

Topological Sort

#include <stdio.h>

#include <stdlib.h>

int visited [50], graph [10][10], n, stack [10], top = -1;

void topological sort (int node) {

visited [node] = 1;

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

if (graph [node][j] == 1 && visited [j] != 1) {

topological sort (j);

}

}

stack [++top] = node;

}

int main() {

printf ("Enter number of nodes \n");

scanf ("%d", &n);

printf ("Enter the matrix \n");

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

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

int key;

scanf ("%d", &key);

graph [i][j] = key;

}

```

    for (int i=0; i<n; i++) {
        topological_sort(i);
    }

    printf(" TOPOLOGICAL SORT \n");
    while (top != -1) {
        printf("%d", stack[top--]);
    }

    return 0;
}

```

Output:

Enter number of nodes :

4

Enter the matrix

0 0 0 0

1 0 0 0

1 0 0 0

0 1 1 0

~~22/6/23~~

```
"C:\Users\aryan\OneDrive\De  X + v
Enter Number of nodes
4
Enter the matrix
0 0 0 0
1 0 0 0
1 0 0 0
0 1 1 0

TOPOLOGICAL SORT
3 2 1 0
Process returned 0 (0x0)   execution time : 59.358 s
Press any key to continue.
|
```