

```
#include <stdio.h>
#include <stdlib.h>
int source,V,E, time,visited [20], G[20][20];
void DFS(int i)
{
int j;
visited[i]=1;
printf("%d->",i+1);
for(j=0;j<V; j++)
{
if(G[i][j]==1&&visited[j]==0)
DFS(j);
}
}
int main()
{
int i,j,v1,v2;
printf("\t\t\tGraphs\n");
printf("Enter the no of edges: ");
scanf("%d", &E);
printf("Enter the no of vertices:");
scanf("%d", &V);
for(i=0;i<V;i++)
{
for(j=0;j<V; j++) G[i][j]=0;
}
for(i=0;i<E;i++)
{
printf("Enter the edges (format: V1 V2) : ");
scanf("%d %d",&v1,&v2);
G[v1-1][v2-1]=1;
}
for(i=0;i<V;i++)
{
for(j=0;j<V; j++)
printf("%d ",G[i][j]);
printf("\n");
}
printf("Enter the source: ");
scanf("%d", &source);
DFS (source-1);
return 0;
}
```

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Activities Terminal
Sep 11 15:05
dl0414@tadm1: -
dl0414@tadm1:~$ gcc ros.c
dl0414@tadm1:~$ ./a.out
Graphs
Enter the no of edges: 5
Enter the no of vertices:6
Enter the edges (format: V1 V2) : 1
1
Enter the edges (format: V1 V2) : 2 3
Enter the edges (format: V1 V2) : 6 8
Enter the edges (format: V1 V2) : 4 8
Enter the edges (format: V1 V2) : 9 6
1 0 0 0 0
0 0 1 0 0 0
0 0 0 0 0 0
0 0 0 0 0 0
0 0 0 0 0 0
0 0 0 0 0 0
0 0 0 0 0 0
Enter the source:
3
dl0414@tadm1:~$
```