LAB 11-Implement
Warshall's algorithm using dynamic programming.

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4-D

```
#include<stdio.h>
#include<conio.h>
#include<math.h>
int max(int,int);
void warshal(int p[10][10],int n) {
        int i,j,k;
        for (k=1;k<=n;k++)
          for (i=1;i<=n;i++)
           for (j=1;j<=n;j++)
            p[i][j]=max(p[i][j],p[i][k]&&p[k][j]);
}
int max(int a,int b) {
        ;
        if(a>b)
         return(a); else
         return(b);
```

```
}
void main() {
        int p[10][10]= {
                0
        }
        ,n,e,u,v,i,j;
        printf("\n Enter the number of vertices:");
        scanf("%d",&n);
        printf("\n Enter the number of edges:");
        scanf("%d",&e);
        for (i=1;i<=e;i++) {
                printf("\n Enter the end vertices of edge %d:",i);
                scanf("%d%d",&u,&v);
                p[u][v]=1;
        }
        printf("\n Matrix of input data: \n");
        for (i=1;i<=n;i++) {
                for (j=1;j<=n;j++)
                  printf("%d\t",p[i][j]);
                printf("\n");
        }
        warshal(p,n);
        printf("\n Transitive closure: \n");
        for (i=1;i<=n;i++) {
```

```
            for (j=1;j<=n;j++)
               printf("%d\t",p[i][j]);
            printf("\n");
        }
        getch();
}
```