".... t (nw)

2. Implement Warshall's algorithm using dynamic. programming

Modification: By wing path matrix obtained detect me upde in the graph.

#define V4

void print solution (int dut[][v]);
int min (int i, int j)

if (i<i)

runn i;

runn i;

y

void floyd (int A[][4])

7
int i, j, k, P[4] [4];

for (i=0; i<4; i++)

for (j=0; j<4; j++)

P[i] [1] = A[i][1];

for (K=0; K<4; K++)

for (1=0;144; 1+4)

ba(1=0), 1 < 4), 1 +1)

id (P[i][k] == 1 && P[k][i]=1)

P[i][d]=1;

```
Printsolution (P);
   void printsolution (int dist [1] [v])
Printy ("The following matrix shows the shatut distances between every pair of vertices ("");
 pa (inti =0; i < v; i++)
      for (int i=0; i < V; i++)
       Printy (".j.d", diatlis(is)), ...
    int main ()
      in graph [v][v] = 2
                             20,0,0,03,
                              20,0,0,0}
                              21,0,1,03
       Printf (" Et /n");
      floyd (graph);
```

```
modification. By wing part matrix obtained descet
       the you in the graph.
 Hinund ZArdio. N7
 #indude 21td lib. h7
int main 1)
 加沙台
 Print ("tom me Adjacency matic (10) 1/2);
     for (i=1; iz=n; i+t)
     かいらりょとかり
    11 anf ("1.d", & A[i][i]),
   Print I "The Depth First warm Traveral: In");
    DFS();
    for (i=1; i <=n; i+)
    Printf (".1.c, 1. d ) +" 'a' + seg [i] -1/i);
   if (commend 28 acquic).
 Print (" not is a consecued, Acyclic graph!");
   if (cornected le acyclic).
 Pring (" nit in Not-commend, Auxlic graph");
  if (womand ellaydic)
 Privil (" Into Graph is commend, equic graph");
  ig [! comund et ! acyclic)
```

printy [" not in not - connected, cy dis graph!");

```
void DFS()
2 inti;
 ba (i=1; i <= n; i++)
  (Lis phinis)
   if (171) connected =0'
    DESCONCHILI);
 3
 void of Evanch (int wa)
                         Ellin : partilipes
    inti, i;
  vini ha (im)= ++ loum+) ..... with which with the
    seg[lount] = cus;
   tali=1; ic count -1; iH)
                           (11: 11:21 (1:12.1)
      if (Actual Esca [11])
       ayuic=0
     for (i=1) iz= n; i++) (silipor - lowners)
       idlaturs [i] eet vinited (i])
       Discouch (i);
              and were a live to a constant of the milespe
```

and the second of the second o