```
enter no of nodes:3

Enter the adjacency matrix:1
0
1
0
1
0
1
0
1
The nodes visited from 0:02
The nodes visited from 1:1
The nodes visited from 2:20
```

STUDENT'S NAME

SURYA Gold

Date Page

BFS 26/02/24.

```
#include <stdio.h>

void bfs (int a[10][10], int n, int v)
{
    int f, r, q[10], v;
    int s[10] = {0};
    printf("the nodes visited from %d:", v);
    f=0;
    r=-1;
    q[++r]=v;
    s[v]=1;
    printf("%d ", v);
    while (f<=r)
    {
        v = q[f++];
        for (v=0; v<n; v++){
            if (a[v][v]==1){
                if (s[v]==0){
                    Printf ("%d", v);
                    s[v]=1;
                    q[++r]=v;
                }
            }
        }
        printf("\n")
    }
```

O/p: Enter no. of nodes: 3

Enter the adjacency matrix: 4

1 0 1

0 1 0

1 0 1

The nodes reachable from bfs: 0

visited 0

visited 2.

```
Enter the number of vertices: 3
Enter the adjacency matrix:
1
0
1
0
1
0
1
0
1
Enter the starting vertex for DFS: 0
Visited 0
Visited 2
```

SURYA Gold
Date Page

DFS 26/02/24

```
#include <stdio.h>
#include <stdbool.h>
# define MAX_VERTICES 20

int graph[max_VERTICES][max_VERTICES];
int visited[max_VERTICES];
int n;

void dfs(int start){
    int i;
    visited[start]=1;
    printf("visited %d\n", start);
    for(i=0;i<n;i++){
        if(graph[start][i] && !visited[i]){
            dfs(i);
        }
    }
}
```

O/P:

```
Enter the number of vertices : 3
Enter the adjacency matrix;
1 0 1
0 1 0
1 0 1
Enter the starting vertix for DFS : 0
visited 0
visited 2
```

26.02.24