}

struct node\*delete\_end(struct node\*start)

{

struct node\*ptr, \*preptr;

ptr=start;

while(ptr->next!=NULL)

{

preptr =ptr;

ptr=ptr->next;

}

preptr->next=NULL;

free(ptr);

return start;

}

struct node \*display(struct node\*start)

{

struct node \*ptr;

ptr=start;

while(ptr !=NULL)

{

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

ptr=ptr->next;

}

return start;

}