Warshalls_Algorithm.c

Saved

```c
#include<stdio.h>
void warshalls();
int a[10][10], p[10][10],i,j,k,n;
void warshalls()
{
    for(i=1;i<=n;i++)
    {
        for(j=1;j<=n;j++)
            p[i][j]=a[i][j];
    }
    for(k=1;k<=n;k++)
    {
        for(i=1;i<=n;i++)
        {
            for(j=1;j<=n;j++)
            {
                if((p[i][j]!=1) && (p[i][k]==1 && p[k][j]==1))
                p[i][j]=1;
            }
        }
    }
}
void main()
{
    printf("Enter Number of Vertices:");
    scanf("%d",&n);
    printf("Enter Adjacency Matrix:");
    for(i=1;i<=n;i++)
    {
        for(j=1;j<=n;j++)
        {
            scanf("%d",&a[i][j]);
        }
    }
    warshalls();
    printf("Path Matrix:\n");
    for(i=1;i<=n;i++)
    {
        for(j=1;j<=n;j++)
        {
            printf("%d",p[i][j]);
        }
        printf("\n");
    }
}
```