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#include<stdio.h>

#include<math.h>

int a[10][10],n;


void dfs(int src)
{
    int st[10],top=-1;
    int vis[10],i,j;
    for(j=1;j<=n;j++)
        vis[j]=0;
    vis[src]=1;
    st[++top]=src;
    while(top!=-1)
    {
        i=st[top--];
        for(j=1;j<=n;j++)
            if(a[i][j]==1 && vis[j]!=1)
            {
                vis[j]=1;
                st[++top]=j;
            }
    }

    for(j=1;j<=n;j++)
        if(vis[j]!=1)
            printf("\n node %d is not reachable\n",j);
        else
            printf("\n node %d is reachable\n",j);
    }

int main()

```

```
{  
    int i,j,src;  
    printf("\n enter the number of nodes\t");  
    scanf("%d",&n);  
    printf("\n enter the adjacency matrix:\n");  
    for(i=1;i<=n;i++)  
        for(j=1;j<=n;j++)  
            scanf("%d",&a[i][j]);  
    printf("\n enter the source node:\n");  
    scanf("%d",&src);  
    dfs(src);  
    return 0;  
}
```