test2.c

```c
#include<stdio.h>
#include<conio.h>
void floyds();
int min(int,int);
int c[10][10], d[10][10], i,j,k,n,src,dest;

void main()
{
    printf("Enter number of vertices\n");
    scanf("%d",&n);
    printf("Enter cost adjacency matrix\n");
    for(i=1;i<=n;i++)
    {
        for(j=1;j<=n;j++)
        {
            scanf("%d",&c[i][j]);
        }
    }
    floyds();
    printf("\nDistance Matrix\n");
    for(i=1;i<=n;i++)
    {
        for(j=1;j<=n;j++)
        {
            printf("%d ",d[i][j]);
        }
        printf("\n");
    }
    printf("\nEnter the source vertex:");
    scanf("%d",&src);
    printf("\nEnter the destination vertex:");
    scanf("%d",&dest);
    printf("Shortest path between source vertex %d and destination vertex %d =%d",src,dest,d[src][dest]);
    getch();
}
int min(int a,int b)
{
    if(a<b)
```

test2.c

```c
    scanf("%d",&dest);
    printf("Shortest path between source vertex %d and destination vertex %d =%d",src,dest,d[src][dest]);
    getch();
}
int min(int a,int b)
{
    if(a<b)
    {
        return(a);
    }
    else
    {
        return(b);
    }
}
void floyds()
{
    for(i=1;i<=n;i++)
    {
        for(j=1;j<=n;j++)
        {
            d[i][j]=c[i][j];
        }
    }
    for(k=1;k<=n;k++)
    {
        for(i=1;i<=n;i++)
        {
            for(j=1;j<=n;j++)
            {
                d[i][j]=min(d[i][j], d[i][k]+d[k][j]);
            }
        }
    }
}
```

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```c
#include<stdio.h>
#include<conio.h>
void floyds();
int min(int,int);
int c[10][10], d[10][10], i,j,k,n,src,dest;

void main()
{
    printf("Enter number of vertices\n");
    scanf("%d",&n);
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL powershell

```
PS C:\Users\muska\OneDrive\Desktop\C programs> gcc test2.c
PS C:\Users\muska\OneDrive\Desktop\C programs> .\a.exe
Enter number of vertices
4
Enter cost adjacency matrix
0 999 999 5
2 0 999 4
999 1 0 999
999 999 2 0

Distance Matrix
0 8 7 5
2 0 6 4
3 1 0 5
5 3 2 0

Enter the source vertex:1

Enter the destination vertex:3
Shortest path between source vertex 1 and destination vertex 3 =7
PS C:\Users\muska\OneDrive\Desktop\C programs>
```