```c
#include<stdio.h>
#define MAX 10
int visited[MAX];
int adj[MAX][MAX];
int n;

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

int main(){
    printf("Enter number of vertices: ");
    scanf("%d",&n);
    printf("Enter adjacency matrix:\n");
    for(int i=0;i<n;i++){
        for(int j=0;j<n;j++){
            scanf("%d",&adj[i][j]);
        }
    }
    for(int i=0;i<n;i++){
        visited[i]=0;
    }
    printf("DFS Traversal starting from vertex 0:\n");
    DFS(0);
    return 0;
}
```

```
Enter number of vertices: 4
Enter adjacency matrix:
0 1 1 0
1 0 0 1
1 0 0 0
0 1 0 0
DFS Traversal starting from vertex 0:
0 1 3 2

=== Code Execution Successful ===
```

DFS:-

```
#include <stdio.h>
#define MAX 10
int visited[MAX];
int adj[MAX][MAX];
int n;
void DFS(int v) {
    visited[v] = 1;
    printf("%d ", v);
    for (int i=0; i<n; i++) {
        if(adj[v][i] == 1 && !visited[i]) {
            DFS(i);
        }
    }
}

int main() {
    printf("Enter number : ");
    scanf("%d", &n);
    printf("Enter adjacency matrix:\n");
    for(int i=0; i<n; i++) {
        for (int j=0; j<n; j++) {
            scanf("%d", &adj[i][j]);
        }
    }
    for (int i=0; i<n; i++) {
        visited[i]=0;
    }
printf("DFS Traversal starting from vertex 0:\n");
DFS(0);
return 0;
}
```

O/P

```
Enter number of vertices: 4
Enter adjacency Matrix:
0 1 1 0
1 0 0 1
1 0 0 0
0 1 0 0
DFS Traversal starting from vertex 0:
0 1 3 2
```