go write a program to implement stocks wang conted lest: Hinclude & stole b. h.> Program strict node ? Int data; struct node algert; struct node atop = 0' void puehlint val) 3 strict mode + neumode; neumodo: (struct node + Imalloc (size of (struct nod); neumode -> data = val; neurode ment : {Dp; top = newnode; void display () Estruct node * temp?,

temp * top?

of (top==0) ? printf ("stock is empty")?} vohile [temp 1:01 s printf [?/adla", temps data); temp - temp -> About. void pop(1 & stouct node & temp; temp: top;

ef (top==0) & printf ("stack cerderflow"); E printfl "poped element is "holl", topylot. top: top adnext, free (temp)? wid maint was to war deliver ? int choice, nom; printf ("Enter the operation : In I push to 2 pople notile (1) ? printf: [Type operation in] 3 printf ("oporation completed.In"); Equoitenchoice) () judgets to case 1 : printf (" Enter the number: /n"): scarf ["old", Enun? enquere (nom) Break is I stilled care? : dequeus ()-; pop (); breaking case 3: display (); default: printf("invalid in pet")

Mouspul! Moutput
enter the operation:

1. push 2 pop 3-display 4.-1 to stop

2. push 2 pop 3-display Guter the neamber: 5 enter operation: 1 Enter the number: 6 enter operation: Enter the number: 7 x days to Enter operation: 3 enter operation 2. poped element is 7. enter operation 2 poped element 19.6 enter operation 2 poped element is 5 enter operation ? stack anderflow enter operation -1
operation completed

```
C:\Users\bmsce\Desktop\22cs300\stackll.exe
 enter the operation:
 1.push
 2.pop
 3.display
 4.-1 to stop
 enter operation
 Enter the number:
 enter operation
Enter the number:
 enter operation
Enter the number:
 enter operation
 poped element is 7
 enter operation
 poped element is 6
 enter operation
 poped element is 5
 enter operation
 stack underflow
menter operation
```

inted list. Hindude «stalio.h) struct node Int data' 3 struct node & next; struct node & front 20; strict node = reas : 0! void enquelint n & struct node an enoughe' new node: (struct node 1) mallor (size of (structual) newnode -> data: x: neconools & next : 0; if (front = 0 22 rear = 20)
3 front = rear = nownode; relse e { rear - next = neconade; rear: newnode; · presidences corporada void display () strict node * temp?

If I front == 0 22 rear == 0)

E printf ("The Queue is empty low) else temp = front;

while (temp! so) printfl'of.d", temps data). temp = temp + next; void dequal! 3 struct made stemp; temps front; if I front == 0 82 rear == 0) print f (" Queue underflowin"); } print fl" dequeued element is/diti; front: front snext; void main () printf ("Enter the operation: Int. enquely & 2. deque. ln3. display 14. - 1+0 stop (n"); while (1) gearf ("1.d", & choice); if (choice: 1-1 ¿ printfl" operation completed In"); switch (choice)

Page No :____

write case! " printf (" Enter the number: 10") sant (" of d', & noem); enqueue (num); break; case 2 . dequeue (); break; case 3: displayed; break default: printflitavalid inpulsi); ! tugtua!! enter the operation 1. enque . 2 dequeux . 3 display 4.- 1 to stop enter operation ! enter the number to enter operation! enter the number 6. enter operation enter the number 7 enter operation 3 5 il relementaring to the 19 19 12 Enter operation 2 dequeved element is 5 enter operation 2 dequered clant is 6

```
Lit C:\Users\bmsce\Desktop\22cs300\queuell.exe
 enter the operation:

    enqueue

 2.dequeue
 3.display
 4.-1 to stop
 enter operation
 Enter the number:
 enter operation
 Enter the number:
 enter operation
 Enter the number:
 enter operation
 enter operation
 deueued element is 5
 enter operation
 deueued element is 6
 enter operation
 deueued element is 7
 enter operation
queue underflow
```

10. write a program to sort and foresse a single Fallow 1. write a program to sort, reverse and concalenation of single unked list.

Hinclude < stdio h> struct note + head = 0 , + neisnade , +temp', struct mode ? Pnt data; struct node *next! Buil charrens Ocalanga Dani Buri struct nucle * head = 0, * heishade, * temp? o bear on all and dear a describer to wid create () and a short a change ? Put i, n? printfl" Enter the noi of elements: |w"); scarf ("%d", 8n); hand to premari for (1°=0; 1°< n; 1°+4) neverede = (struct node *) malloc (sizo of (struct Dechaggens de noch); printf (" enter the % of element: In", i+1); scanf (" "/d", & nownool +data); newhoole - next : 0;

eplihead==01 = newhook; } { temp + next = newmode; } temp = neversolo; wid display I temp shead; printf (" The elementer are: (n'): volvile (temp: 0) { printfl " ordln", tem -data); temps temp mext: wild relate () 3. struct node + prenade = 0, x currode: head, +remote notife (nontrade 1 = 0) { next apple = next nools - next; cus node + neat = prenode? prenade: aunode; Curnock = northook; 3 (08, "600° 1 h head = prenocle; void cort L. int snopped = 0 struct node * end = 0; Pf (head = = 0 1000 11 hand + next = 0 18 printf ("already sorted");

do { temp: head; natile (temp + ricat 1: end) if I temptedata > tempte neat todata) Int to temp sodata; temp + data: temp + next + data; temps next-data : t; 3 suappod = 1? end: temp?

end: temp?

shile (anapped): vold movin () Printf l'Enter operation: Int. create Inz. display

[nz. reverge [ny. cort ins. concat ins. -1 hoedis]. ? printf ("Enter operation In"); sconf ("el.d", & chaice); of Chaice = = -1) i printf l'operation completed (In");
break? Esneitch (choice) { case 1 : create();

case 2: display () break it will all call 3'. reverse () case 4 : could case 4: sort(mal break? case 5: printf(" Enter first (12+1 n"); create ()? printer second lightn's; create C); break , break , and default: printf("invalid Enput(n"); 1 Duput! Enter operation: 1. cicate de mitorga roles 1 da 2 display as to forme as sol 3 reverse 4. sort aladinogo 101000 5. concat (ormor "by 6. - toend Enter the operation! of of Enter the no. of elements: 3 Enter the I clarent: 5 Enter the 2 clonest 6 onter the 3 elent: 7 Enter operation : 3 Enter operation: 2 The elements are: 7

```
C:\Users\hp\OneDrive\Desktop\22cs300\sort_rev_con.exe
Enter operation:
1.create
display
3.reverse
4.sort
5.concat
.-1 to end
Enter operation:
Enter the no. of elements:
Enter the 1 element :
Enter the 2 element :
Enter the 3 element :
Enter operation:
Enter operation:
The elements are:
Enter operation:
Enter operation:
The elements are:
6
```