

Depth first search:

```
#include<stdio.h>

int a[10][10], n, vis[10];

int dfs(int v);

int main(){

    int i, j;

    printf("Enter number of vertices:\n");

    scanf("%d", &n);

    printf("Enter adjacency matrix:\n");

    for(i = 1; i<=n; i++)

    {

        for(j=1; j<=n;j++)

            scanf("%d", &a[i][j]);

    }

    for(i = 1; i<=n; i++)

        vis[i] = 0;

    printf("DFS Traversal\n");

    for(i = 1; i<=n; i++)

    {

        if(vis[i] == 0)

            dfs(i);
```

```

    }

    return 0;
}int dfs(int v){

    int i;

    vis[v] = 1;

    printf("%d", v);

    for(i=1; i<=n; i++)

    {

        if(a[v][i] == 1 && vis[i] == 0)

            dfs(i);

    }

}

```

```

Enter number of vertices:
Enter adjacency matrix:
0 999 1 1 1 999 0 999 1 1 1 999 0 1 999 0 1 999 1 1 1 0 999 1 1
DFS Traversal
13425
Process returned 0 (0x0)   execution time : 109.431 s
Press any key to continue.

```