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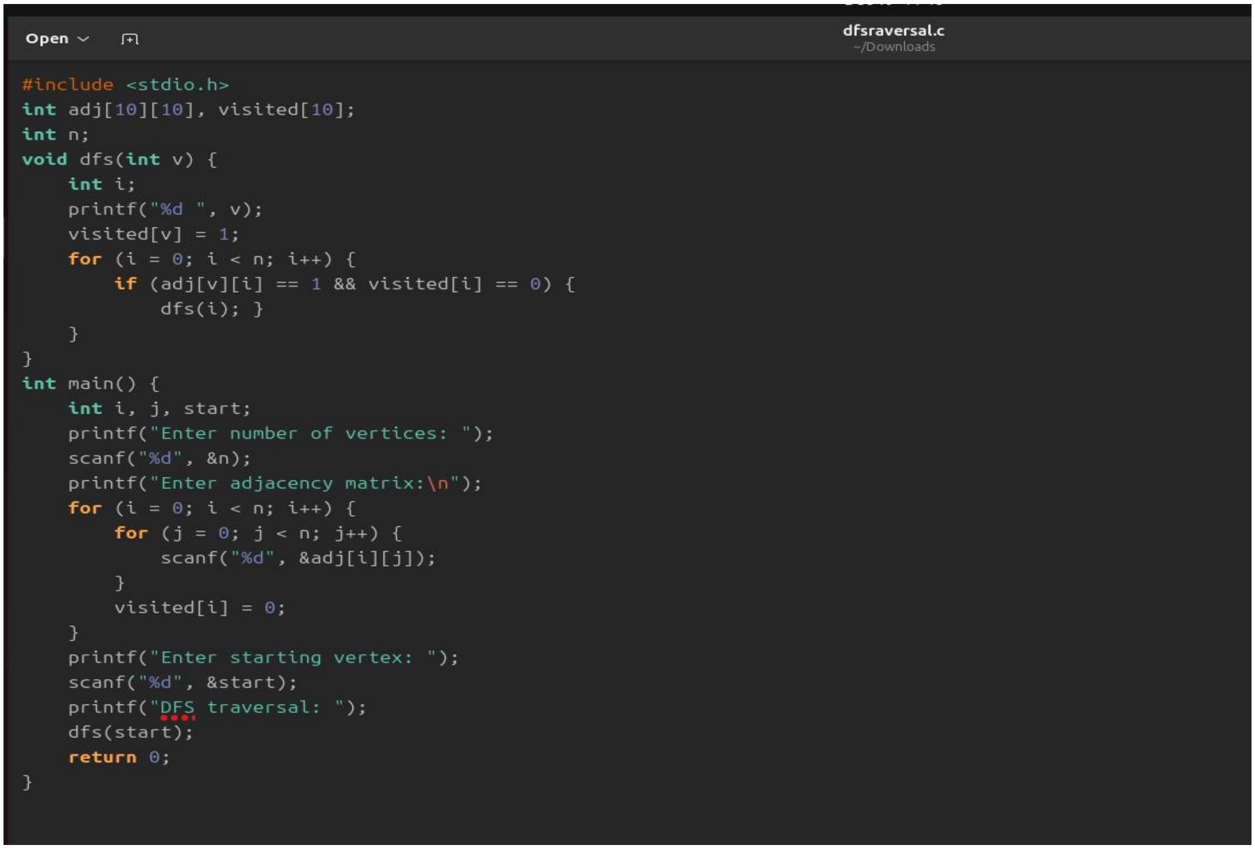
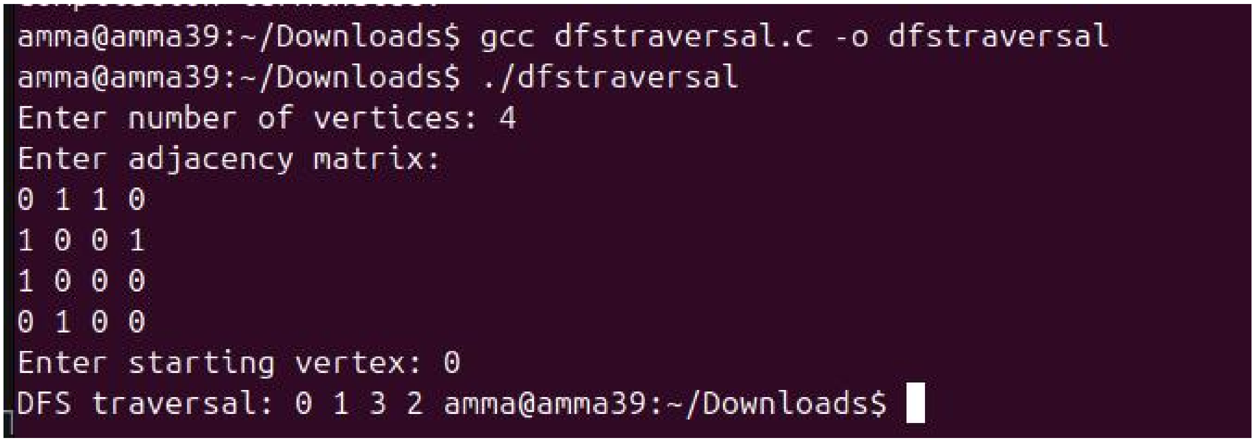
1) DFS TRAVERSAL

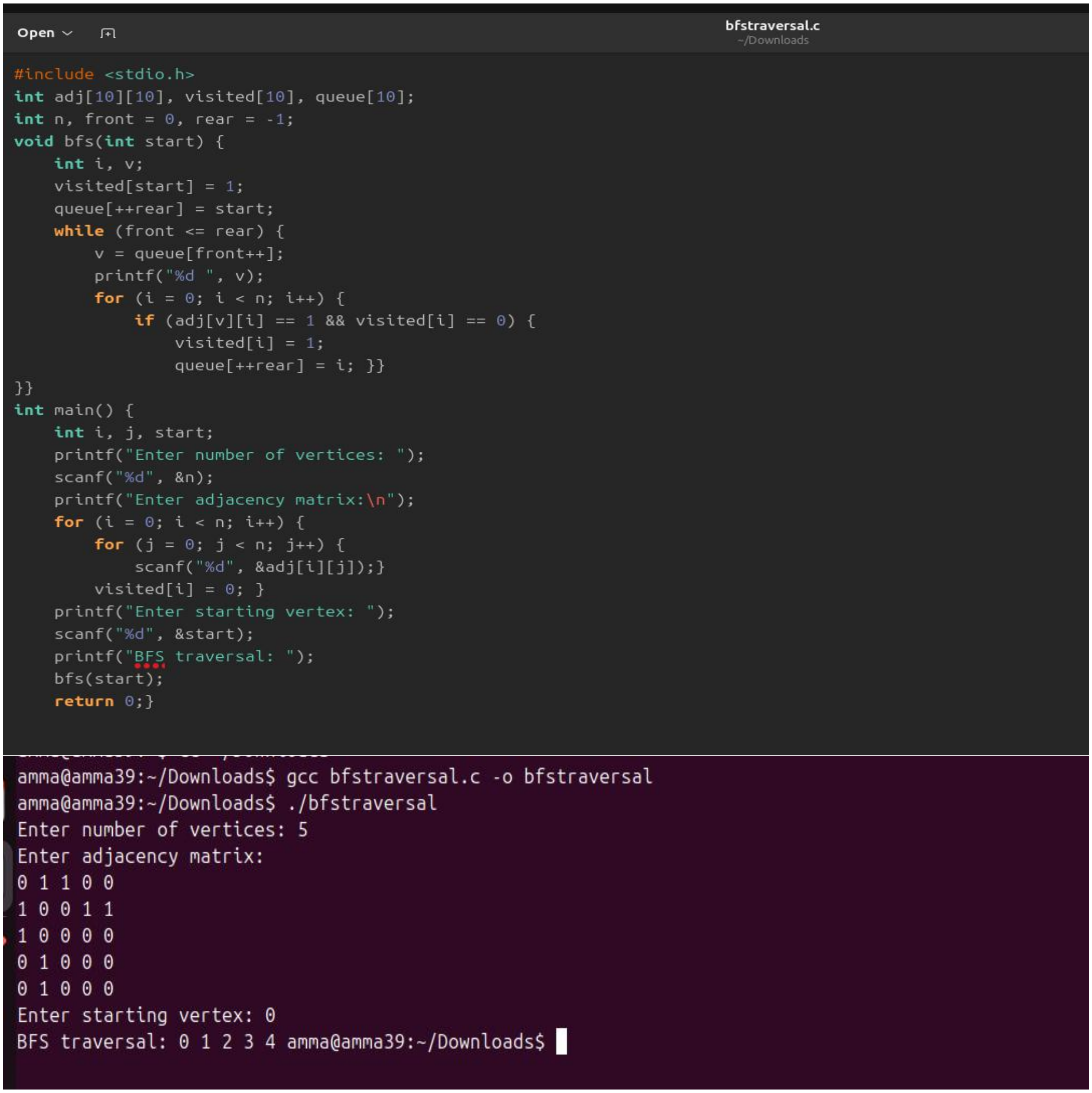


```c
#include <stdio.h>
int adj[10][10], visited[10];
int n;
void dfs(int v) {
    int i;
    printf("%d ", v);
    visited[v] = 1;
    for (i = 0; i < n; i++) {
        if (adj[v][i] == 1 && visited[i] == 0) {
            dfs(i); }
    }
}
int main() {
    int i, j, start;
    printf("Enter number of 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]);
        }
        visited[i] = 0;
    }
    printf("Enter starting vertex: ");
    scanf("%d", &start);
    printf("DFS traversal: ");
    dfs(start);
    return 0;
}
```



```
amma@amma39:~/Downloads$ gcc dfstraversal.c -o dfstraversal
amma@amma39:~/Downloads$ ./dfstraversal
Enter number of vertices: 4
Enter adjacency matrix:
0 1 1 0
1 0 0 1
1 0 0 0
0 1 0 0
Enter starting vertex: 0
DFS traversal: 0 1 3 2 amma@amma39:~/Downloads$ 
```

2)BFS TRAVERSAL



```
#include <stdio.h>
int adj[10][10], visited[10], queue[10];
int n, front = 0, rear = -1;
void bfs(int start) {
    int i, v;
    visited[start] = 1;
    queue[++rear] = start;
    while (front <= rear) {
        v = queue[front++];
        printf("%d ", v);
        for (i = 0; i < n; i++) {
            if (adj[v][i] == 1 && visited[i] == 0) {
                visited[i] = 1;
                queue[++rear] = 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]);}
        visited[i] = 0; }
    printf("Enter starting vertex: ");
    scanf("%d", &start);
    printf("BFS traversal: ");
    bfs(start);
    return 0;}
```

```
amma@amma39:~/Downloads$ gcc bfstraversal.c -o bfstraversal
amma@amma39:~/Downloads$ ./bfstraversal
Enter number of vertices: 5
Enter adjacency matrix:
0 1 1 0 0
1 0 0 1 1
1 0 0 0 0
0 1 0 0 0
0 1 0 0 0
Enter starting vertex: 0
BFS traversal: 0 1 2 3 4 amma@amma39:~/Downloads$
```