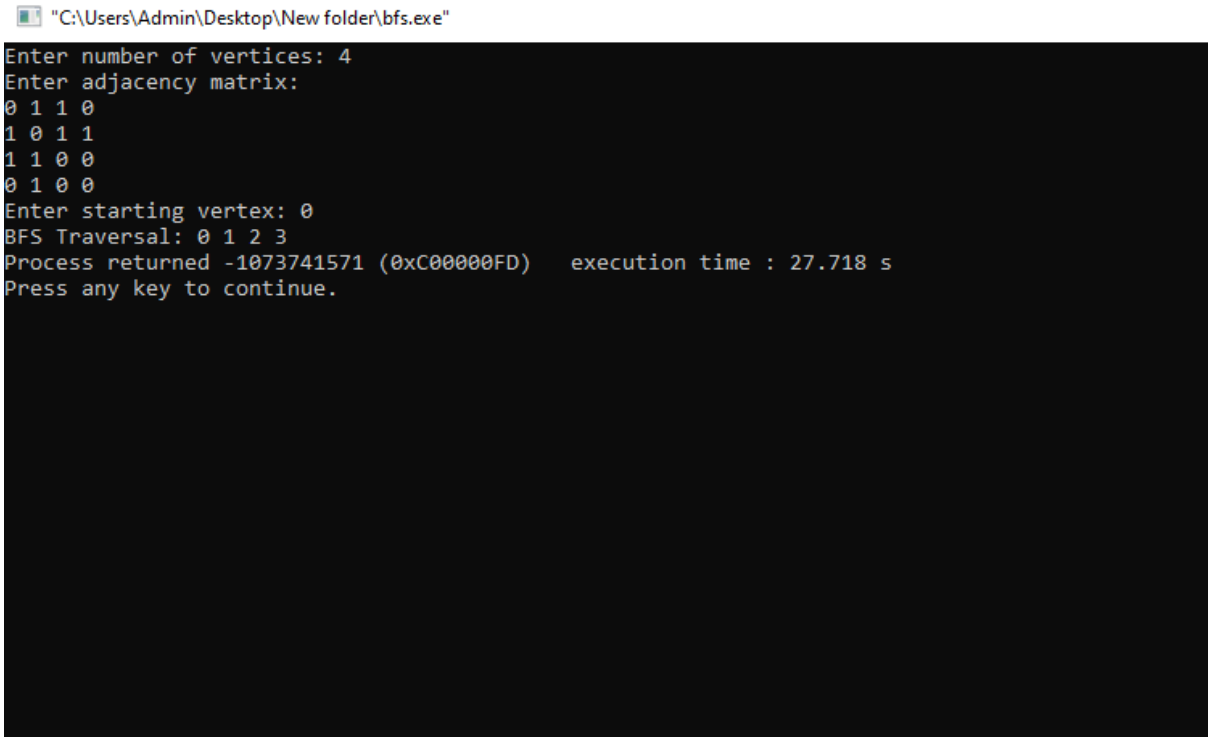
```c
#include <stdio.h>

#define MAX 10

int adj[MAX][MAX];
int visited[MAX];
int n;

/* Recursive function to visit nodes level by level */
void bfs_level(int current) {
    int i;

    for (i = 0; i < n; i++) {
        if (adj[current][i] == 1 && visited[i] == 0) {
            visited[i] = 1;
            printf("%d ", i);
        }
    }

    for (i = 0; i < n; i++) {
        if (adj[current][i] == 1 && visited[i] == 1) {
            bfs_level(i);
        }
    }
}

int main() {
    int i, j, start;

    printf("Enter number of vertices: ");
    scanf("%d", &n);
```

```
    printf("Enter adjacency matrix:\n");
    for (i = 0; i < n; i++) {
        for (j = 0; j < n; j++) {
            scanf("%d", &adj[i][j]);
        }
    }

    for (i = 0; i < n; i++)
        visited[i] = 0;

    printf("Enter starting vertex: ");
    scanf("%d", &start);

    printf("BFS Traversal: ");
    visited[start] = 1;
    printf("%d ", start);

    bfs_level(start);

    return 0;
}
```

OUTPUT:


"C:\Users\Admin\Desktop\New folder\bfs.exe"
Enter number of vertices: 4
Enter adjacency matrix:
0 1 1 0
1 0 1 1
1 1 0 0
0 1 0 0
Enter starting vertex: 0
BFS Traversal: 0 1 2 3
Process returned -1073741571 (0xC00000FD)   execution time : 27.718 s
Press any key to continue.