Depth First Search

```
#include<stdio.h>
void dfs(int);
int a[10][10],vis[10],n;
void main(){
int i,j;
printf("Enter no. 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);
    }
}

}
void 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);
}
}
```

OUTPUT

```
Enter no. of vertices
5
Enter adjacency matrix
0
1
1
999
999
1
0
999
1
1
1
999
0
999
999
999
1
999
0
999
999
1
999
999
0
DFS Traversal
12453
```