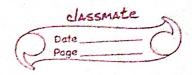


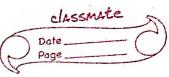
```
9) Doubly linked List Program
 Hirclude < stdio. h >
 Hindudo < stalib.h >
 stant node {
 int data;
  Struct node * next;
  struct node * prev;
 struct node "head = NULL;
 void moest beg () &
 truct node * new_node;
  new node = (struct node *) mallor (size of (struct node));
 printf ("Enter he item: \n");
  scorf (" % d", snewnode >data);
 new-node -> next = NVII;
  new-node -> prev = NULL;
 if (head == NUL)
 head = new_node;
  clse f
new node > next = head;
 head > prev = new-node;
  hoad = new_node;
 void insert end () {
  struct node *nounde *new usde , *temp;
  new node = (struct node*) mallor (size of (struct node)) i
  panty (" Enter the item In ");
  Scanf (" " /od", to brow node -> data);
  new node -> next = NULL;
```

new node -> prow = NULL S if (head = > NOLL) head a new mode s else f temps head; while (temp > next != NULL) tengs tempo rects temp -> next = new rode; new-node sprew = tempi void ascat bef () { stanct node * new node, * pts i ent news val; printf ("Entes, the data: "); Scarf ("10d", Sma); pointy ("Enter the value before which the data has to inserted:") scanf ("190d") & val); new-node = (struct node *) nallor (size of (struct node) new node -> data = nun; pts = head; while (pts a > data ! = val) { pta = pta -> next; if (pts == NUL) printf ("Element is not in the list!!!"); return; newprode -> next = pts; new node > prever = pts -> prev; pta -> prev -> next = new node; pta -> prev = new node; void insert after () f



```
int listele;
struct node * now node , * temp;
penty ("Enter the element in the list In ");
sconf (" Yod" , slistele);
new node = (Struct node *) nalloc(size of (struct redo));
pointf ("Enter the new rode data In "?);
Scanf (" o/od" ) drew-nede -> data);
newrode -> next = NULL;
new-node -> prev = NULL;
if (head = = NULL)
panel ("Compy list m? 1); se tuen
temp: head:
while (temp -) data! = listela) {
temp = temp -> next;
if (temp = = NULL)
printfle ("Elevent is not in the list"); seturn; &
new node -) next = temp -) next ;
temp - next = new node;
new node -> preu = temp;
new_node -> next -> grov = new node;
void del () &
struct node *temp;
int ele :
if head == NULL)
point ("Empty list in") ; notion;
panty ("the the clement to be deleted in ").
sconf ("60), d", dele)
temp: head;
while (temp-)data!=ele) {
temp = temp > next;
```

if (temp = = woll) purity ("Element is not in the list !!! \n"); becal if (temp: : head) head = head -) rest; else if (temp-) next == NULL) { temp = temp > pres; temp) next = NULL; temp -) prev -> next stoup -> next; temp -> next -> prev = temp -> prev; void diglay () 1 stanct node *temp; printf ("< -- Contents of Doubly Linked list -- > (n 1); while (temp! = NULL) { paintf (" int yad " printf (" (at ") ad", temp -) data); temp = temp > next; int main () & int choice; shile(1)E paintf (60 \n <---- MENU - --- > 127) perity (6 In 1. Insert at the Beginning . In 11); party ("2. Insert at the God . \n'?); pents ("3. Tusest before a given node. In"); partif ("4. Insert after a given node. (n)); printf ("S. Delete a node. In");



		_
	partf (66. DISPLAY In??);	
	prints ("7 - Exit \n ??);	
	peint ("G h Enter your clipies in ");	-
	paintif ("6 h Enter your choice: h"); Scanf ("40d") & choice);	_
	quich (choice) {	
Ä	case 1: insert-beg(); break;	
	case 2: insert_end(); break;	
7	case 3: insert-bef(); break;	
100	case 4: insert agla (); break;	
	case 5: del (); break;	
- 1-	case 6: display (); break;	
	case 7: exit(0);	
	B. Marian and the second of th	i.
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