DOUBLY LINKED LISTS. #include < Stdio. h> #include & Stalib h7. struct node S. int info; street node * Uink struct node * slink; typedef skruct node * NODE;

NODE getnode() NODE X; X=(NOOE) malloe (size of (struct node)); a) (x==NULL) pf (" men fule m"); vaid freenade (NODE X)

Free (X); NODE dinsert-front (int item, NODE head) { NODE temp, cue; temp = getnode(); temp - info = item; cue = head > vlink; head -> slink = temp; temp > Wink = hered; temp -> vliak = au; cue - llink = temp; 2. settlen hard;

NODE dinsert rear (ent item, NODE head) NODE tempicul; temp = getnode (); temp - info = item, are = head > llink; hand - llink = temp; temp > slink = bead; temp -> llink = cui; are - Alink = temp, setuen head; MODE delete-front (NODE head) NODE cus, next; if (head > rlink == head) S pf (" day empty \n"); setteen head; cus = head-slink; next 2 cm - xlink; head > vlink = next, Mext > Wink = head; Af (" node deleted is I'd", cue sinfo); freenode (cue); Veetren head;

SURYA Gold NODE ddelete reas (NODE head) ? NODE cue, plev; of (head > vlink = = head)

Poly (" Day empty h");

return head; are = head > llink; prev = cue > llink', head > llink = prev, prev -> rlink = head; H!" node deleted is ofod', cue sinfo); freenode (us); setuen head; NODE insert-leftpos (int item, NODE head). ?. NODE temp, are, new; if (head > rlink == head) 2 pf (" list empty n"); estuen head; run = head -> olint; if (item == ue -) info) if (cue = head) Pf !" key not found in"); lettern head;

prev = are - Clink; pf!" Enter towards left of 1 d = ", item);

temp = getandel);

scanf!" I d", q teemp -> info); pelv -> vlink = temp; temp -> llink = peev. cul - llink = temp; temp > ylink = cue; settlen head; NODE delete-all- key (int item, NODE head). S NODE prev, cuy, next; if thead > rlink = = head)

hell'LE"); situen bread; count =0, are = head > dink; while (cue! = heard) 8 if (item = ue → info) au= un - vlink; del count + +; brer = cue > llink; hert = que -> ylink; prov > rlink = next; next > llink = prov; frenode (un); Vau=next;

Data Gold Gold if (court = =0) All'Key not found"); of [" key found at -1 & positions & are deletated, settlen hard; void each (int item, NODE head) S NODE CUL; if (head > Slink == head) pf ("list empty"); Setuen auf = head -> vlink; while (luef = head). if (Item = = are ->info). break; aus = aue-slink; (uie = = head) B of (" Search Succesfull"); Seturn; H (" Search ausuccessfull"), void display (NODE head)

\$ NODE temp; if Chead > 8 link = = head)

So of (" day empty \n");

Setuen;

	Pf(" Contents of day");
	temp = head > skink.
	Pf(" Contents of dq''); temp = head > slink; while (temp) = head)
	S COM CHANGES POLICE
	p) [1] [A) [1] to > 5 [1]:
	temp=temp=sinto);
	2 temp=1 emp > Vlink;
-	
	P("\n");
	<u> </u>
1	