**4ADA LAB-13**

* **Floyd’s algorithm to implement all pair shortest paths problem.**
  + - * **Program**

#include<stdio.h>

#include<conio.h>

int a[10][10],n;

int min(int x,int y)

{

if(x<y)

{

return x;

}

else

{

return y;

}

}

void floyds()

{

int i,j,k;

for(k=1;k<=n;k++)

{

for(i=1;i<=n;i++)

{

for(j=1;j<=n;j++)

{

a[i][j]=min(a[i][j],a[i][k]+a[k][j]);

}

}

}

printf("\nall pair shortest path matrix:\n");

for(i=1;i<=n;i++)

{

for(j=1;j<=n;j++)

{

printf("%d\t",a[i][j]);

}

printf("\n\n");

}

}

int main()

{

int i,j;

printf("\nenter the no. of vertices:\t");

scanf("%d",&n);

printf("\nenter the cost matrix:\n");

for(i=1;i<=n;i++)

{

for(j=1;j<=n;j++)

{

scanf("%d",&a[i][j]);

}

}

floyds();

getch();

}

* + - * **Output**

