

```

#include <stdio.h>
void main()
{
    int n, cost[50][50], i, j, k;
    printf("enter the no of nodes:\n");
    scanf("%d", &n);
    printf("enter the cost matrix(enter 999 if there is no direct path)\n");
    for (i = 0; i < n; i++)
    {
        for (j = 0; j < n; j++)
        {
            scanf("%d", &cost[i][j]);
        }
    }
    for (i = 0; i < n; i++)
    {
        for (j = 0; j < n; j++)
        {
            for (k = 0; k < n; k++)
            {
                if (cost[i][j] > cost[i][k] + cost[k][j])
                {
                    if (cost[i][k] != 0 && cost[k][j] != 0)
                        cost[i][j] = cost[i][k] + cost[k][j];
                }
            }
        }
    }
    printf("minimal distance between nodes is");
    for (i = 0; i < n; i++)
    {
        printf("\n");

        for (j = 0; j < n; j++)
        {
            printf("%d\t", cost[i][j]);
        }
    }
    printf("\n");
}

```