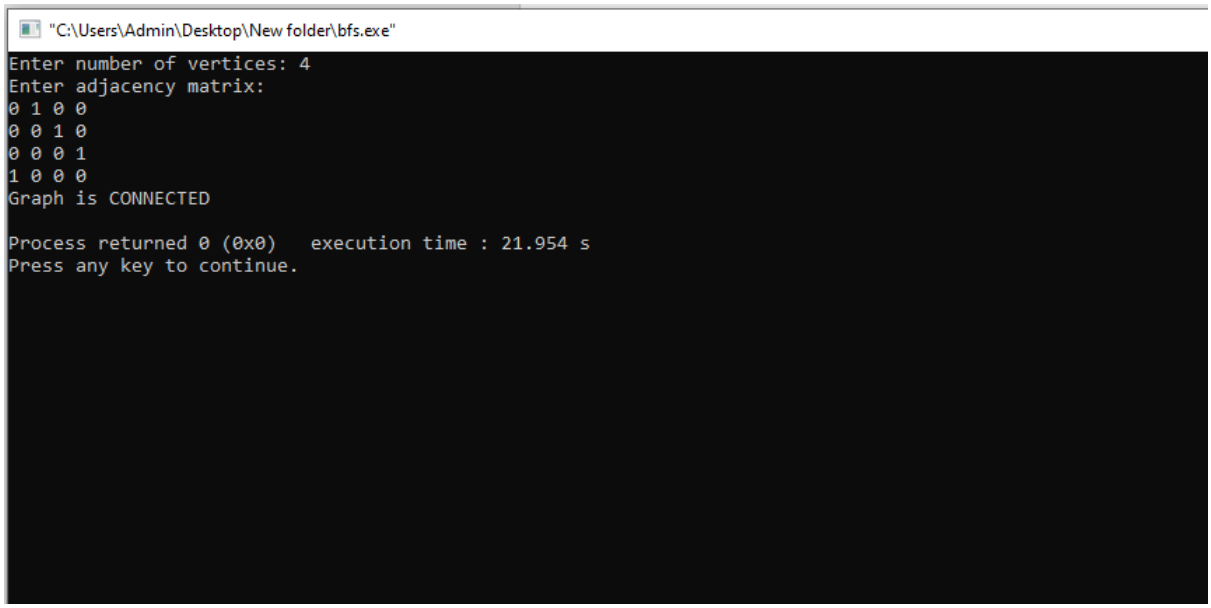
```c
#include <stdio.h>

#define MAX 10

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

/* DFS function */
void dfs(int v) {
   int i;
   visited[v] = 1;

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

int main() {
   int i, j;

   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]);
      }
```

```
    }

    /* Initialize visited array */
    for (i = 0; i < n; i++)
        visited[i] = 0;

    /* Start DFS from vertex 0 */
    dfs(0);

    /* Check connectivity */
    for (i = 0; i < n; i++) {
        if (visited[i] == 0) {
            printf("Graph is NOT connected\n");
            return 0;
        }
    }

    printf("Graph is CONNECTED\n");
    return 0;
}
```

OUTPUT:


"C:\Users\Admin\Desktop\New folder\bfs.exe"
Enter number of vertices: 4
Enter adjacency matrix:
0 1 0 0
0 0 1 0
0 0 0 1
1 0 0 0
Graph is CONNECTED
Process returned 0 (0x0) execution time : 21.954 s
Press any key to continue.