LAB-5

TopologicalOrdering.c

```
#include<stdio.h>
#include<conio.h>
#include<stdlib.h>
int a[10][10],vis[10],ex[10],n,j;

void topo_dfs(int v)
{
        vis[v]=1;
        for(int i=1;i<=n;i++)
        {
                if(a[v][i]==1&&vis[i]==0)
                        topo_dfs(i);
        }

        ex[j++]=v;
}

void main()
{
```

```
int m,u,v;
printf("enter no of vertices \n");
scanf("%d",&n);

for(int i=1;i<=n;i++)
{
        for(int j=1;j<=n;j++)
                a[i][j]=0;
}

printf("enter no of edges \n");
scanf("%d",&m);
for(int i=1;i<=m;i++)
{
        printf("enter an edge between 2 vertices\n");
        scanf("%d%d",&u,&v);
        a[u][v]=1;
}

for(int i=1;i<=n;i++)
        vis[i]=0;
```

```
	for(int i=1;i<=n;i++)
	{
		if(vis[i]==0)
			topo_dfs(i);
	}

	printf("topological order by dfs method : \n");
	for(int i=n-1;i>=0;i--)
		printf("%d --> ",ex[i]);
}
```