**/\*3.Write a program to obtain the topological ordering of vertices in a given digraph \*/**

#include<stdio.h>

#include<conio.h>

void main()

{

int a[10][10],flag[10],indeg[10],n,i,j,k,cnt=0;

clrscr();

printf("Enter the no of verticis in DIgraph\n");

scanf("%d",&n);

printf("enter the Matrix\n");

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

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

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

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

{

indeg[i]=0;

flag[i]=0;

}

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

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

indeg[i]=indeg[i]+a[j][i];

printf("\n");

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

printf("Indegree of %d = %d \n",i,indeg[i]);

printf("\nThe order is\n");

while(cnt<n)

{

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

{

if((indeg[k]==0) && (flag[k]==0))

{

printf("\n%d",k);

flag[k]=1;

}

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

if(a[i][k]==1)

indeg[k]--;

}

cnt++;

}

getch();

}

/\* OUTPUT

Enter the no of verticis in DIgraph

7

enter the Matrix

0 1 1 0 0 0 0

0 0 0 0 1 0 1

0 0 0 0 0 1 0

1 1 1 0 0 1 1

0 0 0 0 0 0 0

0 0 0 0 0 0 0

0 0 0 0 1 1 0

Indegree of 0 = 1

Indegree of 1 = 2

Indegree of 2 = 2

Indegree of 3 = 0

Indegree of 4 = 2

Indegree of 5 = 3

Indegree of 6 = 2

The order is

3

0

1

2

4

5

6 \*/