```
lob program (22/1/2004)
1) Single linked list with all senavio of inelation
2) Single linked list with all senavo of deletion.
    Strock Hoele Continues to
    Struct Node * create-node (int data) {
    Struct Node * new Node = (Struct Node *) malloc (Size of (Struct)
    if (new Node = = Null) {
        Print ("Allocation failed In");
        excit (1);
                       tenny and a document
    peuNode -> data = data;
    new Node -> next = NULL;
   return neuhodi;
    I struck there is chalden to challenge to challe small
    Struct Node * insert At first (Struct Node * head, int data) {
       sture Node * new Node = Create_node (data);
       newNode -> neact = head;
       setus neuNode;
             Struct Nodit inself Atposition (Struct Node * head, int data,
                              int poorison) {
   if (position 41) {
```

· Johnson mercontage

```
printf ("Invalid position \n");
   ruturn head;
Struct Node * new Noch = Create_noch (data);
if (Pooision == 1) {
                                i Atah da
  new Noode -> next = heard;
                      if a anda total double
  setus new/bode;
Struct Nocle* temp = heard;
for (int i=1; ix position -1 xx temp != Null; ++i) {
     temp=temp=next;
      AD STATE THOUGHT HOLD
if (temp = = Null) & - will about the state
  printf ("Invalid position" In);
  seturn head;
        ("Allocation radazalla") Hill
new Nocle -> neact = temp -> neact;
temp = Next = new Mode;
                      : attab = attab <- Ibah
sekern head;
                        THE POST OF LOOK I THE
Struct Nocle* insert FITEnd (Struct Nocle * Lead, int data) {
 struct Nocle * nunNode = Create_woode (data);
if (Lead == Nall) (1) to the hold to the
  seturn newnode;
            and Janes = Janes & holder
struct Node* temp=head;
 While (demp-) neoch!= NULL) {
  temp=temp=> near;
 temp-> next= new Noche
                             (12 andices) A
 seturn heard;
```

```
void display_list (struct Node* Lead) {.

print ("Linked List:");
            While (Lead!= NULL) {
                          print ("% d ->", head -> data);
                           heard = heard -> neart;
                 the state of the s
            Print ("Null In");
int main () {
       struct Nocli* Lead = Cleate_list();
                 head = insert At First (Lead, 5)
               head = insert At End (head, 4)
               Lead = insert At first (Lead, 2)
              Lead = insert At End (heard, 24);
             Lead = insert Atfirst (Lead, 10);
             display_list (head):
            Leard= insurat End (Lead, 2);
            display_list (Lead);
            head = insert At position (head, 10, 3);
            display-list (read);
           settlin 0; met adding to the total tours
                                                         K. Kasakisosa dai
  OUTPUT :
 Linked list: 10->1->5->4->24->NUL
 Linked list: 10 -> 2 -> 5 -> 4 -> 24 -> 2-> Null
 Linked list: 10 -> 2 -> L -> 24->> NOLL
```

(mortales - dail sednis): 2 magazia/_/_

```
Paogram 6: (Linked list-dellation)
                    doubte tail wall in bion
#include (dd stdio.h)
                     (" Link tradail");
#include (Stellib.b)
                      (untile (Lenal) eliter
struct Node &
    int data;
    Struct Nocle * near;
Struct Noch * Deloite_list () {
   Setula NULL;
     staurch Necle = back = barke to the comment
Struct Nach+ create_node (int data) {
   stluct Node* new Nocle = (Struct Nocle*) mallas (
   if (new Node == NULL) {

size of (Struct Node))
      printf ("Allocation failed In");
      excit(1): Annal AniAta Anna - back
newNocle -> dota = data;
nunNacle -> neach = NULL;
Seturn neuNode;
Struct Nocle* insurt At position (securt Nocle head, int data,
        int provision &
Struct Nocle# deleteAt Bighning (Struct Nocle# Lead) &
if (head == Null) {
   print ("List is empty In");
return NULL;
```

```
Struct Noclet temp= Lead;
Lead = Lead > neoct;
yer (temp);
return (Lead);
Yim - note all many ser to monitions > 1 / Laid 1999
struct Noch & delete At End (struct Node * head) {
 if (Leard = = NULL) (
   pleintf ("List is empty");
eletern Mell;
if (Lead > neoch== NULL) {
    Fall (Lead);
   Seturn NULL;
struct Nocle * temp=Lead;
While (temp > neach > neach 1= NULL) &
 temp=temp -> next;
the (temp > near);
demp -> neact = null;
seturn Leard;
Struct Nocle* detete Atposition (Struct Nocle & head, int position) {
 if (read == NULL 11 position < 1) 1
 print ("Irualid position)";
  Retwin Lead;
       ( = 02 James) monthson HANKonni = In act
if (Position = = 1)
  stauct Noch temp = head;
  heard = Lead - reat;
```

```
free (temp);
     return Lead;
 Stauct Nocli* temp = Leads
for (inti=1; i < position-1 &x term!= NULL; ++i){
    demp = temp > neact;
if (temp == NULL II temp = next == NULL) {
    painty ("Irralial position \n");
    Jehun Lead;
                      ( roll = = 4 mag & brook) 31
struct Node* nocleTodeleta=temp -> next;
temp > neact = node Todaletre + neact;
                     Miller simile to for p = Local:
Void display-list (struct Node # Lead) {

printy ("Linked Linst: ");
  while (Lead 1= Null) }
      print ("% d -> ", head -> data);
      Lead = Lead > neoct;
                                Harash ander
   Paint ("Null Ini);
    much places detetetaniona (Stance West touch
int main() {
 struct rode* Lead = aeate_list();
 head = in self-Atposition (head, 40,1);
 Lead = insert At position (head, 50, 2);
 Lead = insert At-position (Lead, 50, 1);
Lead: insert At position (Lead, 1,2);
```

reader - head - some

display_list (Lead);
Lead = delete At Beginning (Lead);
display_list (Lead);
Lead = detele At end (Lead); display-list (Lead); detete Atposition (Lead, 2); clisplay-list (Learl); return 6; DUTPUT Kinked List: 10 -> 1 -> 55 -> 50 -> 50 -> 40 -> NULL Linked List: 2 > 55 -> 50 -> 50 -> 40 -> Null Linked List: 2 -> 55 -> 50 -> 50 -> Null Linked list: 2-350-50-Null