4	P109-01-	7000
>	Sort operation on single linked list	
1	# mclude < stdio.n7 milering mil	
	# include ( stall b. h > prompted to stall a port & down !	
	Struct Node book 1- a mistory in stable 3 of the	161
	1	
7	int data:	
8	struct Node * next;	
Ī	3:	
	Void insert Node (strud Node * * head, int new Data)	1
Ī	0 4	
0	Struct Node * new Node = (Struct Node *) malloc (Size of Cstruct No	((sb)
	New Node -> data = newData;	
	new Node -> next = NULL;	415
	ij (* head == NULL)	12
	Chief the charter to	9
	* heard = newnode;	653
	Potentia it made it	1
	else	1
Ì	· ( settlement attended attended	
	Struct Node + temps + hading to state & may be a land .	4
	while Ctemp -> next! = NULL)	3/
10000	1	139
	temp = temp -> next;	1
A Design	3	
0.440	temp -> next = newwode;	
No. Co.	3	
2.0	3	HT.
-	void printhist Canuch nodes hood)	
-		
	Struct Node + temp - head:	T

```
29-01-2024
      white (temp! = NULL)
       print (" 1.d", temp -> data);
                                                 while Conseppedit
       temp = temp => next;
                                                      (sain m ? 1)
      printy (" In");
                                     Salas Lossi V . not tout
      void bubble sort (Struct Node + bead) - (a hart -) -
                                      icent tools (Similar):
      int swapped, i;
                                         2 (3 Lack & sheet tour;
      Struct Node " ptr;
                                     March Rose Tolerand Street
      struct Node * Apt = NULL;
                                     (E . hard + ) should bear
                                 of sail below borgers I through
       13 Chead = = NULL)
                                           Marillet Organi
       Yeturn;
                                               · Charles treated
                                    the Jan weren more than
      do
                                              March Same
                                                        * C * 111 2
      Swopped = 0;
      pt = head;
      while (ph -> next!=aph) = 2 = 3 = 3 = 3 = 1 = 1 = 1 = 1 = 1
                            82 2 2 1 1 200 harmed have
      (ph-) data > ptr -> next ->data)
       Int temp = ptr -data:
       ph -> data = ph -> next -> data:
      ph -> next -> data = temp;
      swapped = 1;
```

29-01-20	24
	dptr=ptr; (anon=!qnos) state
	y
	while (swapped);
	3-10-9-3-9-3
	Int moine)
	( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( (
	Struct Node & head = NULL;
	insert Node (4 head,5); (1,11 - hour built) decention
	insert Node (4 head, 2);
	invest Node (4 Nead, 6);
	invert Node (4 mod.)),
	I MARIE WOOLE CENTRES .
	bust counting
	printlist Chund;
<i></i>	hub Wenort Cheod);
	printy ("sorted linked list:")
	printlist Chendii
_	return 0;
	3
	- 7
L ok	original linked list: 5 2 8 13 / dal the
	Souted linked list: 12358
	Cotoke / sale rig cotoks
	children to a
	into Carron - the Mi
	in a contract of the contract
Contract of the last	

E C\User\admin\Downkada\s X

Original Linked List: 5 2 8 1 3 Sorted Linked List: 1 2 3 5 8

Process returned 8 (8x8) execution time :  $9.847\ s$  Press any key to continue.

```
29-01-2024
                                                              prog-087
       08) Reverse operation on single linked list.
                 # Include <state n7
                 # include <stolio.no ((1) should a son a son a son a son a son
                  Strock Node 100 360 360 Many June - tran Carrie Carret
                                                                                       of the married to me the land of
                                                                                                                         (Chart) to return
                  Int data:
                 struct Node + next; (intil beathough server total
                                                                                more Consens tended to be to the
                 3:
                 Struct Node * Create Node Cint value) ( 100)
                                                                                                                                                          Correttor
                 struct Node * new Node > Cstruct Node *) mallox (size of (struct Node)
                 1) (new Node = = NULL)
                 Comment of the state of the sta
                 printy ("Memory ollocation foold in");
                 exitus
                New Node -> data = value;
               New Node -> hert= NULL 3
               return new Node:
               Void imput End (struct prode ** head, int value)
                Struct Node * temp = (struct Node *) molloc (size of (struct Node));
                 temp -> data = data;
                temp -> next = NULL;
               1churn temp;
              int main ()
                 Struct node + head = newNode (1);
```

Chlorofysiknání/Downkoským X

Original Linked List: 1 -> 2 -> 3 -> 4 -> 5 -> MULL Reversed Linked List: 5 -> 4 -> 3 -> 2 -> 1 -> MULL

Process returned 8 (8x8) execution time : 8.862 s Press any key to continue.

```
29-01-2024
       concatenation approation on single linked list " .....
                                      July : Henry - bonnes show
       # include ¿stolia.h>
       # include (stolio.h)
                                            Council o Services - 5 e cres
       Structwode
                                             anner - ners - less se
       int data;
       SHUCK NOde * next;
                                                      the training of
       3:
       Struct Node + Create Node Cimbota)
                                                         Charge in
       Struct Node + new Node = (Struct Node +) malloc (size of (Struct Node));
       new Node -> date : date: (3) shows storm - 1111 - 1 151
       newNode -> next = NULL 3 (E) SHOW STEERS C- SYSTE I LINE
       return new Node: "(a) short stoom = = 322 " short sons
                                    least a prixe of reasonable constants
       void display list (struct Node + head) is = tran = exam = etal
                                         or west Private groval later )
       Struct Node * current - head;
                                                   O + o) tengely in
       while (wriend ! = NOLL) to told mother mane? ) I told
                                                   المجامي لادل (ودو و)
       printy ( "H. d - ) " current - regard) I wo to long or + small trust
       current = current -> next; it is wind become of the
                                   Litary test concerned to be yet at
      print ("NULLIN")
                                                            Crese ?
       Struct Node & concaténate lists estruct Node * list1, a truct-Node*
                           tallists) against a day below deall
                          David Co co co to 1 1 the trained bound
       "I Chistill = = NULL) - 12 - gc con 2 . Lot today borrelegat
        Yeturn List 2;
```

9-01-	2024
	Struct Node + scurrent a last 1:2 no notions to no tonstones es
F. W	while (current -> nevt! = NULL)
	1 control of the state of the s
	Current = Current = next:
	3
_	Current -> next = 18st 2;
	return ust 1;
	3
- 1	Ant main () (distant short story forth
	1
	Struct, Node & list 1 - (reate Nod & Gi): 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1
Charles of	list 1 - next = create Node (2); which when - should
- 6	list 2 -> next -> next -> Createnade (3) 3 1 1111 - 1137 - should 11
0	Struct Node " list 2 = (reate Node (4); short comment)
1	list 2 -) next = (reate Node (5);
100	Vst2 - next - next = creatervode Code toute 1 12 1 maigrab bing
1	prints ("First winked list:");
-	diploylist cust D: " then there there to HE
	Print & C' Second Linked list: "); ( )
2.6282	display list (list 2);
11.5	Struct Node + Concatenated wist - Concanteniate wists Guist 1; with 2)
	print! (" Concotenated linked list:"); + 1
	display ust (concatenated list);
16.	v. Luna a
1	Yeturno; Harry
-	£ C
THE C	Short made & concentration of the last made & tast 1, a few total
1	First unked list: 1->2->3->NULL
	second winked list: 4->5->6-> NULL
-	Concatenated winked list : 1->2->3-> 4->5->6-> NULL
1	
3	
1	return list 2)

E C\Users\admin\Downloads\o X

First Linked List: 1 -> 2 -> 3 -> NULL Second Linked List: 4 -> 5 -> 6 -> NULL

Concatenated Linked List: 1 -> 2 -> 3 -> 4 -> 5 -> 6 -> NULL

Process returned 8 (8x8) execution time : 8.831 s Press any key to continue.

```
Prog-08
stock implementation using single whiked list
 # include Lstoio. hz
                                            AND SHOP SHOW
 # include Lstalib.h>
                                            Comment get order
 Struct Node
                                    · later got " but the g
 intl data;
 struct Node & next;
                                             there get get
Struct Node & Create Node Cint data)
                                                · Caron strent
Struct Node " new Node = (struct Node +) molloe (size o) (struct Node);
 of (new Node = = NULL)
                                             Course - 1 get strain
prints ("Memory allocation failed in");
 exit (exit-Failure);
                              Short Made I done - tops:
                                             thank get get
 new Node -> data = data;
                                                  rese (may);
 new node -> next = null;
 retuin new Node:
Struct Node & pop (struct Node * tp)
  1) (top = = NULL)
Printy ( stack underylow = lannot pop In 1);
Yeturn NULL;
                                        "("about al") I toing
                                        4" of does 5 " their
struct Node + temp : top:
                                       1'01 get c' | 10011
tob = tob -> Dixt;
                                     (" or matrice and the
free (temp);
                                        The same of the same
return top;
```

		4
29-01-	2024	Andrew Arts
	void display stack (street Node * top	print or teta
	(	Ca dillars abution it
	printy ("stack:");	Struct vose
	while Clop !=NULL)	V
_	(	anteb ken
	printy (".1.d", top-> date);	on fished toute
·—	top= top -> next;	: :
_	y lane	Short More & Copt Made Copt
*	print ("In");	
was a	void Preestack (Struct Mode + top)	of - seminary + seminary
-	Void Preestade (Should Indee Top)	(1) (because = shape and) in
*	while (top 1 = NULL)	
*	L state	4 actionale promise ) stories
	Struct Node + temp = top:	Starting - fixed toxa
	top- top-) next;	
4	free (temp);	petals work of showing
70	4	- Jania - John Gran
-	)	return on a parite
× !	int main ()	
	Copi* si	Start Made * pag Cotrant Ma
- 1	SHOLE Wode + top=NULL;	,
1	int Choice, data;	Chops and
- 2	do	
	deal got tonne	Printy (" start underlyta)
	printy ("In Menuin");	Jehn andst
	printy (" ). push In");	Carrier and a
	printy ("2- pop \n");	that down a sport mass
	print ("3. Display In");	
	printy ("4. Exit in");	· · · · · · · · · · · · · · · · · · ·
*		though parts
Commence of the last		THE DISTRICT

```
printy (" Enter your choice :");
  scory (" +d', 4 choice);
  switch (choice)
 case 1:
    prints ("Enter data to push");
   scong ("1 d", 4 data);
                                           Visited movement
   top. push Ctop, data);
                                          a car of at aten at 12
   break:
                                           a record new what
 Cas2 ;
 top = pop (top);
  break:
                                           F short may exit
case 3 :
 display Stock Ctop):
  break;
cose 4:
 printy (" Entering the program in");
  break;
default:
  Printy (" Invalid charce ");
 while (choice 1=4)
 freestack (top);
 return o;
```

29-01-1024 Olp Meau 1. push 2. Pop 3. Display 4- Exit Enter your choice: 1 Enter data to push : 6 Enter your choice : 2 popped Successfully Enter your Choice: Enter data to push : 7 Enter your choice 13 7.6.

18 pushed to the stack. 28 pushed to the stack. 38 pushed to the stack. Stack elements: 30 20 10 Top element: 38 Popped element: 38 Stack elements: 28 10

15.

Process returned 8 (8x8) execution time : 4.862 5 Press any key to continue.

9-01-2	024 prog-09.
a	Queve implementation using linked list interile promise
=>	# Imaude cstaro. hz
	# include < Stalich.h2
1	Struct Node
	t ig meter
1	imt data
	Struct node + mext first to many - south tourist tourist tourist
	3:
	Struct Queue Color Struct Struct Que A struct Bests
	(
7	Strout mode + front;
	Short Node " Teat:
	3;
7	Struct node & Cicale node Cint data) +xxxxxxxxx
	( shots and = tent (-name
	Struct Node * new Node = (struct node *) molloc (size of ( stact node));
-	i) (newNode = NULL)
7	t and the same
3	print   ("Memory alloyation 1-1-1-1")
	Frit (Frit - Failure);
	3
-	OCWNode => deta = by =
1	new Node -) data = data;
	bra Node -> next = NULL;
	return newwode;
	And a sent a surge of the state of the
	Short burve + initialize queuru
	stuct Queue + queue = (struct queue +) malloc (size of (struct queue)
	i) (queve=NULL)
	( The second sec
31	

```
29-01-2024
       void display queve Cstruct queves queve)
                                  decourage of otel read the
                                       Vetebra 121 Trans
       ij Cqueue - front = = NULL)
                                             Congress Course distally
       printy ("Queue is empty in");
       return;
        Struct Node + current = queve - front:
                                                   Stump ( ) suspense
       printy (" Aveve");
        while (content 1= NULL)
       print ("+d", (urrent -) doto):
                                              Street and Course .
       wirent - corrent -) next;
       printy ("In");
                                   tral accepting of post (30) thing
       int moin ()
                                         -(" t wied bides at ") storing
       Struct Queue + queue = initialize Queue ();
       ind Choice data;
                                                    while ( Mail 1-4)
       do
       printy ("Menu");
                                                              o anis
       printy ( "IFn queve In")
      printy (" 2. Dequeue In")
      printy (" 3. Display 10");
                                                                 ours M
      Print (" 4. Exit 10");
      printy ( Enter Your charles);
                                                             seroped .
       Siany ("1.d", 4(hoire);
                                                             bispins
       Switch (choice)
                                                                Just.
```

29-01-2024 Enter your choice : 3 Queve is Empty Enter your choice: 1 Enter data to enqueve : 4 Enter your Choice : 1 Enter data to enqueve : 6 Ender your Choice:3 4 .6

C\Uncralpedmin\Downkeede\q X

Queue: 18 28 38 Dequeued element: 18

Queue: 20 30

Process returned 8 (8x8) execution time : 0.862 s Press any key to continue.