```
AP19110010415
                       CSE-H
(1)
  WAP to insert and delete an element at
  the nth and kth position in a linked list
   where n and k is taken from user.
sol:- # include < stdio. h>
   # include < stdlib. h> books) tuges
    struct node
    Struct node *mext;
      struct mode * curv * tempi
       void imput (struct noder)
       void delete (struct moder)
       (bior) main (void)
                       (009 = = 2) A/
      Etruet mode *s;
       int moralment with resting ) floring
        S= NULL! ((a forest s! by) through
           it rare (- 100) = trans (- 1 mat
         printf ("Enter the element to insert; /n");
         printe ("2. Delete m");
         print ("3. Exit /n");
         printf ("Enter the choice;");
         scant ("/.d", &n);
            switch (n)
        about & id white words of 19 to 18 1 Atming
```

```
case 1: input (s);
  break i
  case a: delete (s)i
  break in the brook of
    3 while (n!= 3)
void input (struct node * 7)
 int pos, c = 1
  curr c xi
  print ("Enter the element to be inserted:"
  scant ("/d" & pos);
     while (carr = rext! = NULL)
            abore tourist of state
    7
                  (biov) more Bing
      if (c = = POS)
     temp = (struct node *)malloc (size of (struct)
    printf ("Enter the numbers;");
    scant ("/d" & temp >n)i
    temp - next = corr - next;
      corr = sext = temp;
     break; il"my shotex . 2") + toring
void delete (struct mode * 2)
  int pos, c=1;
   curr = Zi
   printf ("Enter the element to be delete;
   scanf ("1.d", & pos);
                      Scanned with CamScanner
```

```
while (cur ) next! = NUll)
  C++ ;
   if (c = = POS)
   temp = current -> next; (12)
  curr - mext = curr - mext - mext;
  free (temp) 11 to be battoom
  Econ = con -> next;
 3 void merge (struct mode *p, struct made * 2)
 Estruct mode * P_corr = P, *9_corr = *9!
  struct mode # P_ next, * P-next;
  while (p_corr! = Null && q_corr! = Null)
   P_mext = P_cury+mext;
   8- next = 8- cm + next;
    2- curr > next = P_next;
   P_ cury -) next = 9- curr;
   p_ cur = p_ next;
   2-curr = 2-nexti
 $ * 9 = 9- curr
3 int main ()
  struct node *P = Null, * 2 = Null;
  push (ap,1);
 push (ap, a);
  Printp("First linked list: In");
  print (ist (R);
```

push (89,4); push (89,5); push (89,6); linked printf ("second print list (2); printp ("modified first linked list = \n"); merde (6'86); printf ("modified second linked list = \n"); Printlist (P); JUNIS) DRIGHT DE printlist (9); g+ 7 = rres 1 + shore returno; de at l'esco : La House l'emperie

1 1x 30 4 8 000 9 11 1 1830

大· 下一十二十二十二十五四十十

```
2, Construct a new linked list by merging
   alternatives of two hist for example in
   11st 1. We have {1, 2, 3) & in list 2 we have {4, 5, 6} in
   the new list we should have glit, 9,5,3,63
   # include estations and but thring
501:-
   # include estalib. hz your or soon
   struct node
    E
      int data i
      struct node *next;
                         (1104 ==d)
    void move node (struct, node ** x; struct node * + y);
    Struct mode & sorted menge (struct mode & a structe
    struct node duming ; = > stab = 3) 4
     struct node + tail = & dominy;
    dummy next = Null; 13 3 35000 storm
    while (1)
                11 (101) 3) show on
   ¿ ; E ( a = = N U ! )
      * y = new mode -> next;
     new mode -) next = * x;
      * x = new mode;
void push (struct nock ** head - ref, int new-data)
  etruct nodex new_node = (struct nodex) malloc
                         (size of (struct node));
 new_node -> data = new_data;
  new_node -> next = (+ head-ref);
 (# head_ref) = new_node;
```

```
Strate Rd + 311 924 will work or or
 void point list (struct node & node)
                  11 3 (6,8,1 ) 2 VEN - SKIL + 21
   while (mode & = Null)
    printe (".1.d" node -) data);
    node = mode -> next; dibtes shots mi
   tail -> next = b;
     break;
                   struct mode frmex ti
else if (b== NUll)
urtail - next = a;
   Break;
  if (a > data < = b > data)
     move node { &(tail) -> next), & a);
      move node (& (tail) > next, &b);
  0180
                          (104 = = 0) 4
    3 tail = tail mex tj
    return (dommy mext);
   3 void move node * (struct node ** x struct node* *)
 struct mode * new mode = * y;
 sponasser F (new mode ! = Moll);
                              * obo a
     int main()
     struct node to res = nullipor
      struct node to a = null;
      struct node & b = null;
                              Scanned with CamScanner
```

apush (20,11); of the mining of your push (&a, 2); mg is solo) de de ougo push (&a, 3); push (26,4); 3 10 10+ Euliste push (8 b, 5); 6) K/9 11013 From push (86,6); res = sorted merge (a,b);
printf ("merge linked list is: \n"); printf (ist (res)i return 0; output:- merge limked listlis it. 4 a 5 36 (Elyar) 13 antas ()709 13 tosi (r Fri) dam 1812.02 6) B' 100 + 33 tree #

Find all the elements in the stack whose sum is equal to k (where k is given from user) int si [10], top1=-1, sa[10], topa=-1 # include < stdio.h7 int sicmpty() {; f (top) == -1) (m) me (m) return 1; better sprang string else returno; int 81 top () i [[1907] is nowen 3 int si POP() { -top1 -- i Eint si push (int x) SI [fortopi] = x; 3 int sa empty () if (top = = -1) returni else retuino; int sa top () return sa [topa]; int sa pop()

```
top 2 - -
   int sa push (int x)
     mate [+ + top a] = x;
  interum (int K)
while (s, empty ()) = 1)
       sipop();
     while (SI empty ()!=!)
      { (x+s1 top()=k)
printe (4.4, 1.d) m", n, s, top () 4;
     3 sa push (sitop(1);
        SI POP();
      while (62 empty (7! = 1)
     3
        SI brief (sa tob())!
          32 pop();
int main()
 parinte ('enter the no. of elements of stack: In");
 scant[". 1. d" &n);
```

```
for(i=0;i<n;i++)
      scant ("1.d", & e);
          s, push(e);
        print ("enter the value of constant sum: \n");
       print + ('The combinations whose sum is equal
      scant[". d" & k);
                          to Kis: \n");
      8@m(k);=!() 8+9 m, 3) slides
out put: - Enter the no. of elements of stack:
               1 = 1 (3 Kt 9017 13) Stales
  Enter the value of constant sum:
   The combinations whose sum is equal to kis;
    (4,5)
              (1 = 16) phy .... 63) =11,60
               if ( yot 83) daug is
```

11.404 10

```
A. WAP to print the elemente in a queue
  i, in reverse order , ii, inalternate order
  1, Himclude estdio h>
     Himclude 28tdion>
102
      H include "QQ. h"
     int main()
       int n, arr[20],1,5=0;
       struct stack s;
       initetack (8.8);
       Printe ("Enter a number");
       Bconf [", d" & n];
       for (i=0, i<n; ++)
         print f (" enter the values, ");
        scant (": Xd" & array [i]);
       for (i=o;ikn;it+)
  insert (ann on [1]);
   while ((i) = 2)
       E push ( &s, desch);
         i++;
        print ("Reverse is");
      · while (stop!=-1)
        printt (", vq", pop(88));
        printe ("m");
   retorno;
```

```
il, d'include <8+dio. h> de treles or i als.
  # include < stdlib. h>
   struct node {
int data;
       Struct Node * mext; 6" sou in
     void print nodes (struct Node * head)
        int count =0;
      while ( head! = Nou) {
        if (countil ===0){. 3) + tring
          printe ("/d" head > data);
          count++;
          head = head - nextiling
  void push (struct node* * head-ref, int. new-date)
    struct node * new_rode = (struct node *)
                   mattoc (size of (struct node)
     new-node > data = new-data;
     new- mode + nex + = (* head - ref);
     (* head-ref) = new_node;
   int main ()
      struct mode * head = Null;
         push (exhead, 12);
         push (& head , aq);
          push (ahead, 11);
          push (2 head, 23);
           push (& head, 8):
                             Scanned with CamScanner
```

print node (head); return O; output: i, Enter number: 5 enter values: 10 20 30 40 50 Ex Reverse is 50 40 30 80 10 ii, head - data 12 11 10 6 23 neod alternative 33 10 18

```
5, i How array is different from the linked list
   ij wap to add the first element of one list
    to another list of example as have {1,2,3 }in
    list 1 and {4,5,6} in list 2 we have to get
   {4,1,2,3} as output for list 1 and {5,6} for
sol= i, The major difference between array and
     linked lists regards to their structure, anay
     are index data structure where each element
    associated with an index. On the other hand, linked
    list relies on reference to the previous and
    next element
    ii, # Enclude estdioits
      # include Kstdlib. h>
       Struct mode
          struct mode *next;
       ? int data;
         void push (struct node to head-ref, int new data)
         struct modex & new- node = (struct rade) malloc
                             (size of (struct node));
          new_node -> data = new_data;
          new-node -> next = (& head - ref);
       (* head-ref) = new-node;
         void print list (struct node * head)
        Estruct mode to temp = head;
          while (temp! = Null)
```

Eprinte ("./.d" temp -) dectal, so are temp = temp - mext;

between = temp - mext;

control of the second list: 23 45

data in second linted list 6789

data in second linted list 6789 data in second limdata in second limdata = 26 789

mew-data = 34 5 erro protocria viorit of springer deil paris remale days produce partourly botob vobies or rubandeadta att 19 mobini na Ather batoines bro wolvery add a smarglise to