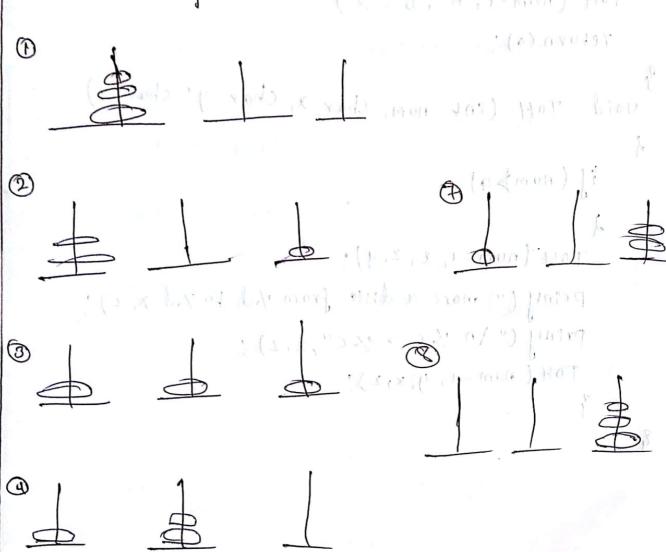
Of three disk movement of Town.

Som: The daigram below shows the movey



51 2 0



```
Programm :-
yord TOH (rnt, char, char, char);
  a every post of mon to record telens
  Tob nom; the sourcestage
                         and bio
  prints ("In Einter number of plater: "),
   scary [" /. d", & nom);
  ToH (nom-1,'A','B', 'B');
   return (o);
 void TOH (int nom, char x, char y' char 3)
    if (nom > 0)
     TOH (nom-1, 1, 2, 4);
     printf (" more a disk from ! d to % d x, z);
     print (" In 1/0 c-> 1/0 c', x, z);
      TOH ( nom -1, y, x,2);
```

2) mile a reconstre function to computer ours of two numbers, also toce the function with yco (84,246) soluige Recursive junction: de alla shahagan fuch (n,m) if n>m 400 (min) = 3 mi : 1000 1101 0 1101 ( Gob (n, mb (min), other wise) = food) nooles Trace 5 ged (84, 246) num 401) paper p 401 ged (246, 84) (000 (1000) ged (n.m) gcd (84,246 mod 84)
gcd (n,m) ged (n, mod (m,n)) ( + 1000 Just gcd (84,78) (drood 110 gcd (n. mod. (m. 11)) ged (49; 74) return 6. TERY & (reavel) for gallet. this 48 - ( roor) Day will deep of anity thirt for place of bion

```
wing parameter, passing method, emplement
      a c program to demostrate the looking of
       a circuler duie.
80 lus- # Proclude < Stdio. h > 1 no 12 no) 2 offer 18 18
       # include < stdib.h>
       # define SizE 5. (mm) (1210)
         PAR Q full (work = 9592E) (MAY) OUR
     (selly redde, (nim) and asid
           return (count = = qsize)? 1:0;
          int gempty (int count) we was bor
        ( of 0 ) to
           return (count ==0) 9 (:0; 12111) bap
Jed (m, m) bugn, m) by
        void q- insert îtem, int gever ] int rear,
                                          int count)
((1), m), who if (effort count)
                                 (84.118) hop
             brittl (, oneilrom of faco pun);
              reforn ;
            rear = (reart) %. q stre;
            queu Crear ] = îtem;
             COUNT + #1;
         void q-dele (int quev.[], int to front int
                                              count )
           if (2 empty (count))
             pring (" Queu empty (nu);
```

```
print (" The deleted element is %.d , queu [front];
            front = (front +1) %. 9 sizE)
             * count = 1",
void display (int queue [], int front, int count)
          cape 3 : display (que , front, cours);
 if (dempty (LOUNT))
  printf (" Queu empty \n")!, (0) 1500: 110/01
   reforn !
printf (" content of Quew is [n");
        9= front;
          for (j=1 <= (000+ ;i++)
       1 preny (%d4, avec [i]);
         =(iti) %. queu size
       Busutff. /U.)
  int Choice, item front, rear, count, Queu [20];
void maine)
  front =0; rear -1; coon+=0;
    printf ("1; insert 2: delete (n");
     brand (n. 3; girlon n: 8x; F/u,);
     printf (venter the choice \n");
     scary [ " or do, & choice);
     Switch (choice)
      Ł
```

```
case 1: print (" enter the îtem to be insert | nu);
                                                           say ( 4 . /. du, litem);
                                                             eq-insert (item, queu, prear, count);
                                                               break .
                  cuje 1. eq-deleter (queu, & font, & count):
                                                                           break !
                     coje 3 : display (queu, front, count);
                                                           break;
                       defort ; exit (0)! : (1.4/14/110 0200 1) Haird
                                                                                         : ( , a) se more to Hastan a) Haved
                                                                                                                                                          tal your;
                                                                                                   (++ i; + noos=> 1= i) rob
                                                                                                  : [11:10:00 "polo) Hurry 3
                                                                                                                        3715 cant . P. (122) 3
                                                                                                                                                          Lat of Hubbel
                                          int ( ho see them front, rear, count, good (20);
                                                                                                                                                                                               (Inter bid
                                                                                     in thus is they is the foot
                                                                         itentatorepie acousting fraging
                                                                the state of the s
                                                                                "("all soinds ody volus") pinity
```

```
4. convert the injex expression ((A+B-C) XD) E+E) to
        exprestion write a c program to evalute projex
          expression show she provided the
Kalosbier obulgas di
      ((AtTID) (EtF)
                            H mounde & glillebilis
      (AtTz) (E+F)
                            show that they noge
        Tz
      (731E+F)
       (TH tF) among los more T2=T10
                            T3 = A T2 +
                         Tu = 78 E
    Tift
                     tuft .
    T3 Elf +
    75+E(F+
                             there there to bear t
    ATID TEL FT
    ABC-OX+E1F+
                    Mord + MATH) AMPL-401 + hours
                   * (brok & chart) toor - lab Cross
                   Mand & chap) polyced blow
     HEAD & BOOK - (HEAD) MULLOS (SIZE Of (HEAD));
                           10 + 4000 18 - 100 W
                           . Jour and brok
```

```
@ malle the node structure for repretented studing
  lanked . Also write clonestone
1) To insert the node from the front in the
ii) display the node in the sol (axt min)
                            (1) 1 (0.1) 01
H rnclude 2stdio.h>
# proclude & stallbolds
 typedet street node
7
   char USN [10], name [20], branch [10]
        inh Semy
         long int Ph;
           Struct node link;
 & node;
 typedel struct node
 de
   intloont;
   NOVE links
 SHEAD ;
void int-front (HEAD & head)1
 void del- front (HEAD & head);
void display (HEAD * head);
void mainc)
2
   HEAD * head = (HEAD) malloc (812E of (HEAD));
   int choice;
   head -> count=0;
    head -> link = NULL;
    for (;;)
    printflu Enter In 1. insert at front In 2. Levete at front In
              3. display (n. 4. Exit)
```

```
& scary (" %d", & choice) !
   switch (choice).
   Ł
      case 1: ins- front (head); break;
       case 2: delete-front (head): break;
       case 3: display (head) : break;
       case 4; Exet (01;
z
     ins-front (HEAn * head)
biou
 NODE * news = (NODE *) MOLLOC (SIZE of (NODE));
 Print ("Enter USN, name, branch, sem. phone of the stdentin");
        newn -> link = head -> link;
        (head -> count) ++;
         head -> link = new ";
 Void-delete front (HEAD * head)
 1
   NODE & temp!
   if ( head -> link = null)
    printy (" list empty - ! ! [ | n");
    Letovu.
  femp = head -> link;
  printfl' ducted record : (n');
   browth ( nor " rel tog ft 209 (til (temb=) non) (temb=)
          name), (temp-> branch), (temp->sem), (temp->ph));
      head -> link = tems -> link;
      ( head -> count? --;
      free (temp);
```

```
void diplay (HEAD & head)
                                                                                                             : ( sold of " by " ) prove !
                                                                                                                                           ( mindo) dayour
1
             NOOR temp !
            if ( head -> link == NOLL)
            h printflu hist empty!!!! militarian in the
                    yeturn !
                                                                            cay 31 display (beal) broak;
    elle
        printf (" Number of nodes : % din , head -> count);
       printfl' contents of the list | n");
          temp = head -> link !
                                                                                           int instance (HEAD) & head)
           while (temp! = NOLL)
           preny ( . / ste 16 st 26 d tt 2. td tt; (temp -> USN).
                              (temp->name), (temp-> branch), (temp-rsem),
                                                                                                       Cremp -s Phy;
                                 temp = temp -> linx;
                                                                                                            ( fred - > count) ++
              ષ્
                                                                                                 t women - shell - bood
                                                                                      (book & CASH ) thory stole . I'm
                                                                                                                                      19m2 1 2 3000
                                                                                                            ( John stril - level ) 11
                                                                                  betothe feet subtil - 11 / 0. ) .
                                                                                  in the book of
                                                                   me of the boar board will
                         MINISTER OF THE PARTY OF THE PA
                        good) for your ( in the first of 1 - of) ( small
                                                                                 that he your - forter hord
```

```
6 design, doudop and implement a menu driven, progra
   -m en cfor the following operation on doubly
   linked list of Employee data with the fields:
             85N, Name, Dept, destination, sell, phno
 a) create a DDL of N Employe data by using end
b) display the struct of and count the numbers of nody

i) perform invertion
c) bestern 'svierthou at en ob giffic : pro
d) perform delacion at front of all
Henclude < stdoo.h>
# proclude 2 Stdib. h2 (based) Inor f-101 21 spo)
 typedey struct emp
   char SSN CioJ, name [20], department [10], designation [20],
    long out by; (pary) thought is sent
    flour salaxy;
    struct emp x link, & link;
GNODE ;
typed of struct head node pulgish 12 2100
 int count;
 NODE & links,
GHEAD ,
void Pris- front (HEAD * head);
void ins - year (HEAD + head); ")
void del- front (HEAD a-head);
void du-rear (HEAD), & head); noisorphysist
void desplay (HEAD ) * head );
- hard ( new 2 - deaper noon) ( accom). ( some
       is the on a count of the second
  HEAD Ahead = (HEAD &) malloc (sige of (HEAD ));
```

```
desting disease and Emplement a mone
   int choice !
   head -> count =0;
    head -> Link = NULL; also sapolyma in tell bang
   Sen, name, Dept, designation, sul : (5) 406
   front la Enter lu 1. invert at front lus. insert at
           rear 3. delete at front In u. desete at rearing.
            display the list chose option lands or 4 orz
             and 3 or 4 for demostration of d queu/n1.
             scary (" % d", & choice) je nouel mojng
             swird (choice)
                                      4 ported & shutong 4
              case i: ins-front (head); I dibited abuting
                                      9m3 Hortz Jubaget
                      break;
To a second code 2 so ins-rear (head);
                      break:
              case 3 ! del-front (head) ; ing top parol
               coje 4: del- rear (héad) x me lors
                       break;
               coses: display (head) from theres jety
               (a) e 6 : exit (0) 1,
                                            : RADOD ANT
                                          MODE X MAKE
                                               HEAD L
                                   tol, fet front (Henn
                        A houdt
              * new n = ( nope ) mauoc ( size of ( nope))
      printflu Enter SSN. Employee name, departmente,
              destigration, salary, phone ! (ny);
            scouf ( . 5.2 5-2 5.2 5-4 6.9 ( vero - 22 b) ( ( vero) - 22 b)
            - name), ( new N -> deapart ment), ( new N destignation
            frewn -> salary ; & Cruo N-> . Phys
       HEAD Ahrends ( HEAD 2) makes (57) e of (MEAD));
```

```
New N -> TITAK = head - IEAK;
 head -> link = new N;
 head -> (count) ++;
 reforn ,
word ins-rear (HEAD & head)
 NODE * new N = (NODE *) mallor (size of (NODE));
  printfl" Enter SSN, Employe, name, department, Balary.
   new N -> line = Note, no should ") from
       if ( head -> lank = = NOLL)
                        ( ) Must general state
         head -> link = newn;
-4/ FIV (Letolu: 1/ 54 3/ 5/ 4) 57 1 4000 1
            ) (small = gmost) ( all -glood
        temp = head slink;
        while (temp -> link! = NULL)
          temp=temp-link;
        temp -> rlink = new n:
        (head -> count)++;
 void-del-front (HEAD *heard)
  NODE & temp;
  if ( head -> link == NOLL)
```

```
bush water - was
void display (HEAD & head)
1
  NODE * temp!
 if (head -> link == NOLL)
   printf("ist empty! (( pn+); and)) rom ins
   Lefniu (2 stis) roma (2 good) = ranu x gush
  temps head - link; pulgmi 428
   printfly number of nodes :1: din; [head -> coont);
   Print ( Records %. 1 SSN name ( E department
           destignation solary Phono (n");
     while (temp 1= NOLL)
                        mare sully a front
     Drintfl"% of of the sole of the god of ld In", (
            temp- SSN) (temp-> name), (temp-department)
            (temp -> designation), (temp -> salary)(tem).
                                    Ph)1;
               temp = temp -> rlink
                      tamp - run or
                         : 1+ ( Anos e- boot) +1;
                     Think to the History - April 1
                        ( ) Think = note for
```

4). consider a senerio wher your web browser Keep track of the web pages, browne suggest a method to implement a back botton on the browser that takes you to the previous pagedevelop a dota structure to store this information and enable the browser to display the previous paye

beinet ( . Eules or follow # Proclude < std:0. le> # include 2 stdeibile > ( ) > 1) puns # dyine MAX 20 Put push (int [max ], int, int C], int \*); int Pop (int [max], int . Int [], int [], int ]; void main () int stack [max], dota, n siLe sno; End nortimal, Low Hod, Loig got sons int i option, reply, printf (" ( Longvage program In")", printf (" How many stack in")", sant (,, %, q,, qu); SIZE = MAX | n; boH [0]=+1; dor (i=1, i<n; i++) bott CiJ = bott [-1] sige; for (: 201, :<n-h., it+) I imit [i] = both Cij +sige; for (i=0; : LA ; i++)

```
top CiJ = bott [P]; 8 - TAAA
  rdouned down voop rodu ofrans? n
  d print ("Lunguage program to implement the
 printy (" y push (n"); em elgin of horton
printfling bob / billiam and asserted
       prenting sextingis and a grand
      ascary (w/o/. No. option); home acistemasons
                  display the previous page
                      printf [" Enter a logical
                             number to /d/ In ",n-1);
                      8 cary ( , , d , 4 s no);
                       prentj ( " enter a value In");
            scanf by /d , fedara);
      (x +11), () +11, [ ] reply = push (stack, sno, top,
                               limit & stack);
                            if (reply = = -1)
              1003 2715 U mbriuft ( 1/2 Un 8 facto . N. gil
            ( Constalling , part [10] , few! tron [10];
            ese print ( cold is pushed in stark
               no v. d (ni, data, sno);
              case 2 : printjl" Enter a logical stack
                              number co to /2d); n-1);
                       sauf (~ %d ", & sno);
                 reply = pop (stack, sno, top, both
                      of (reply = == -1)
                 1 PC + CID Hed = LID Kimil
                        (++1: n=1:0=1)10/
```

```
printf (" stack Y.d is Empty In", sno);
printflusted is poped from Stack nosistedin darasno);
 break ;
cass: break;
                                     Apriles olubor fl
 3
                                    the miliale = statistical
3
    pub lint stack [max], int sno int top [], int
                                      lemitEJ ins * dara)
λ
Pf (top [sno] == botf [sna]
    return (-1);
                19th pulling sheets (struct rade x 704);
 eye
                           trid realence (strock ands &)
 d
  * data = stack [top[sna7;
                                            Holomy Ani
    top [Eno] --;
                             : Julen - 9 x sten flords
    yetonn;
                                  " HOURS, HILLEY HAY
              Present 1 = uter data como the last 1 then?
                       TEXTILE - POLEN . They for morning);
                                   (1--- 4) W/27) ]
         print (The leaked hat a parendrem (");
  of of working to too is all poster of all the
```

```
(8) case study : discuss the method to check if the
  su contains a pouindrom were each node in the
    SII store one Charactors.
80 lug-
# include estdio. by
# include < stdeib. h>
struct node
1 +01 1 1 904 403, one 407, [ 1000] 2004 401) dog in
int nom;
Struct node * next;
4;
                          [ on 2] + and == [ on 2] (04) 19
 int create (struct node x);
Put palin- check (struct node * int);
void realease (stroct node +);
1
  struct node xp=NULL;
   PAL result, count;
   printfl" enter data into the list \n");
   count = create (fp);
   result = pain - check (p, count);
   if (xeio(+ ==-1)
   prenty (The linked list a parindrom \n");
   3
   We
   printfl" The linked list is not a palindrom (n");
    release (RP)!
   return (0);
```

```
int parin- check (struct node & p. int (ount)
 1
   int 1-0;
   Struct node * front , * rear;
   while (i! = count/2)
    ront=rear = p;
     for (1=0; jzitj ++)
                       and to alone grouped appears the
     Jorj=0; j2 (00nl-(141); j4+)
                          rock and & bomp & hor
    Year = year -> next; (your = I (hond)) of the
    if (front -> nom! = year -> nom)
      return o;
                                thought agmed
   yetuni ;
int create (struct node * head)
  int Ch, count =0;
  struct node * temp;
  do
   prentf (" Enter numbers");
   scarj (" ./. d 1, & c);
    temp= struct node *) malloc (size of (struct node *));
    tem => num = c;
```

```
paul n. check (stront rode x p. ins (cone)
temp -> next = * head;
    * head = temp;
    print l' do you wish to continue I ((0):11)
                                1 1 1000 = 13) oli
    scary (" . (. d '; & ch);
    9 while (ch! 20)!
     print ("In");
                              (++ i+1); (0=9) roj
     return count:
                             idea = front = fort;
 void realease (struct node + head)
                        (++(; (++)/-+n10) 1 ; 0= 110.
   Struct node * temp = * head;
   while (chead) = now it xon < room = room
   2
     (*head) = (*head) -> next mon < thory) }
       free (temp1;
                                       i a navoyay
        temps & head;
 3
                        crate (struct node + head)
                          ( , groquan roque . ) fivere
* about the said to said allem (i about the
```