Date: 22/01/24) WAP to implement Singly Linked List with following operation a) create a linked List b) Insertion of a node at first position, at any position and at end of list 1) Display the contents of the linked list. > Code ! Street node of int data: Struct node *heat. Struct node * head = NULL; Struct node *create-le(Strut node *head) (Strut node *new-node, *ptr; not num. printf (Enter the number) Scanf ("of.d", Bnum); new_node = (struct nock x) mallor (struct size of (struct node) new-node => data = num. : f (head = = Nyll) (while (num 1= -D) new-node = (struct node*) orullo c (size of (struct node)) new-node >dota = num: new-node -> next = NULL; If (head = = Hull) head = new. node; 3

ptr = start. while (ptr->next f= NULL) ptranext = new_node; printf(ther the data: "); Scanf ("1.d", num); Tehrin Lead. Strut mode insert beg (Strut mode + head) f. Strut node thew node; int num; Printil (" boter the number"): Scanf (", d", Bourn); hero, node = (Shreet node*) mallor (Khreet node)); hew-node - data = num, If (head = + NULL) } head = new-node . new-node -> next = NULL; 3 elses prod-enest new-node - next = head excep, return head.

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Shut node insert end (struct node *head) (Smut node * hew-node, * plr; int num! printle (" Enter the number :"); scant ("1.d", 8 num); new-node = (struct node *) malloc (stacebol(struct node)) new-node - dorta = num. new-node->next = AULL; il (head == NULL) { head = new-node ! Selvel ptr=head; while past of while (ptr-> next != NULL){ ptr = ptr->next; ptr=>next = new-node; return head; 9 struct node Engext-before (struct neals & head) ! struct node thew-node, *ptr, *prerptr; Int num, val; printl(Enter the mellowers); Scent ("I'd", prum); printfluenter the value before which number has to be Scanfler. I.d ", pool);

new-node = (struct node *) malloc (struct ode)); new node - a data = man num. ptr = head; while (ptr -> data is val) prapte = ptr; ptr = ptr = next; propts -> next = new node. new-node = next = ptr; return that head; Strut node * insert-after (strut nodo *head) & Struct node * new-node , * ptr, * preupt. int num, val; pointf ("Enter the data !) Scanf ("f-cl", num): printf(" (nter the value after which data need to be inserted "); Secure (" or. of", val); new-node = (struct node*) malloc (size of (struct node)). new-node => data = num, ptr = shooted. prevptr = head. while I prepptr +> dota ! val ! prevpter = ptr; ptr = ptr -> next. g preptr > next=new_node. new-node -> next = ptr; return ptr;

distruct node *display (Struct node *head) { struct node *ptr; ptr = head. while (ptr 1= NULL) (print f ("1-d", ptr - data). ptr = ptr -> next; return head; WAP to Implement Singly Linked List with following operations a) create a linked b) Deletion of First element, specified element and last element in the list c) Display the contents of the Linked 11st. Struct node delete- beg (struct node *head)? 5/mut node /* ptr; pro- head. head / head - next. fike (ptr): return head. Struck

Strut node * delete-beg (strut node thead) Struct node aptr; if (head = NULL) { printl ("Nothing to delete"); 3 elsel ptr = head; head = ptr-neal . free (pti); return head. Struct node * delete-end (struct node *head) Struct node *ptr, *prexptr; pro = head; while (ptr - next != NULL)1 Prevptra ptr; ptr = ptr -> nealing prevptr -> next = NULL; free (ptr); redus heard;

node & delate node (struct node * theat) ~ Struct node Aptr, Aprevptr; printf (" Goter the val that need to be electrically int val; Scanp ("4.d", ral); ptr = head if (ptr->doto = = val)(head = delete beg (head); return head, else 1 while (ptr->dota != val) 1 preuptr= ptr; ptr = ptr -snext; prevptr -> next = ptr -> next; free (ptr); return head; > Create linked List 2) deplay 3. insert-day 4. insert - end

5. injert before 6 insert cheter 7. del-beg 8. delrend 9. del node 10. exit Enter your choice : 1 enter -1 to exit Enter of num: 60 Enter the num: 20 6ter the nam : 30 Enter the num: 40 Enter the num: -1 Enter your choice: 2 10 20 80 40 Enter your choice : 3 Enter the number: 5 Cotor your choice: 4 Enter the number: 45 Enter your choice: 5 Enter the number: 35 Enter the valere: 30 Enter your choice: 2 5 10 20 35 30 40 45 Enter your choice: 7

Enter your choice: 9
Enter your choice: 9
Enter the value: 35
Unter your choice: 2
10 20 30 40