Implement all pair shortest path problem using Floyd's algorithm

```
#include<stdio.h>
#define MAX 10
void display(int n,int w[MAX][MAX])
{
  int i,j;
  printf("The following matrix shows the shortest distances between every pair of vertices \n");
  for (int i = 1; i <= n; i++)
  {
    for (int j = 1; j \le n; j++)
    {
         printf("%d\t", w[i][j]);
    }
    printf("\n");
  }
  //printf("\n The shortest paths are:\n");
    //for(i=1;i<=n;i++)
      //for(j=1;j<=n;j++)
      //{
        // if(i!=j)
           //printf("\n <%d,%d>=%d",i,j,w[i][j]);
      //}
}
void floyds(int n,int w[MAX][MAX])
{
```

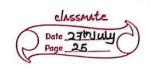
```
int i, j, k;
  for (k = 1; k <= n; k++)
    for (i = 1; i <= n; i++)
    {
      for (j = 1; j <= n; j++)
      {
         if (w[i][k] + w[k][j] < w[i][j])
           w[i][j] = w[i][k] + w[k][j];
       }
    }
  }
  display(n,w);
}
void main()
  int i,n,W,j;
  int w[MAX][MAX], dist[MAX][MAX];
  printf("\nEnter the number of nodes: ");
  scanf("%d",&n);
  printf("\nEnter the weight matrix:\n");
  for (i = 1; i <= n; i++)
  {
    for (j = 1; j \le n; j++)
       scanf("%d",&w[i][j]);
```

```
}
floyds(n,w);
}
```

C:\Users\lenovo\Desktop\ADA\floyds.exe

```
Enter the weight matrix:
0 1 99 4
99 0 99 99
8 2 0 99
999 6 5 0
The following matrix shows the shortest distances between every pair of vertices
0 1 9 4
99 0 99 99
8 2 0 12
13 6 5 0

Process returned 5 (0x5) execution time : 20.875 s
Press any key to continue.
```



	Implement Au pair shortest paths problem using floyd's
1600	algorithm.
	Jerri mduval jost lad of
	#include Zstdio·h>++(: maraval : u=[191] wh
	# define INF 999 2 CALLE CIT CIT AGOING THE
	void floyd (int graph [][100], int vertices)
	\$ 10.01
	înt i, j, k;
	for (k=0; K \ vertices; K++) \$
	for (i=0; i < vertices (ii++) & 1/61 1/1 / 1/1
	for (j =0, j \ vertices; j++) &
	if Lgraph CiJCXJ+ graph [#JCj] < graph CiJCjJ)&
	graph [i][j] = graph [i][K] + graph [K][j];
	graph to sold graph to see
	3 ; Oandel
	3
	Cutput
	Cater the number of veiting 4
	int main(): (EXF) without just be the
	S P EPE 1 0
	200 000 000
March &	print ("Enter the number of vertices: "); ? ?
	scanf ("Y.d", & vertices);
	int graph [100] [100] by John States
	int graph those the adiagram and attentively (d): \0"
	Print f i enter the adjacency matrim (/dx /d): \p",
	for (int i=0; i < vertices; i+f) & O = 2
	for (int 1=0; 12 vences;) + 1) &
	Scanf for (int j=0; j < vertices; j++) s
	scant i "yan, Agraph [i)[j]);
	if 1gcaph CiOCID == 0 AR 1!= 9) \$
	graph CiOCjO = INF;
	3
	3
CS	ganned with CamScanner

Est St.	Page 26
floyd (graph, vertices);	ing 11A tamplant All pai
and time shortest paths (1	rojacency Marcin:
for lint 1=0: 1/ verb ces : 17/	Qro A
for (intj=0; j \ vertices; j+=	+15. cipis 7 aprillo #1
it large (i) Fin = INF) S	PRR THE action to
Frintf ("INF 12"); 00()[]	int and floud (int and
2	int
ese	int int
S	Voi
Print + (") d \ t", graph [i][]	int
3 giapherses	
311111 000 5 25 2 5 3	in
Printf (" You); + Cally done	CX CO Jamp 1 1111 Pr
4	su gmp su
returno;	Pri
2	β 40
Output	2 \$
	10
Enter the number of vertices:	4
6 o 1 999 4	×4): (laion tai Sa
999 0 999 999	2 4
8 2 0 839	in partie
999 6 5 0	U 1970 T Trains
Shortest paths (Adjacency Mate	My joins 2 Pr
"al. On In agree Aman of the	in) of hor rai
999 0 899 999	of tell color to
8 2 0 12	(SEINGLESSEE C P
13 6 5 5 0 114	(26:0:11/11/11/11
10:200	this to the
2 m	111111111111111111111111111111111111111
	Cincia Melania E
2 HAL = C	(IC) They
Scanned with CamScanner	*
	É