Lab-pro-
Lab-program Doubly 190ked list 14/12/000
- Hipplude 201 deals
include > Adlob by
should node
suf rubo;
Struct node * link;
Struct nodit alenti.
};
-typede struct node + NODE ;
-typedi strict node * NODE ? Node getnocle()
7
- NODE X;
n= (NODE) malloc (siziop(structnode));
If (x == NULL)
- American Committee of the Committee of
printe ("memmy pull")?
print ("memony feell"); exit(o);
return x;
· ·
Void freenode (NODE 2)
9
free(x);
<u>}</u>
NODE dingest_front (int item, No DE head)
NODE temp, curi
temp=getnode();
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```
temp-> info = item;
cur = head-> renk;
beads rink = tempi
cus-senk-temp;
return head;
NODE dinselreas l'ent item, none
                                  head)
NODE temp, curr
-temp= getnode()
temp-sinto=item;
 head > llink = temp.
 temp->>lenk= head;
temp + link = cus;
 cuntrink =temp;
return head;
 NODE delete-read (NODE head)
 NODE (1191, pred)
  (hed - whink
 return head;
```

```
cur = head + link i
   rinty ("The node deleted is ", d" au rento);
    head-slink = pre
     freenode (w)i
 NODE insuit lestpos (ent Hem, NoDE, head)
  Inlaps temp air previ
  f Chead-> rlipk= = head
                emptu
 print, (" lut
  reteir head?
  ay = head solink;
  While ( cur! = he ad
    Hem == cus sinfo) breaks.
   cun = cun syknt;
    (cus = = head
           key not found
brev = auxlink;
brent ("enter towards left of %d =
```

```
scanf (" od", stemp singo);
  temp> lenk = previ
cui + link - tempi
  temp > rlink = cui;
   notein head;
NODE inseart-sightpos (intitem, NODE head)
   NODE temp, cur, next;
   if (head ration - head)
  print (" list empty "
    greturo Readi
  cur = head + slink;
  while (aul = head)
     (Hem= cull >info) breati
     cus - cus + slink
     (cur = head
 print [" key not found n"
 next = au solink;
```

```
painty ("enter towards right of &d=" Hem);
  temp= getnode;
Scant = (3d, ftemp>infa);
Curtaline temp;
temp sliple curi
next slenk = temp;
temp + olenk = next;
return head i
Nope search (Nope head, intitem)
NODE temp cur;
  in flag=o;
    [head->9/19/6=head]
parinte (1 list empty (n');
Outuso read
Cur = head > 9 lenti
 While (aur! = head
 ly litero = Teus sinto)
    breaki
 aig = au shlenk;
```

```
if (av= = head)
  brinty ("search unsuccerfull n"),
  printf ( " search succer full ");
NODE delete all key (int item, NODE head)
 NODE previous, heat?
 int count;
   if Chead-salenk = head
 point f(" list empty(n")i
  neturo Readi
 Count = 0:
  cun = head + or link i
  while (cun s= head)
  4 (Hem = cur runto)
   lug= cug-salint;
   else
 count ++;
   brev - an > link;
   next = aug + glent;
    prev-Junk = hulti
    heat + Henk = previ
     preenode(cur);
     'cwi = heat;
```

f (count = - 0) print ("not found"); print ("found al /d posit of deliled", count); print ("found al /d posit of deliled", count); Print ("found al /d posit of deliled", count); NoDE temp; if (head > alknk = -head) print ("dq is empty n"); temp = head + relink; while (fempl= head) frint ("/d", temp sinfo); temp = temp > relink; print ("/d", temp sinfo); yord main ()	
Print (" /d", temp sink; while (femple head) Print (" /d", temp sink;	100
Print (" /d", temp sink; while (femple head) Print (" /d", temp sink;	(com) = = 0)
Print (" /d", temp sink; while (femple head) Print (" /d", temp sink;	- print ("not found")
Print (" /d", temp sink; while (femple head) Print (" /d", temp sink;	bainly and posito & deliled, course
Void display [NODE head) NoDE temp; (head > slrnk == head) print ["dq is empty n"]; print ["contents of dq n"]; temp=head + nlink; while (temp) = head) frint ["d", temp rinto); temp = temp ralink; prent ["h");	found of the last
NoDE temp; (head > silink == head) print ('dq is empty n''); suturn; print (" contents of dq n''); temp = head + mlink, while (femp!= head) print (" /d", temp > sinfo); temp = temp > rink; print (" n'); print (" n');	pretion head;
NoDF temp; I (head-> silink == head) Print ("da is empty n"); puturn; point ("contents of da n"); temp-hand + rilink, while (fempl= head) frint (" "d" temp sinfo); temp-temp-rink; Print (" n");	· · · · · · · · · · · · · · · · · · ·
NoDE temp; I (head > silink == head) Prints ('da is empty n'); suturn; prints ("contents of da n'); temp = head + mlink, while (femple head) prints (" /d", temp - pinto); temp = temp > rink; prints (" n');	World displantings (and)
print ("da is empty n"); print ("da is empty n"); temp-head + nlink; while (fempl= head) print (" 'd", temp-rink; prent (" 'n');	Topiacy (NODE nead)
print ("da is empty n"); print ("da is empty n"); temp-head + nlink; while (fempl= head) print (" 'd", temp-rink; print (" 'n');	NoDE temp:
print ("da is empty n"); print ("contents of da n"); temp-hand + rilink, while (-fempl= head) print (" /d", temp pinfo); temp= temp-rolink; prent (" n");	thead-x silvok == bead
prints (" contents of dg h"); temp=head + nlink, while (-templ= head) frints (" xd", temp-rinko); temp= temp-ralink; prints (" h");	- V
prints (" contents of dg h"); temp=head + nlink, while (-templ= head) frints (" xd", temp-rinko); temp= temp-ralink; prints (" h");	Print ("da is empty n")
temp-head + n/enk, while (-femp)= head) printf (" /d", temp-rinfo); temp-temp-rink; printf (" /n");	neturn;
temp-head + n/enk, while (-femp)= head) printf (" /d", temp-rinfo); temp-temp-rink; printf (" /n");	
while (-fempl= head) printf (" /d", temp soinfo); temp= temp-rlink; printf (" b");	CONTENTS OF AGID
while (-fempl= head) printf (" /d", temp soinfo); temp= temp-rlink; printf (" b");	temp-head + orlenk,
Drentf ("h);	while (templ= head)
Drentf ("h);	
Drentf ("h);	print (" /d", temp sinfo);
	temp-temp-rinki
void main()	Daint (" p))
- Void maus ()	
	- Voia maur ()
NODE head, last;	NODE head last.
int item, choice;	
THE TIME, COULCE,	LIV HUN, WICE

in almode()
head = get node () head - slenk = head; head - head;
head-link= headi
fer (ii)
sint (" nr. insert pront n2; inject reag n 3; idylate front n4; delete group n5; insert eft of keep element n6; delete group n5; insert n 7; score ch n8; delete
3° not the grown 5 insent left of keep element n6:
incost might of Key ekment in 7:5000 ch in 8: delete
delete greagh 5: insert left of kelp element [18. insert gight of key element [n]; scarch [n 8: delete insert gight of key element [n]; exit[n"); respecting element [n 9: display [n 10; exit[n");
orm blow a choice
ewitch (choice)
is them at front end n')i
ease t; paint ("enter the 1741)
ase i ; paint (" enter the item at front end n') i ease i ; paint (" enter the item at front end n') i ease [" /d", gitem)i last = dinsert_front (item, head); break; last = dinsert_front (item, head); break;
Last = action at real end n')
11
scont ("/d, 4 item) last = dinsert real (item, head);
break; last = ddelete front (head) break;
case 3; last = adelete reas (head) i breat
(ast 2) scales the feet complete
case 5: brent ("only a Hero); break
last = insert lettpos(item, head); break
cose 6 : print ("enter the key dement n");
cose 6: prints (" rd" filem); scant (" rd" filem);
scarf ("xd, filem); v (ifem head)i
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case 7: printy (" enter the search element | "); scan (" >d , bitem)i Seas ch (head, item)i ("enter the element to be delited po duple Sd'yitem)i ast - delete all key (Hem, head); Case