```
#include <stdio.h>
#include <stdlib.h>
#define MAX 100
int adj[MAX][MAX];
int visited[MAX];
int queue[MAX];
int front = -1, rear = -1;
void insert(int v) {
    if (rear == MAX - 1)
        return;
    if (front == -1)
        front = 0;
    queue[++rear] = v;
int delete() {
    if (front == -1 || front > rear)
        return -1;
    return queue[front++];
void bfs(int start, int n) {
    for (int i = 0; i < n; i++)
        visited[i] = 0;
    insert(start);
    visited[start] = 1;
    while (front <= rear) {</pre>
        int node = delete();
        printf("%d ", node);
        for (int i = 0; i < n; i++) {
            if (adj[node][i] == 1 && !visited[i]) {
                insert(i);
                visited[i] = 1;
int main() {
    int n = 4;
```

```
adj[0][1] = 1;
adj[0][2] = 1;
adj[1][2] = 1;
adj[2][0] = 1;
adj[2][3] = 1;
adj[3][3] = 1;
printf("BFS traversal from node 2 = \n");
bfs(2, n);
return 0;
}
```

Output:

```
sammj@SAM_LAPTOP MINGW64 ~/DS LAB
$ /usr/bin/env c:\\Users\\sammj\\.vsc
soft-MIEngine-In-avsd042x.u0q --stdout
x35rnmc5.lrl --dbgExe=C:\\msys64\\ucrt
BFS traversal from node 2 =
2 0 3 1
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        wint (short)
        visited [start] =1;
        While (front <= rear)
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              fruits ("1.d", node)
              for ( vit i=0, i < n; i++)
                 y (adj (node][i]==1 22! wisho (i])
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  9
     uit n=4;
     adiloJ [i] =1;
     adj [0] [2]=1;
     adj [i] [2]=1;
     adj [2] Co]=1;
      adj[2][3]=1.
     pleids (" BF sprom node 2 = \n");
bys (2(n);
     rehour 0;
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2031
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