

```

#include <stdio.h>

int queue[100], front = -1, rear = -1;
int visited[100];

void enqueue(int v) {
    if (rear == -1)
        front = rear = 0;
    else
        rear++;
    queue[rear] = v;
}

int dequeue() {
    int v = queue[front];
    if (front == rear)
        front = rear = -1;
    else
        front++;
    return v;
}

int isEmpty() {
    return front == -1;
}

void bfs(int graph[100][100], int n, int start) {
    int i;
    enqueue(start);
    visited[start] = 1;

    while (!isEmpty()) {
        int v = dequeue();
        printf("%d ", v);
        for (i = 0; i < n; i++) {
            if (graph[v][i] == 1 && !visited[i]) {
                enqueue(i);
                visited[i] = 1;
            }
        }
    }
}

int main() {
    int graph[100][100], n, i, j, start;
    printf("Enter number of vertices: ");
    scanf("%d", &n);

```

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

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

printf("BFS traversal: ");
bfs(graph, n, start);

return 0;
}

```

The screenshot shows a Dev-C++ IDE window titled "C:\Users\dell\OneDrive\Documents\31.c - [Executing] - Dev-C++ 5.11". The main window displays the output of a C++ program. The program prompts the user to enter the number of vertices (5), the adjacency matrix (a 5x5 matrix of 0s and 1s), and the starting vertex (0). The output shows the BFS traversal result: 0 1 2 3 4. The compilation results panel at the bottom shows 0 errors and 0 warnings, with an output file named 31.exe.

```

Enter number of vertices: 5
Enter adjacency matrix:
0 1 0 0
1 0 0 1
1 0 0 0
0 1 0 0
0 1 0 0
Enter starting vertex: 0
BFS traversal: 0 1 2 3 4
-----
Process exited after 15.29 seconds with return value 0
Press any key to continue . . .

```

Compilation results...

- Errors: 0
- Warnings: 0
- Output Filename: C:\Users\dell\OneDrive\Documents\31.exe
- Output Size: 129.911328125 KiB
- Compilation Time: 0.30s

Line: 62 Col: 1 Sel: 0 Lines: 62 Length: 1196 Insert Done parsing in 0.016 seconds

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