

```

#include<stdio.h>

#include<conio.h>

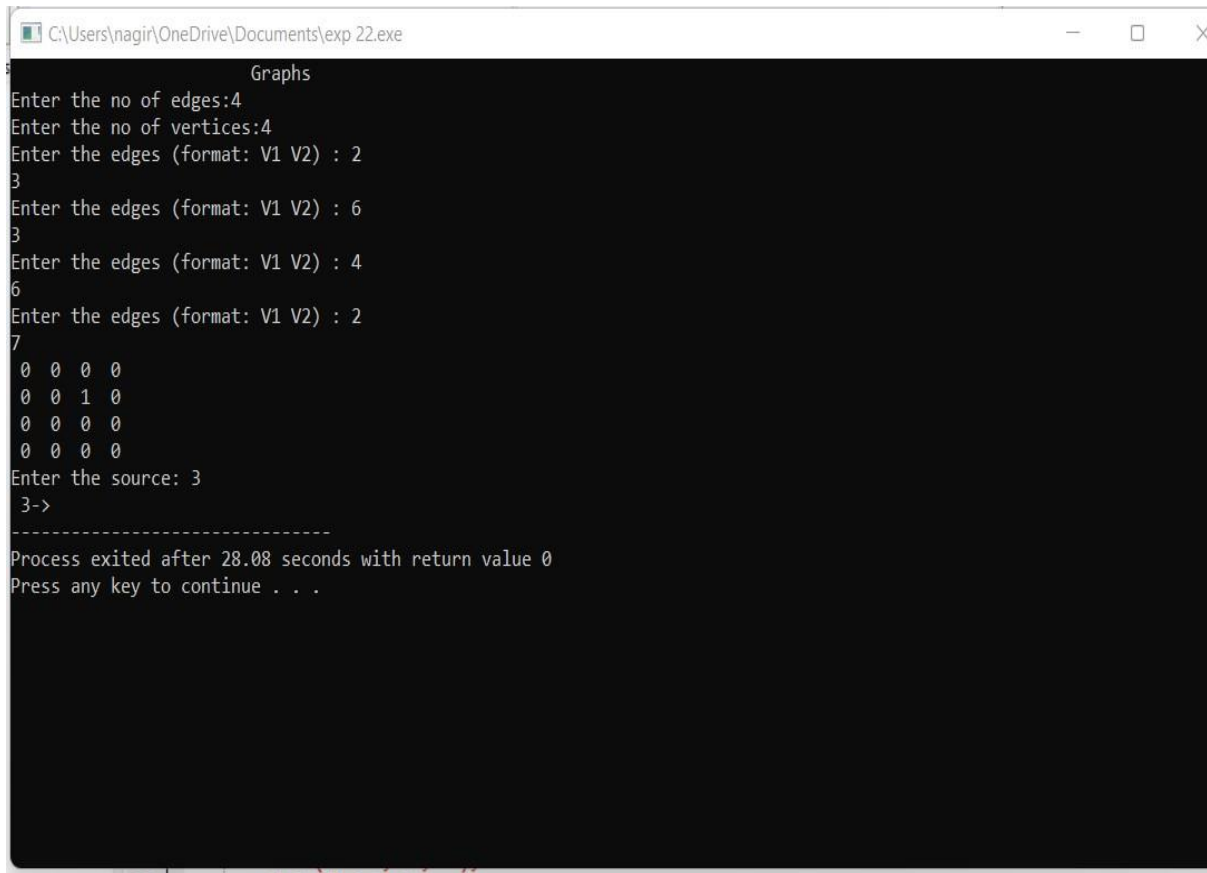
int a[20][20],q[20],visited[20],n,i,j,f=0,r=-1;

void bfs(int v) {
    for (i=1;i<=n;i++)
        if(a[v][i] && !visited[i])
            q[++r]=i;
    if(f<=r) {
        visited[q[f]]=1;
        bfs(q[f++]);
    }
}

void main()
{
    int v;
    printf("\n Enter the number of vertices:");
    scanf("%d",&n);
    for (i=1;i<=n;i++) {
        q[i]=0;
        visited[i]=0;
    }
    printf("\n Enter graph data in matrix form:\n");
    for (i=1;i<=n;i++)
        for (j=1;j<=n;j++)
            scanf("%d",&a[i][j]);
    printf("\n Enter the starting vertex:");
    scanf("%d",&v);
    bfs(v);
    printf("\n The node which are reachable are:\n");
    for (i=1;i<=n;i++)
        if(visited[i])

```

```
        printf("%d\t",i); else  
        printf("\n Bfs is not possible");  
    getch();  
}
```



```
C:\Users\nagir\OneDrive\Documents\exp 22.exe  
Graphs  
Enter the no of edges:4  
Enter the no of vertices:4  
Enter the edges (format: V1 V2) : 2  
3  
Enter the edges (format: V1 V2) : 6  
3  
Enter the edges (format: V1 V2) : 4  
6  
Enter the edges (format: V1 V2) : 2  
7  
0 0 0 0  
0 0 1 0  
0 0 0 0  
0 0 0 0  
Enter the source: 3  
3->  
-----  
Process exited after 28.08 seconds with return value 0  
Press any key to continue . . .
```