ANAGHA ACHARYA

1BM19CS224

Implement Warshall’s algorithm using dynamic programming.

#include <stdio.h>

#include<time.h>

int n,adj[10][10],p[10][10];

void warshalls()

{

int i,j,k;

for(i=0;i<n;i++)

for(j=0;j<n;j++)

p[i][j]=adj[i][j];

for(k=0;k<n;k++)

for(i=0;i<n;i++)

for(j=0;j<n;j++)

if(p[i][k]==1&&p[k][j]==1)

p[i][j]=1;

}

void main()

{

int i,j;

printf("Enter the number of nodes:");

scanf("%d",&n);

printf("\nEnter the adjacency matrix:\n");

for(i=0;i<n;i++)

for(j=0;j<n;j++)

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

warshalls();

printf("\nThe transitive closure:\n");

for(i=0;i<n;i++)

{

for(j=0;j<n;j++)

printf("%d ",p[i][j]);

printf("\n");

}

}

OUTPUT

