02-08-2024 DOUBLES LINES LIST . DOUBLE ENDED DOUBLE LINKED LIST => 10 tr - Steft Pointer " HEAD TAIL no In > RIGHT POINTER 1000 4000 2000 3000 4000 2000 1000 6 3000 2000 7 0000 3000 8 X leta | neta INFO 2000 ALL TOWN

TEMP

It (head = NULL) H (Inder 5.20) 11 list prost 1st will eins it (willer = size)
Ulist presention Double when w. PPS 23

、原则 全压进口经验 -> \$# # include 2 stelio. h> # include / stellib h > 证,加强一定可加强。 struct Node struct made that " Ither; 11 Lhbr -> LEFT POINTER int info; struct node * Retor 11 RATO -> RIGHT POINTER typedet struct node node; mode * head = NULL, * tail = NULL; node * temp, * newn; 11 Meun > NEW NODE int size =0; void inection () int index, element!

```
fruitf (" enter index to insert!
                                      et something
Scanf ("7.d", & index);
                                         constant in
 ( size < rebris 11 0> rebris) II
                                           411 944
     point (" Nor pusible ")
 elle
   print (" enter elements: ");
      scanf (" 1.d", 4 element);
      neuin = (node *) mallor (size of (node));
       neun -> info = element;
        If (head = = Noil) // Empty
           news = reple <- muen = reple <- muen
            head = tail = newn;
        else if (index = = 0)? 1/wit prosent at ist
           moun -> Alti = NUCC;
            nown = Aptr = head;
             head = head -> lptor = newn;
                                     1/ LAST: wit perent
         else if (index = = size)
                                              at last
           nown -> Rhtr = NULL;
            mun -> 4th = tail;
            tail = tail -> orpito = nown;
```

```
ed high
   temp = head;
   por (i=1; i Linder; i++)
   temp = temp > R/th;
  3. The state of the state of
   news -> lftr = temp;
   Mein -> Rhti = temp -> Rhti;
    nown -> Litti > Riti = nown;
    newn -> RADT -> LANT = newn;
  size ++;
                   the standard and sand
     What who I want
                          The control of the Annual
void display ( )
   temp z head;
                                  esouther,
   while (temps != NULL)
                             The thirty of the said
     points ("120", temp -> singo.)
      temp = temp > Rhor;
                   with a not the order
  void display 2 ()
                CONTRACTOR OF A STATE
  temp = head;
     while (temp) = NULL)
        points ("1.0", temp -> enfo);
       temp = temp = ther;
```

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DOUBLE LINKED LIST =>
                                          it has a fine
> # include < stdia. h >
                                        at with the second
  + include ( stillit . h >
   struct node
                                11 lhtir- Left hainter
     roth * shor ;
     int info;
                               11 ochtor - Right hainter
    struct made * reptor;
   typedet struct node node;
    node * head = NUIL, * tail = NUIL;
    node * temp, * newn; 1/ newn - new node
    int eige = 0;
   void insection ()
      ent inden, element, i;
       printly ("Enter index to insert: ");
                                             L. Harrist
        scanf ("1.0", & under );
                                             if (index < 0 11 index > size)
          printf ("NOT POSSIBLE IM");
        return;
                           Carl Waller
        else
```

```
printf ("enter element: ");
                          willing >.
s canf (" " d", & element );
newn = (node *) mallor (rigeof (node));
 neun - injo = element;
                      MEMOTY List III - WHITE
 if (head = = NULL)
    newn -> 4th = newn -> rhth = NULL;
     head = tail = newn;
  else if (index = =0) 1/ Travert at the beginning
    neum -> Utr = Nuil;
    newn -> reptor = head;
     head -> Utr = num;
                                 EMPHILIP ON
     head = newn;
                               "九九二二十八十二
   else if (index = = size)
                              11 Ensert at the end
    neum -> Jepter = NULL;
                              &(() 持约朱
                              don't a find
      nown -> Uto = tail;
      tail -> retto = neum;
                             (1001) (1)
      tail = noun;
                              Co Shipping Co
   else
                       11 Insert in the middle
       temp = heard;
```

```
for(1=0;1< index-1;1++)
      temp = temp => 24trs
    news -> Uton = temp;
    neun -> ofthe - neun
    temp -> riptor > later = neum;
    temp > rptor = newn;
   from the training in
                        A CONTRACTOR NO
  size ++;
                        in willia
                                THU.
                        人人达纳一
                                . .
void display 1()
                        STANKE TO
                                 湖
                                ALLON.
   temp = head;
   while (temp) & NULL)
      prints ("2.d", temp > info);
      temp = temp -> orpto
                               TO A
    print (" \ m");
                              o little
void display 2 ( )
    temp = tail;
   while (temps) = NULL)
```

```
parts ("10", temp > info):
  temp = temp -> 4tor;
 wintf (" (m");
int main ()
int ch;
   while (1)
     printf ("Enter In 1 to insert In 2 to display
 from head to tail in 3 to display from tail to head
 IM 4 to EXIT IM");
     scanf ("10", tch);
    Switch (ch)
         case 1: inscrition (); break;
         case 2: display(1); break;
         cax 3; display 2 (); break;
         case 4: exit (0); break;
       default: prints ("Invaire (HOICE 1m");
  raturn 0;
```