**Write program to obtain the Topological ordering of vertices in a given digraph.**

#include <iostream>

#include <conio.h>

#include <math.h>

#include <stack>

using namespace std;

void topological\_sort(int a[10][10], int n)

{

int indeg[10];

int T[10];

stack<int> s;

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

{

int sum = 0;

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

{

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

}

indeg[i] = sum;

}

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

{

if (indeg[i] == 0)

{

s.push(i);

}

}

int sol = 0;

int u;

while (!s.empty())

{

u = s.top();

s.pop();

T[sol] = u;

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

{

if (a[u][i] != 0)

{

indeg[i]--;

if (indeg[i] == 0)

{

s.push(i);

}

}

}

sol++;

}

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

{

cout << T[i] << '\n';

}

}

void data\_entry\_matrix(int n)

{

int a[10][10];

cout << "enter the adjacency matrix\n";

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

{

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

{

cin >> a[i][j];

}

}

topological\_sort(a, n);

}

int main()

{

int n;

cout << "enter the number of vertices\n";

cin >> n;

data\_entry\_matrix(n);

return 0;

}

